GIG CYMRU NHS WALES
Iechyd Cyhoeddus Cymru
Public Health Wales

Opportunities for improving childrens health in Wales.

10 Steps to a Healthy Weight.

Contents

Opportunities for improving childrens health in Wales. 10 Steps to a Healthy Weight.
Author: Nutrition and Obesity Team, Health Improvement Division, Public Health Wales
Date: April 2024 Version: V1.0

Introduction

This report focuses on Public Health Wales '10 Steps to a Healthy Weight'.

These steps were identified from a review of the scientific research literature and represent those factors which are associated with children being a healthy weight when they start school.

Our aim is to facilitate, enable and empower families and children in Wales to flourish by adopting these behaviours.

The report describes what we know about each of the behaviours in Wales compared with national or international guidelines. The report highlights where there are opportunities for improvement based on our current information and the scale of change needed.

It concludes by making recommendations about what needs to happen to ensure the data we have in Wales is appropriate, collected systematically, easily accessible and routinely analysed so that it can be utilised to inform policy and practice.

The challenge

Good nutrition is a key component of nurturing care in the early years [1]. The most critical time for good nutrition is during the 1,000-day period from pregnancy until a child's second birthday.

Well-nourished children are better able to grow, learn, play and participate in their communities. Children need the right foods at the right time to grow and develop to their full potential [2]. Dietary patterns in childhood lay the foundations for dietary behaviours in adulthood, therefore influencing equality of opportunity, life chances and health outcomes over the long term [3].

However, in 2021/22 the proportions of children with obesity varied across six Local Health Boards from 10.6% (95%CI 8.8-12.6) in Powys Teaching to 14.1% in Swansea Bay. These proportions were higher compared to the proportions reported in 2018/19 except in Powys where the proportion was lower.

In 2018/19, the last year for which all Wales data is currently available, 26.9% of children aged 4-5 years in Wales were above a healthy weight, of which 12.6 % were classified as living with obesity. This is higher than all areas of England and Scotland and has been increasing in Wales since 2012/13 [4].

Opportunities exist to improve population health and well-being through co-ordinated action to create the conditions for families to achieve the 10 Steps to a healthy weight.

Summary of findings and recommendations

This is the first time that Public Health Wales has sought to bring together routine data about the 10 Steps to a Healthy Weight. It demonstrates that data is not routinely collected in Wales for some of the Steps (play outdoors, limiting screen time and helping children to get enough sleep), for others it is only available through the self-reported National Survey for Wales (aim to be a healthy weight) or historical one-off child specific surveys (fruit, vegetable, and drink consumption).

Where data can be routinely collected through routine maternal or child health services these opportunities are often missed, reducing the quality of the data and ability to analyse it to inform policy and practice.

Specific actions are required to improve the quality of data that is collected and to ensure it is routinely analysed, published and used to drive improvements and create the environments that will improve the health and wellbeing of children and families in Wales.

As a result of doing this work PHW will;

- Work with the Four Nations to align breastfeeding data definitions and timepoints of collection to enable between Nation comparisons.
- Work with Welsh Government to review currently available breastfeeding data to understand how it can be analysed and used to inform policy and practice to drive improvements in breastfeeding rates across Wales.
- Work with Digital Health Care Wales (DHCW) to undertake a bespoke analysis of Healthy Child Wales data to determine if children in Wales are growing steadily in the first 12 months of life.
- Bring together partners to explore opportunities to improve and build on the data that is currently collected in relation to children's healthy weight outcomes.

Additionally, Public Health Wales recommends:

- Action to improve healthy weight outcomes for the population of Wales should focus on people aged 16-44 as a priority. Available data shows us that at least a quarter of parents in Wales are likely to be living with obesity when they start a family.
- Data collection of mothers weight gain at birth must be improved to more robustly understand whether weight gain in pregnancy for women in Wales is within recommended guidelines.
- The completeness of data about the timing of introduction to solid foods needs to be improved to understand whether babies in Wales are being introduced to solid foods around the age of 6 months.
- Health Boards initiate a quality improvement programme to identify opportunities to increase the completeness of data from both initial data collection perspective and the inputting of data collected manually into electronic systems.
- Welsh Government consider funding further boosted survey samples in the future to achieve up to date country specific representative dietary health data for children and adults.
- Available data about the 10 Steps to a Healthy Weight is routinely analysed and published by Public Health Wales. Analysed data is used to inform policy and practice via Healthy Weight Healthy Wales governance structures to drive continuous improvement in health outcomes for babies and children.
- Partners across the Early Years health and care system consider the added value of new data indicators being developed for those Steps where no Wales specific data is currently available (play, screentime and sleep)

Step 1

Adults who are parents or planning to become parents are a healthy weight.

Preconception health refers to the health of parents before conception. Poor parental health or poor health in pregnancy leads to an increased risk of health problems for the child and future generations.

The preconception period can be seen in 3 different ways:

- from the biological standpoint as the days and weeks before embryo development
- from the individual perspective as the time of wanting to conceive
- through a population lens as any time a woman is of childbearing age [5]

Preconception health is relevant for the population and individuals who may conceive at some point in the future, as well as for the period when a pregnancy is actively being considered.

Parental diet and weight have been associated with fertility and intergenerational impacts on offspring. Achieving and maintaining a healthy weight as an adult is beneficial for individuals and at a population level [5]. Pregnancy is also a time when many parents gain weight and retain this weight in the long term.

Body Mass Index (BMI) is used to define overweight and obesity at population level. For most adults a BMI of between 18.5kg/m2 and 25kg/m2 is in the healthy weight range. Black, Asian and other minority ethnic groups with a BMI of 23 or more have a higher risk of getting type 2 diabetes and other long-term illnesses.

If a pregnant woman is living with obesity when she becomes pregnant this will have a greater influence on her health and the health of her unborn child than the amount of weight she may gain during pregnancy. That is why it is important, when necessary, to help women lose weight before they become pregnant [6].

NICE and the Royal College Obstetricians & Gynaecologists specify that women with a BMI of 30 should be advised, encouraged, and supported to reduce weight before becoming pregnant [6-7].

Preconception weight in the UK

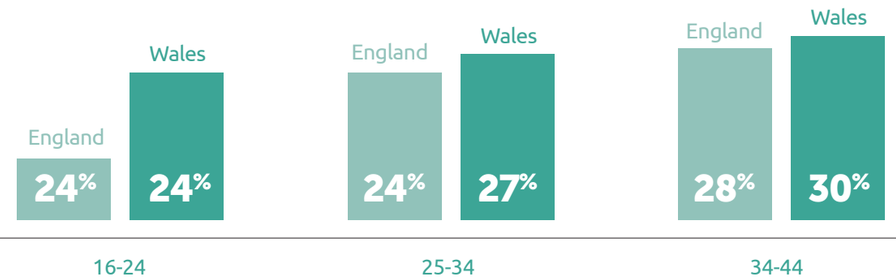
Every year a National Health Survey is undertaken in England, Scotland, Wales and Northern Ireland to provide data at a national level about the population living in private households. [8–11]

The surveys are conducted separately, have different sampling methodologies, and findings are reported to reflect individual country contexts.

Findings are therefore not directly comparable. However, in 2021 England, Scotland and Wales all collected self-reported height and weight data to calculate participants BMI [8–10]. Northern Ireland has not collected height and weight data since 2018 [11].

England and Wales have published the proportion of females who are obese by age group whereas Scotland has published the mean BMI by age group [8–10].

Proportion of females aged 16 – 44 who are living with obesity by age group England and Wales, 2021 [8,10]



Preconception weight in Wales

Published data about adult lifestyles in Wales is not broken down by gender by Welsh Index of Multiple Deprivation (WIMD). Data for males and females over the age of 16 shows that the proportion of overweight including obese increases with WIMD, with the most deprived areas showing the greatest proportion of overweight including obese adults [10].

Available data shows us that at least a quarter of parents in Wales are likely to be living with obesity when they start a family. Action to improve healthy weight outcomes for the population of Wales should focus on this group as a priority.

Step 2

Weight gain during pregnancy is within normal levels

Maternal weight gain, more commonly referred to as Gestational Weight Gain (GWG) in a clinical setting, is the weight that a woman puts on during her pregnancy.

The amount of weight gained varies between women however the majority gain between 10kg to 12.5kg (22lb to 28lb), with most weight gained after week 20[12].

A high proportion of the extra weight is due to the baby growing, but the woman's body will also be storing fat, ready to make breast milk after baby is born [12].

Putting on too much or too little weight during pregnancy can lead to health problems for the woman, or their unborn baby.

Globally, there is a lack of guidance on gestational weight gain. The World Health Organization (WHO) antenatal care guideline references the use of the 2009 Institute of Medicine (IOM) guidelines [13].

However, these were developed primarily from the findings of observational studies from high-income countries[14].

To address this gap, the World Health Organization (WHO) will be initiating a process to:

- Develop global GWG growth standards that can be used as a tool for dynamic monitoring in antenatal care in diverse settings.
- Define optimal GWG ranges based on these growth curves, to reduce the risk of adverse maternal and infant outcomes[14].

This work is anticipated to be completed in 2025. The IOM guidelines state [13].

	BMI (Body Mass Index)	Recommendations re weight gain in pregnancy
Healthy Weight	18.5-24.9	11.5-16kg (25-35 lbs)
Living overweight	25-29.9	7-11.5kg (15-25 lbs)
Living obesity	30 >	5-9kg (11-20 lbs)

Evidence states that the maternal and infant outcomes are better for those pregnant women who stay within the weight guidelines set out by IOM[12]. There are increased health risks for obese women and their babies during pregnancy and at birth:

Increased risk of ...

... Impaired glucose tolerance.
... Gestational diabetes.
... Miscarriage, pre-eclampsia, thromboembolism, and maternal death[6].

Weight gain during pregnancy in the UK

NICE guidance states woman's height and weight should be measured, and BMI calculated at their antenatal booking appointment. If the booking appointment is not face to face this should be done at the 11+2-to-14+1-week scan appointment. No further measurements of height and weight are specified during antenatal care unless clinical management can be influenced or if nutrition is a concern[15].

Weight gain in pregnancy is not routinely monitored and reported on. From the available published data across the UK, it is not possible to understand the proportion of woman who gain weight within the range recommended by the IOM.

Weight gain during pregnancy in Wales

In Wales over 94% of women have a height and weight measured, and BMI calculated at their antenatal booking appointment [16].

In 2022, on average 60% of women in each health board, who had a weight recorded, were living with overweight or obesity at their initial assessment[16].

Height and weight measurement, and BMI calculation at 36-38 weeks of a woman's pregnancy are built into the maternity data collection framework in Wales along with the opportunity to record whether a woman has gained weight within the recommended range.

Due to practicalities of community midwives weighing women in their homes and different digital and handheld notes for documenting information there is a relatively high proportion of missing data for mothers' weight at birth which limits the reliability of the weight gain data.

In 2021, Hywel Dda health board did not provide any data for woman's weight at birth, and Swansea Bay had a higher than usual amount of missing data. As a result, the Wales data excludes both health boards [17].

The latest data, which should be interpreted with caution, showed that:

24% of women in the optimum BMI range gained weight within recommended levels compared to 30% of those in the overweight range and 27% in the obese BMI range. This means that between three quarters and two thirds of women did not gain weight in line with guidelines. With some women gaining too much weight and some women not gaining enough[16].

Data collection of mothers weight gain at birth must be improved to more robustly understand whether weight gain in pregnancy for women in Wales is within recommended guidelines. However, the available data demonstrates we are currently missing opportunities to support women with healthy weight gain during pregnancy.

Step 3

Babies are breastfed

Breastfeeding is the process by which human breast milk is fed to a child. Breast milk may be directly from the breast or may be pumped and fed to the infant[18].

The World Health Organization (WHO) recommends[18].

- breastfeeding begins within the first hour of a baby's life
- exclusive breastfeeding for the first 6 months of life
- continued breastfeeding with appropriate complimentary food for up to two years and beyond.

Breastmilk is not just food for babies – but a rich source of essential nutrients and antibodies that boosts a child's immune system, brain development and saves lives. Breastfeeding is important for the health and development of infants and their mothers and is linked to the prevention of major health inequalities[18].

Specifically, increasing evidence demonstrates that:

- Breastfeeding is protective against future overweight or obesity with the benefit being observed after adjusting for socioeconomic status[19]
- Children who are breastfed for longer periods have lower infectious morbidity and mortality[19-21]
- For women, breastfeeding can prevent breast cancer and might reduce a woman's risk of diabetes and ovarian cancer[20].

Breastfeeding in the UK

The Global Breastfeeding Collective stipulates that the target global rates of breastfeeding required to protect the health or women and children are 70% for initiation in the first hour, 70% for exclusive breastfeeding under 6 months old, 80% at one year, and 60% at two years by 2030[22].

There are limited data available to compare trends in breastfeeding internationally [20], particularly at age 6-8 weeks which is the only data collected consistently across England, N. Ireland, Scotland, and Wales.

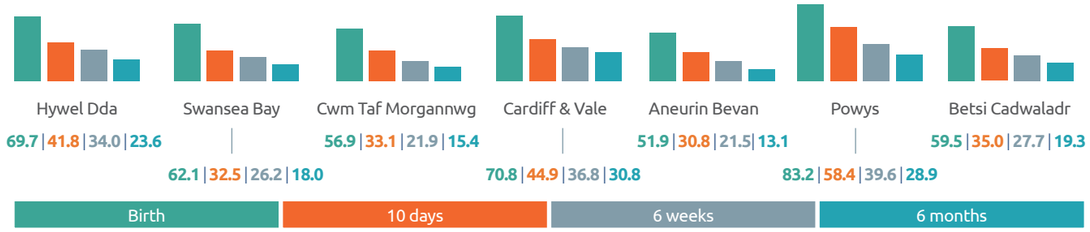
Across the UK, the time point data is collected, the definitions used, way in which rates are reported and the denominators used, vary slightly across the four nations, so it is not possible to make comparisons between nations.

An analysis of global breastfeeding prevalence found that in the UK only 34% of babies are receiving some breast milk at 6 months compared with 49% in the US and 71% in Norway [20].

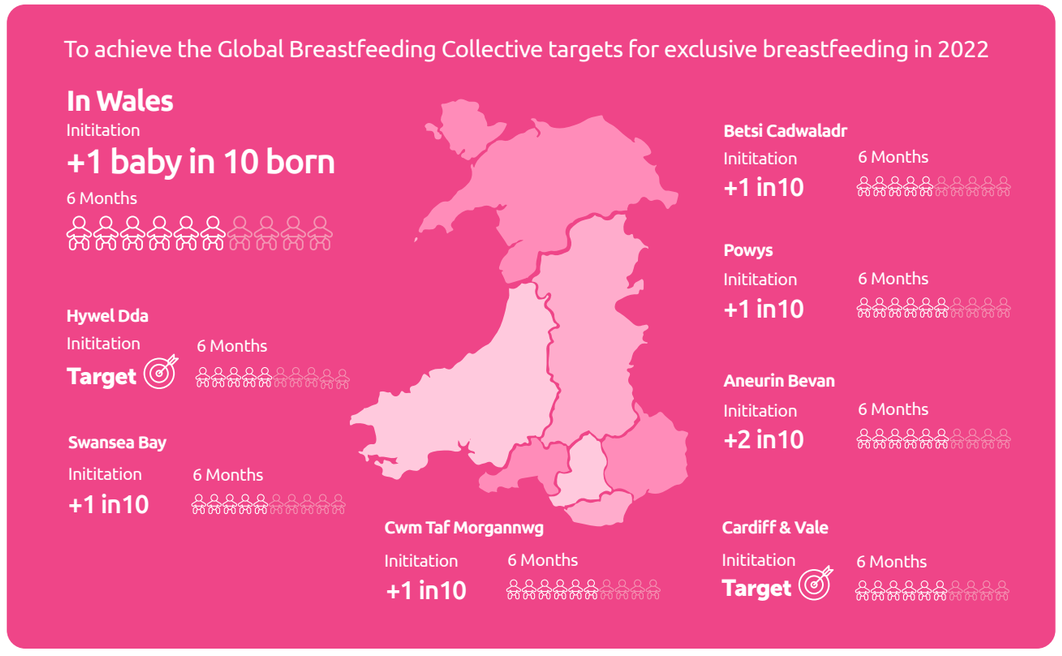
The UK has one of the lowest rates of breastfeeding in Europe[20].

Breastfeeding in Wales[23]

Exclusive breastfeeding proportions by age of baby for Wales' Health Boards 2021/22



How many more babies need to be breastfed in Wales to achieve global targets



Inequalities in breastfeeding rates across Wales in 2022[23].

- Older mothers (aged 30 and above) had higher rates of any and exclusive breastfeeding than younger mothers in all Health Boards.
- Breastfeeding at birth was associated with areas of least deprivation.
- Woman breastfeeding babies of black ethnic origin were more likely to breastfeed, at all stages at which data is collected, than any other ethnicity.

Data definitions and timepoints of collection across the Four Nations should be aligned to enable between Nation comparisons. Available breastfeeding data should be reviewed in detail to understand how it can be analysed and used to inform policy and practice to drive improvements in breastfeeding rates across Wales.

Step 4

Babies do not have solid food until around 6 months of age

WHO states that around the age of 6 months, an infant's need for energy and nutrients starts to exceed what is provided by breast milk, and complementary foods are necessary to meet those needs. An infant of this age is also developmentally ready for other foods[24].

This transition is referred to as complementary feeding as 'complementary feeding' more accurately describes this period than 'weaning' as the introduction of solid foods is alongside the continuation of breastfeeding (or formula feeding)[25].

WHO and UNICEF recommend introduction of nutritionally adequate and safe complementary (solid) foods at 6 months together with continued breastfeeding up to 2 years of age or beyond[24].

In 2018, a Scientific Advisory Committee on Nutrition (SACN) report on feeding in the first year of life concluded that there are no beneficial effects of early introduction of solid foods[26].

SACN recommends:

- Babies are exclusively breastfed until around the age of six months and continue to be breastfed for the first year of life.
- Solid foods should not be introduced until around 6 months to benefit the child's overall health.

Welsh Government adopted the SACN recommendations in their infant feeding policies in 2018.

Timing of introduction of solid foods in the UK

Between 1975 and 2010 The Infant Feeding Survey (IFS) provided the most comprehensive understanding of the age of introduction of solid foods. Its discontinuation has left a gap in our national understanding of infant feeding practices. In the absence of any other data to consider early introduction of solid foods in the context of the Four Nations findings from the last IFS are presented here.

The IFS 2010 was based on an initial representative sample of mothers who were selected from all births registered during August and October 2010 in the UK [27].

Survey findings indicated that mothers in Wales began feeding their baby solid foods earlier on average than mothers in other countries: 44% of Welsh mothers had given their baby solids by the age of four months compared with 35% of mothers in N. Ireland, 32% in Scotland and 28% in England [27].

At a UK level the 2010 IFS also identified that age and socioeconomic status were associated with the timing solid food was introduced. Older mothers and those from occupations classed as Managerial and Professional were more likely to introduce solid foods around 6 months [27].

Timing of introduction of solid foods in Wales

Data relating to UK devolved countries separately was not available until 2005. It is only possible to extract Wales specific data about the age solid foods were introduced.

In 2010 83% of babies in Wales had been introduced to solid foods at 5 months of age [27].

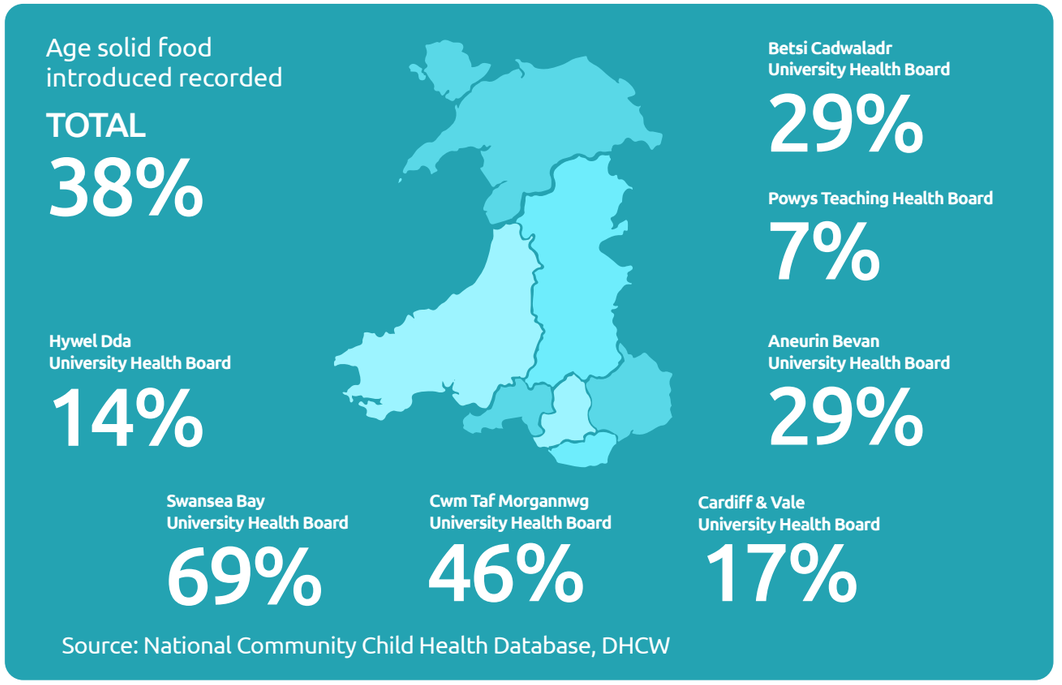
The Healthy Child Wales Programme sets out the screening, immunisation, monitoring and supporting child development contact each child aged 0-7 and parent can expect to receive [28].

At the 6-month Family Health Review Health Visitors are expected to provide support and advice on introduction of solids and healthy food choices. Data should be collected and recorded about the time families have introduced solid foods.

Unfortunately, the completeness of this data is not sufficient to provide any information about the current age solid foods are being introduced in Wales. This lack of completeness also prevents analysis of inequalities associated with the time at which solids are being introduced [28].

In 2022, only 38% of children who had a 6-month contact recorded had the age solid food was introduced recorded. The completeness of data varies by Local Health Board though, ranging from 69% in Swansea to 7% in Powys.

Children who had a 6 -month contact recorded had the age solid food was introduced recorded by Health Board region.



The completeness of data needs to be improved before we can understand whether babies in Wales are being introduced to solid foods around the age of 6 months.

Step 5

Babies grow steadily within the first year of life

Growth is an important indicator of a child's health.

The World Health Organization (WHO) has developed growth standards for girls and boys based on findings from their Multicentre Growth Reference Study (MGRS) to describe how a child 'should' grow when their nutrition, health, and care needs are met including by being breastfed and parents not smoking[29].

Growth charts showing standard patterns of expected growth rate over time enable early identification of children at risk of becoming undernourished or overweight early[29-30]. In the UK baby growth charts are based on the WHO growth standards combined with data about weight and growth collected in the UK[30].

Usual weight gain and growth in the first 12 months [30-31]

3.5kg **3.3kg**

Average Birth Weight

51cm > **24-25cm**

Birth length Increase during first year

Average birth length 51 cm increasing by 24-25cm in the first 12 months

Age	Boys (g/week)	Girls (g/week)
0-3 months	240	210
3-6 months	130	120
6-9 months	80	75
9-12 months	65	60

Growing steadily in the UK

Babies and children across the Four Nations are offered a version of a child health programme which includes a series of child health reviews and assessments including the use of growth charts. Data from these growth charts or assessments are not routinely published.

The first opportunity to understand the height and weight of children at a population level is via Child Measurement Programmes on entry into primary schools.

Scotland is an exception to this where data on BMI in a small sample of children aged 2 to 6 years is reported as part of the Scottish Health Survey [9].

Data in 2021 found that 28% of 2- to 6-year-olds were at risk of overweight or obesity[9]. However, this reflects a small sample of children and for this survey results were based on parent-reported height and weight.

Growing steadily in Wales

As part of the Healthy Child Wales programme a baby's growth should be measured at birth, 8, 12 and 16 weeks, 15 months, 27 months, and 3.5 years. Completeness of data for growth is about 97% across all health boards in Wales.

To understand if babies in Wales are growing steadily in the first 12 months of life a bespoke analysis will need to be undertaken.

Step 6

Children Play Outdoors Everyday

The World Health Organisation (WHO) defines play as voluntary, enjoyed by participants and imaginative. It can be solitary or social, and with or without objects. Young children acquire and consolidate developmental skills through playful interactions with people and objects [32].

The Welsh Government state that "Play encompasses children's behaviour which is freely chosen, personally directed and intrinsically motivated.

It is performed for no external goal or reward and is a fundamental and integral part of healthy development – not only for individual children, but also for the society in which they live"[33]

Active play improves a child's fitness and health, it helps to improve their mental health and cognitive development as well as building confidence and improving social skills [34].

Active play outdoors that can be classed as moderate to vigorous exercise is best for protecting against the risk of obesity [34].

The World Health Organisation (WHO) guidelines on physical activity and sedentary behaviour for children under 5 includes guidelines on play [32]. This guidance has been adopted by the UK Chief Medical Officers' in their Physical activity guidelines for under 5s [35].

Infants (<1 year)

Be physically active **several times a day in a variety of ways**, particularly through interactive floor-based play; more is better.

For those not yet mobile, this includes **at least 30 minutes** in prone position (tummy time) spread through-out the day while awake.

Children 1-2 Years

Spend **at least 180 minutes** in a variety of types of physical activities at any intensity, including moderate to vigorous-intensity physical activity, spread throughout the day; more is better.

Children 3-4 Years

Spend **at least 180 minutes** in a variety of types of physical activities at any intensity, of which at least **60 minutes is moderate- to vigorous** intensity physical activity, spread throughout the day; more is better.

Outdoor Play in the UK

Data about children under 5s outdoor or indoor physical activity and sedentary behaviour is not routinely collected or reported in any of the Four Nations.

Outdoor Play in Wales

Wales has had a Play Policy since 2002 which acknowledges the importance of play for children's health and development.

A section on Play Opportunities is included in the Children and Families (Wales) Measure 2010. Section 11 of the Measure places a statutory duty on local authorities to assess for and secure sufficient play opportunities for all children[36].

Local Authorities must undertake a Play Sufficiency Assessment every 3 years which considers extensively the opportunities children have to play across the Local Authority[36].

The assessment and play sufficiency surveys recommended under the Duty fall short however of routinely collecting data about how much time children are spending playing outdoors by age group[36].

It is not possible from current data sources to assess whether under 5s in Wales play outdoors every day.

Step 7

Limit screen time

Screen time refers to the amount of time using a device with a screen such as a smartphone, computer, television or video game console.

Evidence indicates that children with higher screen time tend to have a less healthy diet, a higher energy intake, and more pronounced indicators of obesity [37].

Whilst watching screens children are often exposed to advertising, which appears to lead to higher intake of unhealthy foods [38].

Screen time often displaces activities which we know support positive health and wellbeing outcomes such as socialising, good quality sleep, diet and exercise.

Evidence is weak for a threshold to guide children and parents to the appropriate level of screen time, to date no authoritative body in the UK has issued guidance on screen time and media use for children.

The Chief Medical Officers' and the Royal College of Paediatric and Child Health recommend that "families should negotiate screen time limits with their children based upon the needs of an individual child, the ways in which screens are used and the degree to which use of screens appears to displace (or not) physical and social activities and sleep"[39].

Screen time in the UK

Ofcom annually collect data from families across the UK via their Children Online Behaviour and Attitudes and Child Online Knowledge and Understanding Surveys.

Data from 2022 shows that screen use is starting as early as 6 months of age and the amount of time children/young people spend using screens is increasing.[40]

Screen time in Wales

No specific data relating to the amount of time children use a screen for is collected in Wales.

Step 8

Children eat fruit and vegetables every day

The current UK recommendation is that between the ages of 2 and 5 years, children should aim to eat at least 5 portions of vegetables and fruit every day [41].

However, there is a lack of agreed portion sizes for vegetables and fruit for this age group in the UK [42]. Guidance is based on epidemiological evidence indicating an association between the consumption of more than 400g a day of fruit and vegetables with a reduced risk of certain diet related chronic diseases, such as heart disease, stroke, and some cancers. This ensures an adequate supply of essential vitamins, mineral and dietary fibre in an individual's diet for optimal growth and development [41].

Fruit and vegetable consumption in the UK

Data from the Diet and Nutrition Survey of Infants and Young Children (DNSIYC) and the National Diet and Nutrition Survey (NDNS) can be used to estimate the average daily fruit and vegetable consumption of children aged 4 months to 5 years in the UK.

In all age groups data identified that fruit consumption was higher than vegetable consumption [26,42].

Consumption of fruit and vegetables is associated with deprivation with those in the least deprived areas consuming significantly more fruit and vegetables than those in the most deprived.

Time trend analysis of NDNS data (years 2008-2017) of children aged 18 to 36 months indicated a significant decrease in mean consumption of vegetables but no significant change in mean fruit consumption [43].

Average Fruit and Vegetable Consumption of children aged 4 months to 5 years in the UK.

Age	Amount of Fruit and Vegetables (g) 5-a day Portions
4-6 mths	100g
12-18 mths	170g
18 mths-4 yrs	178g
4-5 yrs	217g

*40 g is an average portion. [26]

Fruit and vegetable consumption in Wales

In addition to the DNSIYC and NDNS the 2017-18 National Survey for Wales provided parent-reported data about the diet and physical activity of a randomly selected sample (stratified by Local Authority) of approximately 1000 children aged 5 to 7 living in Wales [44].

Results of the survey align with the findings from the UK representative surveys.

- Daily fruit consumption is being achieved in a higher proportion of children than daily vegetable consumption (87% verses 68% respectively). There was no significant difference in this finding between girls and boys or by Health Board area.
- Children in the least deprived areas were more likely to eat vegetables every day than those in the most deprived areas.

In contrast to the NDNS there was no significant difference in the proportion of children eating fruit every day across the Welsh Index of Multiple Deprivation quintiles [44].

To continue to understand whether children in Wales eat fruit and vegetables everyday Welsh Government must consider funding further boosted samples of the NDNS and incorporating further questions about the diets of young children into the National Survey for Wales.

Step 9

Help children get enough sleep

Sleep behaviour for 0-5 years is, defined as: “Duration and timing of sleep. For children under 5 years of age this includes both night sleep and daytime naps.” [32]

WHO recommends [32]

Infants (<1 year)

14-17hrs

Have 14–17 hours (0–3 months of age)

12-16hrs

12–16 hours (4–11 months of age) of good quality sleep, including naps during the day.

Children 1-2 Years

11-14hrs

Have 11–14 hours of good quality sleep, including naps, with regular sleep and wake-up times.

Children 3-4 Years

10-13hrs

Have 10–13 hours of good quality sleep, which may include a nap, with regular sleep and wake-up times.

Sleep has important effects on growth, especially in early infancy.

Following the WHO recommendations during the first 5 years of life is associated with:

- better motor and cognitive development,
- psychosocial (emotional regulation) and cardiometabolic health,
- bone and skeletal health and
- reduced risk of injuries.[32]

Data about sleep behaviour for 0-5 years is not currently collected as part of routine child health programmes or national health surveys across the UK.

We are unable to describe the extent to which children in Wales are achieving the recommended amount of sleep for their age.

Step 10

Children have healthier drinks most of the time (water & milk)

Milk or water, in addition to breast milk, should constitute most drinks given to children aged 1 to 5 years[42]. Children aged 1 to 5 years should not be given sugar-sweetened beverages[42].

Sugar sweetened beverages (SSBs) are drinks that usually contain high levels of added sugar and include energy drinks, squash, fizzy and carbonated 'non-diet' soft drinks.

Formula milks (including infant formula, follow-on formula, 'growing-up' or other 'toddler' milks) are not required by children aged 1 to 5 years [42].

The Scientific Advisory Committee on Nutrition (SACN) defines sugars that have been added to food and beverages by the manufacturer, cook or consumer to a food and including those sugars naturally found in honey, syrups, fruit juices and fruit juice concentrates as free sugars [45].

Free sugars do not include sugars naturally found in milk and milk products [45].

SACN recommend that free sugars account for no more that 5% of adults and children's (aged <1) daily energy intake [45].

High levels of sugar consumption are associated with a greater risk of tooth decay [45].

The higher the proportion of sugars in the diet, the greater the risk of high energy intake [45].

National dietary surveys indicate that drinks and foods high in free sugars can be a major source of unnecessary calories in people's diets [45].

Drinking high-sugar beverages results in weight gain and increases in BMI in teenagers and children [45].

Consuming too many high-sugar beverages increases the risk of developing type 2 diabetes [45].

Caffeinated drinks can lead to adverse physical, psychological or behavioural impacts on children [46].

Consumption of sugar sweetened beverages and free sugars in the UK

The National Diet and Nutrition Survey reported that mean consumption of sugar-sweetened soft drinks was lower in 2016-2019 than 2014-2016 for children aged 18 months to 3 years.

The proportion of children consuming sugar sweetened beverages has fallen by 32% since 2008 for this age group [43].

Children aged 4 to 6 should have no more than 19g of free sugars a day, the equivalent of 5 sugar cubes.

In 2016-2019 average intakes for children aged 4-10 years were more than double the recommended 5% at 12.4% of daily total energy. This is equivalent to 45g sugar, or 11 sugar cubes [43].

In young children between the ages of 18 months to 3 years the equivalent free sugar intake is almost double the recommended 5% at 9.7% total energy [43].

Evidence from the 2011 Diet and Nutrition Survey of Infants and Young Children (DNSIYC) demonstrated that baby food in the jars and pouches, formula milk (particularly follow-on formula) and fruit juice made a significant contribution to the free sugar intake of children aged 12 to 18 months [43].

Consumption of sugar sweetened beverages in Wales

The National Survey for Wales 2017-18 focused on the diet and physical activity of children aged 3 to 7. In included survey responses for around 1,000 children[44].

Survey findings showed that 5% of children aged 3-7 drank sugary soft drinks every day and 13 per cent drank diet soft drinks every day.

Consumption of sugary and diet drinks was associated with deprivation, with those in the least deprived areas consuming higher amounts of sugary soft drinks.

There was no significant difference between boys and girls or by Health Board in Wales[44].

To continue to understand whether children in Wales have healthy drinks most of the time Welsh Government must consider funding further boosted samples of the NDNS and incorporating further questions about the diets of young children into the National Survey for Wales.

References

1. Nurturing Care Framework for Early Childhood Development [Internet]. [cited 2024 Mar 11]. Available from: https://nurturing-care.org/
2. UNICEF. Early childhood nutrition. Preventing malnutrition in infants and young children [Internet]. 2022 [cited 2024 Feb 15]. Available from: www.unicef.org/nutrition/early-childhood-nutrition
3. Dimbleby H. The National Food Strategy [Internet]. 2020 Jul [cited 2024 Feb 15]. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1021313/national-food-strategy-part-one.pdf
4. Public Health Wales. Child Measurement Programme 2021-2022 [Internet]. 2023 [cited 2024 Feb 15]. Available from: https://phw.nhs.wales/services-and-teams/child-measurement-programme/cmp-2021-2022/child-measurement-programme-annual-report-2021-2022/
5. Stephenson Judith, Heslehurst Nicola, Hall Jennifer, Schoenaker Danielle A J M, Hutchinson Jayne, Cade Janet E, et al. Before the beginning: nutrition and lifestyle in the preconception period and its importance for future health. The Lancet [Internet]. 2018 May 5 [cited 2024 Feb 15];391(10132):1830–41. Available from: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)30311-8/abstract
6. National Institute for Health and Care Excellence. NICE: Weight management before, during and after pregnancy. Public health guideline [PH27] [Internet]. 2010 Jul [cited 2024 Feb 15]. Available from: https://www.nice.org.uk/Guidance/PH27
7. Royal College of Obstetricians and Gynaecologists. Being overweight in pregnancy and after birth [Internet]. 2022 Aug [cited 2024 Feb 15]. Available from: https://www.rcog.org.uk/for-the-public/browse-our-patient-information/being-overweight-in-pregnancy-and-after-birth/
8. NHS Digital. NHS Digital, Health Survey for England, 2021 part 2: Overweight and obesity, 2021 [Internet]. 2022 Nov [cited 2024 Feb 15]. Available from: https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2021/part-2-overweight-and-obesity
9. Scottish Government. The Scottish Health Survey 2021. Chapter 5 Obesity [Internet]. 2021 [cited 2024 Feb 15]. Available from: https://www.gov.scot/publications/scottish-health-survey-2021-volume-1-main-report/pages/10/
10. Welsh Government. Adult lifestyles by age and gender, 2020-21 onwards [Internet]. 2023 Jul [cited 2024 Feb 15]. Available from: https://statswales.gov.wales/Catalogue/National-Survey-for-Wales/Population-Health/Adult-Lifestyles/adultlifestyles-by-age-gender-from202021
11. Department of Health. Health Survey Northern Ireland First Results 2021/22 [Internet]. 2023 Nov [cited 2024 Feb 15]. Available from: https://www.health-ni.gov.uk/sites/default/files/publications/health/hsni-first-results-21-22.pdf
12. National Institute For Clinical Excellence. NICE guideline: Preventing excess weight gain [NG7] [Internet]. 2015 Mar [cited 2024 Feb 15]. Available from: https://www.nice.org.uk/guidance/ng7
13. KM R, AL Y. Weight Gain During Pregnancy: Reexamining the Guidelines. 2009 Dec 14 [cited 2024 Feb 15]; Available from: https://pubmed.ncbi.nlm.nih.gov/20669500/
14. World Health Organization. Nutrition and Food Safety. Development of Global gestational weight gain standards [Internet]. 2023 [cited 2024 Feb 15]. Available from: https://cdn.who.int/media/docs/default-source/nutrition-and-food-safety/development-of-global-gestational-weight-gain-standards/who-gestational-weight-gain-standards-background.pdf?sfvrsn=7c9a4952_3
15. National Institute For Clinical Excellence. NICE guideline: Antenatal Care [NG21] [Internet]. 2021 Aug [cited 2024 Feb 15]. Available from: https://www.nice.org.uk/guidance/ng201
16. Welsh Government. Maternity and birth Statistics, 2022 [Internet]. 2023 Aug [cited 2024 Feb 15]. Available from: https://www.gov.wales/maternity-and-birthstatistics-2022-html
17. Welsh Government. Maternity and birth statistics: quality report. 2023 Aug.
18. World Health Organization. Breastfeeding [Internet]. 2023 [cited 2024 Feb 15]. Available from: https://www.who.int/health-topics/breastfeeding#tab=tab_1
19. Horta B, Rollins N, Dias M, Garcez V, Pérez-Escamilla R. Systematic review and meta-analysis of breastfeeding and later overweight or obesity expands on previous study for World Health Organization. Acta Paediatr [Internet]. 2022 Jun 21 [cited 2024 Feb 15];112(1):34–41. Available from: https://pubmed.ncbi.nlm.nih.gov/35727183/
20. Rollins NC, Bhandari N, Hajeebhoy N, Horton S, Lutter CK, Martines JC, et al. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect [Internet]. 2016 Jan [cited 2024 Feb 15]. Available from: https://pubmed.ncbi.nlm.nih.gov/26869575/
21. Pérez-Escamilla R, Tomori C, Hernández-Cordero S, Baker P, Barros , Aluisio J D, Begin F, et al. Series Paper - Breastfeeding: crucially important, but increasingly challenged in a market-driven world [Internet]. 2023 Feb [cited 2024 Feb 15]. Available from: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)01932-8/fulltext
22. UNICEF World Health Organization. Global Breastfeeding Scorecard. 2022.
23. Welsh Government. Breastfeeding data: 2022 [Internet]. 2023 [cited 2024 Feb 15]. Available from: https://www.gov.wales/breastfeeding-data-2022-html
24. World Health Organization. WHO Guideline for complementary feeding of infants and young children 6-23 months of age [Internet]. 2023 [cited 2024 Feb 15]. Available from: https://www.who.int/publications/i/item/9789240081864
25. Fewtrell M, Bronski J, Campoy C, Domello M, Embleton N, Fidler NM, et al. Complementary Feeding: A Position Paper by the European Society for Paediatric Gastroenterology, Hepatology, and Nutrition (ESPGHAN) Committee on Nutrition [Internet]. 2017 [cited 2024 Feb 15]. Available from: https://pubmed.ncbi.nlm.nih.gov/28027215/
26. Scientific Advisory Committee on Nutrition. Feeding in the first year of life: SACN report [Internet]. 2018 Jul [cited 2024 Feb 15]. Available from: https://www.gov.uk/government/publications/feeding-in-the-first-year-of-life-sacn-report
27. NHS Digital. Infant Feeding Survey - UK, 2010 [Internet]. 2012 Nov [cited 2024 Feb 15]. Available from: https://digital.nhs.uk/data-and-information/publications/statistical/infant-feeding-survey/infant-feeding-survey-uk-2010
28. Welsh Government. An overview of the Healthy Child Wales Programme [Internet]. 2016 Sep [cited 2024 Feb 15]. Available from: https://www.gov.wales/healthy-child-wales-programme-0
29. World Health Organization. WHO Child growth standards: training course on child growth assessment [Internet]. 2008 Dec [cited 2024 Feb 15]. Available from: https://www.who.int/tools/child-growth-standards
30. Royal College of Paediatrics and Child Health. UK Growth Charts - guidance for health professionals [Internet]. 2013 Jun [cited 2024 Feb 15]. Available from: https://www.rcpch.ac.uk/resources/uk-who-growth-charts-guidance-health-professionals
31. RCPCH. UK-WHO growth charts - 2-18 years.
32. World Health Organization. WHO guidelines on physical activity and sedentary behaviour [Internet]. 2020 Apr [cited 2024 Feb 15]. Available from: https://iris.who.int/handle/10665/311664
33. Play Wales. Current play policy in Wales [Internet]. 2022 [cited 2024 Feb 15]. Available from: https://play.wales/play-policy-legislation/current-policies/
34. Gleave J. Children's time to play: A literature review. National Children's Bureau for Play England. 2009 [cited 2024 Feb 15]; Available from: https://www.playday.org.uk/wp-content/uploads/2015/11/children%E2%80%99s_time_to_play___a_literature_review.pdf
35. UK Government. UK Government: Physical Activity Guidelines for Early years (under 5s) , 2019 [Internet]. 2019 [cited 2024 Feb 15]. Available from: https://www.gov.uk/government/publications/physical-activity-guidelines-early-years-under-5s
36. Play Wales. Play Wales: Play Sufficiency, 2022 [Internet]. 2022 [cited 2024 Feb 15]. Available from: https://play.wales/play-policy-legislation/play-sufficiency/
37. RCPCH. The health impacts of screen time: a guide for clinicians and parents. 2019 Jan.
38. Boyland E, McGale L, Maden M, Hounsome J, Boland A, Angus K, et al. Association of Food and Nonalcoholic Beverage Marketing With Children and Adolescents' Eating Behaviors and Health: A Systematic Review and Meta-analysis. JAMA Pediatr [Internet]. 2022 Jul 1 [cited 2024 Feb 16];176(7). Available from: https://pubmed.ncbi.nlm.nih.gov/35499839/
39. United Kingdom Chief Medical Officers. Screen-based activities and children and young people's mental health and psychosocial wellbeing: a systematic map of reviews [Internet]. 2019 [cited 2024 Feb 16]. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/777026/UK_CMO_commentary_on_screentime_and_social_media_map_of_reviews.pdf
40. Ott A, Bermingham R. Research Briefing: Screen use and health in young people. [Internet]. 2020 [cited 2024 Feb 16]. Available from: https://post.parliament.uk/research-briefings/post-pn-0635/
41. UK Government. The Eatwell Guide [Internet]. 2018 [cited 2024 Feb 16]. Available from: https://www.gov.uk/government/publications/the-eatwell-guide
42. Scientific Advisory Committee Nutrition. SACN report: Feeding young children aged 1 to 5 years [Internet]. 2023 [cited 2024 Feb 1]. Available from: https://www.gov.uk/government/publications/sacn-report-feeding-young-children-aged-1-to-5-years.
43. Public Health England. NDNS: results from years 9 to 11 (combined) – statistical summary. [Internet]. 2020 [cited 2024 Feb 16]. Available from: https://www.gov.uk/government/statistics/ndns-results-from-years-9-to-11-2016-to-2017-and-2018-to-2019
44. Welsh Government. Child lifestyle (National Survey for Wales): April 2017 to March 2018 [Internet]. 2018 [cited 2024 Feb 16]. Available from: https://www.gov.wales/national-survey-wales-children-and-education
45. Scientific Advisory Committee on Nutrition. SACN (2015). Carbohydrates and health [Internet]. 2015 [cited 2024 Feb 16]. Available from: https://www.gov.uk/government/publications/sacn-carbohydrates-and-health-report
46. Khouja C, Kneale D, Brunton G, Raine G, Stansfield C, Sowden A, et al. Consumption and effects of caffeinated energy drinks in young people: an overview of systematic reviews and secondary analysis of UK data to inform policy. BMJ Open [Internet]. 2022 Feb 1 [cited 2024 Feb 16];12(2):e047746. Available from: https://bmjopen.bmj.com/content/12/2/e047746

GIG CYMRU NHS WALES | Iechyd Cyhoeddus Cymru Public Health Wales

GIG CYMRU NHS WALES
Iechyd Cyhoeddus Cymru
Public Health Wales