



UKPRP Consortium Award, Call 1 – Successful Outline Applicants

The table below lists the six applicants who were invited to submit full proposals for the UKPRP consortium award under the current call. Additional information on each outline proposal can be found by clicking on the name of the Research Director. Details of a Co-Director, where applicable, have not been provided. The information provided is taken from the outline applications and provided with the permission of the Research Director (and the consortium).

Consortium

Research Director	Institute	Title of proposal
Professor Linda Bauld	University of Stirling	SPECTRUM: Shaping Public Health Policies to Reduce Harm (Shaping Public hEalth poliCies To RedUce harM)
Professor Simon Capewell	University of Liverpool	QUEST: QUantifying Equitable Solutions To prevent non-communicable diseases
Professor Paul Elliott	Imperial College London	Health Impacts of urban Transformation (HIT) Consortium
Professor Matt Hickman	University of Bristol	Tackling the Root Causes of Unhealthy Planning, Economics and Decision-making: An Urban Systems Approach (TRUED: Urban Systems)
Professor Petra Meier	University of Sheffield	Systems-science Informed Public Health Economic Research for Non-communicable Disease Prevention (the SIPHER Consortium)
Professor John Wright	Bradford Institute for Health Research	ActEarly: a City Collaboratory approach to early promotion of good health and wellbeing

Applicant ref.	Research Director	Institution	Title of Proposal
UKPRP_CO1_103	Professor Linda Bauld	University of Stirling	SPECTRUM: Shaping Public Health Policies to Reduce Harm (Shaping Public hEalth poliCies To RedUce harM)

Summary

The SPECTRUM consortium aims to generate new evidence to inform the prevention of non-communicable diseases (NCDs) caused by unhealthy commodities in the UK and beyond. Through developing research in partnership with an extensive network of key organisations and the public, our vision is to transform policy and practice to encourage the adoption of healthy environments and behaviours.

With a principal focus on tobacco and alcohol, two leading preventable causes of NCDs driven by unhealthy commodity producers, our work will extend as SPECTRUM develops to encompass other commercially driven diseases and harms. Our research will be coordinated through eight integrated Work Packages (WPs) focusing on: (1) using systems to understand determinants and address harms; (2) addressing corporate conduct and influence; (3) developing and integrating new data sources to inform action; (4) conducting economic analysis to inform policy and practice; (5) shaping the environment to change behaviour and prevent harm; (6) evaluating the effectiveness of policies and natural experiments; (7) reducing inequalities including mental health; and (8) building governance for health equity. Each WP will involve empirical research underpinned by the systems approaches developed in WP1 and 2.

SPECTRUM brings together a multi-disciplinary team of leading researchers from ten Universities; the main NGO, professional and policy groups working on tobacco and alcohol in the UK, including many with a focus on inequalities and wider determinants of health; industry partners contributing new data and methods; and an independent advisory board of international experts. We will ensure that the public play a key role in our work through established engagement methods and new approaches such as citizens' juries. The proposed research programme will also inform prevention efforts internationally, through our extensive global networks including in low and middle-income countries, where commercially-driven NCDs are primary threats to future global health.

Applicant ref.	Research Director	Institution	Title of Proposal
UKPRP_CO1_105	Professor Simon Capewell	University of Liverpool	QUEST: QUantifying Equitable Solutions To prevent non-communicable diseases

Summary

VISION

Our multi-disciplinary consortium will address and shape the prevention agenda, producing world-leading evidence to help reduce both premature non-communicable diseases (NCDs) and associated inequalities, by 33% by 2030.

By integrating stakeholder perspectives, best evidence and a novel systems approach into our innovative, quantitative policy models, we will identify the three most equitable prevention strategies, then help translate this compelling evidence into policy and practice.

CHALLENGE

NCDs generate a huge and unequal disease burden, costing the UK economy approximately £100bn annually. Primary prevention is thus essential to address the “Big Six” upstream NCD drivers: inequity, poor diet, tobacco, alcohol, inactivity and air pollution. However, effective action is hampered by complex underlying systems, and by the evidence/policy gap.

One promising new avenue involves combining a systems approach with comprehensive policy modelling.

PROJECT MANAGEMENT

Led by Capewell, our multidisciplinary QUEST consortium integrates leading researchers from the Universities of Liverpool plus York, Stirling, London (Imperial and LSHTM), the UK Health Forum (Knowledge Broker), and a dozen partners including Microsoft, PHE, NICE, IFS, charities and local authorities.

SCIENTIFIC RATIONALE

Our unique selling points include co-production of innovative, inequalities policy modelling and a Knowledge Broker with exceptional translational reach into UK policy and practice.

To test our new approach, we will focus initially on three illustrative policies (marketing to children, alcohol minimum unit pricing [MUP], and income support), then later assess diverse others.

We will work with research users to:

DEFINE their policy and evidence needs, then apply a systems approach.

Integrate these stakeholder perspectives and evidence into our comprehensive policy models, then DEVELOP and compare potential equity benefits when simultaneously addressing each of the “Big Six” upstream NCD drivers.

Help our influential Knowledge Brokers TRANSLATE the three most equitable, cost-effective, sustainable, politically and legally feasible NCD prevention strategies into policy and practice.

Applicant ref.	Research Director	Institution	Title of Proposal
UKPRP_CO1_109	Professor Paul Elliott	Imperial College London	Health Impacts of urban Transformation (HIT) Consortium

Summary

Cities are being transformed by an ensemble of powerful social, economic, behavioural and technological forces, presenting new challenges and opportunities to promote healthy living and disease prevention. The key challenge addressed by our consortium is to develop methods to understand, characterise and predict impacts of these multi-sectoral urban transformation processes, within a complex, highly dynamic and partially observed system. Our goal is the promotion of healthy living, improved health and reduction in health inequalities, by analysing well-understood pathways of influence and characterising new and emerging pathways. Our focus is on how changes in the urban environment affect, in children, i) lung function and lung growth (risk markers for chronic respiratory illness in later life) and ii) cognitive development; and iii) non-communicable diseases (NCDs) in adults, both city-wide and at small-area scale. Using London as an exemplar global city, we take a multi-disciplinary systems-wide modelling approach, combining leading data, modelling and application expertise in epidemiology, public health, behavioural, transport, physical activity, policy and urban systems modelling, with close involvement of diverse user community in planning, delivery, local authorities and public health. To ensure the project is practically grounded and produces policy relevant outputs, we combine fundamental work in modelling and analysis of health impact pathways in urban systems with two exemplar case studies. The first is the ultra-Low Emission Zone (uLEZ), a natural experiment implemented from April 2019, with expected major impact on levels of noise and air pollution. The second is the Old Oak Common/Park Royal Development, a major regeneration and transport hub project, offering the opportunity, with the user community, to have direct influence on its design and implementation to improve health. To complement and support the technical work of the project, we will put in place a programme of active user engagement in co-production, dissemination, translation and outreach.

Applicant ref.	Research Director	Institution	Title of Proposal
UKPRP_CO1_111	Professor Matt Hickman	University of Bristol	Tackling the Root Causes of Unhealthy Planning, Economics and Decision-making: An Urban Systems Approach (TRUED: Urban Systems)

Summary

Non-communicable diseases (NCD), such as obesity, respiratory illness and mental health disorders, are demonstrably linked to the quality of urban environments. So far, most research has been investigating “mid-stream” actors: e.g. engineering, architecture, urban design. Instead, research needs to start focusing on the root causes “up-stream”, including the type and quality of decision-making and the capacity and resource of those with most influence. In the UK’s market-led system of urban development, city governments and the private sector – corporations, landowners, financiers, and developers – are the creators of urban environments. Core questions relate to how interests, motivations and needs align to long-term health outcomes.

This challenge links public health to diverse additional disciplines including law, corporate governance, finance, and risk management. Economic and related quantitative valuation methods are also fundamental to market-led decision-making and government intervention, and so too are variables beyond the business case including prior beliefs and attitudes, education, cultural history, and ethics. A transdisciplinary, transinstitutional, systems-based approach co-created with experienced practitioners operating upstream at executive level is required.

Working with two prominent city regions as case studies, Bristol and Manchester, which link the macro-national to the micro-local, TRUED proposes to investigate and communicate clearly who and what are the main influencing agents and processes, and what health evidence those sectors currently consider in decision-making. We then propose to develop and test targeted decision support models and new models of evaluating multiple interventions across complex urban systems (e.g. health outcomes from City Cabinet response to economic evidence of ill-health). TRUED will also examine the system as a whole to understand the blockages to the creation of health urban environments (e.g. legislation, capacity, incentives) and identify the role of national and local government in encouraging improved systems of corporate public and private sector governance for transformative prevention nationally.

Applicant ref.	Research Director	Institution	Title of Proposal
UKPRP_CO1_119	Professor Petra Meier	University of Sheffield	Systems-science Informed Public Health Economic Research for Non-communicable Disease Prevention (the SIPHER Consortium)

Summary

VISION

SIPHER will transform efforts to realise widely-held aspirations for a ‘health in all policies’ approach by providing novel evidence supporting cross-sectoral policy processes. We represent a unique blend of disciplines covering public health, policy analysis, economics complex systems modelling, data curation and analytics. Our highly-committed co-production partners offer ideal “living laboratories” as local, regional and national jurisdictions developing ambitious ways of cross-sectoral working in non-communicable disease (NCD) prevention.

Focusing on health inequalities, we will build on detailed understanding of partners’ needs, evidence use and policy-making practices to co-produce new models and decision tools for the economic evaluation of health and non-health-sector strategies. These will allow policy-makers to:

- Explore interdependencies and trade-offs between effects on outcomes for different subpopulations and sectors (e.g. how do housing and unemployment affect mental health, and vice versa);
- Identify opportunities for synergistic action, and for disinvestment;
- Monitor evolving local contexts, including unanticipated changes, to help next-step decision-making.

RATIONALE

The UK Government’s emphasis on localism and devolution creates new opportunities for cross-sectoral prevention of NCDs and the social, economic and health inequalities that drive them. Novel types of evidence are needed which:

1. Speak to diverse policy audiences and balance their strategic priorities;
2. Allow examination of dynamic, adaptive and interdependent features of the socio-political systems into which policies are implemented.

Complex systems modelling (CSM) has been highly effective in helping us understand and forecast the performance of many physical, natural and social systems (e.g. climate change, cities, crime, retail). The time is ripe to harness its potential for public health.

MANAGEMENT

Managerial roles include Directorate, Consortium Steering Group, Project Manager, Research Development Manager, Knowledge Transfer Manager and External Advisory Group. Collaboration agreements will be negotiated during the Consortium Development Grant (CDG). Co-production is realised via joint researcher appointments/secondments into partner organisations.

Applicant ref.	Research Director	Institution	Title of Proposal
UKPRP_CO1_127	Professor John Wright	Bradford Institute for Health Research	ActEarly: a City Collaboratory approach to early promotion of good health and wellbeing

Summary

Our vision is to promote a healthier, fairer future for children, young people and their communities by addressing the social and environmental determinants of health. We will create a ‘City Collaboratory’ (an open space or creative process where people work together to generate solutions) to co-produce and evaluate upstream interventions.

Prevention research has tended to focus on ‘downstream’ interventions aimed at changing individual behaviours, frequently increasing inequalities. Our approach is to align our research expertise with the knowledge and experience of families, children, communities, local authorities, voluntary sector and industry to identify preventive pathways and implement and evaluate upstream interventions. Our collaboratory will take a lifecourse approach, focusing initially on the improvement of child health and development to improve health and wellbeing in young people so that they enter adult life with optimal health and ultimately improve the health of the whole population. We will evaluate impact on level and inequalities of a broad mix of outcomes such as education, physical activity, healthy growth and development (motor, cognitive) and longer term evaluate impact on adolescent/early adulthood obesity, mental health, cardiometabolic and respiratory outcomes.

We propose a City Collaboratory model for whole system prevention. Our initial focus will be in Bradford, building on established, community-embedded research platforms and substantial planned investment in interventions to improve child health. We will then replicate the Collaboratory approach in a deprived area of London to test replicability in other UK populations.

Researchers and stakeholders too often operate in disciplinary, sectorial and geographical silos. Our consortium development grant will bring together extensive international trans-disciplinary, trans-sectoral expertise working across Yorkshire and London with local and national stakeholders to strengthen existing partnerships, recruit new partners, agree on priorities and develop long-term models whereby our City Collaboratory can maximise impact.