

Public Health Wales Research and Evaluation Strategic Priority Areas

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Inputs used to develop the strategy and priorities

- Building on existing strategy that focused on skills and development
- User research with 220 users on our research and evidence products
- James Lind Foundation work with stakeholders on research priorities
- Research mapping of current activity
- Discussions at BET, KRIC and with individual/Directorate teams
- Discussions with Long-term strategy theme leads and groups
- Assessment of IMTP

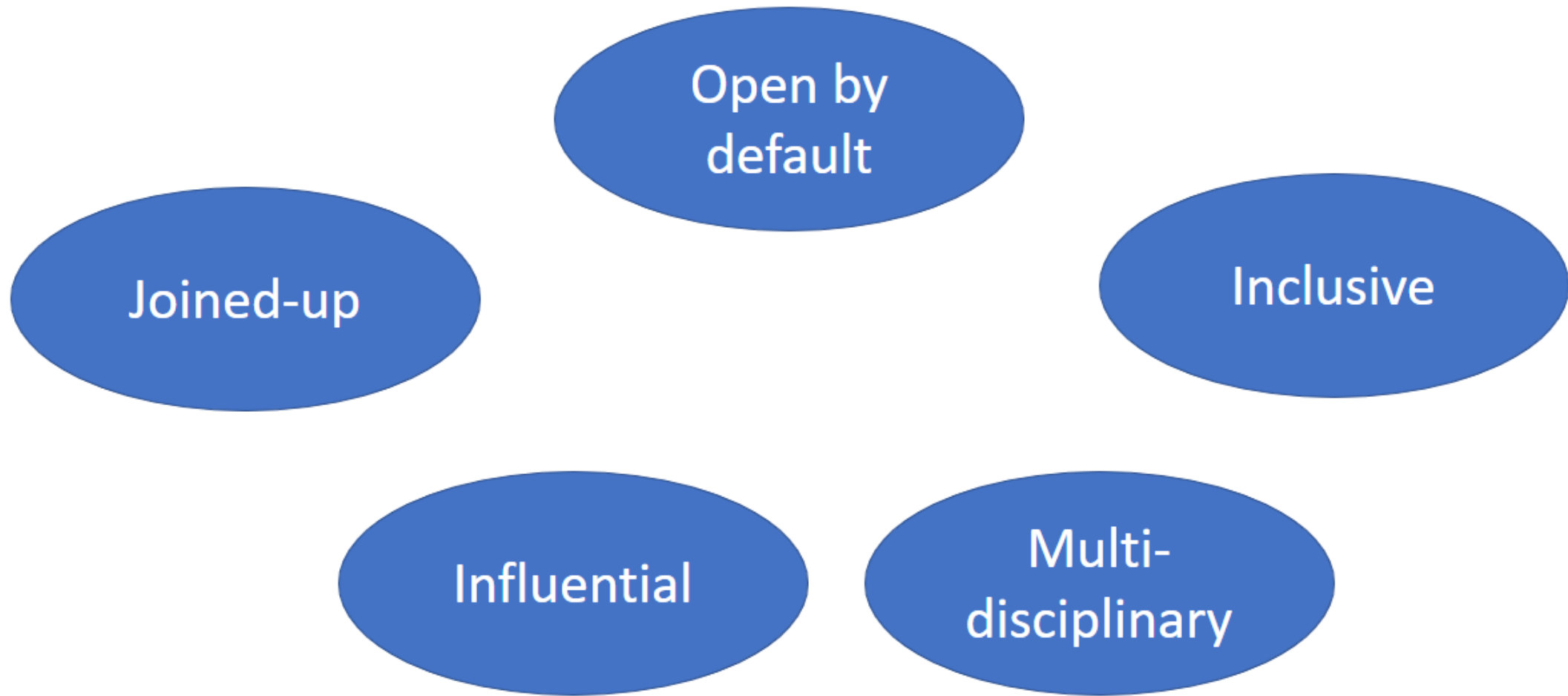
Research and Evaluation

Research	Research is the attempt to derive generalisable (i.e. of value to others in a similar situation) new knowledge by addressing a clearly defined question/hypothesis with systematic and rigorous methods, which are fit for purpose. This covers a broad definition of research, including e.g. qualitative and quantitative research, observational, epidemiological and experimental studies.
	We undertake some primary research - gathering new data to address areas where there are identified public health research gaps. Secondary research – we use a wealth of existing population-level data to understand the health needs of populations to address epidemiological, public health research, policy and practice questions.
Evaluation	Evaluation is a systematic assessment of the design, implementation and outcomes of an intervention/policy/programme to understand what works, how, why and for whom. We want to provide independent, high-quality, robust, relevant and timely evidence at the process, outcome and impact level.

“Why value / do research?”

- Core function of public health and drives improved health and well being for the people of Wales
- Evaluate and conduct research is a defined function of Public health Wales outlined in [legislation](#)
- Core function of [IANPHI](#) "Public health Institute" - and highlighted in IANPHI review of PHW 2019(?)
- “Evaluation and analysis of health status; Public health research”
- Learning and developing organisation – research => better care, better recruitment and retention, Transforming public health
- Eg here with focus on “health care” settings [NIHR](#); or [Academy of Med Sciences](#) (innovation report Jan 2020)

Our strategic Research and evaluation principles



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Open by default

- Open about our priorities
- Develop and share areas of research interest within and external to PHW
- Publish outputs targeted to user needs
- Be clear about what we are leading/supporting ourselves
- Open with the public about what we are doing
- Open about our methods,
- Open data or TREs
- Open source
- Replicability
- Open on non-findings

Inclusive

- Co-design with communities when working with them
- Ensure we capture and are representative of all areas of society
- Capture equalities information systematically to enable evaluation
- Work with communities to reach out and include those whose trust we don't have

Multi-disciplinary

- Celebrate the breadth of our agenda from microbiology and pathogen genomics to panel surveys and everything in between
- Pull together the skills we need and the diverse expertise across PHW and externally where there are gaps
 - Statistical design
 - Subject matter expertise
 - Bioinformatics
 - Evaluation methods
 - Economics
 - Questionnaire design
 - And much, much more
- Integrated model of R&E development and delivery which achieves joint success

Joined-up

- Common standards for PHW products
- A coherent and comprehensive package of research
- Partnering with others to deliver
 - Academics
 - Local Health Boards
 - Third sector
 - Local Authorities

Influential

- Influencing funders to address evidence gaps/R&E needs for pop health
- A stronger focus on “what works” for who in the population and why
- Be clear on actions and what could be done to improve things
- Support effective operational delivery
- Identify audience and deliver products that maximise impact for that audience

Areas of research interest

Areas of research interest

- Aims
 - 1) Better align our research and evaluation with our Long-Term strategy and IMTP
 - 2) Signal to the wider public health system areas of interest
 - 3) Be clear about which areas we are doing and which interested in but others to pick up
 - 4) Better enable partnerships



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Process: Key questions...

1. What is already known and where are the gaps in knowledge?
2. What are the most important topic areas/questions for future research or evaluation.
3. What are the most important policies and/ or interventions which need to be evaluated?

Identify **actionable research and evaluation**: i.e. research and evaluation that will help make a difference to public health practice, rather than research that is focused on describing problems when the problem has already been identified.

Output: High level research questions and topic areas/ interventions/ policies for evaluation.

1. Influencing the Wider Determinants of Health

Research and Evaluation Priorities



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Evaluation priorities

- ❖ To understand the impact of the care leavers universal income on health and wellbeing.
- ❖ To understand the impact of policies to increase participation in employment on health outcomes.
- ❖ To evaluate PHW's impact on Wider determinants of health.

Research questions

Work and Health

1. What are the impacts of the working environment on health and what are the opportunities to influence health through changes to this?
2. What interventions ensure the benefits and mitigate against the harms of the working environment on health?

Education and Health

1. What interventions work to reduce the educational attainment gap between poorer and more affluent families?
2. What pathways between education and health outcomes are the most important?
3. How does the new Curriculum for Wales impact on health inequalities?

Poverty and Health

1. What are the interventions and pathways which work to help people out of poverty?
2. What is the impact of the cost-of-living crisis on the wider determinants of health?
3. Which interventions on the social determinants of health have the greatest potential to change behaviour across socio-economic groups to tackle health inequalities?
4. What is the impact of poor food security and access to transport?

Housing and health

1. What are the links between home warmth, poverty and health to inform the response to the cost-of-living crisis?
2. What is the security and condition of rented accommodation and what is the impact on health and mental wellbeing?

2. Promoting Mental and Social Well-Being

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Evaluation priorities

- ❖ To understand the impact of the HAPUS mental well-being programme.
- ❖ To understand the impact of Whole School Approaches to mental and social well-being.
- ❖ To understand the impact of the implementation of the National Trauma Framework.
- ❖ To understand evaluation approaches in Mental Health services.

Research questions

1. What are the barriers to undertaking those behaviours that promote positive mental well-being?
2. What are the long-term impacts of the COVID-19 pandemic on mental health and wellbeing, including on young people and those living in rural areas?
3. What are the impacts of COVID-19 on educational attainment and mental and social well-being?
4. What are the impacts transitions across the life course on mental and social wellbeing ?
5. What is the role of resilient community-based support networks and alternatives to formal care provision, to reduce pressure on crisis teams and secondary care services?
6. What is the role of greenspace in reducing depression and anxiety?
7. What are young people's journeys across mental health services in Wales?
8. What is the impact of poor housing and loneliness on people's mental and social-wellbeing?

3. Promoting Healthy Behaviours

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Monitoring and evaluation priorities

- ❖ Better data to monitor progress
- ❖ To understand the impact of the Healthy Weight Healthy Wales programme through a whole-systems approach to evaluation
- ❖ To understand the impact of the Welsh Network of Healthy Schools Programme.
- ❖ To understand the impact of the Healthy Start Scheme in Wales.
- ❖ To understand the impact of the Healthy Working Wales programme.
- ❖ To assess the success (by topic) of the Making Every Contact Count programme and to understand the level of motivational interviewing skills needed to produce a change.
- ❖ To understand the impact of behaviour change interventions
- ❖ Evaluation of the tobacco strategy

Research questions

Behaviour change

1. What is the cumulative effect of health behaviour messages and their impact on the intention-to-action gap?
2. What are the interventions needed to establish and embed healthy behaviours in childhood?
3. How do the commercial determinants of health impact on people's health and well-being?
4. What are the impacts of digital marketing on health behaviours and how do we enable healthy behaviours?
5. What are the system level interventions which lead to behavioural change

Physical activity

1. What are the interventions needed to increase and sustain physical activity behaviours in children?
2. What is the effectiveness of different methods to deliver physical activity, using community-based delivery models that integrate with existing organisations?
3. What is the impact of environmental interventions on behaviour change in active travel?

Diet

1. What is the impact of the Cost-of-Living crisis on people's health, diet and buying habits?
2. What is the impact of takeaway/delivery food on diet and obesity

Tobacco and vaping

1. What are the changes in uptake in Help Me Quit services resulting from poorer outcomes for smokers identified with a COVID-19 diagnosis.

Alcohol and gambling

1. What are the impacts of gambling over the life course and reasons for relapse on health decisions and behaviours?

4. Supporting the Development of a Sustainable Health and Care System

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Evaluation priorities

- ❖ To understand the impact and outcomes of the All-Wales Diabetes Prevention Programme.
- ❖ To understand the impact of the Prehab2Rehab programme on planned Care and Waiting Lists

Research questions

1. What works in prevention and early intervention to keep people from entering primary care and secondary care?
2. What are the interventions needed to encourage people to enter health care services for early intervention?
3. What is the impact of efforts to prevent unnecessary admissions into health care services? e.g. falls prevention at scale to make a difference at the population level.
4. Why do people delay seeking emergency care in areas of high levels of deprivation?
5. What are the mechanisms that work to reduce health inequalities in practice, and reduce barriers to using health and prevention services such as screening and immunisation?

Emerging areas

- Monitoring and evaluation of work to promote better health and wellbeing amongst those on waiting lists

5. Delivering Excellent Public Health Services

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Evaluation priorities

- ❖ To understand the impact of the vaccine disease preventable disease programme including on vaccine uptake and health inequalities.
- ❖ To understand the effectiveness of antimicrobial guidance for primary and secondary care.
- ❖ To understand what works to ensure equitable uptake of screening programmes.
- ❖ To understand the use of genomics to improve screening activities.

Research questions

1. What interventions are needed to see a change at a population level for vaccination of specific diseases?
2. What interventions are needed to change vaccination uptake in the health and social care sector?
3. What is the relative burden of different diseases and what are the determinants of these on NHS pressures?
4. How are different diseases spread against the background of the demographic structure in urban and rural areas of Wales?
5. What is the immunological impact of long COVID-19?
6. What are the environmental perspectives and solutions to understanding disease risk and environmental solutions of infectious and non-infectious diseases?
7. What interventions work for the elimination of blood-borne viruses?
8. What are the 'One Health' approaches needed to link up genomics, surveillance data and behavioural interventions?
9. How can genomics be used to improve screening activities?
10. What are the disease vectors and indicators in freshwaters?
11. What are the environmental exposures in recreational waters?
12. How can we improve childhood vaccine uptake

6. Tackling the Public Health Effects of Climate Change

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Evaluation priorities

- ❖ To understand current public health actions in relation to climate change and to determine further actions
- ❖ To understand the impact of future behaviour-change programmes that influence public behaviour around climate change.
- ❖ To understand the impact of the Clean Air Bill and assess the impact of 20mph zones.

Research questions

Health and wellbeing

1. What public health interventions are needed to prevent and mitigate the effects of climate change as well as respond to its impacts?
2. What are the impacts of climate change on the wellbeing of at-risk groups and regions in Wales?
3. What is the impact of climate change and extreme weather (heat and wet weather) on people's access to outdoor play, physical activity and sport?

Behaviour change

1. What is the effect of overlaying healthy behaviours messages with climate change messages?
2. What are the risk messages which need to be communicated to communities facing environmental risks and what is the health impact on those living with risk?

Infrastructure

1. How do we encourage community efforts to mitigate and adapt to climate change?
2. What public health action is needed to support communities faced with decampment/adaptation to immediate threats of flooding?
3. What is the resilience of active travel networks to future weather? Is the infrastructure being built now and to current standards, future-proofed?
4. What are the differences between the ability of urban and rural areas to adapt to climate change impacts including housing adaptations and the energy efficiency of cold homes?

NHS

1. What is the role of public services as anchor institutions on climate change and what are the impacts of NHS interventions on green health?

Emerging/missing areas

- Respiratory health and air quality
- Role of the NHS in climate change
- Alternative energy
- Role of planning decisions – furthering mitigation and adaptation

Evaluation roles in PHW

- **Everyone:** understanding the importance and need for evaluation and involving evaluation experts early in design of interventions
- **Evaluation community of practice:**
all involved in either delivering or commissioning evaluations. Use common standards, seek advice
- **Central Evaluation Team**
Set standards, undertake the core high priority evaluations that require organisational independence

Monitoring Impact of research and evidence

- Common follow-up process from all R&E activities
- Standard core questionnaire with tailoring for projects
- Quarterly report to BET, annual to KRIC
- Separate KRIC paper covers this

Implementing the strategy

- Core research governance team
- Strategic research forum where can come together from across organisation and agree our priorities/work
- Supported by standards/central expertise for
 - Questionnaire design (question bank for PHW)
 - Survey methodology

NEXT STEPS

- ❖ Present to PHW KRIC for feedback on research and evaluation priority areas.
- ❖ Engage with Welsh Government research and policy leads to ensure alignment with forthcoming priority policy and programme areas.
- ❖ Sense check with key academics the evidence gaps in the research questions identified.
- ❖ Identify which areas of research interest we will take forward within PHW

Stakeholders to discuss and share with

- All areas of PHW
- Welsh Government discussion
- Health and Care Research Wales
- Every University we have discussed research with
- Third sector representatives
- Directors of Public Health

Annex A – Input material summary



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Research mapping



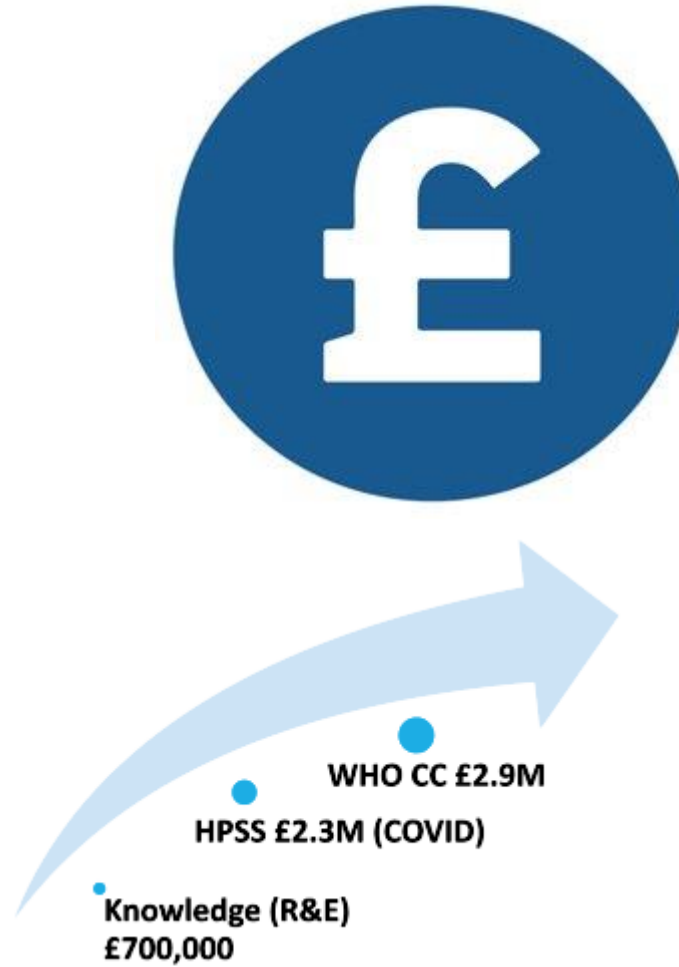
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RESEARCH SPEND 2016-2021

INTERNAL SPEND ~£750,000
(hard to discern exact amount)

EXTERNAL INCOME ~£6 Million



RESEARCH ACTIVITY BY DIRECTORATE 2016-2021

➤ **HPSS, WHO CC & KNOWLEDGE (R&E) MOST ACTIVE**

- WHO CC and R&E have formed service/academic models and collaborations with welsh universities – Bangor and Swansea, and others
- **WHO CC** well funded to deliver programme of work - service evaluation/ literature review type 'research' and funding streams outside of health (police force funding streams etc)
- **R&E** collaborating in the population health/inequalities system arena – Health Foundation (NDL etc)/ NCPHWR
- **HPSS** – Handful of researchers bringing in larger pots – Chris Williams/Josie Smith/Tom Connor/ Lim Jones/ Rachel Chalmers

Conclusions

- Our research activity mirrors the profile of the researcher
- There's no visible map between PHW priorities and our research
- We are very diverse and our work covers the remit of many of the research: ESCR, MRC, BBSRC, STRC, NERC, Innovate UK and to a lesser extent AHRC
- We will never be a research funder but:
 - Should we fund more ourselves?
 - We need to influence the funders to fund our priority areas?
 - Fit-for-purpose governance beyond just HCRW/MRC work



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User research



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Findings | What's working well?



TRUST

All audiences engaging with PHW trust Public Health Wales as an organization and appreciate the level of quality in the outputs created.



RELIABILITY

The majority of those currently engaging with PHW name PHW as one of the 'top of the list' in their go-to sources and say they rely on them for their work linking to public health.



QUALITY

Audiences engaging with PHW all felt the PHW content to be of a 'high quality'. Participants described it as robust, thorough and professional.



RANGE

All audiences acknowledge and appreciate the broad spectrum of topics and information covered by Public Health Wales.



PARTNERSHIP

Those who have experience of collaboration, communication and engagement with PHW colleagues, express appreciation of their support, as well as the value it brings to their work.



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Findings | Key areas for improvement

For **impact, engagement and outreach** to be greater and serve its audiences better, PHW should focus on the following tasks/issues:

- Improving the website – drawing from best practices, that allow engagement with materials in once space, as well as enabling insights by filtering, cross/inter-sectional data manipulation, comparing and contrasting, observations of trends
- Introducing more consistency across similar products/outputs, whereby the same key components would be included
- Providing clear signposting, summaries, indexing, table of contents
- Increasing facilitation of local health data and relevant intersectional (ideally to the cluster level) as well as data enabling measurement of impact of local actions and interventions
- Continuing to equip users with relevant data manipulation tools and functions (filters, maps, cross-tabulations, comparisons, trends)
- Providing timely, regularly updated health intelligence
- Creating products (and versions of products) by not only having key audiences in mind, but also taking into consideration the audiences they serve and interact with (concise, synthesised, simpler-language, easy to print pass on to digitally poor versions)
- Continuing to have available raw data and complex documents as well as build visually striking products that together meet the needs of a range of audiences
- Being more transparent around how PHW is organised, what the organisation is working on, who the key contact points by topics/areas are
- Initiating more conversations about priority topics and partnerships pertaining to data exchange
- Supporting those influencing change by producing content that facilitates storytelling (contextualisation, qualitative data, basic interpretations)
- Supporting decision making by providing evidence / research-based actionable and operational insights and 'so-what' conclusions to aid future forecasting

As a practicing clinician, I have limited time to look for information. To be beneficial, and useful, it needs to be easily accessible.

More understanding of the evidence, the potential evidence and data and proactive analysis of international best practice

Often the linkages between datasets that we are looking for are not possible. I have recently been doing work in sexual health and the challenges of 'silo' datasets make it particularly challenging to look at over all health impacts of various services and changes.

Most of what is produced is not updated in a timely way and reflects lines of data with limited or no interpretive analysis. It doesn't draw on other regularly available data sets and bring together related information that helps to create actionable intelligence and insight.



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User priorities



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Key findings

- Unclear how all our work fits together
- Alignment with Government priorities
- Equality and protected characteristics are vital
- A greater focus on evaluation, impact and service delivery – the “how?” and “why?” change achieved or not

Considerations for research strategy

Health Economics

Looking at Health Economics when carrying out research rather than after its been implemented, to assess success/ suitability of interventions- sometimes interventions are great but too costly to implement. When do we determine a successful uptake rate vs costs

Consider Compliance/ Intention Gaps

When looking at interventions need to consider the 'intention gap' what people say they intend to do vs what they actually do in terms of delivery and compliance with interventions may differ

Ensure there are expertise and infrastructure to deliver research relevant to Wales

When there isn't strong academic community in Wales / level of data to make it useful for the Welsh population, simply applying research carried out in other parts of UK may not be applicable because of the uniqueness of Welsh population; higher deprivation, greater % rural community. We need to lobby funders and establish local collaborations to grow the expertise in Wales to ensure that the research doesn't widen inequalities



Lifespan

When looking at evidence often research and subsequent evaluation of success of interventions is based on research looking at particular ages groups but need to consider that these same interventions may not be as effective for different age groups i.e. smoking cessations in later life vs teenager smoking prevention/ cessation

High impact but less prevalent

Some areas such as gambling may be less prevalent (approx. 1% of Welsh population have a gambling problem), but for every 1 person with a gambling problem it affects/impacts a further 12-13 peoples lives. Does focus need to shift towards less prevalent behaviours or is focus mainly on prevalent topics i.e. obesity- do we need a rating scale?!

Strategic Partnerships

Strategic look at evidence gaps & recognition of the other organisations in the system who develop evidence/research to collaborate with them



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