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Investing in a Healthier Wales: prioritising prevention

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Investing in a Healthier Wales: prioritising prevention

Contents

Executive Summary

Good health is a fundamental human right

Achieving good health and well-being enables people to lead fulfilling lives, build meaningful relationships, contribute to their communities and enjoy a higher quality of life well into old age. Without it, we struggle to thrive, resulting in significant personal and societal costs.

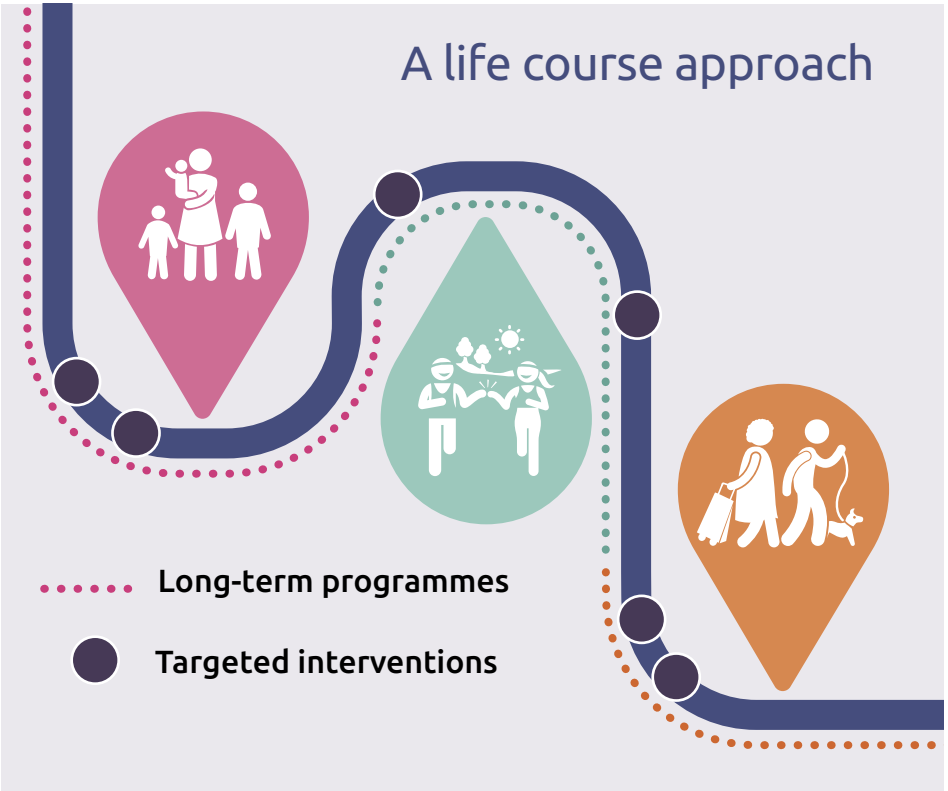
Health is shaped by foundational building blocks, including safe and warm homes, stable relationships, access to education and services, purposeful activity, and opportunities for healthy behaviours. Unfortunately, achieving and maintaining good health is becoming increasingly difficult, and differences in health between communities (health inequalities) are increasing.

Investing in health and well-being is essential

Despite the fragility of public sector finances, now is the time to prioritise investment in people's health and well-being. Such investment can reverse the decline in the nation's health, address the root causes of health inequalities and enable the people of Wales to live longer, healthier and happier lives. A strong sustained commitment to prevention can reduce the burden and costs of ill health to the health and care system, with public health interventions offering a return of £14 for every £1 invested [1]. We need to invest in prevention, not just despite the challenging financial position of public services in Wales, but because of it.

A route map for impactful change

This report outlines how investing in prevention sets the foundation for good health throughout people's lives, showcasing areas that could have the greatest impact. It focuses on both long-term programmes and targeted interventions that aim to improve health outcomes, reduce inequalities and lessen the financial impact of poor health on the NHS and wider society in Wales. The report adopts a life course approach, emphasising interventions that reduces the cumulative impact of health risks throughout life and across generations.



Our findings

We have summarised the latest evidence on where investment in prevention can have the greatest impact in the early years and children, for healthy adults and for healthy ageing.

Early Years and Children

The child death rate in Wales is 70% higher for children living in our most deprived communities compared with their most affluent neighbours [2]

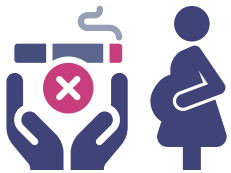
Programmes to support parents and the early years are effective and set the foundation for good health and well-being in the longer term, bringing substantial return on investment. Addressing inequalities enable all children and young people to maximise their capabilities and achieve their potential into healthy adulthood.

Example of evidence identified with a positive impact and positive return on investment include:

Integrated services for maternal and parental mental health

Early years education programmes especially for low-income families

Programmes supporting women to quit smoking during pregnancy



Healthy Adults

People living in the most deprived areas have a much higher chance of death from avoidable causes (3.7 times for males and 3.8 times for females) [3]

The findings emphasise the need to support healthy behaviours, mental well-being and addressing the wider determinants of health. The programmes reflect a cross-sector approach providing effective services and supportive, enabling environments.

Example of evidence identified with a positive impact and positive return on investment include:

Multi-component approaches to reducing self-harm and suicide

Physical activity programmes to mitigate against obesity and associated diseases such as diabetes.

Data sharing between organisations reducing the costs associated with violence

Healthy Ageing

There is a 17-year gap in healthy life expectancy for women living in the most and least deprived areas of Wales. This gap is 13 years for men [4]

A holistic approach is required to ensure healthy ageing with a recognition of the value of older people and their contribution to society. Social return on investment provides evidence for the wider social value of healthy ageing.

Examples of evidence identified with a positive impact and positive return on investment include:

Programmes and interventions to promote independent living of older people

Programmes to address loneliness and isolation

Prediabetes management programmes

Investing in prevention cannot be done in isolation; it needs to be part of a wider drive to reduce health inequalities through strategies and policies that have a focus on early years and poverty reduction. It is essential that public spend benefits Wales' most deprived communities, with a focus on high impact interventions with significant, scalable potential. Investment needs to be part of a long-term commitment that not only results in rapid outcomes but also allows time for the full impact to be realised (over 5 years) [1].

The scale of the challenge we face necessitates prioritising prevention, working across sectors and boundaries, involving our population and integrated solutions to complex problems, ensuring that our actions embody the Well-being of Future Generations (Wales) Act (2015) [5] to achieve sustainable change and a sustainable health and care system for the future.

Introduction

Purpose of the Report

This report provides guidance for policy and decision-makers across all sectors in Wales on where to invest in prevention to improve health and well-being and reduce inequalities. It advocates for achieving sustainable change and gaining the most economic benefits to the health and care system and wider society.

Adopting a life course approach, the report emphasises prevention that reduces the cumulative impact of health risks throughout life and across generations, focusing on both long-term programmes and targeted interventions.

Context

In 2018, the Welsh Government launched the "A Healthier Wales" strategy [6] aimed at improving health outcomes and reducing inequalities. The plan focused on tackling a range of challenges such as an aging population, unhealthy behaviours and rising public expectations. However, since the strategy was launched, society has undergone unprecedented changes due to the COVID-19 pandemic, the cost-of-living crisis and rising national and international societal tensions. In short, the situation has worsened, health is deteriorating, and public finances are under increasing strain. It is important now more than ever to ensure that public resources help people in Wales achieve good health and well-being so that they can lead fulfilling lives, contribute to their communities and enjoy a higher quality of life well into old age. This can only be achieved by having the foundational building blocks for health in place, including safe and warm homes, stable relationships, access to education and services, purposeful activity, and opportunities for healthy behaviours.

Such investment can reverse the decline in the nation's health, address the root causes of health inequalities and enable the people of Wales to live longer, healthier and happier lives. A strong sustained commitment to prevention can reduce the burden and costs of ill health to the health and care system and offers a return of £14 for every £1 invested [1]. We need to invest in prevention, not just despite the challenging financial position of public services in Wales, but because of it.

Methods

We undertook a rapid systematic scoping review to update the evidence previously compiled by Public Health Wales [7] and the World Health Organization (WHO) Health Evidence Network [8]. The report integrates previous findings with evidence from the latest search from 2017 onwards. We present selected summarised research evidence, data and contextual information available at the time of the report development. Full details of the methodology can be found in our technical appendix. The report presents financial data in Pounds Sterling and US Dollars. Due to heterogeneity of primary evidence, no currency conversion or inflationary adjustments have taken place.

Early Years and Children

Summary of evidence

What previous research told us

- The first 1000 days (from conception to second birthday) are the years that show the most potential for action [9]. Investments in areas such as universal childcare and paid parental leave targeted at vulnerable families are cost-effective.
- All vaccination programmes are considered cost-effective in the UK as they are required to meet thresholds in order to be approved for use [10].
- It is important to ensure comprehensive and consistent delivery of Early Years programmes such as Healthy Child Wales Programme for all families in Wales [11].
- Children who live through Adverse Childhood Experiences (ACEs), such as violence, neglect or living with individuals with substance abuse issues, have higher risks of premature ill health and developing health-harming behaviours [12].
- Every £1 invested in parenting programmes to prevent conduct disorder saves the NHS in England £8 over 6 years in health care, education and criminal justice costs [13].

Updated research findings - what this report adds

- Parenting programmes investing in maternal and parental mental health can provide large returns.
- Improving the uptake of breastfeeding can provide positive health gains for mother and saves on child hospital treatments.
- Early years education programmes especially for low-income families can provide many positive gains.
- School and community programmes to support healthy childhood development such as physical activity, nutrition, alcohol use, oral health and mental well-being provide cost savings.
- Reducing exposure to food advertising and non-educational television viewing can mitigate obesity risk over a decade.
- Combined community and school-based programmes with parental involvement demonstrate promise in preventing alcohol use among children.

Findings from previous research

The early years are crucial for laying the foundation for good health, better learning and a fulfilling life into adulthood. Public health programmes that support parents and children are often some of the most highly cost effective, as they help identify issues early on and provide necessary support. The Welsh Government "Healthier Wales" strategy emphasises the importance of giving every child the best start in life.

Early years

Previously conducted research suggests that the first 1000 days (from conception to second birthday) are the years that show the most potential for action [7]. Investments in areas such as universal childcare and paid parental leave targeted at vulnerable families are cost-effective [14].

The WHO Health Evidence Network identified public health policies and interventions that generate a return on investment (ROI) or cost-savings and target the early years [8]. Investing in areas such as social and health protection, support for pregnant women, mothers and young families; breastfeeding and nutrition support; and progress towards universal, high-quality, affordable health, education and childcare systems show the greatest benefit for the individual, society and the economy.

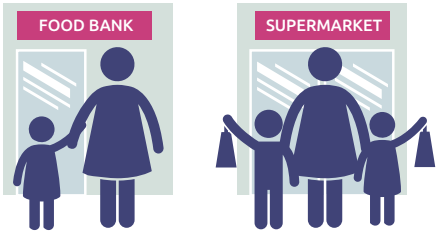
Vaccination

only 84.3% of 4-year-old children are fully up to date with their vaccinations

Vaccination programmes for children and pregnant women are a key element of early years health, preventing infectious diseases that can cause significant injury and death to children. We aim for 95% of eligible people to be vaccinated to provide the best protection and prevent the spread of infectious diseases. The latest data for Wales highlights that few childhood vaccination programmes meet this target, with only 84.3% of 4-year-old children being fully up to date with their vaccinations [15]. Inequalities in uptake of vaccines are increasing, with deprivation and ethnicity both playing a role. Routine catch-up activities play an important role in increasing uptake of vaccinations and reducing inequalities.

Poverty

Nearly 29% of children in Wales live in relative income poverty [16]. Children from poorer families are more likely to have worse health throughout their lives, including low birth weight, poorer physical and mental health, and a higher chance of dying in childhood. Poverty also impacts educational outcomes, which later impacts job prospects and the ability to flourish into adulthood.



Nearly 29% of children in Wales live in relative income poverty

There is a strong relationship between government policy and child poverty, providing an opportunity to make real change. Recent scenario modelling from an English study indicates that implementing measures such as removing the 'two-child limit and benefit cap' could lead to a reduction in child poverty, improving child health outcomes and reducing health inequalities [17]. This would ease pressure on local authorities and health services, especially in more deprived areas.

Physical and mental health

During the 2022-2023 academic year, around a quarter (24.8%) of children aged 4-5 years in Wales were classed as being overweight or obese [18]. Children in the most affluent areas are more likely to have a healthy weight. Whilst levels of overweight and obesity have reduced slightly since the COVID-19 pandemic in Wales, they remain high, with 11.4% of children in Wales having obesity. There are risks of psychological harm from childhood obesity, including bullying and discrimination, low self-esteem, anxiety and depression, which can continue into adulthood.

In 2022/23 24.8% of children aged 4-5 years in Wales were overweight or obese

Tooth decay remains a significant public health challenge in childhood. Across Wales, children from deprived backgrounds experience higher levels of prevalence and severity of tooth decay [19].

In 2021 28% of children aged 11 to 16 in Wales reported experiencing depressive symptoms

In 2021, 28% of children aged 11 to 16 reported experiencing depressive symptoms in Wales, with the rate being more than two and a half times higher among girls [20]. Children who experience stressful childhoods with multiple adverse experiences are more likely to experience poor mental health due to poor self-image and self-worth. They are more likely to adopt health-harming behaviours during adolescence which can lead to diseases such as cancer, heart disease and diabetes later in life [12].

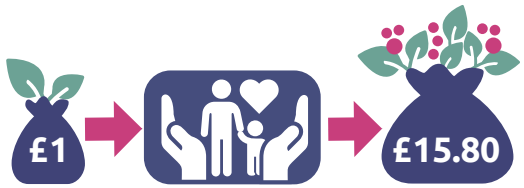
Updated findings

Investment in programmes to support health in early years and childhood offer positive returns on investment. Universal programmes aimed at ensuring all children have the best start in life, delivered at sufficient scale offer some of the greatest returns to both the NHS and wider society. Similarly, those programmes that target intervention where most needed, can be some of the most beneficial in terms of reducing health inequalities.

We identified several research papers that looked at the economic impact of early years programmes, all of which offered positive results either from a return on investment (ROI) perspective or in terms of total net benefit:

Early years

Parenting programmes offered a return of £15.80 for every £1 invested [21].



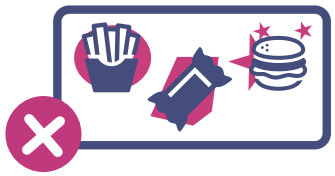
Enhanced mental health screening by midwives provided a net benefit of £490 million over a ten-year period in the UK [22].

Programmes promoting breastfeeding can save the NHS around £50 million annually by improving mental health and reducing hospital admissions [23, 24].

Universal early years education, especially for low-income families can generate a return of £1.31 for every £1 spent [25].

Physical health

Reducing exposure to food advertising and non-educational television viewing can lower obesity risk over time [26].



School-based programmes focusing on obesity, physical activity and better nutrition for children are cost-effective [27-29].

Communication policies such as food labelling, advertising restrictions for unhealthy foods, and media campaigns can save costs in future healthcare provision. Worldwide, healthy weight programmes offer returns of up to $4-$5 for every $1 invested [30].

Community-based oral health promotion programmes are cost effective [31],Including targeted supervised tooth brushing, which has an ROI of £3.06 [31, 32], and preventative discussions with dental nurses [33].

Mental health

Addressing Adverse Childhood Experiences (ACEs) can help prevent violence and lower healthcare costs [34, 35].

School based programmes that focus on improving mental health, either through anti-bullying, suicide prevention or increasing involvement with parents or the community offer positive economic returns [13, 21, 36, 37].

Summary

Evidence demonstrates that programmes to support parents and the early years are effective and set the foundation for good health and well-being in the longer term, bringing substantial ROI. Addressing inequalities enable all children and young people to maximise their capabilities and achieve their potential into a healthy adulthood.

Case Study- Designed to Smile

The Designed to Smile programme, introduced in 2009, aims to improve the oral health of children in Wales. Funded by Welsh Government and delivered by Local Health Boards, the programme provides a preventative programme for children from birth and includes a wide range of professionals who support good practice in tooth brushing, providing toothbrushes and toothpaste, as well as signposting to dentistry prior to the child's first birthday. It also involves delivery of nursery and school based toothbrushing and fluoride varnish programmes [38].

In 2019, the Welsh Government released figures showing a 13.4% reduction in the proportion of children with tooth decay, with 15% drop in disadvantaged areas. Since the launch of the programme in 2009, children's tooth decay has reduced to a third, equating to 4,000 fewer 5-year-olds having tooth decay. In the last six years there has been a 35% reduction in the number of children undergoing dental procedures under general anaesthesia, resulting in 3,200 less children a year having to undergo treatment for tooth decay [39].

In the 2023/24 academic year [40], nearly 60,000 children in schools and nurseries in Wales were offered daily supervised toothbrushing, with nearly 41,000 being provided with fluoride varnishing. Over 167,000 home toothbrushes were distributed, and over 1,400 professionals received oral health training from the Designed to Smile teams.

Healthy Adults

Summary of evidence

What previous research told us

- Prevention costs less than treatment, with public health in general offering a £14 return for every £1 invested [(1)].
- Programmes delivered at scale offer a greater financial return compared to smaller more local projects [(1)].
- A wide variety of programmes aimed at improving mental health are cost effective including supporting lifelong learning, work-based programmes and community initiatives to bring people together [(21)].
- Cost effective programmes to address healthy behaviours reflecting a multi-agency approach include mass media campaigns, promoting active transport, integrating physical activity into various settings and access to green spaces [(41)].
- The average costs to mitigate hazards in homes is estimated at £2,455 per home, totalling £584 million for the entire housing stock in Wales [(42)].
- Preventing ACEs, improving resilience and protective factors for children in Wales can reduce violence perpetration and victimisation [(8)].

Updated research findings - what this report adds

- Adult hospital inpatient smoking cessation programmes are considered highly cost effective.
- Motivational interviewing and behavioural self-control support is deemed to be the most effective programme for alcohol dependence. Combined treatments for alcohol dependency are cost effective.
- The SilverCloud online Cognitive Behavioural Therapy (CBT) programme for mild to moderate mental health problems is cost effective.
- Primary care programmes such as social prescribing, self-referrals to musculoskeletal conditions and one to one support for welfare support, diabetes and coronary heart disease bring a return on investment.
- Tuberculosis prevention among refugees and migrants is cost effective.
- Undertaking upfront remedial works to mitigate Category 1 hazards in homes provides a return on investment and additional societal benefits.
- Enhanced hospital care for homeless people, consisting of input from a Homeless Care Team improves quality of life and reduces street homelessness compared to standard hospital based clinical team.
- Sharing data and information between organisation such as Emergency Departments and Police reduces costs associated with violence.
- Community programmes to reduce violence bring cost savings.

Mental Well-being

Social and structural factors can protect or harm mental health, with adverse conditions like poverty and inequality increasing the risk of poor mental health [43]. Good mental well-being is linked to overall health and engagement in broader community activities [44, 45]. In Wales, 32% of adults have poor mental well-being [4], which is a significant risk factor for poorer physical health.

In Wales, 32% of adults have poor mental well-being

Mental health issues are a major cause of ill health and economic inactivity. Data from the Labour Force Survey shows over 2.5 million people in the UK are economically inactive due to long-term sickness. This figure has risen by 400,000 from 2019 to 2023. There has been a rise in mental health conditions stated as the reason for economic inactivity. Over 1.35 million people (53%) who are economically inactive because of long-term sickness reported that they had depression, bad nerves or anxiety [46]. These issues cost the Welsh economy £4.8 billion annually [21].

53% of people who are economically inactive because of long-term sickness reported that they had depression, bad nerves or anxiety

Smoking

Smoking is one of the main causes of poor health and premature mortality in Wales, killing over 5,000 adults every year and is a driving force behind continued health inequalities. People in the most deprived communities are more likely to smoke and suffer its harmful effects compared to their wealthier neighbours. Approximately 13% of adults in Wales smoke tobacco products, with 4.2% of adults who smoke attempting to quit each year via NHS Stop Smoking services [47].

over 5000 adults are killed by smoking every year in Wales

13% of adults in Wales smoke tobacco products

The economic case for investment in controlling access to smoking and tobacco products (tobacco control) and stop smoking programmes (smoking cessation) is well established. The ROI figures of such programmes can vary significantly depending on the inclusion criteria used and the length of follow up [48]. Despite this, investment in this area of public health remains key to improving health and reducing health inequalities. Welsh Government launched a new tobacco control strategy in 2022, which outlines how Wales will be smoke-free by 2030 (defined as less than 5% of the adult population smoking) [49].

Alcohol Misuse

The UK has some of the highest levels of alcohol consumption per capita in the world with significant adverse impacts on public health [50]. In Wales, 16% of adults are hazardous drinkers [51]. Alcohol and class A drug misuse costs as much as £2 billion each year in Wales [52].

16% of adults in Wales are hazardous drinkers

Broader legislative initiatives have sustained decreases in alcohol consumption over the past decade, however levels of alcohol consumption and associated disorder remain high. Analysis by the Organisation for Economic Co-Operation and Development (OECD) identified that the rationale for controlling alcohol consumption is strong, and that wide-ranging programmes that link to broader governmental policy are beneficial for improving health and reducing the negative impacts of alcohol fuelled crime and disorder [53].

Healthy weight and physical activity

The World Health Organization (WHO) regards obesity has one of the most serious global public health challenges for the 21st century [54]. Rates of overweight and obesity are rising across Wales, with higher rates seen in more deprived areas. In Wales, with six in ten adults living with overweight or obesity (35% overweight, 23% obese, and 3% morbidly obese) [18].

In Wales 6 in 10 adults are overweight or obese

Maintaining a healthy weight and engaging in regular physical activity are essential for overall well-being, reducing the risk of chronic diseases and serious health conditions, promoting mental health, and enhancing quality of life. Being overweight or obese increases the risk of a number of health conditions such as type 2 diabetes, cardiovascular disease including stroke, some cancers and liver disease [55]. Heart disease is a leading cause of death in Wales, causing over 10% of deaths per year [56].

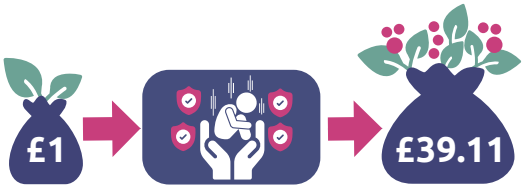
Behaviours such as smoking and alcohol use, and not maintaining a healthy weight significantly impact health later in life. Primary prevention programmes that help people adopt healthy lifestyles before they become ill are generally more cost-effective than secondary prevention programmes aimed at stopping further illness. However, secondary prevention programmes have an important role to play in enabling people to live longer, healthier and happier lives [57]. Such programmes are often delivered within primary care settings such as GP practices, pharmacies and the wider community.

Updated findings

Updated findings support the need to focus on the wider determinants of health and a cross-sector approach to make a difference to health inequalities and healthy life expectancy.

Mental Well-being

Multi-component approaches to reducing self-harm and suicide can result in significant ROI over a 10-year time horizon, with £39.11 returned for every £1 invested [13].



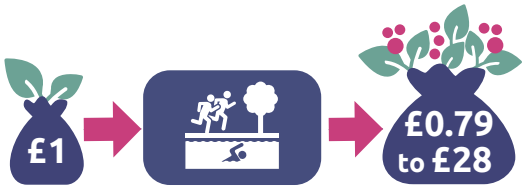
Workplace programmes to improve mental health return between £5-£9 per every £1 invested, with preventative programmes being more effective than reactive ones [21, 58].

Debt-advice can return between £2.60 to £4.41 for every £1 invested, with higher returns seen amongst those with mental health issues [13].

SilverCloud online Cognitive Behavioural Therapy programme for mild to moderate mental health problems is cost-effective [59].

Lifestyle coaching for anxiety or depression can yield an SROI of up to £7.08 for every £1 invested [60].

Access to green and blue spaces can contribute to improved mental health and offer SROIs of between £0.79 to £28 for every £1 invested [61, 62].



Smoking

Universal strategies that aim to reduce consumption through taxation and sales regulation remain some of the most cost-effective programmes, whether they are focused on tobacco control or alcohol [63]. Similarly, community and hospital in-patient smoking cessation programmes are cost effective [61, 64].

Smoking cessation programmes aimed at supporting pregnant women to quit smoking have been found to save $29,000 over the course of a child's lifetime [65].

14% of pregnant women in Wales smoke

Approximately 14% of pregnant women in Wales smoke and smoking in pregnancy is associated with a wide range of health impacts for the child such as stillbirth, neonatal death and low birth weight. As such, supporting women to quit smoking during pregnancy is a key public health priority that will bring multiple health benefits for both mother and child [47].

Alcohol

Most of the studies focused on **how to support those with acknowledged alcohol problems** to seek support to reduce their consumption (secondary prevention) rather than focus on prevention of alcohol consumption in the first place (primary prevention).

Alcohol use is a leading risk factor for poor health and disability, both to the individual and wider society [36].

Programmes like motivational interviewing and behaviour training, alongside structural measures such as drink driving laws, random breath tests and higher taxes are also cost-effective [66].

Peer-led programmes like Alcoholics Anonymous (AA) and Twelve-Step Facilitation (TSF) programmes are effective in increasing abstinence and potentially lead to significant healthcare cost savings for individuals with alcohol use disorder [67].

Healthy Weight and Physical Activity

Free access to leisure centres and community sports, demonstrate potential cost-effectiveness, as evidenced for adults by the Leeds Let's Get Active programme [68].

Targeted group sport activities aimed at increasing physical activity across different age groups show positive returns with SROI ratios ranging from £1.91 to £22.37 per £1 invested [69,70].

Primary Care support

Social prescribing supports those seeking to improve their health and access to non-medical programmes [71]. There is a rich body of evidence to support the use of social prescribing for a range of health needs, from reducing isolation (from joining community groups) to quitting smoking (library access to self-help books). Our updated analysis identified that social prescribing programmes generate positive ROI, potentially saving the NHS £4.6m in healthcare use over five years [72].

Self-referral to physiotherapy and yoga for musculoskeletal conditions result in an ROI of £7.52 and £6.61 respectively [73].

Advice from physiotherapists in primary care for musculoskeletal conditions to help people get back to work offers £11.14 ROI [73].

Health literacy programmes for general health promotion, at the primary, secondary, and tertiary prevention levels, could return up to £27.40 for every £1 invested [74].

Community link workers, non-clinical practitioners working one-to-one with individuals referred by GP practice, generate SROI from £1.09 - £8.56 for every £1 invested [23].

Improved care co-ordination in primary care for those with diabetes or coronary heart disease can provide a return of at least £1.52 for every £1 invested over two years [13].

Housing and Homelessness

Wales has the highest proportion of poor housing among the UK nations, largely due to its older housing stock. Consequently, it places a burden on the NHS for the treatment of housing related illnesses and accidental injuries. Our review identified several studies that add to the well-established evidence base that good quality housing enables people to live well in their communities.

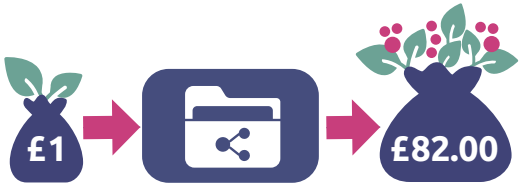
Warmth-related improvements and household ventilation enhancements for families improve asthma symptoms in children and are cost-effective [75], particularly when targeted towards more vulnerable households.

Programmes aimed at reducing the risk of homelessness have identified notable improvements in quality of life (cost per Quality Adjusted Life Years (QALYs) [76,77].

Homelessness prevention programmes can yield savings of £9,266 per person when compared to allowing homelessness to persist for 12 months [78].

Violence

Data sharing between emergency departments and the police can provide returns of £82 for every £1 invested and substantially reduce the costs associated with violence [35].



Investing more in community programmes that focus on early intervention, like addressing ACEs, is recommended to prevent violence and reduce its financial burden on the healthcare system [34, 35].

Training general practice teams to identify women experiencing domestic violence saves money, with £37 in societal cost savings per female patient each year in practices participating in the Identification & Referral to Improve Safety (IRIS) programme [35].

Communicable diseases

Tuberculosis (TB) prevention among refugee and migrant children and adolescents (0-18 years) is cost-effective. This includes information campaigns, health promotion, and infection control strategies. Policy options should integrate TB screening into migrant health services, improve cross-border collaboration, enhance health education, and align TB policies with social programmes [79].

Another review found that **screening and treatment for TB, HIV, and viral hepatitis among refugees and migrants** are generally cost-effective [80].

Summary

The updated findings emphasise the need to support healthy behaviours, mental well-being and address the wider determinants of health. The programmes reflect a cross-sector approach providing effective services and supportive, enabling environment.

Case Study – Silvercloud

SilverCloud – online Cognitive Behavioural Therapy (CBT) programme for Mental Health problems [59]

What is it?

Overseen by Powys Teaching Health Board and originally piloted during the COVID-19 pandemic, the programme is now expanding to all Wales, offering digital therapy for ages 11 years and above, including perinatal support. Over 23,000 people benefited from the pilot, with 64% reporting positive outcomes. Supported by psychologists, it offers both self-help and professional guidance. The Welsh Government has allocated an additional £7.7 million in funding for over three years, starting from fiscal year 2022/23.

This initiative is supported by the Welsh Government Mental Health and Well-being Strategy which aims to reduce suicide and self-harm in the general population through the promotion, co-ordination and support of plans and programmes that prevent suicidal behaviours and self-harm at national, regional and local levels.

Cost effectiveness evidence

A review of the SilverCloud online CBT programme for mild to moderate mental health problems found it to be cost-effective over 12 to 24 months, with Incremental Cost Effectiveness Ratios of £7,718 per QALY gained over 12 months and £4,151 per QALY gained over 24 months [59]. Implementation of SilverCloud online CBT has the potential to alleviate demand for NHS one-to-one counselling and CBT services, offering a viable alternative for those on waiting lists. Integrating SilverCloud online CBT referrals into primary care and social prescribing pathways could enhance accessibility and cost-effectiveness.

Healthy Ageing

Summary of evidence

What previous research told us

- Cost effective programmes include falls and injury prevention; physical activity; communicable disease prevention and vaccination; preventing mental ill health and elder maltreatment; multifaceted housing programmes; reducing poverty, social isolation and exclusion by providing public support for informal care and home care [8].

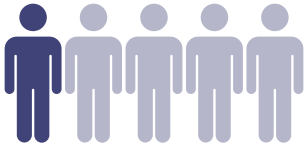
Updated research findings - what this report adds

- Improving housing through heating and insulation upgrades for those over 65 years brings cost savings.
- Promoting independent living through healthy workplaces, improved housing, fall prevention via exercise programmes, and community-based initiatives can lead to significant cost savings
- Postponing entry into residential care by just one year brings cost savings.
- Community based art programmes and exercise programmes can produce positive ROI and can generate SROI.
- Community transport helps address loneliness and social isolation and provides positive ROI.
- Providing support to older carers provides many benefits to the individual and wider society.

Findings from previous research

Maintaining good health into old age benefits both individuals and society. People who stay healthy have a far better quality of life compared to those who develop multiple serious conditions and live with them for many years. In Wales, *'The Age Friendly Wales: Our Strategy for an Ageing Society'* complements the Healthier Wales Strategy by ensuring integrated health and social care, promoting equality, and prioritising prevention to help older people live well [81]. Age Friendly Wales covers aspects such as employment, rights and entitlements, relationships with family, communities, and government, as well as intergenerational connections. It aims to challenge and change how we think about ageing. The economic value of the contribution made by older people in Wales is estimated to be £2.19 billion per annum [82].

Wales generally has an older population, which is expected to grow, along with higher levels of socioeconomic deprivation and health inequalities [83]. Over one fifth (21%) of people in Wales are aged 65 or older [84], which is the highest proportion of all the UK countries and regions except for the Southwest of England. More people are living to over 90 years of age, which is a pattern seen throughout the UK.



over **one fifth** of people in Wales are aged 65 or older

According to the 2019-20 National Survey for Wales [85], of people aged 65 and over:

13% report their health as bad or very bad

71% have a long-term health condition

31% have heart and circulatory problems

More than 75% of women and a third of men over 65 live alone, with around 15% of people over 65 reporting that they feel lonely [85]. In recognition of the impact of loneliness on physical and mental well-being of older people in Wales, 'Connected Communities; Loneliness and Isolation' Strategy [86] was launched in February 2020.

75% of women

33% of men

over 65 live alone

Improvements in living standards, medical advancements, and public health initiatives have led to longer lives for many. However, not everyone enjoys these extended years. Disadvantages in education, employment, living conditions, and unequal access to social care and health services mean that people in our most deprived communities can expect to live 17 fewer years in good health compared to their more affluent neighbours [4]. Additionally, many of us, regardless of location or income, may face mental or physical health challenges and functional limitations as we age, which require effective management to maintain a high quality of life in later years.

Updated findings

Updated findings support a holistic approach to maintaining good health into old age which benefits both individuals and society and which acknowledges the economic contribution made by older people in Wales.

Holistic approach to healthy ageing

Findings from various reports advocate for investment in the well-being of older people with ROI's ranging from £0.17 to £43.99. Programmes include community singing, dementia friendly nursing homes, home assistance schemes, support for staying in the workforce, housing improvements, promotion of independent living, encouragement of community engagement, and maintenance of mental well-being. These initiatives focus particularly on addressing loneliness and social isolation, preventing falls, and supporting older caregivers. For example, peer support for people with dementia and carers has been shown to give a positive ROI with groups creating social value, ranging from £1.17 to £5.18 for every £1 invested [82, 87, 88]. Subsequent studies [89, 90] further support these findings.

Mental Well-being

Addressing loneliness in older adults through community activities and transport services yield positive ROIs [13]. To address loneliness and social isolation, community transport provides a positive ROI, with £3 returned for every £1 invested [82]. A broader systematic review on the SROI of public health programmes addressing mental health issues show diverse SROI ratios, ranging from £0.79 to £28, with programmes tailored to those experiencing mental health problems showing the highest returns [62].

Housing

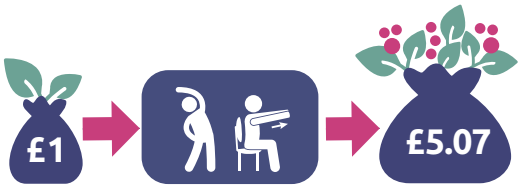
As noted previously, programmes that focus on improving housing are cost effective. Falls prevention programmes can return financial results back within a three year time frame, which is much shorter than many interventions [78].

Evidence shows that every £1 on central heating yields 42p in health benefits and 3.9% fewer GP visits for respiratory conditions.

Every £1 on insulation programmes returns £1.87 and £1 on improving warmth in vulnerable households gives £4 benefits and 39% fewer hospital admissions for cardiorespiratory conditions and injuries in those with upgraded houses [78].

Physical Activity

Preventive strategies to prevent falls is cost effective and avoiding a hip fracture might save hospital admission costs averaging £5,744 per patient [81].
Promoting physical activity for people with early dementia (the Promoting Activity, Independence, and Stability in Early Dementia (PrAISED) programme) demonstrated positive SROI ratios ranging from £3.46 to £5.94 for every £1 invested, alongside notable social value ratios [91].



Further SROI evidence was identified from North Wales based projects. A 16-week physical activity programme for older adults with chronic health conditions returned an SROI of £5.07 per £1 invested over a one-year period [92]. Similarly, an innovative lifestyle programme (My Life) developed by the Conwy West Primary Care Cluster for prediabetes, showed an SROI of £4.23-£5.07 per £1 invested. This was set up to address the high number of people with Type 2 Diabetes in the area. It consisted of an 8-week programme designed to increase physical activity levels and healthy lifestyle [93].

Programmes such as FaME Group Exercise, Tai Chi Group Exercise, and Home Assessment and Modification are found to be cost-effective compared with usual care, with financial ROI ranging from £0.85 (Tai Chi) to £3.17 (home assessment and modification) and SROI ranging from £ 1.97 (Tai Chi) to £7.34 (home assessment and modification) [87].

Workplace

There is a growing recognition that workplace health promotion programmes, such as screening activities to identify potential health risks, and lifestyle management activities, to improve health and health behaviours, can keep older workers healthy and productive. Good evidence shows that flexible working practices, such as flexitime, part-time working, job-sharing and working from home, can help older people, particularly those with health issues or caring responsibilities, to remain in employment for longer and can result in healthier lives overall [58].

The Arts and culture

Many of the results we identified come from SROI literature. **Investing in arts and creativity programmes for older adults' health and well-being can generate positive SROI** such as craft cafes and 'men in sheds' programmes generating substantial SROIs of £8 to £10 for every £1 invested [82].

An arts programme in England yielded £1.20 for every £1 invested, while Scotland's Craft Café Creative Solutions generated £8.27 per £1 spent. In England and Wales, art activities for older people with dementia produced SROI between £3.20 and £6.62 per £1 invested [94].

Summary

A holistic approach is required to ensure healthy ageing with a recognition of the value of older people and their contribution to society. Social return on investment provides evidence for the wider social value of healthy ageing.

Conclusion

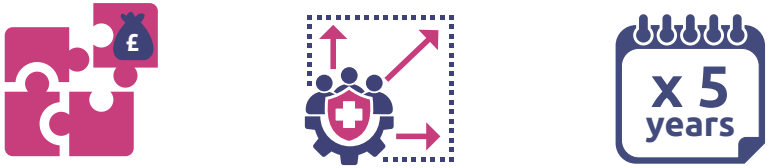
Investing in the building blocks of good health is pivotal if we are to see improvements in health and well-being and tackle inequalities in Wales. Prioritising prevention reduces the financial cost of illness to the health and care system and wider society.

Good health is a fundamental human right for all but unfortunately there are unfair and avoidable differences in health between communities. Together we need to make essential impactful change to reduce inequalities in child health, inequalities in avoidable deaths and inequalities in healthy life expectancy.

Public health interventions offer significant return of £14 for every £1 invested add most value for the people of Wales.

This report provides evidence on the long-term programmes and targeted interventions where spend on prevention has the greatest impact across the life-course, starting in the early years, to healthy adults and healthy ageing. The prioritised areas for spend can improve both health outcomes and create a more financially sustainable health and care system, supporting policy and decision-makers to make the most of every pound spent on prevention in Wales.

Investing in prevention cannot be done in isolation; it needs to be part of a wider drive to reduce health inequalities through strategies and policies that have a focus on early years and poverty reduction. It is essential that public spend benefits Wales' most deprived communities, with a focus on high impact interventions with significant, scalable potential. Investment needs to be part of a long-term commitment that not only results in rapid outcomes but also allows time for the full impact to be realised (over 5 years).



The scale of the challenge we face necessitates prioritising prevention, working across sectors and boundaries, involving our population and integrated solutions to complex problems, ensuring that our actions embody the Well-being of Future Generations (Wales) Act 2015 to achieve sustainable change.

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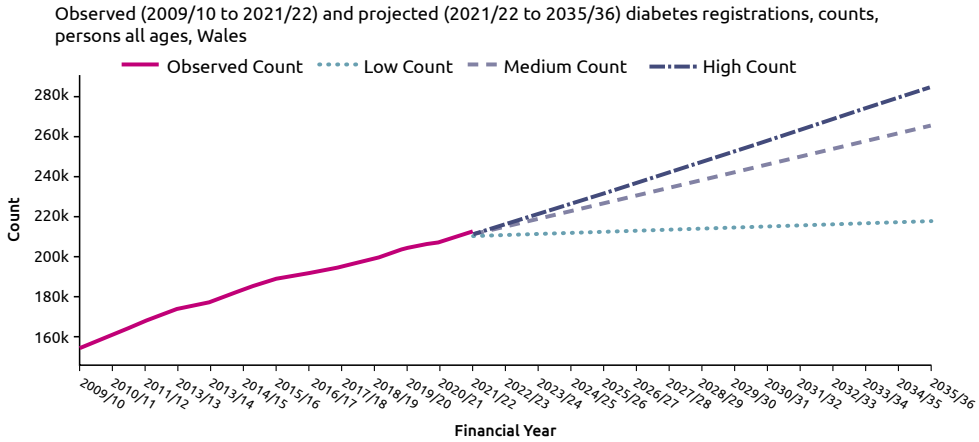
Appendix 1: The state of health in Wales

The Welsh Government's 2023 report, *NHS in 10+ years* [95], predicts that the number of people with long-term conditions in Wales will nearly double by 2035, much of which is preventable by focusing on public health and supporting healthier behaviours. For example, the prevalence of diabetes in Wales is rising as demonstrated in Graph 1, which shows projections for future cases of diabetes (Type 1 and Type 2 diabetes) to 2035-36 [96].

Graph 1: Projections of future cases of Diabetes in Wales.



Both Type 1 and 2 diabetes lead to serious complications and around 10% of the NHS Wales budget is spent on managing the disease [96]. Type 2 diabetes can be prevented and is strongly associated with deprivation. Preventing Type 2 diabetes and ensuring timely care can reduce health inequalities and lower healthcare costs. Moreover, shifting services from secondary care to supporting patients in communities can help improve access to services for those living in deprived communities.

The scale of the health inequalities challenge

Health inequalities are differences in health status or healthcare access between different population groups and are influenced by social, economic, and environmental factors [97]. Those living in our more deprived communities tend to have worse health and poorer access to health services [98]. Health inequalities are unjust and avoidable but remain entrenched in Wales. These inequalities negatively impact quality of life and increase the likelihood of early death from preventable illness [95]. For example, there is a 17-year gap in healthy life expectancy between the most and least deprived communities in Wales [4].

Beyond the personal toll, there is a significant cost to the wider public sector. Health inequalities cost acute NHS services in Wales £322 million per year, or 8.7% of its total expenditure, not including additional costs to primary and social care [99].

Part of this inequality stems from differences in how people access health care. In this scenario, rather than self-refer to a GP at an earlier stage of disease for diagnosis and treatment, people from deprived communities are more likely attend their local Emergency Department at a later stage of their disease, significantly and adversely impacting their health outcomes [99]. The accessibility and availability of local, community services are crucial for improving health outcomes.

Child poverty and its impact on health inequalities

Key to addressing health inequalities in Wales is reducing poverty – specifically, child poverty, which is a key determinant of health inequalities later in life. Twenty-nine percent of children in Wales are living in relative poverty, once housing costs have been considered [16]. Poverty impacts all aspects of children's life, including their ability to concentrate and make good progress in school, their health and future opportunities. The child death rate in Wales is 70% higher for children living in our most deprived communities compared with their most affluent neighbours [2]; children who live in poverty are very likely to remain living in poverty through to adulthood [100].

There is a strong relationship between government policy and child poverty [17]. Recent modelled data from England shows that removing the two-child benefit cap could improve child health, particularly amongst those living in the most deprived communities.

Appendix 2: Methodology

Introduction

This section provides a detailed overview of the methodological approach taken to conduct the scoping review, including the review process, the identification of studies through databases, search terms and strategy, inclusion and exclusion criteria, study selection, data extraction, and methodological quality assessment of the systematic reviews. The search strategy was based on previously conducted reviews by Public Health Wales [7] and the WHO Health Evidence Network [8]. The aim was to update these reviews with evidence from 2017 and understand the most recent evidence base on public health value for money programmes to support decision-makers to allocate resources for public health fairly and sustainably, addressing health inequalities.

Identification of evidence

Various academic databases were systematically searched, including Cochrane, PubMed, Scopus, and CINAHL, followed by a search of grey literature, the following databases and websites were screened Google, Google Scholar, Health Evidence Network Sources of Evidence, Health Systems Evidence, WHO Library (WHOLIS), European Observatory on Health Systems and Policies, Portal for European data, OECD (Library), Social Value UK, Health Foundation, Nuffield Trust, Kings Fund, NICE Guidance repository Centre for Health Economics / University of York – Publications, Centre for Health Economics and Medicine Evaluations / Bangor University Care Policy and Evaluation Centre/London School of Economics (LSE).

The searches covered the period from January 1, 2017, to January 1, 2024, and were performed in February and March 2024, with additional evidence received from key stakeholder, reviewers and contributors meeting the inclusion criteria which were added during March –and April 2024. In addition, a manual searching of reference lists from previously identified papers was performed, resulting in identification of additional studies deeming relevant for inclusion given their robust relevance to the scoping review being conducted. This review was restricted to English-language sources with available full texts.

Search terms

The search strategy incorporated a combination of keywords, and subject headings applied for each database searched as appropriate.

The search strategy was informed by keywords used in the health evidence network synthesis (HEN) report [8], using the key terms summarised below and was applied to search academic databases using the Boolean operators 'AND' and 'OR'. The same search strategy was used in the search of grey literature, with minor modifications made according to organisational websites / databases search requirements.

Search Strategy Used to Search Databases

"Public health" OR "health promotion" OR "primary prevention" OR "health in all policies" OR "social welfare"

Polic* OR governance OR inequal* OR equalit* OR equit* OR leadership OR intersector* OR inter-sector* OR multiagency OR multi-agency OR multisector OR multi-sector OR multi-actor OR multiactor OR communit* OR empowerment OR participat* OR sustainab*

Program* OR strateg* OR intervention*

1 AND 2 AND 3

Cost* OR econom* OR invest* OR financ* OR funding OR budget* OR "monetary resource*

Benefit* OR effect* OR outcome* OR utilit* OR consequenc* OR impact* OR evaluat* OR analys*

5 AND 6

"Return on investment" OR "social return on investment" OR win-win OR "best buy*" OR "good buy" OR "value for money" OR ROI OR SROI

7 OR 8

4 AND 9

Inclusion and Exclusion Criteria

Table 1 presents the pre-determined inclusion and exclusion criteria, which were developed and applied during the review process for the identification and selection of appropriate studies.

Table 1: Inclusion and Exclusion criteria

Criteria 1	Study design
	Inclusion: Evidence from high-level academic sources; grey literature from high-level sources such as WHO or United Nations. **Exclusion:** Evidence not from high-level sources, no full text available, or published in a language other rather English.
Criteria 2	**Intervention**
	Inclusion: Focusing on investment choices in public health, covering mental health, reducing inequalities, non-communicable diseases, etc. **Exclusion:** Evidence not providing information on public health policies and evaluations; or public health policies or economic evaluations focusing on the topic area of COVID-19.
Criteria 3	**Targeted population**
	Inclusion: Evidence from high-income countries; including non-tax-based. Evidence from high-income countries only, which can include non-tax-based systems. **Exclusion:** Evidence from middle and low-income countries (LMICs) as defined by the World Bank https://data.worldbank.org/country/XD; or targeted to a niche target population e.g., populations impacted by rare diseases.
Criteria 4	**Outcomes**
	Inclusion: Data on economic benefits (primary outcomes) and public health (secondary outcomes) and including social or environmental aspects. **Exclusion:** Economic outcomes (primary outcomes) and public health (secondary outcomes) not reported.

Study selection

The entire selection process was documented in accordance with the PRISMA guidelines [101]. Following the identification of evidence, all records were transferred from each database to EndNote / Zotero as appropriate reference management software, for record organisation and management and duplicate removal. All results were independently reviewed by the four reviewers who screened the records against the predetermined inclusion and exclusion criteria, both by title and abstract for potential inclusion, followed by a full-text review for those that appeared to meet the eligibility requirements.

Inclusion was based on whether a study had at least one assessed programme that matched the predetermined inclusion and exclusion criteria, outlining a potential solution or best buys to improve public health outcomes and offer a positive economic and social return and/or cost savings in relation to future projections in public health. Studies were excluded if they did not provide evidence on public health policies and evaluations in high-income countries and without explicit reporting of economic and public health outcomes of the programmes assessed. Discrepancies in selection and inclusion were resolved through discussion and consensus among all reviewers.

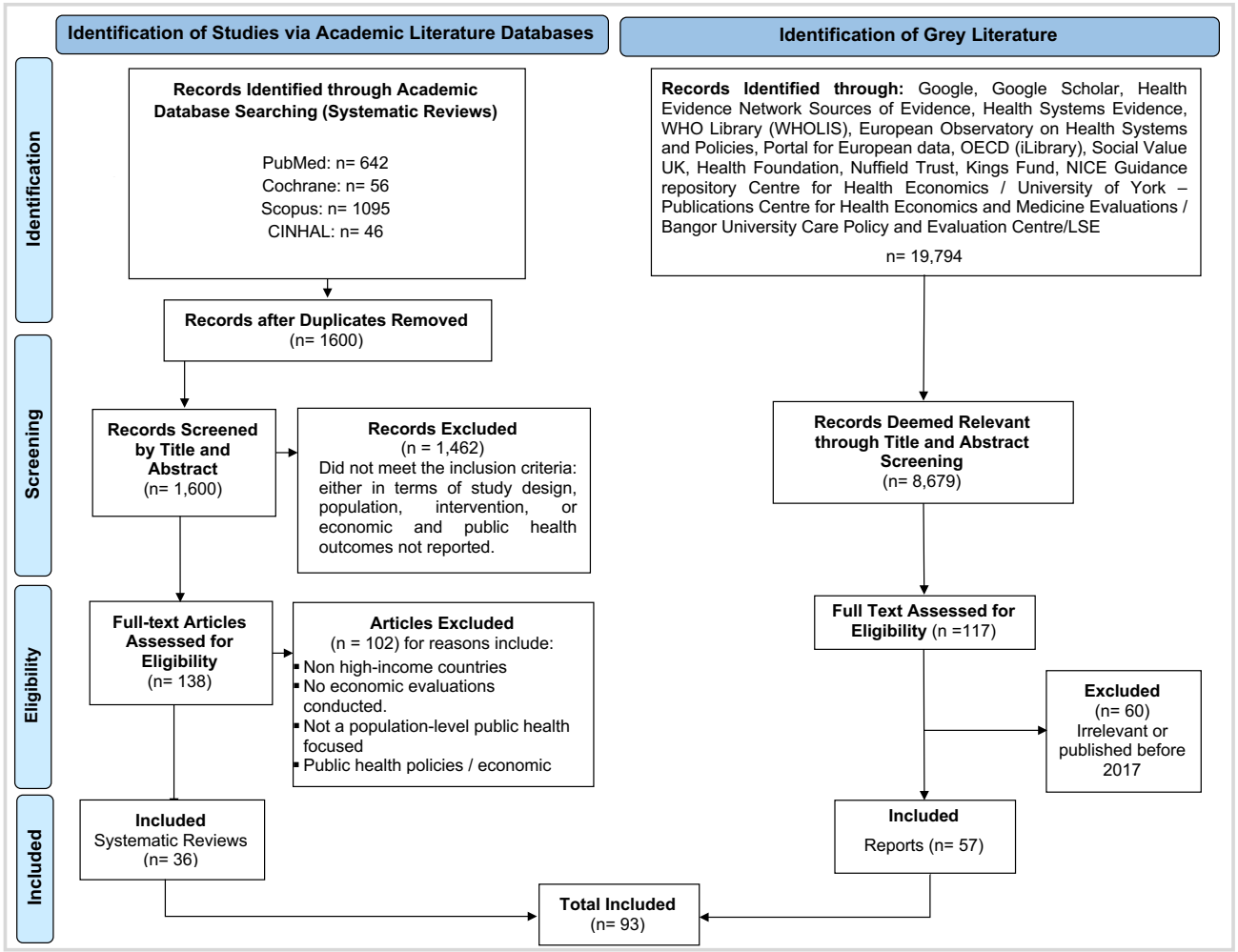
Data extraction and synthesis

Following study selection, the reviewers inputted study level information and economic level information from each eligible study into a pre-developed Excel data extraction sheet. The data extracted included the key information, title, author, year, and country, aim and/or objective of paper, programme, or service (e.g., type, aim, and/or objective), public health topic, population, study design, number of individual primary studies, economic method and/or methods used for estimations (if applicable), primary outcomes (economic outcomes), secondary outcome (public health outcomes), limitation(s), reviewer's notes, and the link to study.

Data extracted from the included studies were systematically pooled and compiled in the customised data extraction table, facilitating an organised review and categorisation of information to identify key public health themes and programmes across all studies. The data extracted from included studies were then organised and narratively summarised and synthesised under eight broad public health themes, including mental health and well-being, addressing harmful behaviours (smoking, drugs, alcohol, gambling, etc.), communicable diseases, non-communicable diseases, wider determinants of health (e.g., violence & homelessness), early years, and healthy ageing.

Search results

Initially, the academic database searches yielded 1,839 records, reduced to 1,600 after removing duplicates. Ultimately, 1,600 records were screened by title and abstract according to the PRISMA guidelines. Following the initial screening of titles and abstracts, 138 full-text records were reviewed and assessed for eligibility, resulting in the inclusion of 36 systematic reviews. Additionally, searches of the grey literature identified 19,794 records. Of these, 8,679 underwent screening by title and abstract, leading to 117 reports being fully assessed for eligibility, of which 57 were included in the final report. The PRISMA flow chart below shows the scoping review search process and results.



Methodological quality assessment of studies

The methodological quality of the included systematic reviews was assessed using the Critical Appraisal Skills Programme (CASP) checklist [102]. The assessment of the methodological quality of the included reviews was not mainly used to exclude any studies but rather to judge the relative contribution of each study to the main purpose and focus of the current review. Upon selecting the studies for inclusion, each chosen review was assessed for methodological quality using the CASP checklist. The CASP checklist evaluates reviews based on several criteria consisting of 10 questions to be answered with 'yes', 'no', or 'unclear'. These broadly focus on the assessment of the validity of the review results, addressing a clearly focused question, inclusion of the right type of paper and important, relevant studies, quality assessment of the included studies, synthesis and precision of the results, consistency of conclusions with the results' analysis, and application of results to local populations, etc.

Overall, all 38 studies were categorised as moderate to high quality, with the majority of the reviews addressing a clearly focused question and including the right types of papers and important relevant studies, having their results well supported by the data. All included studies provided a clear statement and synthesis of findings, providing a detailed summary and insights into the issue being addressed, with a high level of synthesis and precision in the results among all reviews. However, six reviews did not assess the quality of their included studies, which could have affected the quality of their overall results. In addition, some reviews had a general lack of a 'detailed description' of overall factors and outcomes in relation to the application of results to local populations.

Currencies and inflation

The evidence is reported in the following currencies Pounds Sterling, Euros and US Dollars. The figures presented in the main document and the technical appendix are the same as they appear in the original evidence. They have not been converted to a single currency (£) nor have they been inflated to today's prices. This decision was made due to the complexity of the analyses, which would have introduced biases if converted and inflated. Additionally, many of the original papers and reports did not specify cost year; therefore, we were unable to perform currency conversions and inflations.

Economic evaluations and inclusion of SROI methodologies

Our report considers evidence from both traditional economic evaluations and social return on investment methodologies to explore the economic case for prioritising investment in public health.

Economic evaluations of healthcare programmes [103], such as cost-effectiveness analysis (CEA), cost-utility analysis (CUA), cost-benefit analysis, cost-consequence analysis, and Return on Investment (ROI), are fundamental tools for decision-makers to assess the value and efficiency of various healthcare treatments, programmes, or policies. These evaluations enable the allocation of limited resources effectively to maximise health benefits for individuals and populations. ROI, in particular, provides decision-

makers with insights into the financial gains relative to costs, aiding in understanding the economic efficiency of healthcare investments [104].

On the other hand, the Social Return on Investment (SROI) of health programmes [105] goes beyond financial returns, measuring the broader societal benefits gained compared to the costs invested. This approach offers insight into the social, economic, and environmental value and impact of the programmes. Unlike traditional economic evaluations, SROI involves a more qualitative and participatory approach, engaging stakeholders to define outcomes and using both qualitative and quantitative data to assess broader social value.

Both traditional economic evaluations and SROI have strengths and limitations, chosen based on evaluation objectives, programme nature, and stakeholder preferences. While traditional evaluations focus on financial metrics, whilst SROI incorporates social, environmental, and economic impacts, offering a broader perspective. It has been argued previously that focusing on a main health-related outcome (e.g., QALY) may be too narrow of an approach for public health programmes. There are also limitations regarding SROI as the method relies on proxies and assumptions, leading to inconsistency in approaches and outcomes. Balancing these methods requires consideration of strengths and weaknesses, along with supplementary approaches, for a comprehensive assessment. Both approaches inform resource allocation decisions in healthcare, optimising limited resources to enhance public health.

Limitations

This report aims to provide policy recommendations for prioritising investments in key areas of public health in Wales. Systematic reviews were used to compile published research evidence rapidly. The authors set a date limit from 2017 onwards for the systematic reviews to provide follow-up information and continuity from previous PHW reports. However, the use of systematic reviews means that some published research evidence may pre-date 2017, due to the inclusion criteria set by the systematic review authors. To mitigate these limitations, the report has been written to provide recommendations of key areas of investment, rather than focus on specific programmes.

Inconsistent methodological approaches used in original studies creates a challenge in attempting to understand where best to focus investment. This report has aimed where possible to provide recommendations of where investment should be prioritised based on the evidence to aid policy making decisions and make the most of every pound spent in public health.

With regards to physical activity, the search strategy did not include terms for safety or injury which is an evidence gap, with options such as active travel designed to improve safety and reduce injuries and accidents by having designated footpaths and cycle lanes that are separate to road traffic.

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