Study title	Public Health Interventions Responsive Studies Team (PHIRST Connect)
Planned study period	60 months (1st September 2025 – 31st August 2030)
Funding aims	To co-deliver up to ten evaluations of public health interventions with local authority/public health agencies and their partners.
Chief Investigator	Professor Katherine Brown, University of Hertfordshire
Co-Chief Investigator	Professor Julia Jones, University of Hertfordshire
Co-Investigators	Dr Gavin Breslin, Queen’s University, Belfast Dr Neil Howlett, University of Hertfordshire Dr Katie Newby, University of Hertfordshire Dr Adam P Wagner, University of East Anglia Mr Nigel Smeeton, University of Hertfordshire Mrs Amander Wellings, University of Hertfordshire
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Contents

1. Signature page 3
2. Full Title of project 4
3. How the team meets the PHIRST criteria 4
4. Business plan approach: how team plans and works to achieve PHIRST goals 9
5. How we consider equality diversity and inclusion (EDI) 10
6. Dissemination, outputs and anticipated impact 11
7. Team management 11
8. Timetable 12
9. Ethics 12
10. Team expertise 12
11. References 13

1. Signature page

Signed on behalf of PHIRST Connect by the Chief Investigator

Name: Professor Katherine Brown

Date: 10th February, 2026

Signature:

2. Full Title of project

Public Health Interventions Responsive Studies Team (PHIRST Connect)

3. How the team meets the PHIRST criteria

PHIRST Connect (funded by NIHR and in operation since 2020) shares the values and ambitions that sit at the heart of the PHIRST scheme. This has enabled us to successfully deliver on the Department of Health & Social Care (DHSC) and the NIHR's vision to transform how public health research happens. We have a strong track record of working in partnership with local authority (LA) and national public health teams, their wider partners, service users and the public to co-produce research which meets their needs, as a PHIRST and beyond. Chief Investigator Prof Katherine Brown (KB), based at the University of Hertfordshire (UH), has spent 20 years working with the public health workforce to improve pragmatic research and evaluation, including eight years embedded part-time at Public Health Warwickshire. Like the NIHR, our team values diverse voices and aims for the highest standards of research rigour, integrity and inclusivity, promoting a healthy research culture, best practice public involvement methods, and open science practices, whilst being committed to supporting career development for all.

PHIRST Connect has to date **delivered robust evaluations across the UK** in partnership with LAs, devolved nation agencies and relevant partners and stakeholders. In our current term as a PHIRST, we have delivered two projects in Scotland, and one in each of Wales and Northern Ireland. Five projects have been based in England. When we formed our PHIRST Connect advisory board in 2020, we included representation from each of the public health agencies from across the UK. Although public health delivery is managed differently in the devolved nations (retained as agencies within the NHS) compared to England, the partnership working approach that most public health initiatives involve, means that our co-production approach to project delivery works with similar effect regardless of the location of a project. Whilst we are willing and able to deliver research in any UK location, we are also mindful of the need to deliver research in the most sustainable way possible and have strong expertise in managing research projects remotely. We typically reserve in-person engagement and data collection for stakeholders, public contributors or participants who are best served by face-to-face contact in the post-pandemic era. Examples include going to Leeds to reflect on findings and developing creative outputs with drug and alcohol service users, engaging older adults with long-term health conditions in data collection in Southampton, and interviewing public mental health service users in Lambeth. Some projects have been run entirely remotely, with great success (e.g. the move to remote delivery models of the Welsh National Exercise Referral scheme and evaluation of modifications to Health Check delivery in Derbyshire).

Through our PHIRST work to date we have demonstrated our ability to **co-produce and successfully deliver evaluations with a range of different stakeholders** in public health. These have included traditional partners such as a third sector provider of drug and alcohol services and their NHS and third sector partners (Leeds COVID DASE), and a local authority in-house team of health and wellbeing practitioners (Derbyshire Health Checks). They have also included less traditional partners in public health delivery and evaluation such as NatureScot in our evaluation of green health prescriptions in three local authorities in Scotland, and the Chambers of Commerce in our evaluation of workplace wellbeing support in Walsall. We also have considerable experience from our wider public health research portfolio of engaging diverse partners in research delivery. Examples include pharmacy and a private provider of digital systems in the NIHR PHR funded StopApp trial[1]; independent sexual violence advisors and police and crime commissioners in an evaluation of sexual assault referral centres in England; game developers for a virtual reality exergame[2] and the PREPARe sex education intervention[3]; the Police Service for Northern Ireland and Irish Football Association in the delivery of the Fresh Start Through Sport programme.

Our PHIRST work has required us to **operate flexibly, simultaneously managing the multiple demands on our team and busy public health collaborators**. We began our work mid COVID pandemic and operated entirely via remote methods for the first 18 months, navigating all the challenges that this brought for public health colleagues. In autumn of 2021, the team were assigned three new projects simultaneously (projects 4, 5 and 6). All three initial projects (1-3) were still in progress, and we were able to run all three evaluability assessments of the new projects in parallel and agree mutually suitable staggered start dates throughout early 2022 to manage our own and LA colleagues' workloads. On our Derbyshire based health checks project we were able to adapt our evaluation plans rapidly as new amendments to health checks were implemented twice after the initial expression of interest was submitted by the LA. We also acted quickly to expand our project 9 when evaluability assessment of assigned project 10 identified it could not go ahead. Where appropriate we have also sought to **upskill collaborators** in our PHIRST work. This has included our own Public Involvement in Research group (PIRg) members at PHIRST Connect and exercise referral professionals as part of the Welsh National Exercise Referral Scheme evaluation. They have been variously trained in conducting systematic reviews, umbrella reviews, focus groups, framework analysis and the realist approach to data analysis. On our current evaluation of the implementation of a whole systems approach to obesity prevention in three early adopter sites in Northern Ireland we are applying the rapid research evaluation and appraisal lab (RREAL) approach, involving the use of RREAL sheets to simultaneously organise, collect and analyse data and rapidly address research questions. This work will provide local authorities in Northern Ireland (and beyond) with a legacy tool that will enable learning to be easily translated to new adopter sites as they also begin the implementation process.

Our PHIRST has expertise in a **broad range of quantitative, qualitative and economic research methods** and data analysis approaches. Table 1 provides details of designs and approaches used on PHIRST work to date alongside delivery timescales – all projects delivered in 24 months or less, with many running in parallel. Table 2 provides examples from our wider research portfolio.

Table 1. PHIRST Connect projects, their methods/analysis approaches and timescales with reference to **high-quality research outputs (see required 3 pages of references in uploads)**

PHIRST Connect project	Research design	Analysis approach	Timescale
1. Leeds COVID DASE (complete)	Mixed methods: Systematic Review[4] Qualitative data collection using digital timelines[5], interviews, focus groups, asynchronous email and text message interviews and creative vignettes with staff and service users[6] Quantitative observational study using data accessed from services (N=8,665)[6] Health Economics analysis[6]	Narrative synthesis and Promise ratios for systematic review[7] Framework analysis for qualitative data[8][9][10] Multiple linear and multivariable logistic regression analysis and runs tests for quantitative data[11]	September 2020-September 2022
2. Welsh NERS (complete)	Mixed methods: Qualitative data collection using focus groups and interviews with staff and service users Quantitative observational study using data accessed from services (N=28,917)	Framework analysis for qualitative data[12] Hierarchical multi-level regression for quantitative data [13] (alongside costings)	February 2021-September 2022

	Health Economic analysis (costing)		
3. Whole Systems Approach (WSA) to diet, healthy weight & obesity Scotland (complete)	Mixed methods[14]: Scoping review of reviews Longitudinal qualitative process evaluation using interviews, focus groups Health economic analysis Whole Systems modelling	Narrative synthesis for Review[15] Thematic analysis for qualitative data[16] Ecological Momentary Analysis with costing Systems Dynamic Modelling (paper in prep)	April 2021-March 2023
4. Walsall workplace wellbeing (complete)	Mixed methods: Telephone and online survey of SMEs (N=103) Qualitative data collection using focus group and interviews with stakeholders, SME employers and employees	Chi-squared and Fisher's exact tests, and multivariable logistic regression for quantitative data[17] Framework analysis for qualitative data[17]	January 2022-June 2023
5. Southampton CoPACT (complete)	Realist Evaluation with health economic context/data [18]	Realist analysis involving development of programme theory[18]	April 2022-June 2023
6. Lambeth Mental Wellbeing (complete)	Realist Evaluation with health economic context/data	Realist analysis involving development of programme theory (paper in preparation)	September 2022 – May 2024
7. Green Health Prescriptions Scotland (complete)	Mixed methods: Qualitative data collection involving interviews with three different staff stakeholder groups and service users from three geographical locations Quantitative pre-post questionnaire data collection Costings analysis	Qualitative inductive and deductive thematic analysis using the APEASE criteria as a framework for deductive coding (paper in preparation) Quantitative data collection was unsuccessful due to poor systems for data capture	October 2022-March 2024
8. Derbyshire Health Checks (live)	Mixed methods[19]: Qualitative data collection via focus groups and interviews with relevant staff and service users. Quasi-experimental quantitative analysis of outcome based on service data (N~12,800). Health economics: comparison of resourcing and costing of health check alternatives	Framework analysis for qualitative data, using inductive and deductive coding, with the APEASE criteria as a framework for deductive coding and interpretation of findings Chi-squared test, estimation of differences between proportions, multivariable logistic regression for quantitative data.	September 2023 – May 2025
9. WSA Northern Ireland (live)	Process evaluation using the Rapid Research Evaluation and Appraisal Lab (RREAL) approach	RREAL sheets which directly address the research questions to capture evidence across 3 time points	January 2024-June 2025 (extended due to project 10 not going ahead)

10. Liverpool smoking cessation opt out referrals from Health Checks	We proposed a non-randomised controlled trial comparing health checks in two localities; one with opt-out referrals and one with standard care Would likely have involved nested qualitative study with staff and service users	Detailed analyses were not planned due to the referral system not being ready in time for PHIRST Connect to conduct the evaluation	N/A – will be assigned to another PHIRST this autumn. With agreement of the NIHR, project 9 extended in lieu of this.

Table 2. Examples of research methods from our wider portfolio with reference to **high quality research outputs (see required 3 pages of references as upload)**

Research methods	Examples of studies using that method
Randomised controlled trial designs	Wrapped[20], StopApp[1], HIS-UK[21], PREPARe[3], VOID[22]
Observational cohort studies, natural experiments, quasi-experimental and pre-post designs	MESARCH[23],Active Herts[24], Respect Yourself[25], HIV self-testing[26], Flu vaccine uptake intervention[27]
Co-production specific projects	PRIDE/Oneself(23)[28], Wrapped[29], StopApp[30], Respect Yourself[31], VR Exergame[2], flu vaccine intervention development[32], MINDS[33]
Health Economic (HE) assessment	DRESSING[34], MSS[35], asset-based approaches to health improvement[36], MINDS[33], FluCare [37]
Systematic and scoping reviews including Cochrane reviews	Psychosocial interventions for rape survivors[38][39], physical activity for bipolar disorder[40], LGBTQ+ wellbeing interventions[41], impact of digital interventions on self-efficacy[42], efficacy of digital interventions for smoking in pregnancy[43], modified dietary fat intake[44], physical activity for prevention[45]
Process evaluations and nested qualitative studies	Active Herts[46], StopApp[1], Wrapped[20], MESARCH[23], Spring Fever[47]

Our **extensive networks** with public health partners are UK-wide and beyond. We understand the operational complexity of the UK workforce, having collaborated with many of the major organisational units and/or engaged them in knowledge mobilisation (KM) of our work. These include colleagues at the UK Health Security Agency (UKHSA), the Office for Health Improvement and Disparities (OHID; London and English regions), Public Health Wales, Public Health Scotland and the NI Public Health Agency. Examples of our engagement with these national and regional agencies on PHIRST include presenting to the UKHSA on our Welsh National Exercise and Southampton CoPACT projects, and meeting and sharing presentations on data around drug and alcohol services and outcomes during the COVID-19 pandemic with the substance use team at national level at OHID. We are currently collaborating with the NI Public Health Agency on our Whole Systems Approach (WSA) to prevention of obesity project and co-I Breslin and former co-CI Wills collaborated with them, drawing on data from our WSA Scotland project to support their plans for setting up a WSA to obesity. In our current work on knowledge mobilisation (see also below), we have reached out to the regional OHID leads group for weight management and have been invited to present our evidence on the state of the science on WSAs for obesity to date. We have similarly reached out to our Public Health Wales colleagues working on WSA to obesity and have arranged to meet with them to discuss evidence, challenges and implementation on 1st October.

NIHR169819 PHR PHIRST Connect – Protocol for funder page

We have collaborated with the Association of Directors of Public Health (ADPH), the Local Government Association (LGA), Faculty of Public Health (FPH), Health Education England (HEE), the European Centre for Disease Prevention and Control (ECDPC) and the World Health Organization (WHO). For example, KB (CI) and NH (Co-I) worked with the ADPH, LGA, FPH, HEE and a range of other academics, public health professionals and representative bodies, on the Public Health England Behavioural and Social Science Strategy, and remain part of a working group that supports action aligned with the strategy at a national level. KB is currently working with the LGA and the Behavioural Science and Public Health Network (BSPHN) on the development of an impact framework and associated tool for behavioural scientists working in public health, with support from OHID. The purpose is to support Behavioural Scientists working in a public health context to plan for and demonstrate the value of and benefits from their contributions to public health work. KN provided support to the WHO and the ECDPC over several years in their development and testing of sexual health interventions.

We have links with many national/regional academic networks including; the £9m NIHR East of England Applied Research Collaboration (ARC) (via co-I Wagner (Theme lead for Health Economics) and Prof Wendy Wills, (former co-CI of PHIRST Connect and now ARC director and Pro VC for Research at UH); the PHIRST network itself; our local School for Public Health Research, based at University of Cambridge and associated East of England Population Health Research Hub (PHRESH) network and regional academic network. UH helps lead our Hertfordshire and West Essex Integrated Care Partnership (ICP). UEA gives us access to their medical school expertise and their CTU. In NI we are supported through Queen's University Innovation IREACH Centre (£62m), as part of the Belfast Region City Deal. iREACH is a partnership between Queens and Belfast Health and Social Care Research and Development Division to support better population health outcomes. Team members are registered with several professional bodies and networks including the British Psychological Society and its Division of Health Psychology and Sport and Exercise Psychology; the Behavioural Science and Public Health Network; the UK Society of Behavioural Medicine; European Health Psychology Society and the Royal Statistical Society.

As already indicated from examples of engagement with our network of public health knowledge users and brokers above, **knowledge mobilisation (KM)** is central to our work as a PHIRST and in our wider research portfolio. Within PHIRST Connect, we work with policy, practice and public partners in our project steering groups to identify who will be interested in the answers to the research questions we are posing, and then plan how best to translate knowledge for those groups. We draw on our extensive networks (described above) to solicit invitations to relevant events and seminar programmes to amplify the reach of our dissemination and impact. Recent examples include the English Substance Use Commissioners' Group meeting, the Welsh Digital Services for Patients and the Public annual conference, UK Congress on Obesity and the UKHSA Behavioural Science seminar series. In November of this year, we are sharing PHIRST findings at the Centre for Population Health conference in order to engage new population health leadership audiences. We are also currently working on a programme of engagement with knowledge brokers and users for our work on WSA to obesity/exercise referral and health champion/community engagement funded in part by an Economic and Social Research Council impact (ESRC) accelerator account award. UH holds the account and we applied for funding from it for PHIRST Connect. It is likely that a re-commissioned PHIRST Connect would be able to access additional funds for KM via this account in future. We have a KM lead who is responsible for cross-PHIRST best practice sharing and for driving action across our portfolio. Examples of impactful KM outcomes for PHIRST include being cited in DHSC guidance on remote delivery of drug and alcohol services, our WSA Scotland project findings being used to drive planning for a roll out of a similar WSA in NI and the Republic of Ireland, and our publications being recommended to the government inquiry on food, diet and obesity following former co-CI Prof Wendy Wills giving oral evidence to committee on the 14th March 2024. Our findings were also applied in a decision to de-commission a Workplace wellbeing programme and to enhance outreach visits for drug and alcohol

services for users including sex workers in Leeds. Within the final year of our current funding, we will also work closely with the coordinator of UH's new 'Public Health @Herts' initiative, also funded by the ESRC impact accelerator account, to further communicate PHIRST research evidence to public health decision makers at a national and international level.

Meaningful public involvement throughout the research process is integral to PHIRST Connect's approach and has been since our original application was made in 2020. Our eight-strong Public Involvement in Research group (PIRg) are supported by JJ who is an expert in public involvement in health research and our public co-applicant AW. See team expertise section 9 for more information about their expertise. We induct all new members using NIHR approved documents and follow the NIHR standards of public involvement, including feeding back how public contributions have helped shape and change practice[48]. Our PIRg actively participate in all phases of research. Two members typically join each project team and contribute as genuine partners from initial project planning and obtaining approvals, to project execution, data analysis, dissemination activities (including collaborative authorship of outputs [15] [18]), and Knowledge Mobilisation (KM). They attend project delivery meetings and assist in involving local public contributors. Our PIRg members have received training in qualitative data analysis methods such as the Framework and Realist approaches to facilitate their involvement in data interpretation alongside us. They have also been equipped to assist with quantitative data analysis tasks, such as managing 'don't know' responses and identifying 'straight-lining' patterns in questionnaire responses. Furthermore, PIRg members have undergone training in evidence synthesis and have contributed to systematic reviews. Collaboratively, we work on developing project outputs, with a specific focus on Knowledge Mobilisation initiatives. In 2022, we underwent diversity and accessibility training to enhance our consideration of diverse audience needs in accessing project outcomes. Leveraging the expertise of our public co-Investigator, we explore innovative data collection methods and use creativity as a means for service user groups to express their insights (e.g. through activities like a photo voice competition, providing visual representations for final reports, and poetry contributions). Local public contributors with relevant lived experience also contribute to projects where appropriate, with support from AW and JJ. We also have a strong portfolio of wider public health research where co-production with lay contributors drives the research (see examples in table 2 above).

4. Business plan approach: how team plans and works to achieve PHIRST goals

Figure 1 (below) illustrates the project delivery approach we take. We form a *Project Team* and work with the LA and partners to develop a logic model (see example of a project logic model as a required upload), identify the research questions they would like answered, and an outline plan of possible methods. Next, we engage with any other local partners identified as relevant during our initial meeting, our PIRg, our *PHIRST Connect Advisory Board (AB)* and any other relevant expertise (e.g. if the LA is part of a Health Determinant Research Collaboration HDRC), to co-produce our evaluability assessment. This develops iteratively, revising the project plan until consensus around the best approach is reached. We carefully assess the resources that we think will be required to deliver the research, including what capacity the LA has, to engage with us and support the work. Following NIHR approval of our evaluability report, and as we move into detailed project planning, we invite at least two PIRg members to join the project team seek input from local members of the public or service users, ideally with relevant lived experience for the topic of investigation. We build a detailed project protocol and ensure all project partners contribute to and approve this and gain relevant ethics approvals. We register the study and publish the protocol once approved by NIHR. During project delivery we build our KM plans including consideration of which stakeholders will be most interested in outcomes of our work. We regularly consult the Project Steering Committee (PSC), PHIRST Connect AB and our wider PIRg throughout project delivery. As findings emerge, we share these

with project partners (sense-checking with service users where appropriate), working with them to draw conclusions and build recommendations. We prioritise outputs for local partners (see KM section above). After project delivery we continue to engage with the direct knowledge users at the LA and their partners to maximise use of our findings. We aim to reach out at 6-monthly intervals to track impact using our tracker template. Given LA/partner staff turnover this is also useful for engaging new potential knowledge users and making them aware of the research and the findings at the LA and partner level.

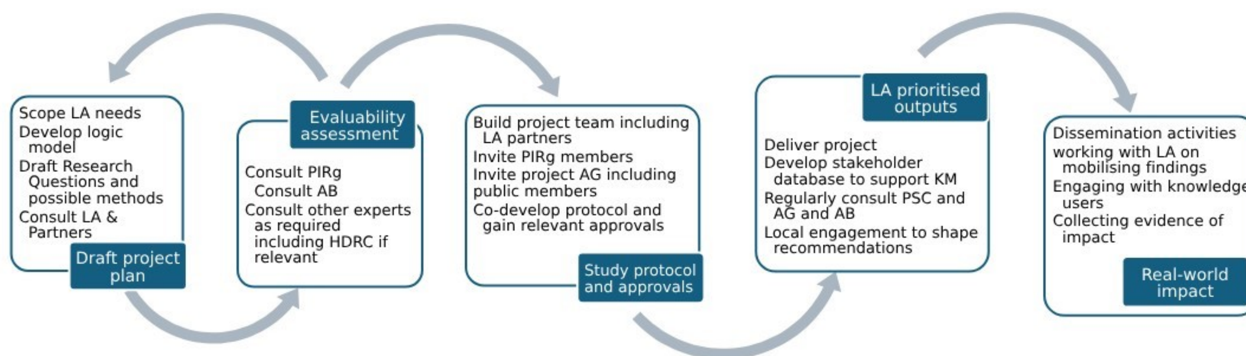

Figure 1. How PHIRST Connect works

5. How we consider equality diversity and inclusion (EDI)

Our approach to EDI starts with our research team. We are diverse in terms of gender identity, sexuality, ethnicity, neurodiversity, disability and experience of mental health and long-term conditions. Our PIRg are also diverse, and our research culture means that everyone feels equally able to contribute, able to draw on our lived experiences as well as our expertise, secure that we will be treated with dignity and respect. We have invested in training on equality, diversity and inclusion for the whole team, and regularly have discussions on issues that have emerged in our practice at our team management meetings (scheduled once a fortnight). We aim to design all research studies so that as wide a range of voices are included as possible. We make specific efforts to reach and include people whose voices are commonly underheard in research (e.g. we interviewed two people with disclosed serious mental health diagnoses as part of Green Health Prescription evaluation in Scotland), and are actively considering at the moment how we might make more use of creative research methods as part of our approach to data collection to support this agenda. We have for example previously used timelining, vignette creation and asynchronous email and text message interview approaches to reach those who may be less able to engage in a standard focus group or interview. We are aware that typical data collection methods can feel intimidating for some people, and even when they are able to engage, may not feel fully able to give the level of detail that they could. We have noted that using art-based or creative approaches in sharing initial findings and output development sessions often helps people to feel more comfortable and relaxed and could be beneficial for data gathering in future studies, to get the richest possible data.

As a team we are willing to adapt and be flexible wherever possible to meet different stakeholder or participant needs. We have an active safeguarding policy, which we keep under review, and as part of that have defined the need to offer those who are interested in participating in research or engaging as a stakeholder the opportunity to share a need relating to diversity or difference so that we can adapt our practice to better meet that need. Where participants and stakeholders are willing to share demographic information about themselves, we monitor the diversity of recruitment or engagement and take action to broaden representation when necessary. We typically employ a maximum variation sampling[49] approach in qualitative data collection so that the broadest range of relevant service user experiences, and population characteristics are included. We note with interest the forthcoming inclusive research design policy at NIHR and will ensure we keep abreast of developments on this to inform our practice.

6. Dissemination, outputs and anticipated impact

PHIRST Connect led the way as one of the original four PHIRSTs in defining the approach that should be taken to dissemination, production of outputs and planning for and delivering on impact. This involved lobbying for a PHIRST website, social media accounts, naming conventions for the different teams and identifying inexpensive desktop design software that could be used to create appropriately branded and attractively designed outputs co-produced with LAs and their partners. We prioritise creating a range of outputs that are most useful to the project partners. Examples include briefing reports, infographics/narrated infographics, top tips for policy and practice, presentations, easy-read briefings, and exactly what is produced is decided on a per project basis with the relevant partners. We also produce at least one peer-reviewed journal article per project (see table 1 for links to these). On some projects we have also generated creative outputs in relation to project findings including poetry and photography from public contributors, staff or service users involved in evaluations, and used them to LA illustrate outputs.

The production of outputs and the dissemination of these is of course only the start of a potential impact journey. We typically find few, if any, obstacles to impact generation at the local level since relevant LA colleagues and their partners invited the research to take place and they get instant access to the findings as they emerge from the analysis. Impact beyond the local level requires additional work and we have described above our track record in, and activities aimed at mobilising the knowledge we generate to a wider audience of public health knowledge brokers and users. This work is ongoing and with additional support from our ESRC impact accelerator account has involved building on our stakeholder maps for each project, considering the connections between the portfolio of complete and ongoing projects to engage relevant stakeholders efficiently, reaching out to key contacts within knowledge broker or user organisations, and engaging with them in whatever way is of most use to them. This helps us to better package our findings and key messages for their use and helps us design future studies that take an even better account of their needs. Together with them we are identifying useful opportunities for knowledge translation which informs changes to public health policy and practice and are recording evidence of this as we progress. The ultimate aim is improvements in health and wellbeing and reductions in health inequality.

7. Team management

Chief Investigators, Co-Investigators (including those at collaborator institutions) and researchers meet as a *PHIRST Management Team* fortnightly to discuss active project delivery matters, and wider team management issues and make decisions. *Project teams* (led by a Co-Investigator or member of senior research staff, supported by senior research assistants, one of the Chief Investigators, and 2+ PIRg members) hold meetings weekly or fortnightly throughout project duration. *Project Steering Committees* (made up of the Project Team and the LA partners) meet monthly for trouble shooting and project updates. We draw on UH structures for research governance including data protection support and compliance, and ethics and research integrity, and use standard operating procedures from the Clinical Trials Support Network (CTSN) where relevant. We have PHIRST-specific guidance on risk assessment, safeguarding and lone-working. Training needs are regularly reviewed, including for public contributors. Our *PHIRST Connect Advisory Board* (comprised of Senior Public Health academics, representatives of devolved public health agencies and English public health departments and our own PIRg members) meets every four months to provide scientific oversight for all operations. The PIRg meet monthly, chaired by AW with support from JJ/senior researchers, to provide constructive feedback on progress. They keep abreast of developments within the field of public involvement in research and ensure the team's work is informed by current best practice. We will invite existing advisory board and PIRg to contribute to the next term (building on their useful skills) and recruit additional members if needed (mindful of diverse representation, where feasible). Ideally, we would like some new members to balance experienced perspectives with new voices.

8. Timetable

Approximate project level timetable (M=month)

M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18
Evaluability		Protocol & ethics		Recruitment and data collection					Data analysis and sense checking						Reporting		

NB. Project steering committees are every 4-6 weeks throughout; internal team meetings weekly or fortnightly throughout.

NIHR would normally expect 10 evaluations to be completed during the contract, but this must be feasible within the funding envelope. Eight projects is more realistic given contract value at the time of writing.

9. Ethics

All projects require ethics approval from the UH Health, Science, Engineering and Technology ethics committee with delegated authority. An ethics form is completed and all proposed project materials including the draft protocol are appended. Submissions are normally reviewed within ten working days. After approval any amendments to the approved protocol are also submitted and approved before enacting the change. The need for NHS research ethics and associated approvals has not been necessary to date as all research takes place outside of the NHS. The team are experienced in obtaining National Research Ethics via NRES however and could do so should the need arise.

10. Team expertise

Chief Investigator (KB) is Professor of Behaviour Change in Health at UH. She is registered as a Health Psychologist with the Health and Care Professions Council (HCPC) and has more than 20 years' experience of developing and evaluating public health interventions targeted at a wide range of public health priorities including but not limited to obesity, sexual health, smoking cessation, infant feeding, public mental health, health professional behaviour and gender-based violence. She has expertise in co-production and involving end-users and stakeholders in research and applications of digital health. She has successfully led PHIRST Connect since August 2020. She takes responsibility for leading all work across the team in collaboration with JJ. KB and JJ share responsibility for supporting project leads on delivery. KB will support project leads to deliver six PHIRST projects.

Co-Chief Investigator (JJ) is Professor of Public Involvement in Health Research at UH. She is a Health Geographer by background with expertise in mental health and public involvement in health research. She brings expertise in both qualitative and mixed methods and shares responsibility for delivery of all PHIRST work with KB. Jones is responsible for leading all public involvement aspects of the PHIRST portfolio alongside AW and will support project leads to deliver four PHIRST projects.

Public Co-Investigator (AW) has 20 years' experience working as a public contributor on health research having been a founding member of the patient and public involvement in research group in Norfolk in 2004. She was an advisor to NIHR INVOLVE, has sat on RfPB and policy research programmes in a public contributor capacity and consulted for the NIHR centre for Engagement and Dissemination. She is an ambassador for the Health Research Authority 'Make it Public' campaign and has lifelong experience of being a family carer and health service user. She has lived experience of several health conditions and is neurodiverse. She leads our creative methods activities.

Co-Investigator (KN) is Associate Professor of Health Behaviour Change. She has 20 years' experience in the development and evaluation of public health interventions, particularly in sexual health, physical activity and vaccination uptake. Digital health interventions are a particular area of expertise as is coproduction with stakeholders and end users. Newby will be responsible for project leadership of one PHIRST project and will support other team members on delivery.

Co-Investigator (NH) is Reader in Behaviour Change in Health and is an expert in the development and evaluation of real-world public health services and interventions. He will be responsible for project leadership of two PHIRST projects and will support other team members on delivery.

Co-Investigator (GB) is Senior Lecturer in Sport and Exercise Psychology with expertise in mental health and behaviour change research. He has over 20 years research experience and will be responsible for project leadership of one PHIRST project and will support delivery of at least one other project (particularly if based in Northern Ireland where he is located).

Co-Investigator (NS) is a Social Statistician based in the Centre for Research in Public Health and Community Care at UH. His background is in medical statistics, with a focus on the epidemiology of psychiatric disorders, asthma, and stroke. He is responsible for planning and running statistical analyses on all projects that involve quantitative data.

Co-Investigator (APW) is a Health Economist based at Norwich Medical School at the University of East Anglia. He focuses on economic evaluation, both within clinical trials (working as part of the Norwich Clinical Trials Unit) and in applied settings such as with the NIHR ARC East of England (leading the Health Economics and Prioritisation theme). He is responsible, with support from a Senior Research Associate who he supervises, for all health economic components of PHIRST studies.

NL (Senior Research Fellow employed by PHIRST) is a researcher and evaluator with more than 25 years' research experience in academic and consultancy roles. In this time, he has successfully led more than 50 research and evaluation projects, many in partnership with LA colleagues. He has been employed by Connect since October 2020 and led three projects. He will be responsible for project leadership of three PHIRST projects on any new contract, alongside providing research support on others.

LL (Research Fellow employed by PHIRST) is a researcher with over 15 years' experience in health research, including both public health and health policy in academic and third-sector roles. Joining PHIRST Connect in December 2023, she is currently co-leading one 'live' project and will be responsible for project leadership of three PHIRST projects as well as providing research support on others.

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