



PUBLIC HEALTH NETWORK CYMRU

E-BULLETIN

OCTOBER 2023

SYSTEMS THINKING IN PUBLIC HEALTH





Welcome

Welcome to Octobers e-bulletin which highlights systems thinking in public health.

Systems thinking helps us develop and evaluate policies and initiatives by considering relationships, interactions, boundaries and perspectives. To influence some of the big public health challenges of our modern societies means going beyond a linear approach. Although there is no universal definition of a system it can generally be regarded as a group of interacting, interrelated and interdependent components that form a complex and unified whole ([The Systems Thinker, 2018](#)).

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What skills do effective public health systems leaders need? Findings from the literature and interviews with systems leaders

Professor Jo Peden, Consultant in Public Health: Public Health Wales
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 Institute of Research and Community Development, University of Wolverhampton
 Manon Roberts, Senior Policy Officer: Public Health Wales

The role of public health leaders is ultimately to improve health outcomes, especially for the most vulnerable in our society. Public health leaders have to work across multiple 'systems' because the causes of public health issues are often complex and multi-faceted.

Public Health Wales, in collaboration with the University of Wolverhampton, undertook research to explore the role of public health systems leaders in driving change for better health outcomes, and the attributes and skills needed to be successful so that future systems leaders can develop their skills in these areas. The research involved two main stages: a review of the literature and interviews with eleven public health systems leaders.



*Llywio, dylanwadu ar a chydweithio
 ar gyfer iechyd y cyhoedd yng Nghymru*

*Informing, influencing and collaborating
 for public health in Wales*

The research questions were:

- What does systems change mean in a public health context?
- What is the role of a 'systems leader' and what is their understanding of systems change?
- What skills, attributes and characteristics do systems leaders need in public health?

Leading systems change is a vital skill needed in the field of public health; the ability to influence decision makers and to inspire others to lead change and to facilitate this

to happen. Now more than ever, with fiscal constraints and the need to shift health systems towards prevention, having the leadership skills to bring partners on the journey is essential. At a global and national level, complex public health issues such as climate change need a systems response. This means that public health leaders need to have the ability to understand the bigger picture, to present a vision on how sectors can work together, and to bring those sectors along to collaboratively come up with and implement joint solutions.

The findings of the literature review and interviews highlight four key leadership traits needed for driving systems change in public health:

1. Seeing the bigger picture and choosing suitable approaches
2. Effective collaboration and boundary spanning
3. Empowering others to lead, building on the concept of distributed leadership

4. Maintaining strong underlying motivations and values, including the need for humility and a learning mindset

Whether leading at a local, regional, national or global level, driving systems change is a core public health skill. This research defines the traits of public health leaders who have been successful in driving systems change. We hope that this report encourages the development of these traits in future leaders.

The full report will be published in December 2023 on this website: <https://phwwhocc.co.uk/>

For more information please contact Professor Jo Peden Jo.Peden@wales.nhs.uk

Practice

Taking a Whole Systems Approach to Healthy Weight in Wales, examples from the front line

Sophia Bird, Ilona Johnson, Public Health Wales;
Lydia Orford, Betsi Cadwaladr University Health Board;
Fiona Valentine, Powys Teaching Health Board

In Wales, over 60% of adults live with unhealthy excess weight (Healthy Weight: Healthy Wales, 2019). In addition, over a quarter of children in Wales are affected by the time they start school. Obesity is hard to reverse, even in childhood, and our likelihood of experiencing overweight or obesity increases as we get older. Therefore, early action to address the causes and prevent obesity is essential.

The rise in levels of overweight and obesity is complex and is the result of changes in our lives and lifestyles over the 20th century. We are now less likely to work in manual jobs; more people travel by car and

labour-saving devices mean we use less energy than before. Food technology has changed significantly in a way that has prioritised lower cost mass produced food which is energy dense containing lots of sugar and salt. We grow and prepare far less of our meals at home and busy lives have meant that we often choose quick, pre-prepared meals which can be less healthy. The role and influence of the commercial determinants of health has never been greater and often has a global dimension.

The complexity of the problem means that there are no simple solutions and no one agency or organisation can solve it alone. In addition there

has been growing recognition that there are complex inter-relationships between different aspects in a system that is constantly adapting and changing. Action taken by one part of the system can have an unintended consequence on other parts.

Our Healthy Weight Whole Systems Approach (HW WSA) in Wales was developed to 'enable delivery of a national programme for Healthy Weight System Based Approaches' (Welsh Government, 2019). This work has been funded by Welsh Government and is a collaborative programme between Public Health Wales, the Directors of Public Health Leadership Group and Welsh Government.

Recognising the complexity of the obesity system, the HW WSA takes a long term view, working with a range of stakeholders, including local communities, to better understand the system and the opportunities for change.

Using our 9 step process (See image) we explicitly aim to reveal the structures and goals within a given system. This process brings together partners in the system, and agree their priorities for change in local areas. The approach

engages partners in the process, developing an understanding of how they can contribute to that change through a shared vision and approach, through the identification of their areas of influence in the system.

Our animation to explain the need for a Whole Systems Approach can be found here: <https://healthyweight.wales/systems/>

For more Information please contact Sophia.Bird@wales.nhs.uk



Case Study 1: Identifying the current barriers within the system, and how the system can be levered to harness change – Increasing access to Healthy Start Scheme:

Situation: Even though many low-income families are currently struggling with the cost-of-living crisis, in Powys, only 60% of eligible families are accessing the Healthy Start Scheme. The Healthy Start Scheme provides eligible families with help to buy healthy food including milk, fruit, vegetables, and infant formula milk. However, many

are not accessing this support for access to healthy food.

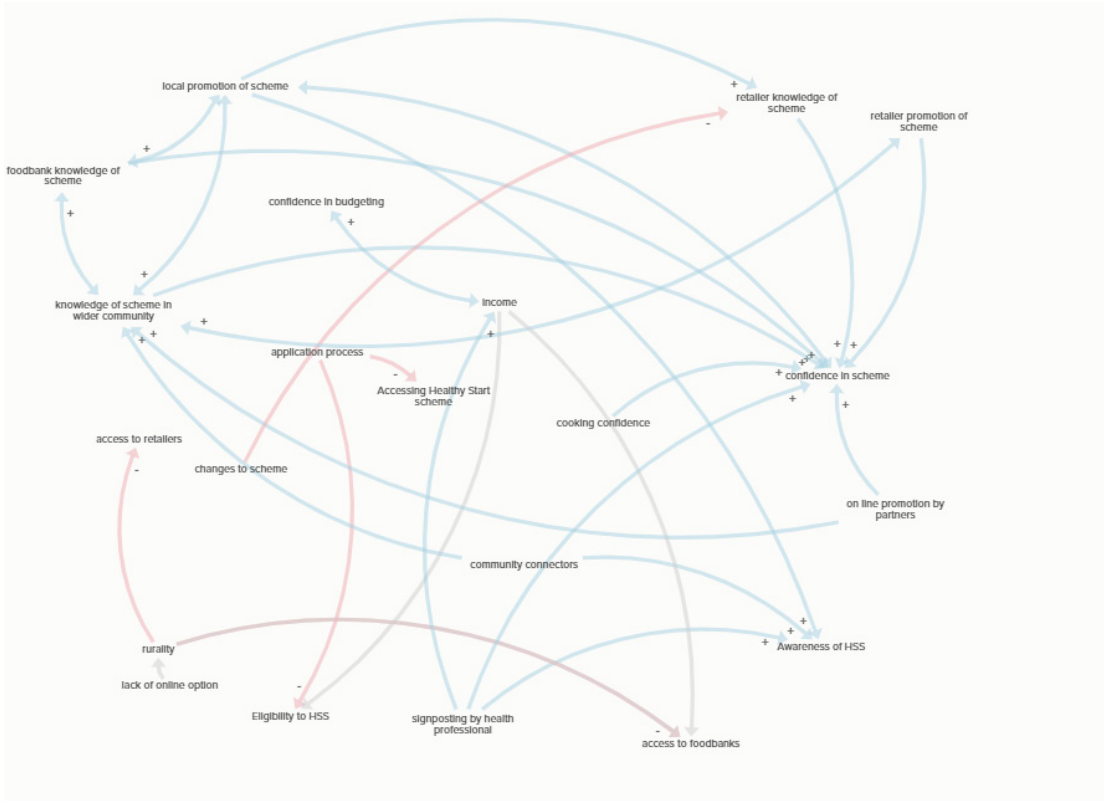
Barriers identified include: confusion caused by the scheme moving from paper to digital cards; families not successfully signing up for the digital cards; the cards being rejected at supermarket checkouts due to lack of staff awareness; lack of knowledge

of scheme amongst retailers including foodbanks; some eligible families being incorrectly told they are ineligible; families having difficulties getting through to scheme helplines.

Whole System Approach:

A working group set up involving key stakeholders from a range of service providers including local food retailers, benefit advisors, family workers, etc. They mapped the causes, barriers, and influences on voucher uptake.

Outcome aim: to identify potential levers for change and to identify the stakeholders with influence over different parts of the system, particularly where levers have been identified. There is now work taking place to agree actions to create system change.



Case Study 2, Betsi Cadwaladr team: How barriers in the system were identified and addressed, resulting in system change at the Planning level for food outlets.

Situation: In many areas there is limited access to healthy affordable food, but easy access to take away foods that are often high in fat, salt or sugar. Hot food takeaways are often located in proximity to others, and there are increasing numbers of these sort of outlets.

Barriers identified

include: Health Boards and Public Health (PH) teams not being official consultees on planning applications are often unaware of applications for further hot food outlets; hot food outlet applications often sited near schools; increasing rates of overweight and obesity

within local areas, and these rates are often higher in areas of inequality.

Whole System Approach:

PH team engaged with Planning colleagues; developed and implemented a weekly PH process to respond to planning applications; development of a series of response templates using the latest evidence base, data, and national and local policies to inform responses; trained all PH team members in the process

Outcome: More consistent and timely responses to planning applications; increased

awareness of applications with PH implications; PH influence on Planning officer case reports and recommendations. For example, 1 application proposed change of use from retail to food and drink. PH concerns raised around location to a number of educational settings; proximity to other hot food takeaway outlets; & current rates of overweight and obesity in the area. The planning application was subsequently approved with the condition that no hot food or drink shall be sold or provided for consumption off the application premises.

Merthyr PIPYN and systems thinking to influence childhood obesity

Shelley Powell, Dietetic Professional Manager for Public Health,
Cwm Taf Morgannwg University Health Board



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Cwm Taf Morgannwg
University Health Board
Nutrition and Dietetics

Merthyr PIPYN is a family based intervention, nested within a strong whole systems approach to improving families healthy lifestyle behaviours in Merthyr Tydfil. Merthyr has the highest rates of child and adult overweight, obesity (Public Health Wales, 2021; Welsh Government, 2022a) and dental caries in Wales, linked to high rates of deprivation (WG, 2022b; Welsh Government, 2023) and limited engagement with health services (CTMUHB, 2023).

Interventions alone place the majority of responsibility on families and individuals to change behaviours. Currently, families face a challenging physical and economic environment, where healthy lifestyle choices are not necessarily an easy or viable option. To support a whole system and unified approach to create healthy settings and environments around the family, Merthyr PIPYN aims to share responsibility for implementing healthy behaviours across systems and services, with the aim to improve population health outcomes and reduce inequalities.

Merthyr PIPYN has engaged with over 150 local families to coproduce the intervention arm of this service. It has also carried out insight work with over 100 partners to build support networks and promote a shared responsibility for healthy environments.

Based upon this data Merthyr PIPYN aims to:

- Develop a multiagency steering group with shared goals enabling action and sustainable system change
- Develop a strong online digital presence to support families and partners to promote and implement healthy lifestyle behaviours
- Build skills and support partner agencies to develop healthier environments around the family
- Map and raise awareness of existing services, with growth of quality provisions in most deprived communities
- Coproduce new services that meet quality standards, based upon mapping and assessment of need
- Support the development of healthier catering options outside of the home
- Support families to access healthy environments

during school holidays

- Support families with food poverty and access to free or low cost support services
- Provide quality training, resources and equipment to support sustained healthy behaviours
- Influence local commissioning processes to influence quality standards across services

To date, Merthyr PIPYN has supported a range of services to provide healthier food and drink options outside of the home. This includes improving provisions across primary schools, play, childcare, summer holiday and leisure services.



Partner agencies now report greater knowledge, skills, confidence, motivation and resources available to cascade and implement good quality food, physical activity and wider positive lifestyle behaviour opportunities. There has also been a greater roll out of physical activity, food and practical cooking skills across primary schools in Merthyr, in line with the new curriculum for Wales.

A whole systems approach considers how different elements and stakeholders interact and influence one another. It can therefore support in addressing complex public health issues, such as obesity and involves collaboration, flexibility, and shared understanding of the challenge and the opportunities for change.

In order to support the effectiveness of healthy weight interventions, a wider systems approach maximises potential outcomes from those who engage with services. It also provides a much greater reach than any intervention can achieve alone.

For further Information contact: Shelley Powell, Shelley.Powell@wales.nhs.uk Tel: 01685 351289



Pipyn

Various Publications

For those of you interested in learning more about bringing systems-based approaches into practice the following publications provide an introduction to the area

[An introductory systems thinking toolkit for civil servants \(2022\)](#)

Government Office for Science

[Systems Thinking and Practice: A guide to concepts, principles and tools for FCDO and partners \(2023\)](#)

Institute of Development Studies

[Guidance for developing a systems perspective for the evaluation of local public health interventions \(2019\)](#)

NIHR School for Public Health Research

[Systems thinking for noncommunicable disease prevention policy: guidance to bring systems approaches into practice \(2022\)](#)

World Health Organization

The Grapevine

Research

Report finds Public Health Wales guidance has contributed to raising the profile of fair work public sector partners

Wider Determinants of Health Unit, Public Health Wales

Public Health Wales has found that public sector partners are increasing their efforts to improve health and well-being through access to fair work.

Fair work is where workers are fairly rewarded, heard and represented, secure and able to progress in a healthy, inclusive environment where rights are respected. Welsh Government are committed in building an economy based

on the principles of fair work, sustainability and the industries and services of the future.

Participation in fair work is an essential building block for good health. It provides a sense of purpose and resources for a healthy life. This in turn can reduce stress and help children in the family have the best start in life.

Since May 2022, the Wider Determinants of Health Unit at Public Health Wales has

been engaging with agencies across Wales to support them to connect fair work and health, well-being and equity and understand what action they can take. This builds on their guide and resources for local and regional partners to increase participation in fair work to improve health, well-being and equity.

Please click [here](#) for further information

Videos



Getting to the root of the problem – A Whole System Approach to Healthy Weight in Wales

Join colleagues from Public Health Wales who provided an overview of what is meant by the term Whole Systems Approaches and how it is being used to support healthy weight in Wales. The webinar described the evidence, strategic context and the nine step approach to whole systems approaches in Wales. The webinar discussed why working in this way is different from more traditional partnership working.

[Watch](#)



Tackling the public health effects of climate change – find out how you and your team can take action

This webinar introduced a free online resource that helps individuals and teams to take action to reduce their environmental impact.

[Watch](#)



Children and the cost of living crisis in Wales

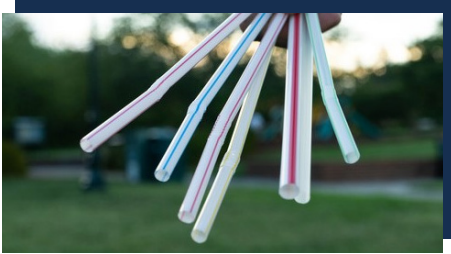
This webinar explored current policy, research and practice in Wales which aims to support children and their families through the cost of living crisis.

[Watch](#)

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our videos](#)

News & Resources



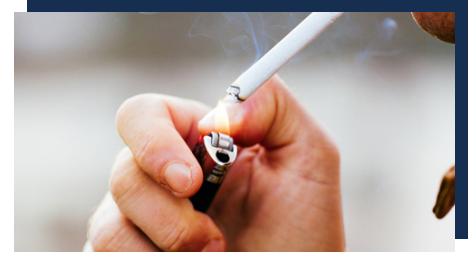
[Single use plastic ban comes into force as Welsh Government strives to reach net zero](#)

31-10-2023



[Participants invited to take part in leisure activity survey](#)

31-10-2023



[Consultation: Creating a smokefree generation and tackling youth vaping](#)

25-10-2023

[All News](#)

[Promotion of health-enhancing physical activity in small-to-medium-sized enterprises](#)

World Health Organization

[More people, More active, More often for heart health – Taking action on physical activity. A World Heart Federation Policy Brief](#)

World Heart Federation

[All Resources](#)

Next Issue

CHILDREN AND THE COST OF LIVING CRISIS IN WALES

The cost of living crisis is having, and will continue to have, wide-ranging and long-term impacts on the day-to-day lives of people in Wales, but with specific impacts on children. These impacts are of particular concern given how experiences of poverty in childhood have long-lasting negative effects on their development and future health and prosperity. Tackling child poverty is at the heart of securing a better and more resilient future for Wales and is a priority for tackling inequalities.

For our next bulletin we would welcome articles which cover national, regional or local initiatives, policies or programmes which aim to support children and their families through the cost of living crisis.

[Contribute](#)

