

PhD studentships 2023

Call for applications



NIHR SPHR PhD studentship projects 2023

Applications are invited from individuals who wish to develop a career in public health research. We are committed to a supportive, inclusive, caring, and positive community. We warmly welcome applications from disabled people and those of different cultures, genders, ages, ethnicities, and beliefs.

The NIHR School for Public Health Research (SPHR) is a partnership between the Universities of Bristol, Cambridge, Exeter and Sheffield; Imperial College London; The London School for Hygiene and Tropical Medicine (LSHTM); the LiLaC collaboration between the Universities of Liverpool and Lancaster; Fuse, The Centre for Translational Research in Public Health, a collaboration between Newcastle, Durham, Northumbria, Sunderland and Teesside Universities; and the PHRESH collaboration between the Universities of Birmingham, Warwick and Keele.

Awards will be taken up in October 2023 for part-time applicants and for full-time applicants.

Applicants must have a first degree in a discipline relevant to public health research and will be expected to complete a PhD during the award period.

These studentships will fund tuition fees up to the value of UK fees (UKRI rate); students with overseas status are welcome to apply but will need to fund the remainder of their fees and any visa requirements from alternative sources. Please note: non UK students should check the requirements of the host institution before submitting an application.

Studentship awards will also include, an annual tax-free stipend at £18,022 (UKRI rate), and a contribution towards research and training costs. Students at our member universities in London will receive a London weighting.

Application information and details of the projects on offer follow in this document.

Applications must be received by 5pm on Thursday 30th March 2023

Background

The NIHR School for Public Health Research aims to increase the evidence base for cost-effective public health practice by:

- Conducting applied public health research to increase the volume and quality of useful evidence on cost-effective interventions
- Creating an environment where first class applied public health research, focussed on the needs of the public, can thrive
- Supporting local public health practitioners and policy makers to engage with research, and actively seek out high quality research evidence to inform their decisions
- Contributing to ongoing efforts to build research capacity in public health research

SPHR is funded by the National Institute for Health and Care Research (NIHR).

You can find out more about the School, our research and researchers on our website.

You can find information about each of the members and view the projects on offer by institution by clicking on the links below;

University of Bristol; University of Cambridge; Fuse; The Centre for Translational Research in Public Health, a collaboration between Newcastle, Durham, Northumbria, Sunderland and Teesside Universities; Imperial College London; the LiLaC collaboration between the Universities of Liverpool and Lancaster; The London School for Hygiene and Tropical Medicine (LSHTM); University of Sheffield, University of Exeter, the PHRESH collaboration between the Universities of Birmingham, Warwick and Keele.

Please note, we are advertising a total of 18 project outlines of which we expect to fund up to 10 studentships.

Supervision

The NIHR School for Public Health Research brings together academics from nine leading academic centres with excellence in applied public health research in England. Applicants are encouraged to contact potential supervisors for more information on specific topics of interest.

SPHR Training Pathway

In SPHR we aim to inspire the next generation of academics into public health research with the option to combine academic research with practice as a career pathway. We have developed a training pathway that provides a range of training opportunities for those interested in pursuing a career in public health research including internships, PhD studentships, and pre and post-doctoral fellowships. You can find out more information about these opportunities and hear from our current students by following the links below:



NIHR Academy

All SPHR PhD students become members of the NIHR Academy. The purpose of the NIHR Academy is to develop a highly-skilled academic research workforce capable of advancing the best research which improves health, and benefits society and the economy.

NIHR is committed to a supportive, inclusive, caring, and positive community. Diversity and inclusion are fundamental to NIHR's values and success. As NIHR Academy Members, you will be able to access a portfolio of NIHR Academy development and support activities. The NIHR Academy also provide a range of leadership and mentoring programmes, regular networking opportunities, bespoke workshops and events and personal advice and guidance on funding opportunities. This includes an annual NIHR Academy conference and Doctoral Training Camp.

“The NIHR Doctoral Research Training Camp was a great experience. I was incredibly lucky to be paired with a team that gelled instantly and were really open to listening and learning from each other. I gained so much from the camp, both in terms of hard skills around grant proposals and presenting but also soft skills in relationship-building, delegation, and teamwork”

SPHR PhD student, Sarah Ledden, UCL

Development and support opportunities

In addition to activities and training opportunities within NIHR Academy and your host institution, you will also have access to development and support opportunities provided by us in the School.

We aim to provide a supportive environment for our trainees in which you can thrive through training, networking, guidance and collaboration between members and your peers. Examples of past training and development events can be seen by following the links below:



“The Annual SPHR PhD student meeting was a great opportunity to network with other PhD students in my cohort which was of great value. I really enjoyed catching up with my peers”
SPHR PhD students, Dolly Theis, Cambridge University



Most of the studentship projects will offer links within Local Authority or other public health practice settings, which will provide an opportunity for you to undertake a short placement in a public health practice or policy setting. We strongly encourage all of our students to work in practice as part of their award. Carrying out a practice placement helps you to gain an insight into the opportunities and challenges of implementing research in fast moving public health practice and policy environments.

The School is committed to providing a positive research culture in which our PhD students can flourish. We believe in offering opportunities that will help to develop your research and leadership skills as an early career researcher in public health research. Our PhD students can apply to supervise a summer intern within the School through our summer internship programme.

“Many thanks for all the support from the SPHR team, it is really appreciated. I think the summer internship programme is a great scheme to diversify engagement in public health research and give undergraduate students insight into public health research”

“I think having this opportunity during PhD studies is a nice time to start to learn the skills of being a supervisor in a research setting”

SPHR PhD students

ResNet

The SPHR Researchers' Network (ResNet) links our researchers working on projects across all the members of the School. As an SPHR PhD student you automatically become a member of the ResNet community. It is a forum for communication, peer support and networking to aid the professional development of researchers at any level.

Publication & wider dissemination

It is expected that students will publish research from their PhD studies in good quality, peer-reviewed academic journals and communicate findings at conferences. In addition, we expect the research to generate outputs that are tailored to applied health research, public health practitioner, and policy making audiences.

Eligibility criteria

Applicants must have a first degree in a discipline relevant to public health research and will be expected to complete a PhD during the award period. Candidates should also ensure they meet the eligibility criteria of the host institution (please see individual university websites for details).

Application shortlisting criteria

Your application will be assessed using the following criteria as part of the application shortlisting process:

- A first or upper second class UK honours degree, or the equivalent qualifications gained outside the UK, in an appropriate subject (qualifications, or a combination of qualifications and experience, which demonstrate equivalent ability and attainment will also be considered)
- Previous research experience or formal training (e.g., a Master's degree) is desirable
- Relevant previous research experience
- Output from previous research experience
- Evidence of commitment to a research career
- Evidence of potential as a career researcher
- Excellent written and verbal communication skills
- Supportive academic references
- Highly motivated
- Able to work both independently and as part as part of a team
- Able to plan and manage own work

How to make an application

The application process consists of three stages.

Stage 1 Please complete and submit an application form here.

Please complete the form, indicating your project preference where indicated. **Codes for each project can be found in this document. You may apply for a maximum of 2 projects. You may choose to submit one covering letter or one letter for each project, if you applying for more than one.**

Please upload a two-page CV and at least one covering letter (max. 1 page). We also ask that you identify two academic referees.

Please name your CV and covering letter using the following naming convention:

Surname_CV

Surname_letter_project code

Applications must be received by 5pm Thursday 30th March 2023

Stage 2

Applications will be shortlisted and candidates selected for interview will be contacted and invited to attend an assessment panel week commencing 12th June 2023. Unsuccessful applicants will be informed.

Stage 3

Successful candidates will be required to register for a PhD at the host institution. Detailed guidance will be provided to successful candidates. More information can be found on individual institution websites.

Please direct questions to Andeep Sull, SPHR Training and Development Manager sphr.training@ncl.ac.uk. Questions about individual projects should be directed to lead supervisors (contact details are provided on project pages).

NIHR and DHSC have a duty as a public body to promote equality of opportunity. We will contact all applicants shortly after the application closure date with an Equality Monitoring Form. Monitoring ensures that all applications to NIHR SPHR Programmes are treated equally in terms of gender, ethnicity and/or disability. Information will be anonymised and stored separately from your application, only be used for the purpose of monitoring equal opportunities and be kept securely and in confidence.

Project directory

Project code	Title
Bristol_1_Kipping	Analysis of food provision, consumption and waste in early years settings in England to inform early years food policy
Bristol_2_Kidger	An examination of risk factors for poor mental health and mental health inequalities among young women and exploration of possible interventions in work and further educational settings
Cambridge_1_Hesketh	Optimising teachable moments in early parenthood: promoting healthy behaviours in parents and their 0-2-year-olds.
Cambridge_2_Winpenny	The contribution of the work environment to the physical and mental health of young adults
Exeter_1_Lloyd	Community based initiatives in the early years to target health inequalities and improve children's wellbeing
Exeter_2_Tarrant	"Weight cycling": Understanding the impact of repeated loss and regain of weight on the mental health of people living with obesity
Fuse_1_Kaner	Qualitative exploration of adolescents' and family members' perspectives on gaming, gambling and mental health impacts: informing intervention development
Fuse_2_Vasiljevic	The impact of nature-based citizen science interventions on mental health and wellbeing: An interdisciplinary mixed-methods study
Imperial_1_Beevers	Learning from the COVID-19 pandemic to create a national narrative and build support for population-level behaviour change to achieve Net Zero sooner
Imperial_2_Davies	The impact of fiscal measures to support fuel and living costs on winter health in England: a nationwide analysis from 1997 to 2025
LiLaC_1_Brown	Assessing health inequalities in economic evaluations of public health interventions using observational data
LiLaC_2_Loopstra	Food insecurity among households with children: a mixed methods study to inform policy
LSHTM_1_Cummins	Understanding the influence of the digital food environment on the diets of young people: a qualitative study of how the platform economy shapes the dietary preferences and food purchasing behaviours of 11-18 year olds
LSHTM_2_Cornelson	Understanding the consumption of ultra-processed food in England
PHRESH_1_Pallan	The influence of school food and nutritional intake of secondary school pupils upon learning, performance and wellbeing outcomes
PHRESH_2_Stathi	Maximising the potential of an effective and cost-effective active ageing intervention for national impact. Adaptation and feasibility testing of the Retirement in ACTion [REACT] intervention as a digital hybrid - (part facilitated, part digital) - programme
Sheffield_1_Kersbergen	Understanding how being part of a digital sober community may affect drinking and mental health
Sheffield_2_Fenton	Forging healthy futures through times of crises

University of Bristol

Bristol has an international reputation for research excellence in applied Public Health Research through its [Centre for Public Health Research](#) in Bristol Medical School: Population Health Sciences. There are strong collaborations with the [Centre for Exercise, Nutrition and Health Sciences](#) in the School for Policy Studies, as well as relationships with Experimental Psychology, Social Work and Care.

The Centre for Public Health also includes [the NIHR Public Health Intervention Responsive Studies Team \(PHIRST Insight\)](#) and the NIHR Health Protection Research Unit (HPRU) in Behavioural Science and Evaluation with team members also part of the NIHR Applied Research Collaboration (ARC) West.

A multidisciplinary team of researchers lead our public health research. We have major strengths in conducting school-based RCTs of public health interventions, evaluating natural experiments to strengthen the evidence base for public health policy, evidence synthesis and applied public health studies including research on obesity, physical activity, nutrition, smoking, alcohol and other drug misuse, sexual health, infectious diseases and mental health.

Public Health at the University of Bristol has been ranked as 5th in the UK, 6th in Europe and 9th globally by the Shanghai Ranking 2022 Global Ranking of Academic Subjects (GRAS). The 2021 Research Excellence Framework rated 94% of Bristol's research within the unit of assessment including Public Health as world leading or internationally excellent (4* or 3*). Our research is highly inter-disciplinary and collaborative, involving public health specialists, social scientists, economists, psychologists, statisticians, modellers, epidemiologists, geographers and clinicians. We provide excellent training in research with over 35 research methods short courses.. We provide excellent training in research with over 35 research methods short courses. We provide postgraduate training to approximately 100 students each year through our MSc in Public Health and MSc in Epidemiology courses, and two new MScs in Health Economics and Health Policy Analysis, and in and Medical Statistics and Health Data Science.

Projects led by the University of Bristol:

For more information about each project, please click on the title in the table below;

Project code	Title
Bristol_1_Kipping	Analysis of food provision, consumption and waste in early years settings in England to inform early years food policy
Bristol_2_Kidger	An examination of risk factors for poor mental health and mental health inequalities among young women and exploration of possible interventions in work and further educational settings

Title:	Analysis of food provision, consumption and waste in early years settings in England to inform early years food policy
Supervisory team:	<u>Dr Ruth Kipping</u> , Univeristy of Bristol <u>Dr Alice Porter</u> , Univeristy of Bristol <u>Dr Marie Murphy</u> , PHRESH, University of Birmingham Advisory Group: <u>Dr Zoi Toumpakari</u> , Univeristy of Bristol Dr Laura Johnson, NatCen Social Research <u>Professor Corby K. Martin</u> (pbrc.edu) Louisiana State University, USA Dr Jo Williams, Bristol City Council/ University of Bristol
Project code:	Bristol_1_Kipping
Contact:	ruth.kipping@bristol.ac.uk / alice.porter@bristol.ac.uk

Project outline

Food provision and consumption in the early years is critical for the development of healthy weight and eating habits and the prevention of overweight and obesity (Koletzko et al., 2019, Syrad et al., 2016). Approximately 92% of children aged 3-4 years in England attend some form of government-funded early years education (Department for Education, 2022). Children may consume up to five meals (three meals and two snacks) per day when attending early years settings. Therefore, early years settings have a responsibility to provide healthy, nutritious foods in a sustainable way. However, there is limited research using objective measures of food intake exploring food and beverages provided to, consumed and wasted by preschool children in early years settings. This PhD will use mixed methods to explore food and beverages provided, consumed and wasted in early years settings. The work will aim to inform food policies and guidelines for early care settings to improve food quality and reduce waste.

Indicative research questions:

1. What and how much food and beverages are provided, consumed and wasted in early years settings in England and what factors influence this?
2. How can early years food policies and guidelines be enhanced/adapted to improve food quality and child food intake and reduce food waste?
3. How is food waste in children measured and what are the advantages and disadvantages to current measurement tools?

Title:	An examination of risk factors for poor mental health and mental health inequalities among young women and exploration of possible interventions in work and further educational settings
Supervisory team:	<u>Judi Kidger</u> , <u>Lucy Biddle</u> , <u>Myles Jay Linton</u> , University of Bristol <u>Obi Ukoumunne</u> , University of Exeter Advisory group <u>Tamsin Ford</u> , University of Cambridge <u>Mark Limmer</u> , LiLaC, Lancaster University <u>Geraldine Smyth</u> , Bristol City Council
Project code:	Bristol_2_Kidger
Contact:	judi.kidger@bristol.ac.uk

Project outline

The prevalence of mental health difficulties is high and on the increase among young women aged 17-19 years; the proportion with a probable mental health disorder rose from 13.4% in 2017 to 24.8% in 2021, with as many as 76.4% reporting possible eating problems. While much policy and research has focused on the potential of schools to support young people’s mental health, there has been less of a focus on the settings in which this older age group work, and on ways in which to ensure that mental health is supported during this key time of transition. This mixed methods studentship will use secondary longitudinal data analysis, qualitative methods and stakeholder workshops to improve understanding of the reasons for the rise in poor mental health among young women aged 17-19 years, and to co-produce an intervention to improve support available to this population.

Indicative research questions:

1. What are the key risk factors for poor mental health and for mental health inequalities among young women aged 17-19 years?
2. What are the views of young women aged 17-19 years – in colleges of further education (FE), work places and non-degree apprenticeships) – as to why there are increasing rates of poor mental health among their age group?
3. What potential interventions in FE colleges and/or workplaces may improve mental health, and reduce mental health inequalities among young women aged 17-19 years?

University of Cambridge

Cambridge Public Health (CPH) is a leader in interdisciplinary public health research, co-directed from the Schools of Clinical Medicine and Technology, with research pillars and cross cutting themes operating across the University (details here: <https://www.cph.cam.ac.uk>).

Aligned with the ethos of SPHR, CPH and the MRC Epidemiology unit work with key service, third and fourth sector stakeholders, and members of the public to:

- i) address large-scale research challenges to generate evidence of immediate and future value;
- ii) strengthen research collaborations and working across institutions;
- iii) improve knowledge transfer across disciplines;
- iv) develop and test new methodologies more suited to contemporary challenges;
- v) increase research capacity by strengthening opportunities for large-scale funding applications, capacity building recruitment, and place and practice-led evidence generating partnerships;
- vi) influence local, national and international research, policy and funding agendas.

Cambridge has a strong track record of training future leaders for positions where they can influence practice and policy to improve population health, ranging from academic and service to business and NGO sectors.

CPH, associated departments, and research units provide access to informal networks and dedicated training in transferable skills and research methods. Building on our strong track record of partnerships, and engagement with policy and practice and the public, we will offer opportunities for immersive experiences, communication and research co-production with communities. Our extensive networks provide strong connectivity between on-the-ground public health and regional academics, enabling responsiveness to policy and practice needs (e.g. evaluation and policy analysis) at many levels, including local authorities, Office of Health Improvement and Disparities, and regional and national institutions.

We offer high quality departmental and college accommodation, and facilities for early career researchers, including dedicated rooms for training and desk space; and access to shared services including advanced IT systems, data management, statistical support, fieldwork management, and communications.

Projects led by the University of Cambridge:

For more information about each project, please click on the title in the table below;

Project code	Title
Cambridge_1_Hesketh	Optimising teachable moments in early parenthood: promoting healthy behaviours in parents and their 0-2-year-olds
Cambridge_2_Winpenny	The contribution of the work environment to the physical and mental health of young adults

Title:	Optimising teachable moments in early parenthood: promoting healthy behaviours in parents and their 0-2-year-olds.
Supervisory team:	<u>Dr Kathryn Hesketh</u> , MRC Epidemiology Unit, Cambridge <u>Dr Ruth Kipping</u> , University of Bristol <u>Dr Nicola Heslehurst</u> , FUSE, Newcastle University Advisory Group <u>Dr Raj Lakshman</u> , Cambridgeshire and Peterborough County Councils <u>Dr Debbi Caldwell</u> , University of Bristol <u>Dr Jo Williams</u> , Bristol City Council
Project code:	Cambridge_1_Hesketh
Contact:	Katheryn Hesketh: krh40@cam.ac.uk

Project outline

Early life is a unique period of development and vulnerability. Parents are the gatekeepers of their young children’s behaviours (e.g. diet, physical activity) but the transition to parenthood is often associated with a deterioration in parental health behaviours. Yet it also provides ‘teachable moments’ (i.e. planned and informal opportunities) when parents may effect positive change and modify behaviours. This PhD will determine how best to help new parents (particularly those from more deprived areas) navigate their own changing health-related habits and behaviours, and support their children through key milestones (e.g., becoming ambulatory; introduction of solids/screentime (such as television, phones, tablets)).

Aims

This PhD aims to support new parents and optimise teachable moments by investigating:

- 1) What is the existing evidence around what works and for who, when implementing behaviour-change interventions for new parents and/or children 0-2 years?
- 2) What support do key stakeholders (i.e., parents, health-visitors) most require and in what format to optimize health behaviours for parents/children?
- 3) What intervention design (including universal or targeted) is most appropriate, feasible and acceptable to change behaviours for parents with 0-2-year-olds?

Methods

To achieve these aims, we propose the studentship will undertake:

- 1) A realist systematic review of existing interventions with a parental component, aiming to improve health behaviours in 0-2-year-olds. It will synthesise differences by deprivation/ethnicity where possible.
- 2) Qualitative work (e.g., interviews, focus groups), conducted with key stakeholders, to establish resources currently available for, and what might enhance, existing behaviour-change offerings. Interviews will be conducted in the East, South West, and North East of England to ensure maximum response variation; the student may also spend time with local authority teams.
- 3) Findings from Stages 1 and 2 will inform the creation of a logic model and development of a prototype/pilot intervention to aid parents of young children to improve health behaviours within families. The intervention will also use co-production with key stakeholders, and will be refined through a Delphi consultation if time allows, with the aim of promoting optimal health for all parents and young children.

Title:	The contribution of the work environment to the physical and mental health of young adults
Supervisory team:	Dr Eleanor Winpenny , University of Cambridge Prof Russ Jago , University of Bristol Advisory Group Dr Christian van Stolk , RAND Europe Zoe Cross, Work and Health, Public Health Joint Commissioning Unit, Cambridgeshire County Council and Peterborough City Council The Work Foundation (a representative tbd)
Project code:	bridge_2_Winpenny
Contact:	Eleanor Winpenny: ew470@cam.ac.uk

Project outline

Many young people begin working part time during adolescence, with around 22% entering sustained full-time employment at age 18y (UK DfE). While there has been considerable focus on the school environment as a driver of health and health behaviour, there has been relatively little focus on the changes experienced by young people as they enter the workforce. ONS data (2021-22) reports that roughly 1/3 of young people age 16-19 work in the 'Distribution, hotels & restaurants' sector. This sector has the highest work insecurity, with 43% of 16-24-year olds experiencing severe work insecurity (The UK Insecure Work index 2022, Work Foundation)

This project aims to investigate how the work environment influences the physical and mental health of young people as they transition from education into work. We define the work environment broadly to include the physical environment, but also the structural work environment (e.g., work schedule, job insecurity).

Indicative research questions:

- 1) How is the work environment associated with diet quality, health behaviours and mental health among young adults?
- 2) How is the transition from the school environment to workplace environment (age 18/19) associated with changes in diet quality, health behaviours and mental health?
- 3) To what extent do food insecurity and perceived time scarcity mediate relationships between the structural workplace environment and diet quality among young adults?
- 4) How can we improve policy and practice, to ameliorate the influences of the work environment on physical and mental health in young adults?

Quantitative analyses will use UK data from the DEBEAT longitudinal cohort study, together with workplace surveys (e.g. the Britain's Healthiest Workplace questionnaire), and other UK cohorts (e.g., Understanding Society). RQ4 will be addressed through qualitative work and co-production with young people, employers, 3rd sector organisations, and local authority stakeholders to identify opportunities and prioritise strategies for action.

University of Exeter

The School for Public Health Environments Research at Exeter (SPHERE) leads the University of Exeter's membership in the School for Public Health Research. Based in the Faculty of Health and Life Sciences, SPHERE is a multidisciplinary hub for expertise in public health research that spans the University's three Faculty. The Faculty of Health and Life Sciences has world-leading public health research strengths in child health, evaluation (including public health trials) and evidence synthesis, environment and human health, and social environments of health, as well as a university-wide reputation for data science. Public engagement and involvement is at the core of our work, and we hold several long-running NIHR investments focused on providing responsive, timely and policy-relevant research to shape national decision-making in health.

Located primarily in central Exeter with campuses in Truro and Penryn, the University of Exeter has a strong and vibrant postgraduate community, including dedicated resources and programme for postgraduate research students, offered through the Doctoral College. Within the Faculty of Health and Life Sciences, tailored and specialised programming for postgraduate research students, such as the Annual Research Event, creates opportunities for close connections and fertilisation of interdisciplinary collaborations. While the Faculty of Health and Life Sciences is primarily based at the St Luke's campus in Exeter, the European Centre for Environment and Human Health is based in Truro. Postgraduate research students can expect to benefit from supportive and collaborative supervision and careful attention to skills and methodological development.

Project supervisors are always glad to hear from prospective students for more information on specific topics of interest.

Projects led by the University of Exeter:

For more information about each project, please click on the title in the table below;

Project code	Title
Exeter_1_Lloyd	Community based initiatives in the early years to target health inequalities and improve children's wellbeing
Exeter_2_Tarrant	"Weight cycling": Understanding the impact of repeated loss and regain of weight on the mental health of people living with obesity

Title:	Community based initiatives in the early years to target health inequalities and improve children’s wellbeing
Supervisory team:	<u>Dr Jenny Lloyd</u> , University of Exeter, <u>Dr Ruth McGovern</u> , Fuse, University of Newcastle, Professor Vashti Berry, University of Exeter, Advisory Group Professor Chris Bonel, LSHTM, Kristian Tomblin, NHS Devon Sally Kendrick , Plymouth City Council
Project code:	Exeter_1_Lloyd
Contact:	j.j.lloyd@exeter.ac.uk

Project outline

A child’s early life experiences and the relationship they have with their caregiver significantly influences the trajectory of their cognitive, emotional, behavioural and social development across the life course. Supporting parents in their caregiving role during a child’s early years, particularly those parents from low-income families, is crucial in addressing health inequality. Cochrane reviews of different parent support and early intervention programmes have reported mixed results for effectiveness and a recent integrative analysis of parenting programme trials across Europe demonstrated that low socio-economic status predicts poorer intervention attendance. Moreover, many discrete, evidence-based programmes (parenting included) suffer from the research-practice gap, that is lower rates of fidelity and differential engagement by disadvantaged/minority groups when implemented in the real-world, potentially increasing health inequalities. The launch of the early year’s inequalities review last year signalled the need to increase our understanding of how best to support parents most in need and emphasised the importance of local context and community-based support. We know that this type of support generally evolves in localised pockets, co-created and/or co delivered with local citizens/communities, yet we know little about the principles and processes they use to successfully support and empower parents and families. An in-depth exploration of such models and the nature of the relationship between the state and communities they serve could help guide Integrated Care Boards (ICBs) towards new ways of working that enhance human connection and relationships and thus public health.

Indicative research questions:

1. What community-based initiatives to support the social and emotional development of infants and young children exist across England (and how do they deliver this support)?
2. How do community-based interventions/programmes improve the social and emotional development of infants and young children?
3. What factors impede the impact of such programmes?
4. How can this knowledge be used to guide how ICBs work to support parents and address health inequality?

Title:	“Weight cycling”: Understanding the impact of repeated loss and regain of weight on the mental health of people living with obesity
Supervisory team:	Associate Professor Mark Tarrant, University of Exeter Professor Emily Oliver, Fuse, University of Newcastle Dr Jenny Lloyd, University of Exeter, Advisory Group Professor Jonathan Pinkney, NHS University Hospitals Trust & Plymouth University
Project code:	Exeter_2_Tarrant
Contact:	m.tarrant@exeter.ac.uk

Project outline

The public health challenge presented by obesity cannot be overstated. In the UK alone, around 15 million people now live with obesity, and at least 5 million of these live with severe obesity (Body Mass Index $\geq 35\text{kg/m}^2$). Obesity is indiscriminate, reaching all sections of society, but particularly those who are socially disadvantaged, and it is a risk factor for many physical (e.g., diabetes, coronary heart disease, cancer) and psychological (e.g., anxiety and depression, stigmatisation, low self-esteem) health problems. Obesity also dramatically shortens life expectancy: at higher levels of weight, average loss of life expectancy reaches 8-10 years. Millions of adults in the UK therefore face early death attributable to obesity – meanwhile living with substantially compromised mental health. This makes managing obesity a key public mental health challenge.

Behavioural weight management programmes, including in community settings, can be effective in promoting weight loss. However, weight regain frequently follows, with associated mental health consequences. “Weight cycling” – the repeated loss and regain of weight – is associated with even greater mental health difficulties, potentially because of the internalisation of weight stigma. This is critical: it is not weight *per se* that is the challenge, but supporting mental health in a context where weight is both highly variable and stigmatised. This finding points to the importance of public health interventions for people with obesity that help sustain mental health alongside ongoing promotion of health-supporting ways of living.

This multimethod, cross-disciplinary PhD will explore the complex relationships between mental health and health behaviours in those experiencing weight cycling. A particular focus for the research will be on how community assets (services and social) and social deprivation influence peoples’ experiences. By understanding the perspectives of those at-risk but who do not experience weight cycling, the research will highlight protective factors that may inform future intervention. Particular attention will be on the experiences of people of differing weight, recognising that people with severe obesity are under-represented in research but report poorest mental health attributable to this chronic disease.

Indicative research questions:

1. What behavioural patterns are associated with weight cycling, and how are these patterns related to mental health outcomes?
2. How do community assets and social deprivation impact people’s experiences of weight cycling?
3. To what extent, and why, do experiences of weight cycling, and associated mental health outcomes, vary across people of different weight?

Fuse - The Centre for Translational Research in Public Health

Fuse is the UKCRC Centre of Excellence for Translational Research in Public Health which offers SPHR a portfolio of high-quality applied public health research spanning the five North East universities (Durham, Newcastle, Northumbria, Sunderland and Teesside). Fuse was funded in 2008 by UKCRC to build capacity in applied public health research with the particular remit of translation. Fuse brought together a unique partnership of public health researchers in the five universities and practice and policy makers from across the North East creating a new environment to support world class research with a focus on translational research. We work in an area of the country with historically high levels of deprivation, social inequality and concomitantly poor health outcomes. Our cross-cutting strategic aim is to achieve better, fairer health across the life course and to conduct applied public health research to support the prevention and public health essential for health and prosperity. Fuse hosts the Equal England Network a community of academics, researchers and practitioners who share a common interest in addressing health and social inequalities, AskFuse an innovative responsive research and evaluation service, a national Embedded Researcher network and NIHR PHIRST North funded Public Health Intervention Responsive Studies Team, which provides timely and accessible research to local authorities that wish to work with us and to have their interventions evaluated.

Over 50 PhD students have been affiliated directly to Fuse over the last ten years in addition to those in each of five Fuse universities. Our postgraduate programme contributes extensively to one of our primary goals of capacity building, as well as helping to promote research excellence by fostering innovative research on the generation and translation of public health research. Fuse has a nominated postgraduate tutor and wherever possible, students are supervised by multidisciplinary supervisory teams from two or more of Fuse's host institutions, as well as involving policy and practice partners in their research. Students have been instrumental in delivering theoretical and methodological advances and, in some cases, achieving tangible impacts. In addition to being part of the NIHR SPHR, Fuse PhD students benefit from excellent training and experience in a vibrant postgraduate research environment both within Fuse and in the post-graduate programme offered by the host university.

Projects led by Fuse:

For more information about each project, please click on the title in the table below;

Project code	Title
Fuse_1_Kaner	Qualitative exploration of adolescents' and family members' perspectives on gaming, gambling and mental health impacts: informing intervention development
Fuse_2_Vasiljevic	The impact of nature-based citizen science interventions on mental health and wellbeing: An interdisciplinary mixed-methods study

Title:	Qualitative exploration of adolescents' and family members' perspectives on gaming, gambling and mental health impacts: informing intervention development
Supervisory team:	Professor Eileen Kaner, Fuse, Newcastle University Katie Thompson, Fuse, Newcastle University Professor Matthew Hickman, University of Bristol Advisory Group Dr Steph Scott, NIHR ARC North East and North Cumbria Glyn Smith, Practice advisor, Health and well-being programme manager North East – OHID Viv Evans, Policy advisor, Chief Executive of Adfam
Project code:	Fuse_1_Kaner
Contact:	Eileen.kaner@newcastle.ac.uk

Project outline

The UK Gambling Act (2005) represented a shift in policy from regulation to market-led expansion. The subsequent increase of commercial advertising and gambling opportunities, including via online platforms, further increased social acceptability (1). In addition, growing concern about gambling in adolescents (Blin-Pike et al. 2010) was heightened by COVID-19 pandemic lockdown measures with increased on-line learning and leisure activity (including gaming), as well as adverse mental health impacts for many young people. The link between gaming and gambling behaviour is not well understood but there are thought to be common risk factors (3). Negative impacts affect individuals, their wider social network and society. The current evidence-base on prevention is dominated by individual-level harm reduction interventions, with less focus on wider supply reduction interventions (4). Most work has focused on adults and there has also been little consideration of the equity issues. This project aims to qualitatively explore adolescent and family members' views and experiences of gaming, gambling behaviour and mental health impacts, with a focus on future intervention development.

Indicative research questions:

1. What are the lived experiences and views of young people who have experienced problems associated with gambling and/or on-line gaming about pathways into and out of adverse impacts?
2. What are the concerns and views of the family members of young people who have experienced problems associated with gambling and/or on-line gaming?
3. How can young people and family members best contribute to the development of preventive interventions to reduce health and well-being problems linked to gambling and/or on-line gaming behaviour.

References

1. Moodie C, Reith G. Responsible gambling signage on electronic gaming machines, before and after the implementation of the United Kingdom Gambling Act: an observational study, *International Gambling Studies* 2009; 9:1, 5-17, DOI: 10.1080/14459790802652183
2. Blin-Pike L et al. Adolescent Gambling: A Review of an Emerging Field of Research. *Journal of Adolescent Health* 47 (2010) 223–236 Wood R et al. Video Game Playing and Gambling in Adolescents: Common Risk Factors, *Journal of Child & Adolescent Substance Abuse* 2004, 14:1, 77-100, DOI: 10.1300/ J029v14n01_05
3. McMahan N, Thomson K, **Kaner E**, Bambra C. Prevention and harm reduction interventions on gambling behaviours and gambling related harm: an umbrella review. *Addictive Behaviors* 2018, <https://doi.org/10.1016/j.addbeh.2018.11.048>.

Title:	The impact of nature-based citizen science interventions on mental health and wellbeing: An interdisciplinary mixed-methods study
Supervisory team:	Dr Milica Vasiljevic – Fuse, Durham University Professor Stephen Willis – Fuse, Durham University Professor Philip Stephens – Fuse, Durham University Dr Mark Tarrant - University of Exeter Advisory Group Dr Fiona Duncan, Fuse, Newcastle University Mr Phil Hodgson, Education Durham, Durham County Council
Project code:	Fuse_2_Vasiljevic
Contact:	milica.vasiljevic@durham.ac.uk

Project outline

Along with the ongoing Covid-19 pandemic, the world is also in the midst of both a global biodiversity crisis and a climate change crisis. 82% of young people prioritise protecting the environment and 83% reported that nature increased their happiness and mental health. Yet, 81% of children spent less time outdoors in 2020 compared to previous years, with low-income households disproportionately affected. In north-east England, children and young people spend less time outdoors than elsewhere in the country and have limited opportunities to access nature.

The proposed PhD project will evaluate the effectiveness of participating in citizen science interventions that encourage engaging with the natural world, and learning about local biodiversity. We will assess the impact on mental health and wellbeing amongst children and young people using two biodiversity-focussed participation platforms: MammalWeb and Nature’s Audio. The intervention involves children/youth spending time in nature and using camera/audio traps together with other technological solutions to engage with the natural world in their habitat. The images/audio collected of the mammals/birds are then uploaded onto the interactive platforms where citizen scientists are encouraged to learn more and participate in knowledge generation about the species they have captured. We will involve two sets of participants: (1) schoolchildren in an ongoing Group of Anxious Pupils (GAP) initiative; (2) young offenders at Deerbolt Prison YOI. The team have well-established links with both GAP and Deerbolt, and pilot initiatives with both have been established with external funding. The principal test of intervention effectiveness will come from a comparison of (quantitative) outcomes amongst those who receive the intervention and those in a wait-list control group. A mixed-methods process evaluation (including interviews/focus groups, surveys, experiments) will assess intervention fidelity and mechanisms of action articulated in the logic model.

Indicative research questions:

1. What is the impact of engaging with MammalWeb and Nature’s Audio citizen science platforms on the mental health & wellbeing of children and youth with previous diagnosed anxiety or prior offending?
2. Is there a difference in mental health & wellbeing outcomes if engaging with MammalWeb and Nature’s Audio platforms is carried out as an individual or within a group?

Based on pilot data from Covid-19 lockdowns we hypothesise that children and youths who engage with nature via our platforms will report improved mental health and wellbeing compared to those allocated to a wait-list control condition. Based on emerging evidence of the positive impact of group/network interventions, we also hypothesise that those engaging with the intervention in groups will report better mental health and wellbeing than those who engage alone.

Imperial College London

Consistently rated amongst the world's best universities, Imperial College London is a science-based institution with a reputation for excellence in public health teaching and research.

The School for Public Health combines world-class research at the local, national and international level, translating science and epidemiology into policy, health education and primary care. Together with its research, teaching and evidence-led policy work, the School of Public Health aims to address the major public health challenges of the 21st century. The School was rated top nationally in the 2021 Research Excellence Framework (REF), in the "Public Health, Health Services & Primary Care" Unit of Assessment.

The PhD student will be based in the School of Public Health (Head, Professor Deborah Ashby) or the Centre for Health Economics and Policy Innovation (Head, Professor Franco Sassi). Both locations have a focus on promoting interdisciplinary research in population health, including on the social determinants, and health interventions in populations, as well as providing substantial training and teaching programmes. There are strong collaborative links with other academic departments of Imperial College and elsewhere in the UK and overseas as well as local and national public health organisations.

Further information is available at:
<https://www.imperial.ac.uk/school-public-healthand>
<https://www.imperial.ac.uk/business-school/faculty-research/research-centres/centre-health-economics-policy-innovation/>

Projects led by Imperial College London:

For more information about each project, please click on the title in the table below;

Project code	Title
Imperial_1_Beevers	Learning from the COVID-19 pandemic to create a national narrative and build support for population-level behaviour change to achieve Net Zero sooner
Imperial_2_Davies	The impact of fiscal measures to support fuel and living costs on winter health in England: a nationwide analysis from 1997 to 2025

Title:	Learning from the COVID-19 pandemic to create a national narrative and build support for population-level behaviour change to achieve Net Zero sooner
Supervisory team:	Dr Sean Beevers, Imperial College London Dr Milica Vasiljevic, Fuse, Durham University Dr Christina Atchison, Imperial College, London Advisory Group John Newington, Air Quality and Industrial Emissions (AQIE) at the Department for Environment, Food and Rural Affairs, plus possible wider participation in DEFRA's social research team and knowledge exchange.
Project code:	Imperial_1_Beevers
Contact:	s.beevers@imperial.ac.uk

Project outline

A public engagement strategy is urgently required to understand how a combination of Government, media and scientific messaging can effectively influence the UK population towards making the low carbon choices needed to take the UK towards Net Zero. Working with the Climate Change Committee (CCC) we are currently undertaking forecasts of the co-benefits of Net Zero policy on air pollution and public health. The CCC forecasts include widespread use of low carbon heating such as heat pumps, home insulation, conversion to induction cooking, vehicle electrification, active travel and dietary changes.

Recently, the House of Lords reported that 'Behavioural science evidence and best practice show that a combination of policy levers, including regulation and fiscal incentives, must be used by Government, alongside clear communication, as part of a joined-up approach to overcome the barriers to making low-carbon choices'. In addition, that 'Fairness is key to effective behaviour change and now more than ever must be at the heart of policy design'.

Some low carbon choices represent significant changes at home and in people's behaviour and will proportionately be adopted by those who are most able to pay, increasing inequalities and failing to provide the scale of change required to achieve Net Zero targets. Yet during the COVID-19 pandemic the Government led massive societal change, albeit over a relatively short period, using regular messaging of complex scientific subjects, effective regulation and fiscal policy. This combination of actions resulted in high levels of behaviour change quickly within the UK population.

The proposed PhD project will use a combination of modelling of REACT survey data, and the generation of novel quantitative and qualitative data to assess how to most effectively communicate population-level behaviour change levers in order to achieve Net Zero targets sooner.

Indicative research questions:

1. What were the most effective messages used by Government, media and scientists during the COVID lockdown periods (2020-22) that impacted on population-level behaviour change?
2. What are the most impactful and effective messages that could be used to encourage population-level behaviour change related to Net Zero targets amongst a nationally representative English sample?
3. What is the public acceptability of using such messaging to affect behaviour change related to Net Zero targets?

Title:	The impact of fiscal measures to support fuel and living costs on winter health in England: a nationwide analysis from 1997 to 2025
Supervisory team:	Dr Bethan Davies, Imperial College London Dr Laure de Preux, Imperial College London Professor Sarah Rodgers, LiLaC, University of Liverpool Advisory Group Ross Thompson, Extreme Events team, UKHSA
Project code:	Imperial_2_Davies
Contact:	bethan.davies06@imperial.ac.uk

Project outline

The population experiences worse health in the winter, with over 30% more deaths than the non-winter months. Within this, there are stark inequalities with the very young, very elderly, those with co-morbidities, lower incomes and those living in the eastern regions in England most at risk. Low indoor temperature, associated with adverse biomarkers and health outcomes, is likely to contribute to these excess deaths.

Fuel poverty is experienced by 3.16 million (13.2%) households in England. In 1997 two main schemes to support vulnerable people with meeting energy costs were introduced (Winter Fuel Payment; Cold Weather Payment). In 2022, the government announced additional support as a response to rising energy costs and inflation (Cost of Living Payment; Warm Home Discount Scheme) and some Local Authorities have announced additional fiscal measures to support their residents. This project will provide an in-depth assessment of the various fiscal measures in support of winter fuel costs and cost of living rises and their associations with short-term health outcomes.

This studentship will be based across the Business School and School of Public Health (including the MRC Centre for Environment and Health) at Imperial College London. The student will undertake a nationwide 25-year analysis of the association between cold weather on mortality and morbidity in communities to identify inequalities in health impacts and estimate the health-benefits of these longstanding and novel financial support initiatives. This will include a literature review of the benefits of monetary transfers during winter months and a scoping review of the different policies. The empirical work will use NHS and ONS data and require the application of (for example) Poisson regression models to area-level data on mortality, hospital admissions, birth outcomes and environmental exposures including temperature and housing quality measures. The student will benefit from an interdisciplinary training in public health, epidemiology and economics. The research will support the design of future strategies at both local and national levels to address the health impacts of fuel poverty and the cost of living crisis in England on the most vulnerable populations.

Indicative research questions:

1. What are the contemporary associations between health outcomes, death and outdoor temperature in winter? Which community level factors are associated with vulnerability to cold-related health impacts?
2. How has the population in England adapted to winter shocks over the last 25 years?
3. Have government interventions such as targeted fiscal support reduced individuals' vulnerability to temperature drops?

LiLaC (Liverpool and Lancaster Universities Collaboration)

LiLaC is the Liverpool and Lancaster Universities Collaboration for Public Health Research. It was established in 2011 building on more than a decade of collaboration between health researchers at two research intensive universities in the North West of England. We are a member of the NIHR School for Public Health Research and contribute to the NIHR Applied Research Collaboration for the North West Coast and the NIHR Research Design Service North West (RDS NW).

Our goal is to work with public, community, policy and professional partners to better understand 'what works' to improve health and wellbeing and reduce the health inequalities experienced by disadvantaged children and adults. Our research findings are influencing policies and other actions to reduce inequalities in health locally, nationally and globally. We are also involved in a range of activities aimed at building capacity for the conduct and uptake of research to inform policy and other action on the structural determinants of health inequalities.

Our Approach

Firstly, the right of the public to be involved in research and decisions that affect their lives, is central. Extending our existing public involvement activities, we create opportunities for the public, including children, to work as partners with researchers and organisations to identify priorities, design and deliver research and co-produce evidence-based policies and other action. Research has shown that if organisations such as councils commit to promoting these rights, solutions are more appropriate, accessible and effective.

Secondly, LiLaC is uniquely multi-disciplinary, drawing members from across both universities, encompassing: clinical, social, spatial and environmental epidemiologists; economists in public health, health care, labour, education and finance; and experts in statistics, health informatics, computational science and implementation science. We also include geographers, sociologists, anthropologists, social psychologists, policy analysts, political scientists, linguists, lawyers, historians and planners and designers.

Thirdly, we have developed unique resources that provide an in-depth understanding of the changing conditions in places that influence health. These include a long-term programme of supporting and training residents in specific communities as partners in our research, digital online resources that enable members of the public to record their experiences and linked datasets that enable the health impact of social, environmental and economic initiatives to be evaluated.

Fourthly, our research has shown that addressing the complex problem of health inequalities, requires multiple perspectives. LiLaC brings together researchers who have developed ways of jointly applying their wide-ranging expertise, alongside the expertise of the public and professionals. We work with these diverse partners to identify practical solutions to challenging problems in order to improve the health of populations and reduce health inequalities.

Projects led by LiLaC:

For more information about each project, please click on the title in the table below;

Project code	Title
LiLaC_1_Brown	Assessing health inequalities in economic evaluations of public health interventions using observational data
LiLaC_2_Loopstra	Food insecurity among households with children: a mixed methods study to inform policy

Title:	Assessing health inequalities in economic evaluations of public health interventions using observational data
Supervisory team:	Heather Brown, LiLaC, Lancaster University Bruce Hollingsworth, LiLaC, Lancaster University Christina Fernandez Garcia, Fuse, Newcastle University Practice Advisor Pauline Wigglesworth, HDRC Blackpool Council
Project code:	LiLaC_1_Brown
Contact:	Heather Brown: h.w.brown@lancaster.ac.uk

Project outline

The aim of this PhD project is to generate evidence on how health inequality assessment can become a core part of economic evaluation. At present this is not a core part of standard practice in economic evaluation. The aim of this PhD is to establish how this can be changed.

Indicative research questions:

1. To what extent are health inequalities taken into account in economic evaluation of public health interventions and what methods are employed to do this?
2. What datasets are available in the UK and given these how can we assess the costs and benefits of public health interventions taking account for health inequalities?
3. For one or more interventions associated with the levelling up agenda, what are the costs and benefits of the intervention and how has the intervention impacted on health inequalities?

To address research question (1) this PhD would start with a review of the literature. The review would establish the key gaps in methodological and applied work, and the interventions where this is not happening effectively at present. Next, to address research questions (2) working with the School for Public Health's multidisciplinary levelling up research team, a scoping study of potential datasets and strengths and weaknesses of the data to assess health inequalities will be conducted. For research question (3) one or more case studies will be undertaken, to evaluate the costs and benefits of chosen interventions and how they impacted on health inequalities. The student will employ natural experiment approaches in the case studies - studies will be chosen so to maximise the value to the wider levelling up research programme as well as enabling the student to gain experience with a range of different methods, the strengths and weaknesses of the different approaches and how this impacts on interpretation of the findings. The student will use a range of datasets and reflect on the strengths and weaknesses in terms of data coverage and diversity of the different datasets to capture the impact of the interventions on health inequalities.

Title:	Food insecurity among households with children: a mixed methods study to inform policy
Supervisory team:	Dr Rachel Loopstra, LiLaC, University of Liverpool Prof David Taylor-Robinson, LiLaC, University of Liverpool Dr Dougal Hargreaves, Imperial College London Advisory group Prof Ben Barr, LiLaC, University of Liverpool Dr Jennie Parnham, Imperial College London Food Foundation Kim Johnson, MP Liverpool Riverside
Project code:	LiLaC_2_Loopstra
Contact:	rachel.loopstra@liverpool.ac.uk

Project outline

As costs of living rise, food insecurity is rapidly rising, particularly among households with children in the UK, more than doubling over recent years to 26% in September 2022. Yet little is known about what drives risks of food insecurity among households with children or about what policies offer protection.

Across local authorities in England and across the devolved nations, responses have differed. In Northern Ireland, Scotland, and Wales free school meal (FSM) replacements have been provided through school holidays, and FSM provision has been extended to all children in primary school in Scotland, and in Wales by 2024. In England, meal provision during holidays is only partially provided through the Holiday Activities and Food programme, though some local authorities offer vouchers replacements as well. Some local authorities also provide FSMs to all primary children during term time. To inform policy, this mixed methods studentship will address the following research questions:

1. How has food insecurity among households with children changed over 2019-2020 to 2022-23 and what factors explain changing levels?
2. What approaches are taken in local authorities across England and the devolved nations with respect to provision of free school meals, holiday support and other food access policies for children?
3. What are the impacts of different policies related to free school meal, holiday meal, or other policies on risks of food insecurity for households with children?

Data from the Family Resources Survey (FRS), which has measured food insecurity amongst households since 2019-20, will be used to examine how risks of food insecurity changed over the COVID-19 pandemic and as costs of living began rising in the UK. Policy mapping will be carried out by systematic searches of local council, central, and devolved government documents to chart variation and inequalities in policies targeted towards reducing risk of food insecurity among children. Lastly, using natural policy experiment approaches, the impacts of FSM provision, holiday provision and introduction of Scottish Child Payment on food insecurity, will be tested, using data from the FRS and Scottish Health Survey.

London School of Hygiene & Tropical Medicine (LSHTM)

LSHTM is renowned for its research, postgraduate studies and continuing education in public and global health. We have an annual research income of more than £124 million. The School performs well in various UK and global university league tables. In the US News Best Global Universities Ranking 2018, we are ranked sixth in the world in the fields of social sciences and public health. The School is ranked 25th for medicine in the 2017 QS World University Rankings. The inaugural Center for World University Rankings by Subject in 2017 placed the School first in the world for tropical medicine research, second for parasitology and seventh for infectious diseases, public, environment and occupational health, and social sciences and biomedical. The School was named University of the Year 2016 by Times Higher Education and awarded a Queen's Anniversary Prize for Higher and Further Education in 2017 in recognition of our response to the Ebola epidemic. The School for Public Health Research at LSHTM includes an exciting and supportive team of widely recognised senior researchers and early-mid career researchers (as well as access to a much wider network of research leaders and practitioners within and beyond LSHTM).

Students appointed to LSHTM through this scheme would sit within LSHTM's Faculty of Public Health and Policy. We are looking for excellent students with knowledge of, and interest in, applied public health research. To be appointable, students must meet LSHTM's minimum entrance requirements (see admissions policy here).

Projects led by LSHTM:

For more information about each project, please click on the title in the table below;

Project code	Title
LSHTM_1_Cummins	Understanding the influence of the digital food environment on the diets of young people: a qualitative study of how the platform economy shapes the dietary preferences and food purchasing behaviours of 11-18 year olds
LSHTM_2_Cornelsen	Understanding the consumption of ultra-processed food in England

Title:	Understanding the influence of the digital food environment on the diets of young people: a qualitative study of how the platform economy shapes the dietary preferences and food purchasing behaviours of 11-18 year olds
Supervisory team:	Professor Steven Cummins, LSHTM Dr Thomas Burgoine, Cambridge Dr Claire Thompson, University of Herfordhsire All projects will give the successful candidate the opportunity to link with practice whilst carrying out their PhD project. Further information on this will be updated in due course.
Project code:	LSHTM_1_Cummins
Contact:	steven.cummins@lshtm.ac.uk

Project outline

The way we are introduced to, and purchase, food and drink for consumption in and outside of the home is being radically re-shaped by the rise of the so-called platform economy. Digital on-demand technologies are changing food distribution and delivery, making groceries and 'fast-food' more accessible and convenient. Other digital platforms (e.g., messaging services, gaming and social media including YouTube, TikTok, SnapChat and Instagram) are actively mediating preferences and purchase decisions through marketing and promotions, and through food influencers and viral content. Combined, this might promote unhealthy food choices and increase the frequency of purchasing such foods, especially in the takeaway sector. A small and emerging evidence base in adults suggest that use of online delivery services, for example, is becoming increasingly normalised, optimises the purchase process and acts as a potential vehicle for price promotions to increase sales of unhealthy foods. However, the dietary impact of these platforms on young people (aged 11-18) is unknown. Given that adolescence is a key point for the establishment of dietary habits that track into adulthood, and considering these platforms as possible drivers of a generational shift in the way dietary preferences are shaped and how foods and drinks are purchased, understanding the behaviours of this age-group is key.

Indicative research question:

How does the digital food environment influence the dietary preferences, and the purchase and consumption of foods and drinks off young people?

To achieve this the project will take an ethnographic approach, comprising qualitative methods such as interviews, focus group and digital/virtual methods (e.g., digital go-alongs) and will have the following objectives:

1. Review and synthesise the existing evidence from a wide range of public health and social science literature to create a theoretical framework that conceptualises the digital food environments of young people
2. Describe and characterise how various digital platforms are experienced by young people and shape their food preferences and food and drink purchasing behaviours
3. Explore how these dietary preferences and behaviours are mediated by peer social networks, family and digital food cultures (e.g., food influencers, trends and viral content) and explore the resilience and susceptibility of young people to these influences.

Title:	Understanding the consumption of ultra-processed food in England
Supervisory team:	Dr Laura Cornelsen, LSHTM Professor Antonieta Medina-Lara, Exeter Professor Steven Cummins, LSHTM All projects will give the successful candidate the opportunity to link with practice whilst carrying out their PhD project. Further information on this will be updated in due course.
Project code:	LSHTM_2_Cornelson
Contact:	laura.cornelsen@lshtm.ac.uk

Project outline

Categorising foods according to the level of processing is a relatively new approach in public health nutrition research. The most used NOVA classification (1) separates food into four categories: unprocessed or minimally processed foods, processed culinary ingredients, processed foods and ultra-processed foods (UPF). This classification is gaining more traction as studies are starting to emerge, including in England, linking consumption of UPF with adverse health outcomes (2-4). However, little is known about population level consumption trends of UPF and how these associate with the widening dietary health inequalities. Furthermore, as this classification is relatively new, it is unknown the extent to which consumers understand it or take it into account in their purchase decisions.

The overall aim of this PhD project is to examine the consumption of UPF in England. This will be achieved through answering the following indicative research questions:

1. What is the role of UPF in current food baskets in England, including in the cost of the basket
2. What is the association between UPF purchases and household socio-economic and BMI status;
3. What is the current consumer knowledge, attitude, and preference towards UPF foods.

For research questions 1-2, a highly disaggregated longitudinal data from around 30,000 British households on food and beverage purchases and nutritional composition of the products is available to be used (2012-2019 and 2022). Existing NOVA classification to be used with the data will be refined and applied to the data. Subsequent analyses are expected to be carried out using longitudinal panel data analysis methods. Research question 3 can be answered via primary data collection through a survey, including a discrete choice experiment.

References

1. Monteiro CA, Cannon G, Levy RB, et al. Ultra-processed foods: What they are and how to identify them. *Public Health Nutr* 2019; 22: 936–941.
2. Chang K, Khandpur N, Neri D, et al. Association Between Childhood Consumption of Ultraprocessed Food and Adiposity Trajectories in the Avon Longitudinal Study of Parents and Children Birth Cohort. *JAMA Pediatr.* 2021;175(9):e211573.
3. Levy RB, Rauber F, Chang K, Louzada MLDC, Monteiro CA, Millett C, Vámos EP. Ultra-processed food consumption and type 2 diabetes incidence: A prospective cohort study. *Clin Nutr.* 2021 May;40(5):3608-3614.
4. Rauber, F., Chang, K., Vámos, E.P. et al. Ultra-processed food consumption and risk of obesity: a prospective cohort study of UK Biobank. *Eur J Nutr* 60, 2169–2180 (2021).

PHRESH (Universities of Birmingham, Warwick and Keele collaboration)

The PHRESH Consortium, including the three leading universities (Birmingham, Warwick and Keele) in the West Midlands, provides a highly supportive public health research and training environment. Our 70 key researchers, from a range of professional and disciplinary backgrounds spanning sciences, economics, education, geography and business, are each linked to a wider network and teams actively engaged in applied public health research and capacity building. Underpinned by the fundamental principles of inclusivity, equality and social justice, our collaborative research teams address the breadth of public health challenges using the scientific methods which can be used to work with communities, key agencies and local government to develop solutions. In the last 5-years, we have received over £170m from a range of UK funders to deliver research. This has led to >1,700 scientific papers and reports which have contributed to changes in policy to improve people’s health and wellbeing.

We work in a region with a relatively highly deprived, superdiverse and high ethnic mix population, and geographic diversity, containing the largest UK urban conurbation after Greater London. This allows us to undertake transformative public health research, informed by, and with our local communities.

Embedded within our consortium, we have established facilities and infrastructure to support flexible and blended training in public health at all levels. Over the last 5-years, we have trained >180 postgraduate research students in public health and applied health research and 40 funded fellowships were awarded. Our doctoral students will be part of a vibrant postgraduate research environment, with access to a range of training modules and courses tailored to their needs and their specific area of research. In addition to supervision by a team of leading academics, our doctoral students will become members of the Graduate School within the host institution, which offers academic mentorship, generic training and skills development, opportunities for networking and academic presentation, physical state-of-the art facilities to support learning, as well as careers, employability and wellbeing advice.

All potential students are encouraged to contact potential supervisors for more information on specific projects and to find out more about the PhD programme.

Projects led by PHRESH:

For more information about each project, please click on the title in the table below;

Project code	Title
PHRESH_1_Pallan	The influence of school food and nutritional intake of secondary school pupils upon learning, performance and wellbeing outcomes
PHRESH_2_Stathi	Maximising the potential of an effective and cost-effective active ageing intervention for national impact. Adaptation and feasibility testing of the Retirement in ACTION [REACT] intervention as a digital hybrid - (part facilitated, part digital) - programme

Title:	The influence of school food and nutritional intake of secondary school pupils upon learning, performance and wellbeing outcomes
Supervisory team:	Dr Miranda Pallan, PHRESH, University of Birmingham Dr Marie Murphy, PHRESH, University of Birmingham Dr Abigail Russell, University of Exeter Advisory Group Nick Chadwick, Greenwood Academy, Birmingham Dr Suzanne Spence, Fuse, Newcastle University
Project code:	PHRESH_1_ Pallan
Contact:	Miranda Pallan: m.j.pallan@bham.ac.uk

Project outline

We have recently completed a large NIHR-funded study evaluating national school food policy implementation in secondary schools and exploring the nutritional intake of secondary school pupils. Through our PPIE work with school senior leaders, teachers and pupils we have identified that there is much interest in food and nutritional intake of pupils when in school and how this affects their attention, concentration, behaviour, school performance and wellbeing. While there is much evidence around nutrition and mental health/wellbeing, there is much less around attention and concentration and school performance, and the evidence that does exist mostly relates to low-income settings and micronutrient deficiencies.

This PhD studentship involves an exploration of diet and nutrition at school (breakfast, break time and lunch) and school learning/engagement and metrics associated with key educational outcomes, including attention, concentration, behaviour, attainment, symptoms of poor mental health, and emotional wellbeing. The focus would be on secondary schools. The PhD project would comprise:

- 1) A systematic review to address evidence gaps in relation to nutrition and these outcomes in the adolescent age group
- 2) Primary research involving measurement of nutritional intake at school and short-term outcomes such as attention, concentration and behaviour that would be undertaken to explore in detail how nutritional intake and eating behaviours may influence these outcomes
- 3) Potentially an early intervention development phase, aiming to improve nutritional intake at school and positively influence these outcomes.

Indicative research questions:

- What is the existing evidence for an association between nutritional intake and attention, concentration, behaviour and attainment at school in children and adolescents?
- Is nutritional intake associated with attention, concentration and behaviour following school eating occasions in adolescents?
- Is nutritional intake in school time associated with attainment in adolescents?
- Is nutritional intake in school time associated with emotional wellbeing in adolescents?
- What are the potential barriers and facilitators to implementing a dietary intervention aiming to improve attention, concentration, behaviour and attainment in secondary schools from the perspectives of adolescents, parents, school staff and catering teams?

Title:	Maximising the potential of an effective and cost-effective active ageing intervention for national impact. Adaptation and feasibility testing of the Retirement in ACTION [REACT] intervention as a digital hybrid - (part facilitated, part digital) - programme
Supervisory team:	Professor Afroditi Stathi, PHRESH, University of Birmingham Dr Katie Hesketh, PHRESH, Professor Ceu Mateus, LiLaC Advisory Group Professor Colin Greaves, PHRESH, University of Birmingham Dr Julie Richardson, Move it or Lose it Dr Vicky Goodyear, PHRESH Dr Peter Ladlow, UK Defence Rehabilitation, Academic Department of Military Rehabilitation (ADMR)
Project code:	PHRESH_2_Stathi
Contact:	A.Stathi@bham.ac.uk

Project outline

Digital/mobile interventions is a promising global approach for health promotion and prevention, as these interventions can get through hard to reach groups and provide opportunities for self-regulation and personalisation. However, there is limited robust evidence on how offline interventions can be effectively adapted into hybrid formats, and particularly to meet the needs of older adults. The REACT RCT (NIHR-PHR 13/164/51) provides robust evidence that a one-year group-based exercise and behaviour-maintenance intervention can reduce the ageing-related decline in physical functioning, with clinically meaningful benefits over at least 24 months. Adapting the REACT programme for delivery in a hybrid mode will, by reducing costs, allow wider scale implementation. However, in doing this it is very important to avoid - and if possible seek to reverse - inequalities that may be generated by both individual-level and digital interventions.

The successful candidate will develop excellent skills in public health research /practice, intervention development and implementation in the following areas: a) public engagement and intervention co-production b) research methods for evidence reviewing, intervention development and process evaluation and c) design and implementation of research that enhances health equity. The thesis will comprise three interconnected stages:

1. Systematic review of barriers and enablers of engagement in online and hybrid active ageing interventions.
2. Adaptation of REACT programme and co-production of the digital-hybrid REACT with study team, service providers and service users.
3. Assessment of the feasibility and acceptability of the digital hybrid REACT programme and proposed evaluation methods to inform decisions about the next stage of evaluation.

Indicative research questions:

- How can we adapt the successful REACT intervention to a digital-hybrid programme?
- How feasible and acceptable is the digital hybrid REACT programme?
- What are the barriers to engagement with the digital hybrid REACT programme by people from diverse and disadvantaged backgrounds and what strategies are required to overcome these barriers?

University of Sheffield

The University of Sheffield was established with the aim of improving the wellbeing of our local population. Our School of Health and Related Research (ScHARR) - a vibrant, multidisciplinary department of over 300 staff and over 100 postgraduate research students - leads the University's applied public health portfolio. We work collaboratively across faculties, particularly with colleagues in the Faculty of Social Science, to conduct world-class research, training and knowledge translation across a range of public health issues. Our core mission is to work in partnership with local people, policy-makers and practitioners to deliver research which has an impact on the health of the population and reduces inequality.

We bring a unique perspective from working in a city with diverse communities and stark health inequalities. Regionally, our work extends across both the Yorkshire and Humber and the East Midlands, covering a wide spectrum of urban and rural populations, from the affluent to the very deprived.

Information about our research themes and current research related to the PhD topics on offer is available from our webpages:

<https://www.sheffield.ac.uk/scharr/sections/ph>
<https://www.sheffield.ac.uk/scharr/sections/ph/research/index>

As a diverse and friendly academic community, we also offer an excellent training environment, with access to a wide range of both generic and individualised research skills training, depending on the needs of the students and their PhD field. We encourage our doctoral students develop their topic and methodological expertise and to take advantage of our diverse collaborative programmes, including the School of Public Health Research, the Healthy Lifespan Institute and others such as the National Centre for Sport & Exercise Medicine, as well as to local, regional and national networks of practitioners and community organisations. Sheffield is a fabulous, friendly place to live, with a vibrant cultural life and the Peak District national park on its doorstep.

Potential applicants are encouraged to contact potential supervisors for more information on specific topics of interest.

Projects led by the University of Sheffield:

For more information about each project, please click on the title in the table below;

Project code	Title
Sheffield_1_Kersbergen	Understanding how being part of a digital sober community may affect drinking and mental health
Sheffield_2_Fenton	Forging healthy futures through times of crises

Title:	Understanding how being part of a digital sober community may affect drinking and mental health
Supervisory team:	Dr Inge Kersbergen, University of Sheffield Dr Anna Lavis, PHRESH, University of Birmingham Prof Matt Field, University of Sheffield Advisory Board Dr Richard Piper from Alcohol Change UK (a leading UK alcohol charity). The successful candidate will have the opportunity to directly link in with policy and practice through a placement with Alcohol Change UK. The supervisory team will also provide links to other alcohol and mental health charities, digital sober communities, and public bodies.
Project code:	Sheffield_1_Kersbergen
Contact:	i.kersbergen@sheffield.ac.uk

Project outline

Alcohol negatively affects drinkers' physical and mental health and mental health difficulties are associated with harmful alcohol consumption. In recent years, there has been a rise in digital sober communities (DSCs) of various formats (e.g., free or subscription based; embedded within social media platforms or on bespoke platforms; anonymous or using real names on private or public platforms; providing expert advice or peer support). Engagement with DSCs is associated with improved drinking outcomes and wellbeing, but studies have tended to focus on a few communities that target the general population. DSCs could reduce alcohol-related harm and improve mental health as they serve a range of drinkers and may support vulnerable groups that are less likely to access traditional alcohol interventions (i.e., sexual and ethnic minorities and people with disabilities). It is unclear how different DSC types promote reductions in alcohol consumption and improved mental health and to what extent different vulnerable groups might benefit.

This project aims to understand how DSCs influence alcohol consumption and mental health outcomes among members, focussing on vulnerable groups (sexual and ethnic minorities and people with disabilities).

Indicative research questions:

1. What are the features of DSCs are accessible to UK members?
2. What forms of support do DSCs provide to members and how do these address alcohol consumption and mental health among their members?
3. To what extent does engagement with DSCs affect alcohol consumption and mental health?

There will be three main stages to the PhD project. First, using systematic search strategies and content analysis, the student will identify what DSCs are accessible to UK members, analyse their websites and create a taxonomy of DSC types. Second, the student will use online ethnography on a subset of DSCs to understand how different communities provide support and how this might improve alcohol consumption and mental health. Finally, using quantitative survey methods, the student will investigate how community engagement is associated with alcohol consumption and mental health with a focus on the aforementioned vulnerable groups. Throughout the project, the student will communicate with relevant stakeholders, such as DSCs, alcohol charities and mental health charities, organisations involved in alcohol treatment provision and public bodies.

Title:	Forging healthy futures through times of crises
Supervisory team:	Dr Laura Fenton, University of Sheffield Dr Hannah Fairbrother, University of Sheffield Dr Mandy Cheetham, Fuse, Northumbria University Advisory Board Dr Amy Baxter, Senior Public Health Practitioner at Barnsley Council. The project will build on established productive relationships and previous work with local organisations and practice partners.
Project code:	Sheffield_2_Fenton
Contact:	Laura Fenton: l.m.fenton@sheffield.ac.uk

Project outline

Young people’s transitions into secure employment and independent housing are increasingly uncertain, unstable and protracted. Low paid, precarious work and poor quality, high-cost housing in the private rental sector have become the norm for many households. The rising costs of food, fuel, transport and other necessities mean that young people are less able to socialise outside of the home, raising concerns about their mental health and wellbeing. These conditions exacerbate existing social and health inequalities between young people from different socio-economic backgrounds, as well as deepening regional inequalities.

While policymakers extol the value of evidence from lived experience, such evidence is currently in limited supply because of the fast-paced nature of recent crises. Using innovative qualitative longitudinal and participatory methods, this project investigates young people’s experiences of navigating decisions about their futures in the context of the rising cost of living and government measures to reduce public expenditure in ways that directly affect their ability to forge healthy futures.

Indicative research questions:

1. How do young people understand the rising cost of living and reductions in state support to affect their decisions about education/training, employment, housing and relationships?
2. What do they believe are the implications of current crises for their health and wellbeing?
3. What positive, meaningful responses to current crises do they prioritise?

The student will work with young people and community and local authority partners to co-design the project’s methodology and knowledge exchange strategy in order to develop responses to current crises.

For more information, please contact sphr.training@ncl.ac.uk

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The information in this guidance document is correct at the time of printing.