

Areas of Research and Evaluation Interest 2024				
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Approval/Scrutiny route:		Via BET		
Purpose				
The purpose of the paper is to provide an overview of the Areas of Research and Evaluation Interest.				
Recommendation:				
APPROVE <input type="checkbox"/>	CONSIDER <input checked="" type="checkbox"/>	RECOMMEND <input type="checkbox"/>	ADOPT <input type="checkbox"/>	ASSURANCE <input type="checkbox"/>
The Committee is asked to: <ul style="list-style-type: none"> • Consider the paper and provide further comments on the Areas of Research Interest • Note that BET will finalise the areas of research interest following further discussion early in the New Year and publish the document. 				
Link to Public Health Wales Strategic Plan Public Health Wales has an agreed strategic plan, which has identified seven strategic priorities and well-being objectives. This report contributes to the following:				
Strategic Priority/Well-being Objective		All Strategic Priorities/Well-being Objectives		
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Summary impact analysis				

Equality and Health Impact Assessment	No Equality and Health Impact Assessment has been undertaken as a decision is not required by the Committee.
Risk and Assurance	Not identified as a risk on the Corporate Risk Register or Board Assurance Framework.
Health and Care Standards	This report supports and/or takes into account the Health and Care Standards for NHS Wales Quality Themes
	Choose an item.
	Choose an item.
	Choose an item.
Financial implications	None
People implications	The process applies to all staff undertaking research.

1. Purpose / situation

Following the KRIC meeting in September, we went back to each divisional Research and Evaluation (R&E) lead through the R&E Oversight Group to further develop the priorities for their area.

The Areas of Research and Evaluation Interest document was presented at the November (22nd) meeting of the Business Executive Team (BET).

Following BET, amendments have been made and there will be further work to ensure cross-directorate input into the research questions before approval at BET in the New Year before publication.

2. Description/Assessment

Areas of Research and Evaluation Interest for Public Health Wales

As part of the implementation of the R&E Strategy we set out a commitment to identify areas of R&E interest for population health. The aim of the **Areas of Research and Evaluation Interest for Public Health Wales (2024)** publication ([Appendix 1](#)) is to provide an insight into our R&E priorities, enabling the wider research community to engage and target their research to have maximum impact.

As our R&E requirements are extensive and will evolve, **this is not an exhaustive list of our needs**, but is intended to open conversations with partners to facilitate collaboration. We are keen to discuss and engage with stakeholders to draw on strengths and expertise across sectors and organisations to address these priority questions.

To develop the priorities we have:

- Engaged the James Lind Alliance to undertake prioritisation exercise with external stakeholders.
- Engaged internally with long-term strategy leads and held workshops with Public Health Wales staff and the Public Health Wales Executive team to identify areas for evaluation and key research gaps.
- Tasked each divisional Research and Evaluation lead through the Research and Evaluation Oversight Group to further develop the priorities for their area.
- Attended divisional level SLT meetings to further refine and prioritise research questions.

The Areas of Research and Evaluation Interest will be hosted on the Public Health Wales website in HTML and will be updated on an annual basis to ensure emerging and changing research gaps are identified.

4. Recommendation

The Committee is asked to:

- **Consider** the paper and provide further comments on the Areas of Research Interest.
- **Note** that BET will finalise the areas of research interest following further discussion early in the New Year and publish the document.

Appendix 1



Areas of Research and Evaluation Interest for Public Health Wales 2024

1. Executive Summary

2. [Introduction](#)

3. [Research and Evaluation Areas of Interest](#)

- 3.1 [Priority 1: Influencing the Wider Determinants of Health](#)
- 3.2 [Priority 2: Promoting Mental and Social Well-being](#)
- 3.3 [Priority 3: Promoting Healthy Behaviours](#)
- 3.4 [Priority 4: Supporting the Development of a Sustainable Health and Care System](#)
- 3.5 [Priority 5: Delivering Excellent Public Health Services](#)
- 3.6 [Priority 6: Tackling the Public Health Effects of Climate Change](#)

4. [Work With Us](#)

1. Executive Summary

This publication sets out Public Health Wales' (PHWs') areas of Research and Evaluation (R&E) interest in relation to our [six long-term strategic priorities](#). In this document we set out the R&E questions we are interested in learning more about. This is to enable researchers, funders and collaborators to understand our priorities and focus their efforts to make the biggest impact. This builds upon the [PHW R&E](#)

[Strategy](#) which describes the way in which we will work to develop R&E within the organisation and in collaboration with partners.

We are keen to discuss and engage with a wide range of stakeholders including researchers and funders to draw on strengths and expertise to address these questions. We can be contacted via the PHW Research and Development Team PHW.Research@wales.nhs.uk who are on hand to identify the domain experts across PHW to start the conversation.

To find out more about the programmes and specialist services PHW deliver, alongside our public health expertise and priorities, please refer to [Our Strategic Plan \(2023-2026\)](#) and to our [Long-term Strategy](#).

Please note, as PHWs R&E requirements are extensive and will evolve, this is not an exhaustive list of all our areas of interest. This publication is intended to open conversations with partners, funders and collaborators. Given that we need to be responsive to **new and emerging threats to health** such as **climate change**, the **cost-of-living crisis**, and **new pathogens**, we are open to research that is outside of the areas outlined below but which may still be relevant to PHW policy or practice.

2. Introduction

2.1 Public Health Wales

We are Public Health Wales (PHW) – the national public health organisation for Wales. Our purpose is ‘working together for a healthier Wales’. We help all people in Wales live longer, healthier lives.

We have a [Long Term Strategy \(2023-35\)](#) which sets out our vision for achieving a healthier future for people in Wales by 2035 through six strategic priorities.

Figure 1: PHW’ six priorities for population health in Wales.



Our [R&E Strategy](#) sets out our **commitment** to applying a systematic approach to identifying key R&E priorities for population health.

This will enable:

- ❖ The **alignment** of external research activity with our priorities.
- ❖ The development of a **more robust evidence base**, to improve public health for all.

- ❖ An **increase in the number and diversity** of research partners that we work with.
- ❖ The **facilitation of partnerships** with funders and research programmes.

2.2 The Purpose of Sharing Our Areas of R&E Interest

To help inform our actions in our six long-term priority areas, PHW relies on good evidence to ensure we are acting where we can make the greatest difference. PHW is part of a wider R&E ecosystem and we work with a wide range of researchers and collaborators across Wales, UK and internationally. We want to continue to strengthen and expand these relationships across an extensive research infrastructure. We also want to work with funders to influence, support and strengthen the population health agenda for people in Wales.

The intended audience of this document include the:

- ✓ **research community** who are well placed to address gaps in our knowledge and understanding,
- ✓ wider **public sector** and the **voluntary sector** to work in common areas of interest,
- ✓ **commercial sector** and **industry partners** who may like to collaborate with us in aligned areas of interest,
- ✓ **research funders** who can invest in research which addresses gaps in evidence needed to inform action,
- ✓ **people in Wales** who are affected by and interested in what we do.

2.3 Development of Areas of R&E Interest

The **Areas of R&E Interest** have been developed and defined through engagement with:

- The James Lind Alliance who undertook a prioritisation exercise with external stakeholders.
- Long-term strategy leads, PHW staff and the PHW Executive Team to identify areas key research and evaluation and gaps.
- Each PHW divisional R&E Lead through the R&E Strategy Oversight Group to further develop the priorities for their area.

These prioritisation and engagement exercises have identified, what we are interested in learning more about and where there are gaps in knowledge. Some of the questions we are interested in span multiple areas - in practice it is natural that elements of our work and interests cut across all six long-term priority areas.

2.4 Why Collaborate With Us

To support partnerships and collaborations with the research community we can potentially offer:

Our Strengths	Our Assets
The knowledge and expertise of our staff.	Specialist microbiology services and reference laboratories.
Links into collaborations with our wide range of partners including academics, practitioners and policy makers; both nationally and internationally.	Pathogen Genomics Unit (PenGU) and sequencing capabilities.
The identification of applied research priorities, programmes and policies for evaluation.	Health surveillance and vaccine uptake data.
Our ability to translate new knowledge to inform policy and practice decisions.	National public health programmes and population-level datasets.
	Population-based national screening programmes.
	Specialist hubs including; the Violence Prevention Unit, Behavioural Insights Unit and the WHO Collaborating Centre.
	A dedicated evaluation team.

As well as the assets outlined above we have a number of cross-cutting and enabling areas helping to deliver work in PHW. These include; behavioural science, international health and data and digital.

We continually invite the national and international research community to actively engage with us - to align your research questions/programmes with the priority areas outlined in this document.

Please note, as PHWs R&E requirements are extensive and will evolve, **this is not an exhaustive list of all our areas of interest**. This publication is intended to open conversations with partners, funders and collaborators. Given that we need to be responsive to **new and emerging threats to health** such as **climate change**, the **cost-of-living crisis**, and **new pathogens**, we are open to research that is outside of the areas outlined below but which may still be relevant to PHW policy or practice.

3. Research and Evaluation Areas of Interest

3.1 Priority 1: Influencing the Wider Determinants of Health

The wider determinants of health refer to a range of social, economic, environmental and cultural factors that influence an individual's health and well-being beyond just their access to healthcare services. These determinants play a crucial role in shaping a person's overall health outcomes and quality of life. Understanding and addressing these determinants is essential for creating healthier communities and populations. Key determinants include: good education and skills; work and health; sufficient money and resources; quality, accessible, affordable housing and well-designed sustainable transport.

Research questions

Good Education and Skills

1. What is the impact of early year's childcare policies on health, wellbeing and health inequalities in Wales?
2. What is the influence of the education attainment gap between different socio-economic groups on health inequalities?

Work and Health

1. To what extent does the working age population of Wales participate in fair work (as defined by the fair work characteristics) by industry sector, business size, geography and demographics?
2. Which industry sectors and their specific practices in Wales have the greatest influence on widening inequalities in health through the provision of fair work e.g. pay, contract types and levels of occupational risk?
3. What is the impact of sickness absence management policies and practices by organisations and line managers in preventing or reducing the length of long-term sickness absences, and in preventing people from leaving employment due to ill health?

Sufficient Money and Resources

1. How does the cost-of-living crisis affect different demographic groups and how do these disparities contribute to differential health outcomes within these populations?
2. How do national, regional and locally introduced interventions designed to respond to the cost-of-living crisis impact on health, well-being and health inequalities?

Quality, Accessible, Affordable Housing

1. What is the quality, availability, affordability and stability of rented accommodation, and how does this impact the health and mental well-being of individuals and different demographic groups?

Built and Natural Environment

1. What are the barriers to implementing healthy planning policy in Wales?

Transport and Travel

1. How does the transport system influence access to healthcare, social interaction, and opportunities in education and employment for individuals living in poverty, and what are the multifaceted impacts on their overall well-being?

Trade and Health

1. How are the anticipated health and well-being disparities resulting from international trade agreements distributed among various demographic groups, particularly children, young adults, migrant and refugee populations, and residents of rural or coastal regions?
2. How effective are the existing methods for involving non-business stakeholders in discussions related to international trade policies within Wales and the UK?

Commercial Determinants of Health

1. What is the influence of commercial determinants of health on an individual's well-being, and what measurable indicators can be employed to assess these impacts at an individual level?
2. What strategies are most effective in influencing the commercial determinants of health?

3.2 Priority 2: Promoting Mental and Social Well-being

Mental and social well-being form the foundations of lifelong health and well-being. Mental well-being when high, can mitigate the impact of the wider determinants on health and conversely, when low can exacerbate their impact. Mental well-being at an individual level is strongly influenced by the social environment in which we live, work, play and learn. The early years of life are central to the development of the foundations for mental well-being; where these conditions are not consistent, long-term harm to individuals may arise as a result of Adverse Childhood Experiences (ACEs).

Research questions

Psychological, behavioural and environmental factors affecting mental health

1. What behavioural factors significantly contribute to positive parenting behaviours, particularly within key population groups, and what role do these determinants play in shaping effective parenting practices?
2. How do life course transitions influence mental and social well-being, and what specific impacts are associated with these transitions?
3. What factors act as barriers and facilitators for cultivating individual agency in manners that positively impact both mental and physical health and overall well-being?
4. How do social, economic, and commercial factors contribute to adverse childhood experiences and violence across different life stages, and how can these be mitigated?
5. What impact has the Welsh ban on child physical punishment had on parenting attitudes and behaviours and on child well-being in Wales?
6. What enduring effects have resulted from the COVID-19 pandemic on mental health and well-being, particularly among young individuals?

The role of Social Capital

1. What is the current status of social and human capital, which elements exert the most impact on health, well-being, and equity and how might these evolve in the future within Wales?
2. Which interventions or policies are demonstrated to effectively cultivate social and human capital in ways that yield positive outcomes for health, well-being, and equity?
3. What lessons can be drawn from the experiences during the COVID-19 pandemic and cost-of-living crises that shed light on the barriers and catalysts for nurturing social capital within communities?

3.3 Priority 3: Promoting healthy behaviours

People's health-related behaviours are influenced by a range of factors including their social, economic and physical environment and their mental well-being. PHW has a key role to play in relating to coordinating system-wide research in this area. We also have a role in evaluating policies or programmes for their impact on promoting health behaviours. There is a need across the whole of the population health system to routinely collect robust data and enable data linkage to monitor the impact of health interventions which promote healthy behaviours.

Research questions

Smoking and vaping

1. What strategies (including marketing, branding, product innovation and pricing) is the vaping industry using to promote the uptake of vaping in Wales and the UK?
2. What is the relationship between smoking and vaping initiation, cessation and relapse and how does this vary by age, gender and social factors?

3. What behavioural interventions are most likely to be effective for those who both vape and smoke and who wish to (a) quit smoking only (b) quit both?

Diet and obesity

1. What effects are associated with the consumption of takeaway and delivery food on dietary patterns and the prevalence of obesity?
2. Is poor oral health in early childhood/adolescence a predictor of obesity in adulthood?

Physical activity

1. What school-based approaches/interventions are effective in enhancing and sustaining physical activity behaviours in children, particularly tackling health inequalities (by social-economic status, sex, ethnicity, rural/urban, age, and disability)?
2. How do environmental interventions (e.g. school streets, 20mph speed limits) influence behaviour change in active travel?
3. How can we most effectively quantify population-level physical activity, for purposes of surveillance, monitoring, planning, and evaluating initiatives?

Gambling

1. What is the impact of different treatment outcomes for gambling and what is effective across different populations?
2. What interventions have demonstrated effectiveness in preventing young people from engaging in gambling activities?

Drugs and Alcohol

1. What changes have occurred in the behaviours of young people regarding alcohol consumption, drug usage, and nightlife activities as a response to COVID-19?

3.4 Priority 4: Supporting the Development of a Sustainable Health and Care System

PHW has a national role, working in partnership with NHS Wales and communities to co-ordinate public health activities. Research and evaluation are important in this area to provide sustainable models of healthcare to reduce the burden on the health system and help people to live healthier lives. There is also a need to improve data quality and data sharing in this area including on inequalities and protected characteristics.

Research questions

Access to Healthcare Services

1. How does the accessibility of healthcare services, such as General Practice, influence processes of diagnosis, treatment, and workforce considerations?
2. What is the cost effectiveness of secondary prevention provided through primary and secondary healthcare settings?
3. How does ill health and sickness absence among the NHS workforce impact on the availability and cost of NHS services?
4. What factors contribute to the delayed seeking of emergency care in areas of high levels of deprivation?

Prevention and Early Intervention Strategies

1. What strategies are effective in prevention and early intervention to deter individuals from entering primary and secondary care?
2. What pre-habilitation interventions have proven effectiveness for adults on elective surgical waiting lists, and what specific features or components are crucial to the success of these interventions?
3. How does the burden of obesity affect the utilisation of primary and secondary health services and the provision of care?

Role of the NHS as an Anchor Institution

1. To what extent do procurement practices of NHS organisations in Wales result in health and wellbeing benefits (including employment) in the local population?
2. What policies are successful in the NHS to reduce its environmental impact?

3.5 Priority 5: Delivering Excellent Public Health Services

PHW deliver, monitor and evaluate seven national population-based screening programmes and coordinate the all-Wales managed clinical network for antenatal screening.

Infection Services in PHW cover all aspects of infections and infectious diseases including: Fungal disease, Cryptosporidium, Antimicrobial resistance and stewardship, Anaerobic infections (e.g. Clostridium difficile (C.diff)), Respiratory infections, Molecular diagnostics, Genomics, Toxoplasma and Blood-borne viruses.

PHW responds to communicable disease challenges in Wales by providing services including; Communicable Disease Surveillance Centre, Vaccine and Preventable Disease Programme and Environmental public health services. Health protection aims to eliminate significant public health problems in Wales including Hepatitis B, Hepatitis C, HIV and Tuberculosis and employs methods such as record linkage and infectious disease modelling.

Research questions

Improving Uptake of Screening Services and Reducing Inequity in Uptake

1. What outcomes arise from the exploration of innovative screening approaches, such as self-sampling, within cervical screening programmes?

2. What tailored interventions can be developed using behavioural science to effectively address persistent or non-attenders in screening initiatives

Improving Screening Through Use of New Technology

1. What are the impacts and outcomes of incorporating artificial intelligence into breast screening and diabetic eye screening processes?

Screening and Genetic Links

1. How do individuals with a recognised genetic predisposition to cancer engage in screening behaviours, and what implications does this behaviour have on health inequalities?
2. What are the ethical considerations, acceptability, and feasibility of implementing population screening for genetic conditions?

Infection Services

1. What are the effective interventions for achieving the elimination of blood borne viruses?
2. What factors serve as drivers for fungal disease and what role do antifungals play in managing these diseases?
3. What are the plausible transmission routes for the strains of *Clostridium difficile* (C.diff) infection observed post-COVID-19? Are these routes connected to food, laundry, staff, ambulances, a combination of factors, or yet-to-be-identified cryptic routes?
4. Can a correlation be established between reductions in antimicrobial usage and reductions in specific resistances?
5. How can food testing methods be developed specifically for gastrointestinal protozoan parasites, with a focus on parasites like *Cryptosporidium*?

Communicable Disease and Environmental Hazards

1. What are the key social determinants that contribute to the prevalence and spread of communicable diseases in settings such as schools, care homes and prisons?
2. What are the health impacts associated with poor outdoor air quality, and how effective are interventions, such as the implementation of 20 mph zones, in mitigating these health risks?

Vaccine Uptake and Effectiveness

1. What specific interventions are required to achieve a noticeable population-level improvement in the vaccination rates for specific diseases?
2. What targeted interventions are needed to address and mitigate vaccine hesitancy effectively?

One Health Approaches - The interaction between the health and wellbeing of people, animals and the environment

1. What specific interventions are essential for effectively managing pandemics that involve both human and animal components?
2. What comprehensive systems are required to enhance the monitoring of disease-causing organisms across Wales, and how are these systems connected to geographical factors and health inequalities?

3.6 Priority 6: Tackling the public health effects of climate change

Climate change is recognised as the most significant public health threat of the century, endangering physical health, mental health and well-being. The impacts of climate change are multi-faceted, impacting the social and environmental determinants of health. As climate change impacts on different areas of life and on health inequalities, research and evaluation priorities in this area will emerge and change over time.

Research questions

Protection, Promotion and Education Around Climate Change

1. What role does public health play in the context of climate change mitigation and adaptation, and where does it have the most significant impact?
2. What forms of messages and communication techniques are the most efficacious for conveying environmental risk to communities confronting such risks?
3. How might climate change influence the prevalence of infectious diseases in Wales, and what measures might be necessary to address emerging threats?

Responding and Facilitating Action on Climate Change

1. What strategies prove most effective in motivating and engaging communities to actively participate in climate change mitigation and adaptation efforts?

2. What proven strategies exist for mitigating the immediate, medium-term, and long-term consequences of flooding and other extreme weather events on the mental health and well-being of affected populations?
3. How does social capital and community action contribute to the effectiveness of responses to climate change adaptation and mitigation?
4. What public health measures are necessary to offer support to communities confronted with displacement or adaptation due to imminent flooding threats?
5. Which interventions are essential to prepare homes for future challenges and to adapt them in ways that ensure health and well-being?

Monitoring and Evaluating Climate Change

1. What disparities exist between urban and rural areas concerning their capacity to adapt to climate change impacts, including housing modifications and the enhancement of energy efficiency in cold homes?
2. How do the health service demands change as a consequence of climate change, encompassing areas such as mental health services, respiratory health, and unplanned care?
3. To what extent do public services function as anchor institutions in the context of climate change, and what repercussions arise from NHS interventions for promoting green health?

4. Work with us

We welcome engagement from across the research and evaluation community, in Wales, the UK and beyond. We would like to discuss opportunities to work together on the interests set out here, or other areas *that are outside of the areas outlined above*. This extends to funders, academic institutions, the third sector, public sector and industry researchers to enable us to draw on strengths and expertise across sectors and organisations to address these questions.

We can be contacted via the PHW Research and Development Team PHW.Research@wales.nhs.uk who are on hand to identify the domain experts across PHW to start a conversation.