

Public Health Intervention Development Scheme  
Awarded Projects October 2014

Lead investigator	Research Organisation	Project Title	Abstract
Dr Cynthia Graham	University of Southampton	Feasibility study of the Kinsey Institute Homework Intervention (KIHISUK) to promote correct and consistent condom use	<p>The Department of Health has identified the need to reduce rates of HIV, sexually transmitted infections (STIs), and unintended pregnancies as priorities for improving sexual health. [1] Although male condoms can be highly protective against pregnancy and the transmission of most STIs, there is evidence that they are often not used consistently or correctly. [2] There is a need to develop more effective brief interventions designed to promote correct and consistent condom use. In line with MRC guidance for developing and evaluating complex interventions, [3] the aims of this early phase study are to adapt, specify, and assess the feasibility of a behaviour change intervention to increase condom use (<i>The Kinsey Institute® Homework Intervention Strategy; KIHIS</i>) for use in the UK. The KIHIS, designed to improve condom skills, enjoyment, and self-efficacy, has demonstrated early evidence of efficacy in two studies. [4,5] The proposed KIHIS-UK intervention is novel in that it a) aims to increase condom use by targeting outcome expectancies related to enjoyment of sex, which have been identified in previous research as important determinants of behaviour amongst young non-users [6,7]; b) will have been adapted with extensive user participation to ensure future successful implementation, and c) will have an accompanying intervention manual specifying targeted outcomes, behaviour, behavioural determinants, behaviour change techniques (BCTs), methods of delivery, and proposed mechanisms of action, thus ensuring that the future main study can draw conclusions about what has worked and why or, indeed, what does not work. The target population will be young men aged 16-25, recruited from young people's information, advice, counselling and support services (YIACS) located in community settings and educational establishments in Hampshire and the West Midlands. The early phase study will involve a literature review, development and design consultation, intervention delivery and feasibility, follow-up, and recommendations for a definitive trial of the intervention.</p>
Prof Louise Wallace	Coventry University	User-centred development of an online and mobile phone intervention to support infant feeding choice and confidence to sustain breastfeeding and/or safe formula feeding.	<p>Breastfeeding (BF) for 6 months reduces the risk of serious infant and maternal disease (1,2) but globally less than 40% of babies are fed this way (3). In the UK, there is a steep decline in BF during the first few weeks (4). Many mothers want to breastfeed longer, but stop due to difficulties that could be prevented or resolved with skilled support. NHS services do not have the capacity to offer this level of support reliably. Mothers who stop BF, or choose not to start, also need guidance to reduce the risks associated with bottle feeding and early introduction of solids. Many pregnant women and mothers, and service providers, seek to fill the gap in BF support by looking online for information, but find it difficult to determine what is reliable, usable and evidence based (5). Although there are many mother-focussed sources of online information, few have been systematically developed with the user in mind, or rigorously evaluated for effectiveness (6). This early phase research will (1) Assess the needs of parents and healthcare staff/lay supporters for online infant feeding information and support using literature reviews and focus groups (2) Involve parents and staff in design workshops for the development of a new web portal and smart phone app (3) Specify the behavioural change, information and technological components of the optimum infant feeding eHealth and mHealth intervention (4) Test the prototype intervention for acceptability of the content and the technology platforms with all users when it is implemented into an existing healthcare structure. The outcomes of this research will inform the design and feasibility testing of a future clustered randomised trial of the intervention for clinical and cost effectiveness.</p>

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Prof Frank Kee	Queens University Belfast	Can Twitter sentiment help us design better mass communication interventions for public health? A feasibility study focussing on skin cancer prevention.	Previous “care in the sun” campaigns have had mixed success but most pre-date the social media (SM) era. Social media-enabled campaigns have the advantage of targeted messaging, at low cost and extensive reach but we know little about what in practice would determine their feasibility. Aim: To test the feasibility of designing, implementing and evaluating a bespoke SM-enabled intervention for skin cancer prevention. Stage 1: To undertake a review of public health guidance and interventions for skin cancer prevention to ascertain effective intervention components. Focus groups with stakeholders (n=3) and users (n=3) will consult on key design and implementation aspects. Following this a co-design workshop will lead to the development of a logic model. Stage 2: To develop, implement and evaluate the feasibility of a SM-enabled campaign using a quasi-experimental, interrupted time series with comparison study. A “cross-over” design permitting 30-days with one message “frame”, an 8-week “washout” period, and a further 30-days of the SM campaign with a different message frame will be used. Social media responses will be tracked in two geographical areas within a subset of tweets (and Facebook posts), one area exposed to the NI “Care in the Sun” campaign, and Wales (which will not receive the specific SM campaign). Stage 3: A final workshop will identify lessons learned about how future SM campaigns and their evaluation might be mounted. Outcomes: (i) changes in reported attitudes and behaviours related to UV exposure and skin cancer obtained from “before” and “after” population surveys (n=1000); (ii) pre and post intervention usage of Twitter, social network topology of Twitter messages, analyses of sentiments expressed within tweets towards the skin cancer prevention SM campaign and patterns of sentiment diffusion across the social network architecture. If deemed feasible, the next stage will be to undertake a Phase II pilot trial.
Prof David Osrin	University College London	Defining the scope, content and measures of effect of a complex intervention for primary and secondary prevention of gender-based violence in India	One third of women worldwide have experienced intimate partner violence (IPV) and/or non-partner sexual violence. In India, 33-60% of women face IPV and gender-based violence (GBV) has recently come to the forefront of policy agendas. In this early phase study, we aim to develop a complex intervention for primary and secondary prevention of GBV in informal settlements of Mumbai. We will build upon an established programme for the prevention of violence against women and children led by the Mumbai-based organisation SNEHA (Society for Nutrition, Education and Health Action). The programme includes community activities involving trained mobilisers, peer activists, groups of men, women and adolescents, and provider activities with counsellors, the police, and legal services. We will develop (1) a theory of change and logic model describing a replicable complex intervention for primary and secondary prevention of GBV, its potential mechanisms of effect and measures of impact, and (2) a feasible design for a cluster randomised controlled trial (cRCT) to test it.
Prof David Ross	London School of Hygiene and Tropical Medicine	Menstrual Hygiene and Safe Male Circumcision Promotion in Ugandan Schools (MENISCUS): Feasibility and preparatory phase for a cluster randomised trial	Menstrual hygiene interventions may improve girls’ school attendance.1-3 A systematic review 4 identified 7 intervention studies of menstrual hygiene education; one also included provision of a menstrual cup. These studies had major methodological limitations, but were generally encouraging. A more recent small Ghanaian study5 reported 10% higher attendance after 5 months both in girls receiving puberty education only and those receiving puberty education plus sanitary pads, relative to controls. Some menstrual hygiene practices (e.g. using leaves and rags) can cause intra-vaginal infections.4 Girls’ school attendance is associated with earning potential, improved maternal and child survival and reduced HIV infection.6 This research in Ugandan schoolgirls will prepare for a cluster-randomised trial (CRT) of the impact of puberty and menstrual hygiene education and of providing sanitary pads on school absenteeism. Male circumcision reduces men’s risk of HIV acquisition,7 yet circumcision prevalence in Uganda remains low (~25%).8

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Dr Sean Semple	University of Aberdeen	Air quality feedback: development and feasibility testing of an intervention to encourage smoke-free homes	<p>The health effects of exposure to second-hand smoke (SHS) are substantial. Smoke-free legislation demonstrated the significant health benefits achievable by reducing SHS exposure. While this eliminated SHS exposure in work and many social settings, for those who live with a smoker SHS exposure has remained high. Most smokers try to protect their children from SHS, but apply strategies that are insufficiently effective. The Reducing Families’ Exposure to Second-hand Smoke and Health (REFRESH) study demonstrated that providing smoking parents with objective information about the effect of their behaviours on their home’s air-quality changed their behaviour and reduced children’s SHS exposure. Barriers to this approach were instrumentation cost and the labour-intensive method of intervention delivery, which involved home-visits to install and retrieve air quality monitoring devices. Recent work has identified an air-quality monitor that is cheap and can be self-installed at home by the user.</p> <p>This study seeks to determine how best to incorporate this new device in a simple package that can be used by NHS and non-NHS smoking intervention workers to encourage parents who smoke to make their home and car smoke-free. The project will involve three work-packages: (1) development of a theoretical framework for an intervention to promote parental self-management of home air quality using the air quality monitor, and identify the optimal way of intervention delivery; (2) work with the manufacturers of the device to refine the instrument to present the data in plots that can be easily interpreted by parents; (3) a feasibility study to evaluate intervention acceptability, likely rates of recruitment and effect size to examine the potential of a future large-scale trial. Throughout the project we will expand our partnership with key stakeholders responsible for the future adoption, delivery and sustainability of the program.</p>
Dr Adam Fletcher	Cardiff University	Safe sex and relationships in FE (SaFE): mixed-method, multi-case study to develop a comprehensive sexual health intervention for FE settings	<p>Aim: To develop the first comprehensive sexual health intervention for Further Education (FE) settings (including general FE and ‘sixth form’ colleges) to promote safe sex and relationships among 16-19 year-olds. Informed by evidence of effective interventions delivered in other contexts, intervention development will focus on understanding how to implement and coordinate the following four components within a single complex intervention that balances the need for standardised inputs, processes and outputs with some flexibility to ensure replicability across diverse FE settings: (1) a student-led action group to lead institutional-level change; (2) sexual health services delivered on site; (3) staff training; and (4) sex and relationships education (SRE).</p> <p>Design: Phased, mixed-method, multi-case study research.</p> <p>Setting: Six FE settings in England and Wales (purposively sampled according to type/size).</p>

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Dr Karen Devries	London School of Hygiene and Tropical Medicine	Adaptation of the Good School Toolkit for reducing violence in secondary schools	<p>Violence against children and adolescents is highly prevalent and associated with numerous negative health and social consequences<sup>1-3</sup>. Our preliminary analyses show that the Good School Toolkit, by Raising Voices, can significantly reduce the levels of physical violence from school staff to Ugandan primary school students aged 11-14; analyses are underway to look at effects on emotional and sexual violence from staff, peers and others. The Toolkit is a complex behavioural intervention which takes a whole-school approach to support students, staff, administration and community members through a series of steps designed to: change school culture to encourage mutual respect; facilitate student participation and leadership; foster critical reflection on power relations and violence; and provide staff with alternatives to corporal punishment and improved teaching techniques<sup>4</sup>. In secondary schools, where students are older and school cultures are different, patterns of physical, sexual and emotional violence will differ and interventions will need to be tailored accordingly. The goal of this proposal is to adapt the Good School Toolkit for use in Ugandan secondary schools. The study will consist of: 1) development of a revised Theory of Change for the Toolkit at secondary schools, and assessment of the need for adaptations and new components, 2) adaptation and development of intervention components, 3) acceptability testing of the revised intervention and an assessment of intervention needs and preferences. The proposed study will be a continuation of an existing partnership between Raising Voices and the research team, and will be steered by an advisory committee including representatives of the target population.</p>
Dr Alan Stein	University of Oxford	A feasibility study of behavioural activation therapy for HIV positive women with depression during the perinatal period in southern Africa	<p>Rates of HIV are very high amongst pregnant women in parts of sub-Saharan Africa (SSA) with, for example rates of over 30% in antenatal clinics in South Africa<sup>1</sup>. Many receive their diagnosis during pregnancy as part of screening to prevent mother-to-child transmission (PMTCT). Depression is very common amongst these women, with up to 40% screening above the threshold for depression<sup>2, 3</sup>. Perinatal depression is associated with poor adherence to antiretroviral treatment (ART)<sup>4, 5</sup>, low clinic attendance, suicidal ideation<sup>6</sup> and low rates of breastfeeding<sup>7</sup>. Of major concern is the evidence of negative effects on fetal outcomes, children's growth and cognitive development<sup>7</sup>. Improving the wellbeing of mothers and infants requires effective treatment of HIV and perinatal depression<sup>8</sup>. Although treatment of depression</p>

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			<p>improves adherence to HIV treatment by &gt;80% 5, there is no established effective treatment for perinatal depression in SSA for mothers with HIV. The aim of this study is to develop and test the feasibility and acceptability of a six-session intervention targeting perinatal depression in HIV-positive women. The intervention will utilise Behavioural Activation (BA), which has been shown to be as effective as Cognitive Behaviour Therapy (CBT) in high-income settings<sup>9</sup>. BA is much simpler than CBT to deliver, especially by non-specialist health workers with limited training in under-resourced settings. This early phase study is needed to develop, standardise and pilot the BA intervention and test its feasibility. The study will provide treatment for 70 pregnant women and follow them to 3 months post-natally. The outcomes of the main study will include: maternal depression, child emotional and cognitive development and growth, adherence to ART, initiation and maintenance of breastfeeding, infant HIV testing and vaccinations. This work will be conducted at the Africa Centre for Health and Population Studies, a large demographic surveillance site in South Africa with a high HIV prevalence.</p>
Prof Tim Rhodes	London School of Hygiene and Tropical Medicine	Developing Community Change Outreach (CCO) in HIV Care For People Who Inject Drugs in Senegal	<p>Our aim is to develop a model of community change outreach (CCO) to support combined HIV prevention and treatment for People Who Inject Drugs (PWID) in Senegal, a country experiencing a fast growing HIV epidemic linked to drug injecting.</p> <p>The injection of drugs like heroin and cocaine is now a major health and social challenge for the West Africa region. Effective harm reduction interventions are largely absent for this population, while access to HIV services is limited. Global evidence supports the combination of HIV prevention and treatment interventions such as needle and syringe programmes, opioid substitution therapy, HIV testing and antiretroviral treatment as effective for this population; linked outreach interventions aim to reach PWID directly in the community to provide these services in situ and foster linkages in to combination care. Outreach with PWID is widely used but there is an absence of evidence regarding its development and implementation in West Africa. There is therefore an urgent need to develop outreach models that are feasible, acceptable, effective and scalable in the West African context.</p> <p>We will work in collaboration between the London School of Hygiene and Tropical Medicine (LSHTM), the Senegalese Alliance Nationale Contre le SIDA (National Alliance to Control AIDS, ANCS) and Universite Cheikh Anta Diop (UCAD) to undertake a sequence of research activities to develop the intervention and design of a future impact evaluation: i) an ethnographic assessment to assess needs and social context; ii) operational research of the emerging intervention, including qualitative interviews and a respondent driven survey of PWID; iii) exploration of the feasibility of methods for a future impact evaluation. The study outputs will be a model of CCO adapted to the aims and context of Senegal, linked with a design for future impact evaluation.</p>