



# Healthy life expectancy

## Introduction

The Well-being of Future Generations Act (Wales) 2015 requires Welsh Government Ministers to set National Indicators to measure progress towards the seven national well-being goals (Figure 1). On March 16<sup>th</sup>, 2016, a set of 46 [National Indicators](#) were laid. The Act also requires Ministers to lay National Milestones for 2050 which ‘set out expectations of progress, including the scale and pace of change required’ (Welsh Government, 2019b, p. 3) to assess whether Wales is on track to meet the well-being goals. The first wave of Milestones was ratified in the Senedd at the end of 2021. The Welsh Government is in the process of developing the second wave of Milestones by the end of 2022.

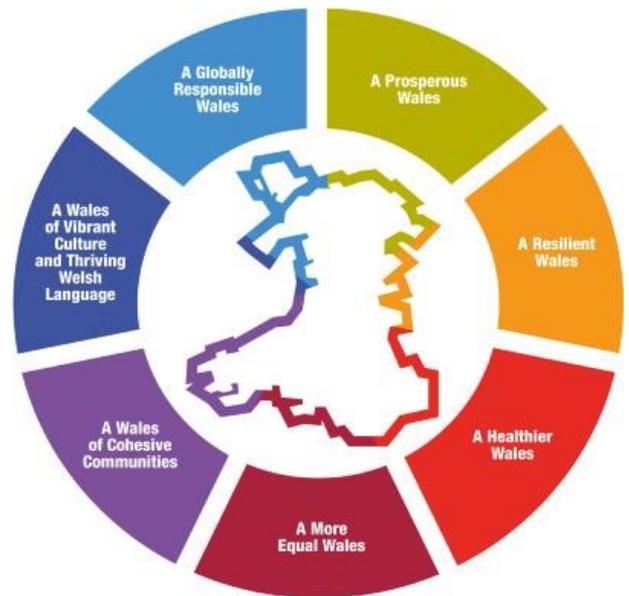


Figure 1: The seven well-being goals for Wales  
Source: Welsh Government, 2020

## National indicator 2

The briefing aims to inform the development of a realistic and ambitious Milestone for National Indicator 2: *‘healthy life expectancy at birth including the gap between the least and most deprived areas.’*

In what follows, we outline trends in the indicator data, and summarise available evidence about what may explain or contribute to these trends. We also address the policy context and policy levers for driving improvements in healthy life expectancy and reducing the gap between the most and least deprived, the impact of the Coronavirus pandemic, and key considerations for developing the Milestone for National Indicator 2.

This briefing is based on a rapid review of available evidence, to inform the stakeholder event on the 24<sup>th</sup> of March 2022. As such, it does not reflect a comprehensive or systematic review of relevant evidence.

To consider a suitable National Milestone, it is necessary to understand the current ‘direction of travel’ in healthy life expectancy, including the gap between the least and most deprived areas, and the pace and scale of change that has been seen previously in relation to this National Indicator.

Any changes in healthy life expectancy over time will reflect both changes in mortality rates (and therefore changes in average life expectancy), and changes in the prevalence of self-reported good or very good health (see Box 1 below).

The following analysis takes the period 2009-11 as its baseline, as this allows for a comparison of the trend preceding the introduction of the Well-being of Future Generations (Wales) Act (2015) and the healthy life expectancy National Indicator with which this paper is concerned, with the trend in recent years. Data beyond 2017-19 are not yet available. Some data regarding inequality in life expectancy is only available from 2011-13.

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## Box 1: What is 'healthy life expectancy' and how is it measured?

**Average life expectancy** is a measure of “the average number of years that an individual is expected to live based on current mortality rates” (Office for National Statistics, 2017). **Healthy life expectancy** refines this measure to capture “the average number of years that an individual is expected to live in a state of self-assessed good or very good health, based on current mortality rates and prevalence of good or very good health” (Office for National Statistics, 2017). Healthy life expectancy gives information about quality of life by providing an estimate of how much of a person’s lifetime is, on average, spent in “good” or “very good” health.

Healthy life expectancy estimates are calculated based on self-reported health states which report how people perceive their own overall health (Office for National Statistics, 2018). In the UK, healthy life expectancy is calculated by the Office for National Statistics (ONS) from self-reported health data from the Annual Population Survey (APS). In essence, healthy life expectancy is an estimate of “the number of remaining years, at a particular age, which an individual can expect to live in a healthy state” (Jagger, et al., 2014, p. 2). For ONS calculations “a healthy state” is defined as a response of “good” or “very good” to the relevant question about general health (Office for National Statistics, 2018).

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### Average healthy life expectancy at birth

Between 2009-11 and 2017-19 there was very little change in average healthy life expectancy at birth in Wales for both male and female individuals. At the start of the period, average female healthy life expectancy in Wales was 62.27 years, increasing to a high of 62.64 in 2013-15, before falling again to 62.11 in 2017-19. Similarly, average healthy life expectancy for male individuals has remained between 61.1 and 61.5 years throughout that time. For both male and female individuals, average healthy life expectancy has been consistently among the worst in the UK.

### Average life expectancy at birth

Average life expectancy has increased very slightly since 2009-11, though the rate of improvement in life expectancy has slowed significantly compared to previous decades. In 2009-11, average life expectancy at birth was 82 years for female individuals and 77.85 for male individuals. By 2017-19, life expectancy had increased marginally for both female and male individuals, to 82.32 and 78.52 respectively. These increases in life expectancy were the smallest in absolute terms amongst all four UK nations during this period.

### Self-reported health scores

There has been relatively little change in overall self-reported health scores in Wales since 2013-14. For all years until 2019-20, the most popular response was “very good” with most respondents selecting this category, although the proportion of respondents who classified their health as “very good” declined between 2013-14 and 2019-20 from 38% to 33%, before increasing again in 2020-21 to 36%. For all years, between 18-20% of respondents ranked their health as “fair”, between 5-7% reported “bad” health, and between 1-3% of respondents classified themselves as being in “very bad” health.

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## Box 2: How is the gap between the least and most deprived areas calculated?

National Indicator 2 also includes the **gap** in average healthy life expectancy at birth between the least and most deprived areas. Here, deprivation is measured using the Welsh Index of Multiple Deprivation (WIMD), an area-based measure of relative deprivation which ranks all 1,909 small areas of Wales from most to least deprived based on their level of deprivation in eight different domains (DataMapWales, 2016; StatsWales, 2022).

Two different methods are in use in Wales to estimate the gap in average healthy life expectancy between the least and most deprived – the **slope index of inequality (SII)** and a calculation of the **absolute difference**. Each method has strengths and weaknesses, and each provides different estimates of inequalities in healthy life expectancy. While the SII has previously been used in reporting against National Indicator 2, Public Health Wales have taken the decision to use the absolute difference method for future calculations of inequality gaps in healthy life expectancy (Public Health Wales Observatory, 2019). The analysis below therefore focuses on the absolute gap, rather than as calculated using the slope index of inequality.

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### The inequality gap in healthy life expectancy

In absolute terms the gap in average healthy life expectancy for female individuals in Wales has varied in recent years, although overall it has declined slightly since 2011-13. At the start of the period, the gap in female healthy life expectancy between the least and most deprived 10% of areas in Wales was 19.8 years. This declined to just under 18 years in 2014-16, then increased to a peak of 20.15 in 2016-18, before declining again to 18.25 years in 2017-19.

The male healthy life expectancy gap varied significantly between 2011-13 and 2017-19. However, by the end of this period the gap was very similar to that seen at the start, at around 16.8 years.

### The inequality gap in life expectancy

Despite a slight decline in the gap in average healthy life expectancy, the gaps in average life expectancy for both female and male individuals have increased since 2011-13. In 2011-13, the gap in female life expectancy between the least and most deprived 10% of areas in Wales was 7.2 years, increasing to 7.49 years in 2017-19. For male individuals, the gap in average life expectancy between the least and most deprived 10% of areas in Wales rose from 8.56 years in 2011-13 to 8.99 years in 2017-19.

### The inequality gap in self-reported health

For self-reported health, the absolute gap in the proportion of people in the most and least deprived WIMD quintiles reporting good health has varied in recent years - but has declined overall from 15.49pp in 2017-18 to 14.17pp in 2020-21.

## Understanding trends in healthy life expectancy

These trends, taken together, provide an interesting picture of the state of health and life expectancy in Wales. Achieving improvements against National Indicator 2 represents a significant policy challenge, involving addressing the lack of improvement in healthy life expectancy at birth in Wales over the last decade, and little to no narrowing of the gap between the least and most deprived. Identifying a suitable milestone for this indicator therefore requires further investigation into what may be underpinning this stagnation and, because healthy life expectancy is a 'composite' measure, this means exploring not only what may be driving mortality trends, but also trends in self-reported health and health inequalities. The next section draws on a rapid scan of evidence to explore potential explanations for the following in Wales:

- The stalling of life expectancy improvements over the last decade;
- The lack of improvement in self-reported health over the same period;
- Sustained inequalities in healthy life expectancy.

### Why have improvements in average life expectancy stalled?

One component of the stagnation of healthy life expectancy in Wales is a slowdown in the rate of improvement in life expectancy over the last decade. Wales is not unique among higher-income countries in experiencing these changes to life expectancy trends, occurring after a long period in which life expectancy improved steadily due to sustained reductions in mortality, driven by improved living conditions, lifestyles, and healthcare (Hiam, et al., 2018). Indeed, the other three nations of the UK have also seen pronounced slowdowns since 2011, as have the USA and many Northern European countries. Importantly, however, some other high income countries, such as Japan and South Korea, continued to experience substantial gains in life expectancy over the same period (Fenton, et al., 2019).

While the rate of progress declined in many Northern European countries, a significantly larger deceleration was seen in Wales and the other UK nations – a result which is unlikely to be due to chance. Additionally, in England and Wales, this low rate of improvement from 2011-16 was preceded by a five-year period with the largest annual improvements in life expectancy for both sexes since 1970, with larger gains than many higher-income countries (Leon, et al., 2019). **Understanding what may be contributing to the subsequent slowdown in life expectancy improvements is therefore an urgent policy challenge for the Welsh Government and governments across the UK.**

Understanding the underlying causes of life expectancy trends is a complex endeavour. There is unlikely to be a single driver of the current slowdown in mortality rate improvements. Instead, determinants of life expectancy trends are likely to be multiple, highly complicated and interrelated, with several factors operating at once across a wide range of age groups, geographies and causes of death (Marshall et al, 2019). However, while there are relatively few Wales-specific studies, there is a growing body of evidence which seeks to understand what may be driving the stalling of life expectancy gains in the UK.

### Changes in cause of death

One approach involves analysing mortality data to understand the contributions of different causes of death to changes in average life expectancy over time. Analysis of international mortality data has shown that the slowdown in life expectancy gains in many higher income countries has been substantially driven by a decrease in improvements in mortality for cardiovascular disease. Why this may be the case is unclear, with potential explanations including changes in the prevalence of risk factors such as obesity and diabetes, and a gradual narrowing in the scope for additional mortality improvements from primary and secondary prevention strategies (Sidney, et al., 2016). In the UK, there has also been a slowdown in mortality improvements for other causes of death, such as chronic respiratory disease, as well as an increase in the proportion of deaths attributed to dementia and

Alzheimer's disease, though there is good evidence to suggest that much of the increase in mortality from dementia and Alzheimer's disease is explained by changes in diagnosis, documentation and coding of dementia in health records and death certificates (McCartney, et al, 2022). Underpinning the general slowdown in recent years is an increasing pattern of large year-on-year fluctuations in mortality, driven largely by excess winter deaths, mostly among older people and attributed to flu, pneumonia, and respiratory disease (Raleigh, 2018).

In Wales, the last decade has seen a considerable slowdown in improvements in mortality rates for circulatory disease for both male and female individuals. This slowdown in improvements has combined with increasing death rates from flu and pneumonia, and dementia and Alzheimer's disease, as well as an increase in death rates from accidents among male individuals, and in chronic lower respiratory diseases among female individuals – all of which have contributed negatively to life expectancy improvement (Public Health Wales, 2020). Similarly, studies of mortality data in Scotland have shown a particularly marked slowdown in the rate of improvement for circulatory causes of death (Ramsay, et al., 2020). Across Wales, England, and Scotland, historic gains in life expectancy have been driven to a large extent by reductions in mortality from heart disease and stroke – meaning that a slowdown in improvements in mortality rates for these causes of death has had a significant impact on life expectancy trends in all three countries (Public Health Wales, 2020; Ramsay, et al., 2020; Public Health England, 2018). While Wales-specific evidence is not currently available, in both Scotland and England drug-related deaths among younger adults are also a substantial contributor to worsening life expectancy trends (ibid).

### **Changes in prevalence of risk factors**

A weakness of investigating trends in life expectancy in relation to the contribution of individual causes of death is that this approach offers limited understanding of *why* changes may be happening – and therefore also of what policy solutions might be effective. Taking a different approach, changes in mortality rates can be attributed to changes in the prevalence of risk factors which are common to the leading causes of death. A 2018 report by Public Health Wales found that half of all premature deaths in Wales are linked to risk factors such as tobacco, poor diet, alcohol and drug use, obesity, and high blood pressure, with a previous history of smoking the risk factor which has contributed most to years of life lost. This also points to the possibility of cohort effects, where population cohorts may have been more exposed during their lifetimes to particular risk factors and are now reaching an age where this is exerting an influence on mortality (Fenton, 2019).

However, while changes in the prevalence of risk factors may help to explain recent mortality trends, understanding why particular risk factors may be increasing in prevalence is more difficult – reflecting the fact that risk factors common to the leading causes of death are linked in complex ways to social and economic circumstances (Marshall, et al, 2019).

### **The impact of austerity**

It has not escaped the attention of longevity researchers that the slowdown in mortality improvements after 2011 coincided with the implementation of wide-ranging austerity policies in many higher income countries, including Wales, England, Scotland, and Northern Ireland. Indeed, a growing number of studies point to the importance of austerity policies in explaining the stalling of life expectancy gains in all four nations of the UK.

Austerity policies were implemented to varying degrees across higher income countries following the global economic downturn from 2008, with a focus on attempting to reduce government budget deficits through cuts to public spending. While the downturn itself is a possible candidate for explaining life expectancy trends in higher income countries, the impact of economic recessions on health is known to be mixed depending on the specific outcomes and timescales involved (McCartney, et al, 2019).

Moreover, analysis of trends across Europe shows that, after adjusting for recession, countries which implemented more austerity up to 2012/13 experienced slower improvements in mortality rates than countries which implemented less austerity (Toffolutti & Suhrcke, 2019). However, it should be noted that ‘austerity’ is a broad term which includes numerous components, not all of which have received the same level of research attention in terms of their impact on mortality (Marshall et al, 2019).

In the Welsh context, implementation of austerity policies involved a combination of cuts to local and national spending on public services in response to reductions in Wales’ funding from the UK Treasury and direct cuts to non-devolved spending, including changes to social security (Wales Audit Office, 2019).<sup>1</sup> While there is little Wales-specific evidence, studies finding an association between austerity measures and changes to mortality trends in the UK point to three factors which may be significant in explaining the stalling of mortality improvements over the last decade:

- changes to the social security system, including reductions in the real value of benefit payments and increased conditionality;
- pressures on the health and social care system created by a combination of rising demand and spending constraints; and
- reductions in provision of health-promoting services due to cuts to local government funding.

There is evidence from across the UK that changes to the social security system after 2010 are associated with worse health outcomes, including:

- increased prevalence of obesity among the poorest households;
- higher than anticipated working-age mortality from ischaemic heart disease and alcohol among men from deprived areas; and
- some evidence of higher than anticipated working-age deaths from respiratory diseases (Taulbut, et al, 2018).

A recent analysis of changes in patterns of mortality at local authority level in England estimates over 230,000 more deaths than expected between 2010 and 2018, finding a positive association between excess deaths and cuts to social security benefits, with higher excess deaths in areas where the financial impact of welfare reform has been greater (Darlington-Pollock, et al, 2021).

Alongside the effect of changes to the social security system, the results of a growing number of studies suggest that the slowdown of the rate of improvement in life expectancy in England and Wales after 2010 can be attributed in part to constraints on health and social care spending (Martin et al, 2021). For example, areas of England which saw higher cuts to social care spending experienced a greater rise in mortality rates among older adults, with each 1% decline in social care spending associated with a significant rise in old-age mortality (Loopstra, et al, 2016). One study found that across England, constraints on public expenditure on social care and health services since 2010 were associated with nearly 45,000 higher than expected numbers of deaths between 2012 and 2014, with the majority of these occurring among those aged over 60 in care homes – contributing to a slowing in the rate of improvement in mortality (Watkins, et al, 2017). There is also evidence of a relationship between increases in the number of delayed discharges of NHS patients – an important marker of pressures in the health and social care system – and increases in mortality rates in 2015, which saw the largest annual spike of mortality rates in England in almost 50 years (Green, et al, 2017).

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<sup>1</sup> Between 2010 and 2019, grants to Wales fell by an average of 0.6% each year, in comparison with 4.4% average annual increases between 2001 and 2010

Beyond these constraints on social care and health spending, there is evidence that general reductions in funding for local government services are significant in understanding recent adverse life expectancy trends. Analysis of local government spending and mortality rates across England shows that each £100 reduction in annual per person funding between 2013 and 2017 was associated with an average decrease in life expectancy at birth of 1-3 months for male individuals and 1-2 months for female individuals. Overall reductions in funding during this period were associated with an additional 9,600 deaths in people younger than 75 years in England (Alexiou, et al, 2021a). Evidence also shows that reductions in local government funding may be important in explaining the rise in drug-related mortality in the UK since 2012, with greater reductions to disability-related budgets associated with larger increases in drug-related deaths in local authorities across England, Scotland, and Wales, adjusting for a range of regional, demographic, and economic factors (Koltai, et al, 2021). Similar results were observed in a study investigating the relationship between reductions in expenditure on housing services and increased mortality rates due to drug misuse across local authorities in England (Alexiou, et al, 2021b).

While a growing number of studies have found an association between austerity measures and stalling of life expectancy gains in the UK over the last decade, assessments of the overall evidence base vary. Some studies have generated controversy, in particular for lacking methodological clarity (Marshall, et al, 2019), while others have been criticised for failing to reflect the likely complexity of the drivers of mortality trends or focusing too narrowly on health and social care expenditure, with relatively simple analyses of national trends, providing weak causal evidence (Alexiou, et al, 2021a). A 2019 evidence review by Marshall et al therefore found the overall evidence to be limited and inconclusive, despite asserting that austerity measures are a plausible explanation for between-country variations in mortality trends.

Some important recent studies have sought to address gaps in the evidence base and continue to find associations between the implementation of austerity policies and changes to mortality trends across the UK (Alexiou, et al, 2021a; Alexiou, et al, 2021b; Darlington-Pollock, et al, 2021; Koltai et al, 2021). A forthcoming systematic review of international evidence (Broadbent, et al, 2022) provides a more up-to-date assessment of evidence linking austerity policies with the stalling of mortality gains across higher income countries, as does a forthcoming report from Public Health Scotland (McCartney, et al, 2022).

### Alternative explanations of life expectancy trends

Evidence reviews focused on life expectancy trends in the UK have tended to conclude that these point to multiple drivers, reflecting the fact that health and mortality emerge from a complex system of interrelated influences (Marshall et al, 2019, Public Health England, 2018). Alongside the impact of austerity measures, other factors identified include the timing of the smoking epidemic (Leon, et al, 2019), patterns of cold weather over the period studied, and higher prevalence of influenza (Public Health England, 2018). However, none of these additional factors explain the change in trend from 2011 or its persistence over several years (Alexiou, et al, 2021).

The table below summarises alternative explanations of changes in life expectancy trends in the UK since 2011.

**Table 1: Alternative explanations of changes in life expectancy trends in the UK since 2011**

Measurement artefact	<p>The hypothesis that changes in mortality trends can be attributed to measurement artefact. Possible factors include:</p> <ul style="list-style-type: none"> <li>• Effect of the standard population employed to generate directly standardised mortality rates (a change in</li> </ul>
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	<p>standard population or mismatch between standard and actual population over time).</p> <ul style="list-style-type: none"> <li>• Inaccuracies in denominator population (for example due to returning older people who have been living in EU countries).</li> <li>• Combined cohort and inaccurate denominator effects – when cohorts with relatively high mortality move into age bands with a less well enumerated denominator (90+ years).</li> </ul> <p>However, Public Health England’s 2018 review concluded that changes in life expectancy trends in England are unlikely to be influenced by data artefacts.</p>
Attainment of natural limit to lifespan	<p>The argument that gains in life expectancy are slowing as we approach a theoretical maximum – though for the UK this can be considered highly unlikely, given that life expectancy in other countries is higher and rising. It is also worth noting in this regard that the greatest impacts of recent mortality trends in the UK have been felt in the most deprived areas, where life expectancy is already lower than the UK average and well below any kind of theoretical maximum.</p>
Influenza	<p>This points to several explanatory factors related to mortality rates from flu in the period studied, including:</p> <ul style="list-style-type: none"> <li>• A more virulent strain</li> <li>• Vaccine-strain mismatch</li> <li>• A larger vulnerable cohort due to exceptionally low flu deaths in preceding years</li> </ul> <p>However, while there is substantial evidence supporting a large role of influenza in high mortality winters, the magnitude of annual impact has not been precisely established. A forthcoming appraisal of the evidence finds that for several reasons it is highly unlikely that influenza has played an important role in driving the stalling of mortality trends in the UK (McCartney, et al, 2022).</p>
Weather trends	<p>Both low and high temperatures can have an impact on numbers of deaths. Mean winter temperatures in the UK have been generally increasing, but there is evidence that cold has exacerbated the burden of winter deaths in some recent years. However, individual year effects are small.</p>
Obesity	<p>There has been suggestion of a potential cohort effect, with a population with high levels of obesity reaching an age at which this is exerting an effect on overall mortality. Evidence from a forthcoming study suggests that a small amount of the change in life expectancy</p>

	trends in Scotland can be explained by changes in obesity prevalence (Walsh, et al, forthcoming).
Migration	Points to the potential life expectancy trends to be influenced by in-migration of populations with higher mortality rates. The impact of changes in migration patterns on overall mortality rates requires further detailed investigation before conclusions can be drawn, but it is likely that any impact would be quite small.

Sources: Public Health England, 2018, Fenton, 2019, Marshall et al, 2019.

It should also be noted that many of the factors above may interact with each other, and with the impact of austerity policies, to exert a combined influence on changes to mortality trends (Fenton, 2019; Marshall, 2019).

### Why is self-reported health unchanging?

In addition to a stalling of life expectancy gains, a further component of the stagnation of healthy life expectancy in Wales is a lack of improvement in self-reported health over the last decade. As the trends analysis above shows, there was very little change in the proportion of people rating their health as ‘fair’, ‘bad’, or ‘very bad’ between 2013 and 2021, and small variations in the proportion of people rating their health as ‘good’ compared to ‘very good’ (the proportion of people rating their health as ‘very good’ was higher in 2013 than in 2021, whereas the reverse is true for people rating their health as ‘good’).

We found little evidence, Wales-specific or otherwise, investigating the underlying dynamics of trends in self-reported health. One of the likely reasons for this is that in the UK, understanding changes in self-reported health over time is hampered by a lack of availability of long-term trends as a result of survey and data issues. Two studies of English self-reported health data before 2010 found evidence of increasing inequalities in self-reported health by socioeconomic status, which were largely driven by growing inequalities in mental health (Maheswaran, et al, 2015; Katikireddi, et al, 2012). This is consistent with the findings of a study of inequalities in quality adjusted life expectancy (QALE) in the North of England, which found that the gap in QALE between the least and most deprived was largely driven by inequalities in the prevalence of self-reported problems with pain, anxiety, and depression (Collins, 2017). Similarly, a more recent study using General Practice Survey data from England to calculate trends in health-related quality of life (HRQoL) found rising inequalities in HRQoL with particularly concerning trends observed in younger female individuals and those living in more deprived areas. Again, declines in HRQoL in these groups were significantly driven by rises in self-reported anxiety and depression (Shah, et al, 2021).

As with life expectancy trends, the impacts of the 2008 recession and subsequent adoption of austerity policies have been proposed as explaining recent trends in self-reported health in higher-income countries. Evidence from across Europe shows a significant increasing trend in poor and fair self-reported health in countries that experienced mild to severe recession in 2008, compared to a stable trend in the pre-recession period, but the causal mechanisms of these changes are unclear (Abebe, et al, 2016). A study of European data also found that more extensive implementation of austerity measures was associated with more rapidly rising inequalities in self-reported health up to 2014 (van der Wel, et al, 2018). Given the large role identified for anxiety and depression in explaining trends in quality-adjusted life expectancy and health-related quality of life (Collins, 2017; Shah, et al, 2021), the mental health impacts of the recession and subsequent austerity measures can be regarded as a plausible candidate for explaining self-reported health trends in Wales and elsewhere after 2010. Indeed, several UK-based studies identify a relationship between the implementation of austerity measures and rising

inequalities in mental health (Barr, et al, 2015; Barr, et al, 2016; Katikireddi, et al, 2018; Simpson, et al, 2021).

### What drives inequalities in healthy life expectancy?

Between 2011 and 2019 the absolute gap in healthy life expectancy between the least and most deprived areas in Wales narrowed very slightly, despite life expectancy inequality increasing over the same period.

As our in-depth analysis shows, any reduction in the gap in healthy life expectancy has been due to declines in healthy life expectancy for the least deprived areas, rather than gains in healthy life expectancy for the most deprived areas. By contrast, the life expectancy gap has widened because life expectancy in the least deprived areas has risen over the period studied, while life expectancy in the most deprived areas has remained unchanged. **This suggests that people in the least deprived areas are living longer, but with an expansion of the period of life spent in poor health; while for people in the most deprived areas, both longevity and the period of life spent in poor health have remained static.** Moreover, while the gap in healthy life expectancy has narrowed slightly since 2011, it remains substantial, at 16.9 years for male individuals and 18.25 years for female individuals.

Recent analysis of Welsh mortality data has demonstrated the contribution of different causes of death to increases in the life expectancy gap between the least and most deprived areas, demonstrating that rising life expectancy inequalities between 2002 and 2018 were substantially driven by deaths from respiratory, digestive and circulatory conditions among men, and by respiratory disease, cancers, dementia and substance misuse among women (Currie, et al, 2021), with similar findings to studies investigating contributions to the gap in life expectancy in England (Bennett, et al, 2018) and Scotland (Ramsay, et al, 2019).

Understanding the contribution of different causes of death to gaps in life expectancy between the least and most deprived areas also points to unequal exposure to risk as a significant driver of life expectancy inequalities. It is well established that risk factors common to many of the leading causes of death are highly socioeconomically patterned, with sections of the population exposed to multiple risks at hazardous levels (Marshall, et al, 2019). The ways in which greater exposure to risk translates into higher mortality – thereby contributing to life expectancy inequalities – is particularly starkly illustrated by differences in alcohol and drug-related mortality, with one study investigating alcohol-related deaths in England and Wales finding that alcohol-specific causes were responsible for 5.1% of the gap in life expectancy between the least and most deprived groups in men and 3.6% in women in 2016 (Angus, et al. 2020). Analysis by Public Health Wales (2018) finds stark contrasts between risk experiences in deprived and less deprived areas for several leading risk factors:

- Smoking rates in the most deprived areas (29%) are more than double those of the least deprived areas (12%), though this gap has been gradually reducing over time;
- Inequality gaps are widening for fruit and vegetable consumption, with those in the most deprived areas eating less fruit and vegetables than those in the least deprived areas;
- There are indications that a similar inequality gap is emerging in physical activity;
- While those in the most deprived areas are less likely to be drinking above the daily guidelines for alcohol than those in the least deprived areas, alcohol-related harm disproportionately affects those in the most deprived areas.

Importantly, while there isn't a direct overlap with self-reported health, these differences in risk experiences have also been established as significant in explaining inequalities for other measures of health-related quality of life (Public Health Wales, 2018).

While there is evidence of a role for risk factors such as smoking and obesity in explaining inequalities in preventable mortality (Roberts & Bell, 2015), studies of life expectancy inequalities caution against a focus on 'downstream' individual behaviours and behaviour-change at the expense of tackling the 'upstream' conditions which shape inequalities in exposure to risk (e.g., Currie, et al, 2021). Just as health and mortality emerge from a complex web of interrelated influences – often referred to as **the wider determinants of health** – behavioural risk factors common to the leading causes of ill health and death are intimately connected to the social, economic, and environmental conditions in which people live (Marshall, et al, 2019). The role of these wider determinants is starkly demonstrated by evidence that the influence of equivalent behavioural risk factors on health varies by socioeconomic status – so that, for example, the negative impact of obesity on health is greater among groups with lower socioeconomic status (SES) than among higher SES groups of the same weight (Kinge & Morris, 2010); similarly, people in more deprived areas have been shown to experience greater alcohol-attributable harms compared with people in less deprived areas for equivalent levels of alcohol consumption, even after accounting for individual factors such as different drinking patterns, obesity, and smoking status (Katikireddi, et al, 2017) . Furthermore, when comparing different social groups with equal exposure to behavioural risk factors, mortality remains higher in the lower socio-economic groups – again pointing to the influence of wider structural determinants (McCartney, et al, 2013).

There is now long-standing evidence that individual-level interventions, which fail to consider the impact of people's social and economic environments over time, are ineffective at both changing behaviour and reducing health and mortality inequalities (Katikireddi, et al, 2013). Moreover, interventions which require conscious effort to influence behaviour have been shown to widen health inequalities, because conscious processes generally make higher demands on cognitive, social, and material resources which are unevenly distributed in society (McGill, et al, 2015; Veinot, et al, 2019; Kriznik, et al, 2020). By contrast, there is much more promising evidence for the effectiveness of population-level interventions, such as controls on alcohol and tobacco, in reducing behaviour-related inequalities in health and mortality (Marteau, et al, 2019). There is further discussion of the wider determinants of health and their influence on health behaviours in our briefings on adult and children's healthy lifestyle behaviours.

Inequalities in access to health and social care and in the provision of health-promoting public services have also been investigated for their role in explaining inequalities in life and health expectancy. A recent study on the impact of the health inequalities strategy implemented in England from 1997 found it to be associated with a year-on-year decline in inequalities in life expectancy between the least and most deprived local authorities, reversing a previously increasing trend; since the strategy came to an end in 2010, these inequalities are starting to rise again (Barr & Whitehead, 2017). A key facet of the strategy was the allocation of a greater proportion of NHS resources to more deprived areas, combined with targeted area-based interventions to improve prevention, treatment, and care, including interventions to improve chronic disease management and access to primary care and smoking cessation services (Mackenbach, 2011). While the evidence is inconclusive on the relative contribution of these interventions to reducing life expectancy inequalities, there is evidence that the shift in NHS resources to more disadvantaged areas lead to a substantial decline in inequalities in the provision and quality of primary care, and a narrowing in inequalities in mortality amenable to healthcare (Barr & Whitehead, 2017).

In seeking to understand why life expectancy inequalities in England started to rise again in 2010 after a period of decline, it is also impossible to distinguish between the ending of the strategy and the wider programme of austerity that started at the same time, not least because the latter reversed many of the policies that were introduced as part of the former (Barr & Whitehead, 2017). Indeed, much of the evidence on the role of austerity in explaining stalling life expectancy gains in the UK since 2011 also has direct implications for understanding the increase in life expectancy inequalities over the same

period. For example, Alexiou, et al (2021a) found that cuts in local government funding were associated with an increase in the gap in life expectancy between the least and most deprived quintiles by 3% for men and 4% for women, reflecting a pattern in which funding reductions were greater in more deprived areas, which also had the worst changes in life expectancy. Similarly, Darlington-Pollock et al (2021) found a clear social gradient among working-age adults for the mortality impacts of austerity measures, including changes to social security. This suggests that increasing the real value of means-tested benefits and prioritising reinvestment in funding for local government services in more deprived areas may exert some influence over current adverse trends in life expectancy inequalities. Indeed, a recent modelling study on the effect of income-based policies on mortality inequalities in Scotland found that the most effective income-based policies for reducing mortality inequalities appeared to be those that disproportionately increased household incomes in the most deprived areas through increasing means-tested benefits (Richardson, et al, 2020).

## Policy context and levers

In considering a suitable National Milestone for this National Indicator, as well as understanding trends in average healthy life expectancy and inequalities in health and life expectancy, it is useful to consider the powers, levers, and policies available to the Welsh Government and Welsh public services to promote improvement over time.

Health is a devolved policy area in Wales. As such the Welsh Government has the power to determine its own health policies and strategies independent of the UK Government. The Welsh Government also has the power to propose laws related to health in Wales (Public Health Network Cymru, 2021a).

The overarching health strategy currently in place in Wales is **A healthier Wales: a long-term plan for health and social care**. This plan was set out by the Welsh Government in 2019 and ‘sets out a long-term future vision of a ‘whole system approach to health and social care’, which is focussed on health and wellbeing, and on preventing illness’ (Welsh Government, 2019d, p. 3). It emphasises the importance of action on the wider social causes of poor health in order to tackle the social gradient in healthy life expectancy (Welsh Government, 2019d, p. 9).

Public Health Network Cymru (2021) highlight that the nature of health and the wide range of determinants that influence health and mortality means that a range of policy areas beyond health are relevant to the development of effective health strategy and policy. Wider policy areas that can impact upon health which Welsh Government has considerable power over include education, skills, food, sport and recreation, housing, regeneration, environment and planning, transport, and some tax raising powers, including Land Transaction Tax and Landfill Disposals Tax, and partial control over income tax.

**Annex 1** shows a list of recent and current Welsh Government policies with relevance to health and mortality.

### Limitations on powers

While the Welsh Government has the power to determine its own health policy it does not have power over all the policy areas and levers that can impact health and mortality.

In particular, the Welsh Government currently only has limited powers over social welfare or social security which limits its ability to address deprivation and inequality (in terms of finances and material resources) – an important influence on health and mortality. The tax raising powers of the Welsh Government are also limited. Another related policy lever that is not available to the Welsh Government is control over employment rights.

When considering the limits of Welsh Government powers, it is important to note that health and mortality are influenced by factors that operate over a range of scales from the individual to the local,

national, and even global. As such, some of the factors that influence healthy life expectancy trends in Wales will most likely always remain well beyond the control of Welsh Government and public services.

However, despite the limited power of the Welsh Government over social welfare and taxation policies, much can be done to reduce social inequalities and improve health in policy areas over which the Welsh Government does have power (health and social care, education, skills, food, sport and recreation, housing, regeneration, environment and planning, transport, and some tax raising powers, including Land Transaction Tax and Landfill Disposals Tax, and partial control over income tax).

### Scope for action to improve healthy life expectancy and reduce the gap

There is debate about the extent to which adverse trends in life and health expectancy, and health and life expectancy inequalities, are amenable to policy intervention. For example, Frank & Haw (2011) point to the very sustained persistence of life expectancy inequalities in Scotland over decades as evidence of the inherent unresponsiveness of these outcomes to policy intervention, highlighting that life expectancy inequalities are largely driven by mortality events in later life, reflecting exposures to risk over the entire life-course which cannot be changed in retrospect.

Others find this analysis overly pessimistic, pointing to a range of international examples where deliberate, redistributive government policies appear to have rapidly shifted both socioeconomic inequality itself and health inequalities by social class (McCartney, et al, 2011). Indeed, while only based on a rapid scan of evidence, many of the studies reviewed for this briefing highlight areas of policy action regarded as having the potential to drive improvements in health and life expectancy and reduce health and life expectancy inequalities (see table 2 below). While these include some individual areas of focus, it has also been suggested that given the complex, interrelated, and multi-scalar nature of the drivers of health and life expectancy trends and inequalities, further stagnation in healthy life expectancy and healthy life expectancy inequalities will only be prevented by coordinated, wide-ranging, long-term action across multiple areas and levels of policy, governance, and public service delivery. Additionally, due to the long lead-in time between policy decisions that shape people’s health and their impact on outcomes, it is crucial for decision-makers to take a broader and longer-term view of the action needed to improve population health (Marshall, et al, 2019).

**Table 2: Interventions regarded as having the potential to improve healthy life expectancy and reduce the gap in healthy life expectancy**

	Fiscal and economic interventions to target the affordability of products and activities that harm/benefit health	<ul style="list-style-type: none"> <li>• Tax to ensure annual real price increases in tobacco; reform of current tobacco taxes to close price gap between manufactured and hand-rolled tobacco</li> <li>• Minimum unit price; reform of current taxes on alcohol to ensure tax is proportional to percentage alcohol by volume</li> <li>• Restrict price promotions on unhealthier foods; increase affordability of fruit and vegetables for low-income families</li> <li>• Shift affordability to public transport and away from car use - e.g., via parking and congestion zone charging</li> </ul>
	Restrict the marketing of products that harm health and	<ul style="list-style-type: none"> <li>• Inserts on tobacco packs about benefits of quitting and sign-posting to smoking cessation services</li> <li>• Restrict alcohol advertising and sponsorship to reduce exposure to children</li> </ul>

<b>Population-level interventions targeting behavioural risk factors</b>	market healthier alternatives	<ul style="list-style-type: none"> <li>• Restrict advertising and sponsorship to reduce exposure of children to unhealthy food; mandate point of choice information</li> <li>• Mass media campaigns to promote physical activity</li> </ul>
	Interventions to reduce the availability of products and activities that harm health/increase the availability of products and activities that benefit health	<ul style="list-style-type: none"> <li>• Raise legal age to buy tobacco from 18 to 21 years</li> <li>• Cap number and density of alcohol outlets; early morning restriction orders; enforce existing minimum age purchase laws</li> <li>• Enforce and extend food buying standards in public sector outlets; restrict placement of unhealthier foods in high-sales areas; mandate smaller portions of ready-to-eat foods</li> <li>• Spatial and land use policy and regulations that deliver compact, mixed use urban design to promote physical activity, including integrated public transport and high walkability and cycleability, with safe and attractive infrastructure</li> </ul>
<b>Interventions to improve healthcare, treatment, and prevention</b>	<ul style="list-style-type: none"> <li>• Better and more targeted earlier identification and treatment for cardiovascular disease and cancers, including via cancer screening and wider health services</li> <li>• Maximise the take-up of the influenza vaccine for those who are eligible</li> <li>• Implement a public health approach to drug policy, focusing on reducing harms to reduce the risk of death</li> <li>• Allocate a greater proportion of NHS resources to more deprived areas, combined with targeted area-based interventions to improve prevention, treatment, and care – learning from evidence of the effectiveness of England’s health inequalities strategy between 1997 and 2010</li> </ul>	
<b>Action on the wider social and economic determinants of health and health equity</b>	<ul style="list-style-type: none"> <li>• Protect and increase budgets for public services</li> <li>• Protect and increase social security benefits</li> <li>• Early year investment particularly in areas of greater deprivation</li> <li>• Tackle inequalities in school attainment</li> <li>• Increase the provision of social housing</li> <li>• Policies to reduce in-work poverty and precarious employment while supporting more people to access work</li> <li>• Invest in creating and developing healthy and sustainable places</li> </ul>	

Sources: McCartney, et al, 2022; Currie, et al, 2021; Marteau, et al, 2019; Marmot, et al, 2021; Barr & Whitehead, 2017; Scottish Public Health Observatory, 2017; Saunders, et al, 2017.

## Impact of Coronavirus

One particularly significant example of a broader factor outside the direct control of the Welsh Government and Welsh public services is the Coronavirus pandemic which began in early 2020. The nearer-term effects of the pandemic on population health in Wales have been stark, with large increases in all-cause mortality above expected levels in many regions across the country (Currie, et al, 2021). An analysis of life expectancy in England and Wales during the Coronavirus pandemic suggested significant reductions in life expectancy, although the authors caution that it is likely to be too early to draw conclusions at this point in the trajectory of the pandemic (Arburto, et al, 2020). While the increase in mortality rates experienced during the pandemic may turn out to be a short-term phenomenon, there are

still too many unknowns about the impact of the virus on future mortality rates to be able to confidently estimate life expectancy changes (Dunnell, et al, 2021).

Inequalities in mortality from Covid-19 have also been widely documented, with significantly higher death rates in more deprived areas, as well as higher deaths per capita in racially minoritised groups compared to white British people (Bibby, et al, 2021). By mid-July 2020, the rate of mortality from Covid-19 in the 20% most deprived areas in Wales was nearly double that of the 20% least deprived areas (117.1 per 100,000 compared to 62.5 per 100,000) (Public Health Wales, 2020). Given the evidence that both more deprived areas and racially minoritised groups have suffered higher rates of infection, hospitalisation, and mortality during the pandemic, an endemic Covid-19 scenario has the potential to further widen life expectancy and health inequalities in the future (Dunnell, et al, 2021).

As well as the direct impact of the disease itself, the public health response has inevitably had an impact on the wider social and economic determinants of health. While evidence in this area is only beginning to emerge, there is a high potential for lasting impacts of the pandemic on overall healthy life expectancy and health inequalities for many years to come. There is also emerging evidence of lasting impacts of Covid-19 on more disadvantaged communities, including rises in unemployment and child poverty, both of which are significant longer-term drivers of health and mortality (Bibby, et al, 2020).

## Key considerations for Milestone development

The evidence base reviewed suggests some key considerations for the development of a Milestone for healthy life expectancy and the gap between the least and most deprived. These include:

### Measurement challenges and limitations

There are a number of measurement challenges and limitations associated with National Indicator 2 which may have implications for the development of an appropriate Milestone.

One of these is related to the use of a subjective measure, self-reported health, for the calculation of healthy life expectancy. While self-reported health measures have been shown to be good predictors of subsequent mortality (Young, et al, 2010) this is despite the lack of a direct linear relationship between current physical conditions and perception of health, and extensive evidence identifying demographic, socio-economic and cultural factors which can influence self-assessment of health (O' Reilly, et al, 2010; Salomon, et al, 2009; Bostan, et al, 2014), leading to systematic discrepancies between physical conditions and reporting of health status across different socio-economic groups (Balaj, 2020). Because self-reported health is subjective, and because it is impossible to quantify the effects of inconsistencies in how people interpret and respond to questions about their health (Scottish Public Health Observatory, 2021), it is difficult to establish either the underlying causes of changes in self-reported health trends, or the extent to which these trends may be responsive to policy intervention – or indeed what type of policy interventions are likely to be effective. This is especially a problem with self-reported health compared to other, less binary self-rated health measures, because it does not provide any information about which specific aspect(s) of health are contributing to compromised quality of life (Shah, et al, 2021). A further difficulty is that self-reported health is known to be prone to reporting bias, particularly 'healthy respondent bias', which becomes more problematic when sample sizes are small or when people from particular socioeconomic groups are underrepresented (Spitzer & Weber, 2019). Small sample sizes, particularly for specific population quintiles, may also expose self-reported health data to statistical noise, making it challenging to understand the pattern of change over time.

There are also measurement challenges associated with calculating the gap in healthy life expectancy between the least and most deprived. It is generally recommended that both *absolute* and *relative* measures of healthy life expectancy inequality are used at the same time, because these two measures react differently to changes in healthy life expectancy and can present different trends in response to the

same changes in the data. However, only absolute measures of the gap in healthy life expectancy are routinely produced for Wales, by Public Health Wales and the Office for National Statistics. The type of absolute measure used by Public Health Wales to calculate the inequality gap in life expectancy has also changed from the slope index of inequality (SII) to the absolute difference, which limits the comparability of past and present data as official estimates of absolute difference prior to 2013-15 have not yet been produced (Public Health Wales Observatory, 2019).

Another potential limitation arises from the use of the Wales Index of Multiple Deprivation (WIMD) to calculate the gap in healthy life expectancy between the least and most deprived. The WIMD is an area-based measure of deprivation, and as such is subject to the limitations associated with this type of measure of inequality. Using an area-based measure of inequality masks variation within areas which may be meaningful in understanding the overall picture of inequality in Wales. However, as the WIMD splits Wales into almost 2000 small areas it provides better representation of the reality of trends than measures that use larger areas such as local authorities or local health boards. Further research examining the life and healthy life expectancy gap based on other metrics for inequality such as income could help to supplement the area-based approach.

The final measurement challenge to note here is the timeliness of data availability. The large scale of the surveys used to produce the data needed to calculate healthy life expectancy means that they take a long time to design, implement and process – particularly where estimates are produced for periods rather than for individual years, as is generally the case for this type of data. Therefore, data is often not available for the most recent survey year or years, which presents a challenge for producing up-to-date trend and situation analysis. This issue is likely to be particularly acute in the next year or so as data collection for key surveys has been disrupted by the Coronavirus pandemic, further delaying data availability.

### **Pace of change**

Data trends from 2009 show minimal improvement in healthy life expectancy for male and female individuals, and no or very limited reductions in the gap between the least and most deprived. While this reflects a limited time period, and only a fraction of the time available to achieve the Milestone by 2050, it suggests that the pace of positive change which can be expected in this Indicator is likely to be gradual, albeit an ambitious Milestone may help to galvanise efforts to promote such change.

The relative lack of change in National Indicator 2 over the last decade also raises concerns about how responsive measures of healthy life expectancy and inequalities in healthy life expectancy are to policy intervention, and related concerns that many of the drivers of health and life expectancy trends may operate at a scale outside the reach of the Welsh Government and Welsh public sector authorities. However, several of the studies included in this rapid review highlight encouraging evidence of potentially effective policy interventions at a range of different scales, though it is important to recognise that the complex, interrelated nature of the determinants of health and mortality is likely to require long-term, wide-ranging, and coordinated action across multiple sectors.

### **Coronavirus**

While developing the Milestone it will be important to maintain an awareness of the many impacts that the Coronavirus pandemic has had (and may continue to have) on health and mortality. All public services will need to plan for and address these impacts to minimise their long-term effects on current and future generations. The Milestone should therefore reflect the fact that progress towards the 'healthier Wales' goal in the coming years will be at least somewhat affected by Wales' Coronavirus recovery and that a 'healthier Wales' may look different in light of the pandemic and its lasting impacts.

How far the pandemic will affect health and mortality in the future will depend on many factors including the ongoing trajectory of the pandemic and the responses of the Welsh and UK Governments.

### Type of Milestone

There are multiple options for the type of Milestone which could be set in relation to healthy life expectancy and the gap between the least and most deprived. In this work, we have not had time to adequately assess the merits of different potential approaches. However, there are two broad ways in which a Milestone could measure 'progress':

- **Comparison with a 'comparable' country.** The uncertainty around the impact of the pandemic is one argument in favour of a Milestone which compares progress in Wales with progress in other comparable countries, as this would go some way to controlling for macro social and economic shifts and events (such as the pandemic or economic crises) which are unpredictable and partially outside of the control of the Welsh Government. For instance, this type of Milestone could frame continuity or even deterioration of healthy life expectancy as a 'success' if Wales' trends compared favourably to other countries by 2050, although such an approach may reduce 'buy in' among various stakeholders, not least the public, who are understandably likely to want to see progress. It is also important to note that international differences in the methods used to calculate healthy life expectancy limits the comparability of data from Wales with healthy life expectancy estimates in the rest of the world, though comparison with other UK nations is possible.
- **'Point to point' comparison.** There are inevitably limitations in the extent to which any other country, including other UK nations can be considered 'comparable' with Wales, both in terms of baseline social and economic conditions or 'starting points', and in terms of governance arrangements and policy levers. On this basis, it could be considered most appropriate to take a 'point to point' approach which compare Wales 'against itself', from 2009-11 to 2050. This approach might be most intuitive and meaningful in terms of framing the ambition in terms of improving the situation in Wales over time.

### Focus of the Milestone

National Indicator 2 combines two measures, overall healthy life expectancy and the gap between the least and most deprived. There is therefore a decision to be made about whether one or both measures form the focus of the Milestone (and if the former, which one).

While we were unable to address this in any depth in our review of evidence, all the expert advice we received highlighted the importance of understanding inequalities in healthy life expectancy in the context of the overall trend, suggesting that both aspects of the Indicator should be included in the articulation of the Milestones.

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Except where cited, views expressed in the report are the authors' own.



## **Annex 1: List of Welsh Government policies related to health and mortality**

The following list provides a non-exhaustive overview of some key policies and policy approaches in Wales related to health and mortality.

### **Health-related policies and strategies**

The overarching health strategy currently in place in Wales is **A healthier Wales: a long-term plan for health and social care**. This plan was set out by the Welsh Government in 2019 and '*sets out a long-term future vision of a 'whole system approach to health and social care', which is focussed on health and wellbeing, and on preventing illness*'. (Welsh Government, 2019d, p. 3)

In addition to this long-term plan, some key health policies and programmes in Wales that relate to health and mortality include:

#### **Healthy Child Wales Programme (HCWP)**

The Healthy Child Wales programme, introduced in 2016, outlines how the Welsh Government supports the health and welfare of children from conception up to age seven. The programme encourages partnership working between key actors including maternity services, health boards, education providers, the third sector and communities in recognition that many actors contribute to and influence child health and well-being. The HCWP sets out the key contacts and interactions that children and their families should expect from their health board up until age seven. Three areas of health board intervention are covered by the HCWP - screening; immunisation; and monitoring and supporting child development (surveillance) (Welsh Government, 2016).

The health of children in Wales is also addressed by a number of sub-national plans implemented by local governance actors including Local Area Development Plans which are developed and implemented by local authorities and the Well-being Plans of Public Services Boards which were brought into existence by the Well-being of Future Generations Act (Wales) 2015. Many of the current well-being plans include healthy start in life (or a variant of this) as a key aim.

#### **Healthy Weight, Healthy Wales**

Introduced in 2019, this is the Welsh Government's strategy to reduce and prevent obesity. This plan consists of four national themes, each with goals to be met by 2030, and consists of five plans delivered over two-year cycles between 2020 and 2030. The current cycle has been disrupted by the Coronavirus pandemic (Welsh Government, 2019c).

#### **Tobacco Control Action Plan (TCAP)**

Introduced in 2012, this plan ran until the end of 2020 and had the overall aim of reducing adult smoking levels to 16% by 2020. The plan's interim target of 20% smoking prevalence among adults by 2016 was met ahead of schedule. The TCAP had four action areas and was supported in its implementation by the Tobacco Control Strategic Board which was established in 2016 and a Tobacco Control Delivery Plan which covered the period 2017-2020 (Welsh Government, 2017).

It has now been extended with the goal of a tobacco-free Wales by 2030, with the current strategy between 2022 and 2024.

#### **Public Health (Minimum Price for Alcohol) (Wales) Act 2018**

The Welsh Government is able to set a minimum price for alcohol under the Public Health (Minimum Price for Alcohol) (Wales) Act 2018. In March of 2020 Wales introduced Minimum Unit Pricing on alcohol which requires retailers to charge at least 50p per unit of alcohol in their products. This is intended to discourage people from engaging in unhealthy drinking behaviours (BBC News, 2020). The Welsh

Government also has control over the enforcement of age of sale and alcohol availability regulations in Wales.

### **Food for Wales, Food from Wales**

The strategy visualised food policy from production, to supply, to market, to consumer, with sustainable, economic, and health goals. The **Towards Sustainable Growth: An Action Plan for the Food and Drink Industry 2014-2020** focused on the former two and reinforcing cultural aspects of Welsh food.

### **Policy approaches**

#### **Health in All Policies**

It should also be noted that the Well-being of Future Generations Act (Wales) 2015 encourages a Health in All Policies (HiAP) approach. HiAP is an approach to policy-making and governance which acknowledges that health is impacted by all areas of life and has various social determinants which lie outside the purview of health policy (Public Health Network Cymru, 2019).

The HiAP approach encourages policy makers to (Public Health Network Cymru, 2019):

- Acknowledge and consider the health implications of the decisions they make in all policy areas.
- Seek out synergies between health objectives and the objectives of policy in other areas.
- Target the social determinants of health in policymaking in all areas.
- Avoid causing harm to health outcomes through active consideration of the health implications of all policies.
- Seek to reduce health inequalities through all policymaking.

#### **Making Every Contact Count**

The Making Every Contact Count (MECC) approach to behaviour change is being promoted among health and care services (and their partner organisations) in Wales. This approach 'enables health and care workers to engage people in conversations about improving their health by addressing risk factors such as alcohol, diet, physical activity, smoking and mental wellbeing. (Public Health Network Cymru, 2021b)'

It encourages health and social care workers to recognise the importance of each contact they have with individuals, and to use these interactions to support healthy lifestyle behaviours and choices. Public Health Network Cymru (2021) highlight that MECC should not be viewed as a public health initiative but instead should be something that all service providers engage in. They suggest that doing so 'will allow us to move to a position where discussion of lifestyle and wellbeing is routine, non-judgemental and integral to everyone's professional and social responsibility' (Public Health Network Cymru, 2021b). In this way the MECC approach can support healthy lifestyle behaviours across all aspects of life.

#### **Other relevant policies and policy areas**

As highlighted at the start of this section, health and morality are also affected by factors and policy areas outside health policy. Key policy areas that impact upon health and its determinants include income security and social protection policies, living condition policies, social and human capital policies, and employment and working conditions policies.

Some key policies and interventions in Wales that influence health and its determinants but are not themselves health specific include:

#### **Future Wales: The National Plan 2040**

The Future Wales plan is the national development plan for Wales which runs until 2040. This plan influences all levels of planning and development in Wales and aims to support the healthier Wales goal

of the Well-being of Future Generations Act (Wales) 2015, and the increase extent to which the built environment and neighbourhoods enable health behaviours (Welsh Government, 2021a).

### Active Travel Act 2013

The Active Travel Act, which was introduced in 2013, aims to promote active travel in Wales and to 'make active travel the most attractive option for shorter journeys'. It requires local authorities to support active travel, by continuously improving active travel routes and facilities (Welsh Government, 2014).

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