GIG CYMRU NHS WALES
Bwrdd Iechyd Addysgu Powys
Powys Teaching Health Board

Powys Teaching Health Board

Director of Public Health Annual Report 2012-13

Improving Health and Wellbeing in Partnership

Report layout and design by Stephen Hiles

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Forward

Dear Reader

Welcome to the Director of Public Health Annual Report 2012-13 for Powys.

In the 2011-12 Report, Dr Christopher Potter used the life course approach to demonstrate a range of health issues and the importance of robust partnerships in addressing many of the wider determinants of health and wellbeing. Building on that approach, this Report provides more detailed information on some of the key determinants of health and wellbeing in Powys, across four levels:

- Individual wellbeing
- Community wellbeing
- Economic wellbeing and
- Environmental wellbeing

The approach used is described further in the next section of the Report. Going forward, the Public Health Annual Report for 2013-14 will focus in particular on the health and wellbeing of children and young people in Powys.

Much of the intelligence presented in this Report has already been used for planning purposes, including by the Local Service Board in developing the "One Powys" Single Integrated Plan and by Powys teaching Health Board in developing its three year integrated plan. It is also recognised that economic situation will continue to be one of the main determinants of population health status in Powys, including through its impact on measures designed to improve the health and wellbeing of local communities. This Director of Public Health Annual Report 2012-13 for Powys makes five recommendations for action to local partnerships; progress will be reviewed in the 2014-15 Report.

As ever, we hope that you find the document an interesting and useful read; we welcome all feedback and suggestions.

Dr Sumina Azam
Interim Director of Public Health
April 2012 to July 2013

Dr Catherine Woodward
Director of Public Health and
Strategic Planning
From July 2013

Recommendations

Recommendation 1
The Powys Tobacco Control Partnership should review progress with its action plan, to ensure the local approach is effectively targeted on the needs of children and young people (including through Trading Standards), pregnant smokers and communities with the highest smoking prevalence.

Recommendation 2
The Powys Healthy Weight Partnership should agree further opportunities and actions to tackle the local obesogenic environment.

Recommendation 3
The Powys Immunisation Steering Group should use external peer review to inform development of its flu vaccination action plan for the 2014-15 winter season.

Recommendation 4
Supported by a needs assessment, the Powys Area Planning Board should agree further opportunities and actions for the primary prevention of alcohol misuse by children, young people and adults.

Recommendation 5
As part of its performance framework, the Powys Local Service Board should agree a set of high level metrics with which it will track the local impact of the economic situation (including benefits changes) on health and wellbeing, including health inequalities within Powys.

Introduction

The aim of the Director of Public Health Annual Report 2012-13 is to highlight the importance of partnership working in making the biggest difference to the lives of Powys residents. Local partners need to plan, work and deliver services together in order to achieve:

Healthy people living productive lives in a more prosperous and innovative economy; safer and more cohesive communities, with lower levels of poverty and greater equality; a resilient environment with more sustainable use of our natural resources and a society with a vital sense of its own culture and heritage.

Welsh Government, Programme for Government[1]

The health and wellbeing of individuals is inextricably linked with not just the health care that they receive and their health related behaviours, but also their social and economic circumstances[2]. This interdependency is illustrated in the model first described by Dahlgren and Whitehead, which shows how health and wellbeing is affected by interactions and relationships between individuals, the community and infrastructure in which they live and work, the environment and the economy.

Figure 1: The determinants of health

Source: Dahlgren and Whitehead. 1991

This annual report uses and builds upon information and data collated as part of the Powys Joint Strategic Needs Assessment 2013. The Joint Strategic Needs Assessment is also being used to provide an evidence base for the Single Integrated Plan (One Powys), the Powys teaching Health Board Three Year Integrated Plan 2014-17 and the Neighbourhood Management project. Neighbourhood Management is a recognised model of good practice to improve the delivery of local services through joined up working at a local level. Local community involvement is integral, in order to better address local concerns and develop sustainable solutions. The Neighbourhood

Management project will look at how partnerships work together from an operational to a strategic level, with the aim of designing and strengthening local services through collaboration.

The Director of Public Health Annual Report 2012-13 examines issues affecting the health and wellbeing of Powys residents, focusing on wellbeing at four levels: individual wellbeing, community wellbeing, economical wellbeing and environmental wellbeing. Figure 2 describes wellbeing outcomes at these four levels for Powys and its residents. These outcomes were developed as part of the Powys Joint Strategic Needs Assessment 2013 and One Powys Plan.

Figure 2: Wellbeing outcomes for Powys

Wellbeing area	What this means for Powys and Powys residents.....
Individuals	People of all ages lead healthy, active lives and feel mentally and physically well Vulnerable children and adults are protected
Community	People take an active role in their communities and feel they belong Houses are in good condition and there are accessible affordable homes to rent, buy and live in
Economy	People have suitable paid employment People can benefit from a thriving economy People are supported to get out of poverty Children and young people get a good education at school or college and adults can access training they want and need
Environment	We have a clean environment We are reducing our “carbon footprint” and tackling climate change People access and enjoy all the Powys countryside has to offer

Facts about Powys

The resident population is estimated to be 132,976, which is spread over an area of 5,196km^2, making Powys the most sparely populated area in England and Wales. 1.6% of the Powys population identify themselves as Black and Minority Ethnicity, an increase of 0.8% from 2001. The highest proportions of Black and Minority Ethnic population are in Brecon, Llandrindod and Newtown North East.

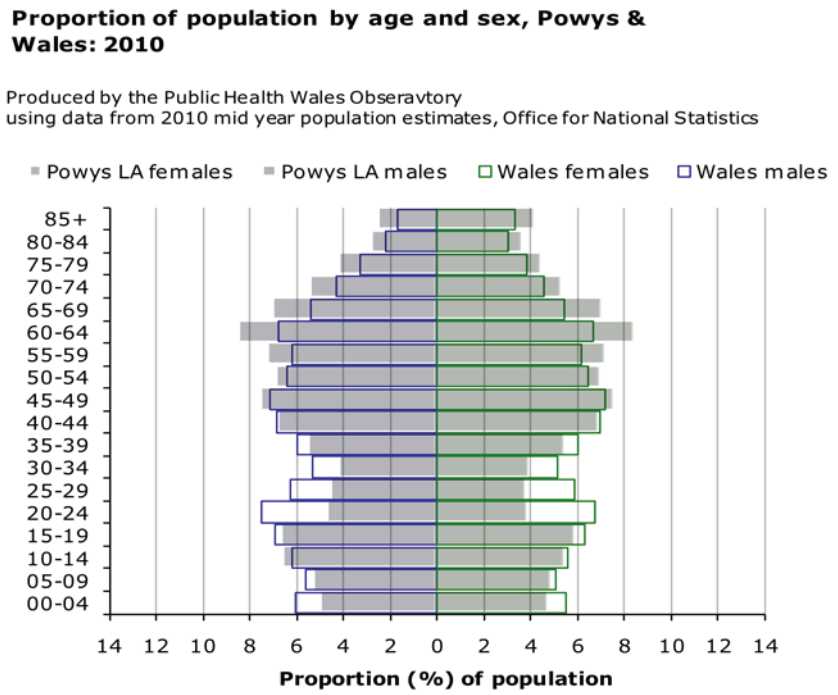
Figure 3: Key demographic comparators of Powys teaching Health Board

	Powys	Wales
Area size	5,196km^2	20,735 km^2
Total resident population	132,976	3,063,758
Persons per km^2	26	148
Births	1,189	35,516
Deaths	1,444	30,799
% population from black and minority ethnic minority background	1.6%	14%
% lower super output areas (LSOAs) in most deprived 5th of Wales	4%	20%

Source: Office for National Statistics and Census 2011

The population pyramid for Powys shows that there are currently a greater proportion of people aged over 50 years and a smaller proportion of working age adults (20 to 39 year olds) compared with Wales.

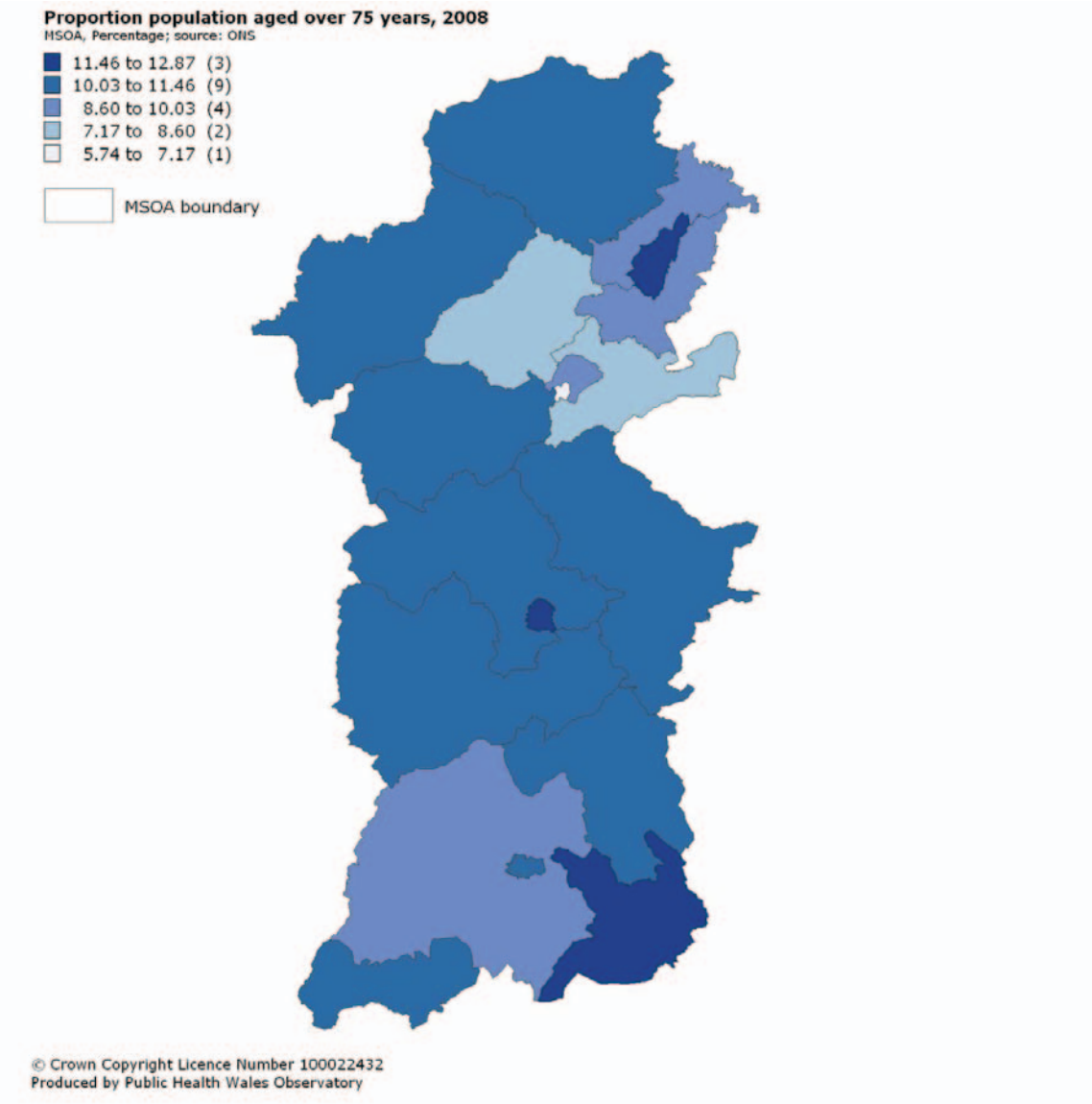
Figure 4: Proportion of population by age and sex, Powys and Wales, 2010



Source: Public Health Wales Observatory

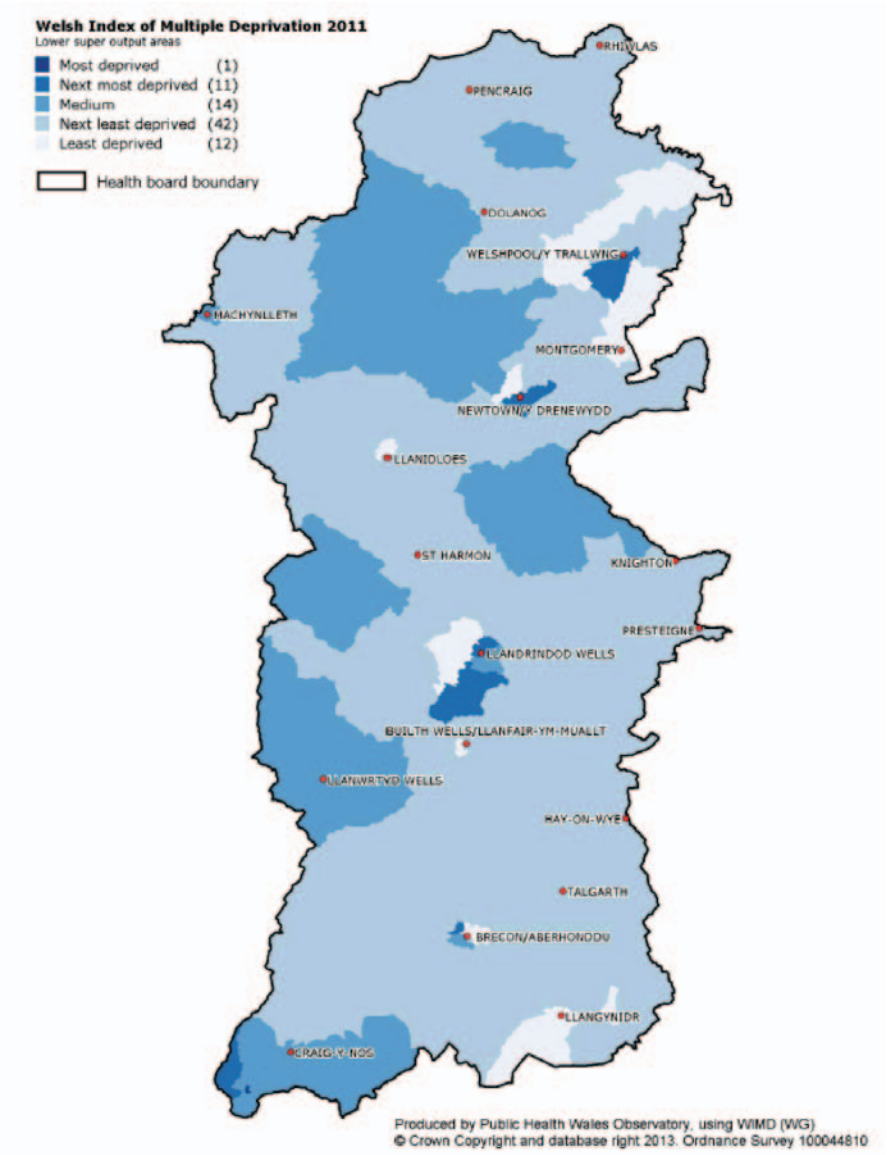
Powys has a larger proportion of the population aged 75 years and over (10.3%) compared with Wales (8.6%). South East Powys, Llandrindod and Welshpool have the highest proportion of people aged over 75 years.

Figure 5: Proportion of population aged over 75 years, 2008



Ystradgynlais is the most deprived area in Powys according to the Welsh Index of Multiple Deprivation (2011), and is among the worst 10% areas in Wales. St John (Brecon), Newtown South, Welshpool Castle, Newtown Central and Llandrindod East / Llandrindod West are among the worst 30%. However, within less deprived areas there are often pockets of hidden deprivation. Figure 6 shows the deprivation in Powys by Lower Super Output Areas.

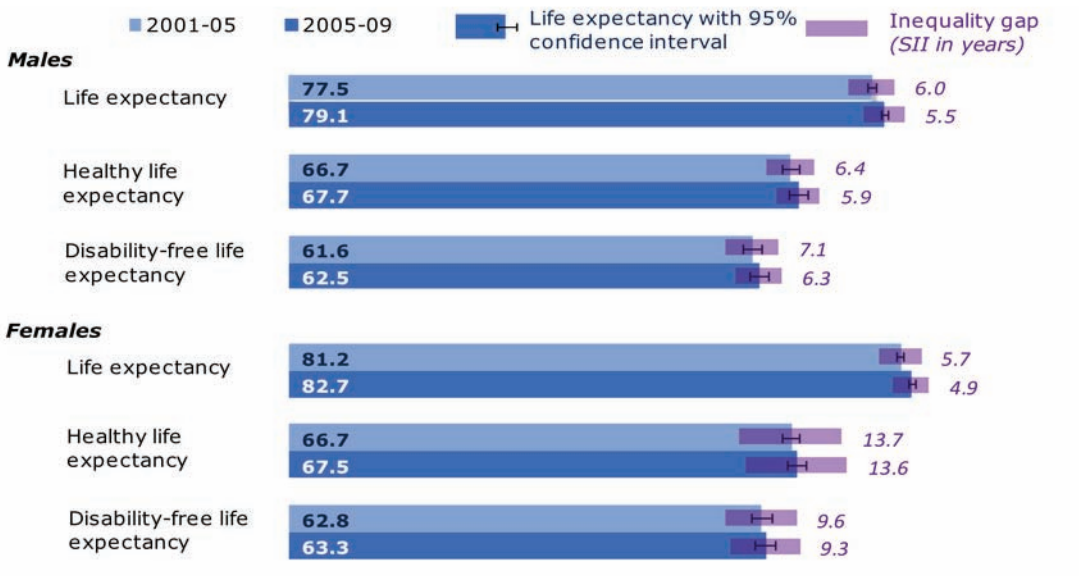
Figure 6: Lower Super Output Area deprivation fifths within Powys, Welsh Index of Multiple Deprivation 2011, all residents



Health inequalities in Powys

We know that being more privileged socially and economically is linked with better health. In Powys, there are differences in health outcomes between those who are from the most and least deprived fifths of the Powys population. Figure 7 shows the difference (inequality gap) in life expectancy, healthy life expectancy and disability free life expectancy between the most and the least deprived fifths of the Powys population over two time periods. The greatest inequality gap is seen in healthy life expectancy for females, where females from the least deprived fifth of the Powys population experience 13.6 years greater healthy life expectancy compared with most deprived fifth of the population.

Figure 7: Life expectancy in Powys



Source: Public Health Wales Observatory

Localities in Powys

There are three localities in Powys, each with their own GP clusters. 47% of the Powys population live in North Powys.

Figure 8: GP practice populations in the three Powys localities and GP Clusters

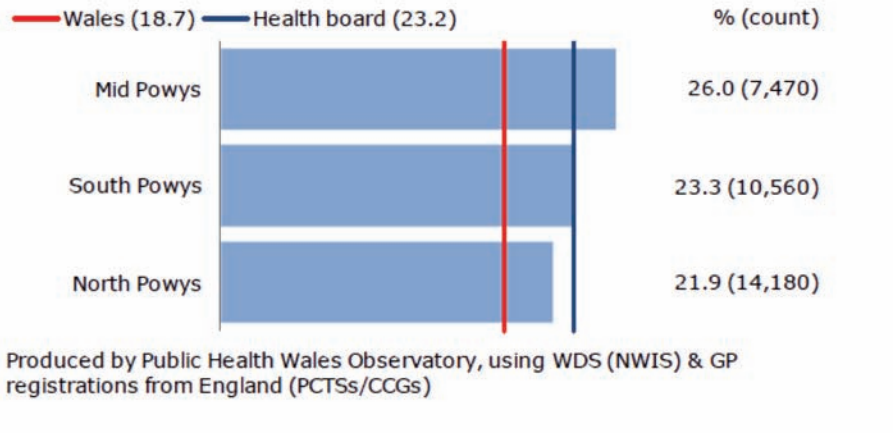
Source: Public Health Wales Observatory, using WDS (NWIS) & GP registrations from England

Locality	Number of GP Practices	Total list size
Mid Powys	5	28,730
North Powys	8	64,690
South Powys	4	45,250
Health Board	17	138,670
Wales	474	3,174,670

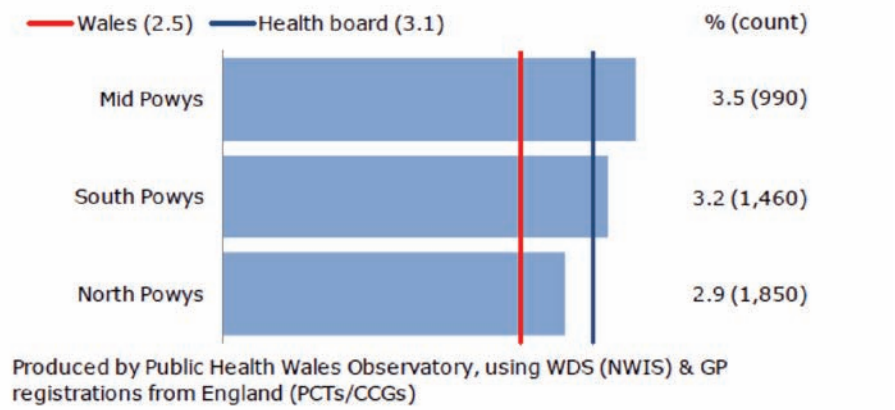
All three localities have a higher proportion of patients aged over 65 years and aged over 85 years compared with Wales, with Mid Powys having the highest percentage.

Figure 9: Proportion of patients aged over 65 years and 85 years, 2012

% of patients aged 65+ years



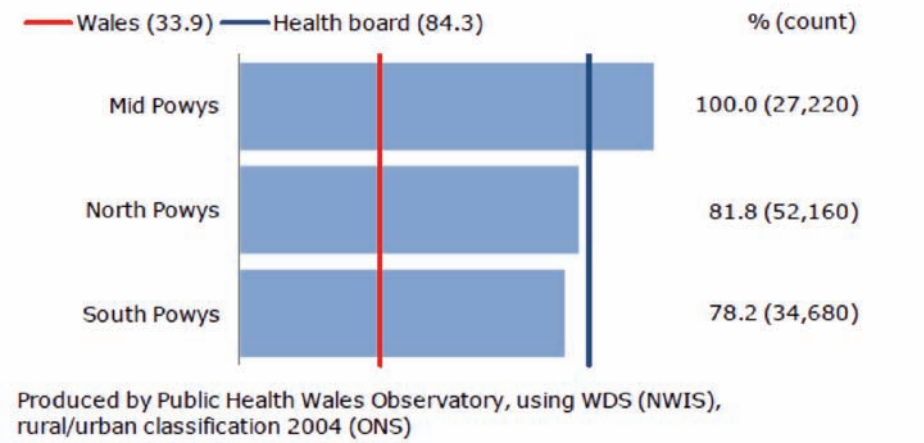
% of patients aged 85+ years



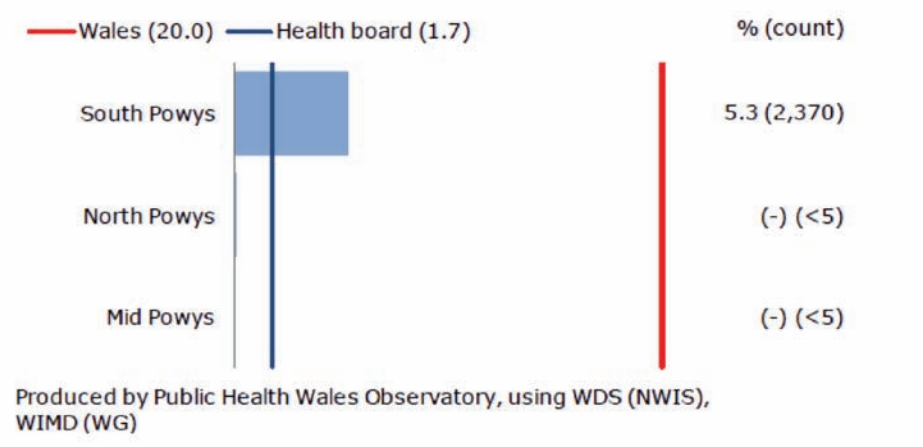
All three localities have a higher proportion of patients living in rural areas compared with Wales, with Mid Powys having the highest percentage. South Locality has the highest proportion of its population (5.3%) classified as living in the most deprived quintile in Wales.

Figure 10: Proportion of patients living in rural areas and in the most deprived quintile of Wales

% patients living in areas classified as rural (using 2004 ONS definition), 2012



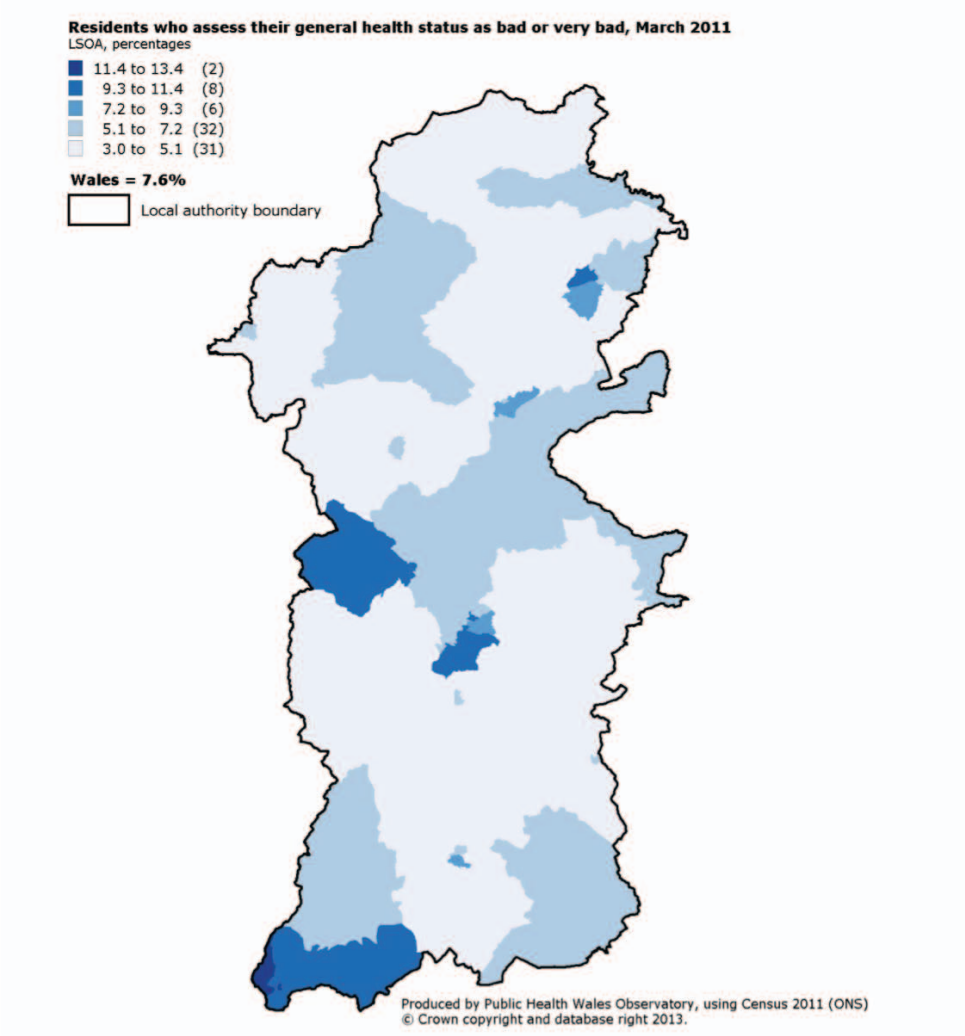
% patients living in the most deprived fifth of areas in Wales (using Welsh Index of Multiple Deprivation 2011), 2012



General Health Status of Powys residents

Overall, data from the Welsh Health Survey indicates that the population of Powys appears to experience better health compared with Wales, although this difference may not be statistically significant. In 2011, 6.1% of Powys residents reported that their general health status was bad or very bad, compared with 7.6% in Wales and 5.5% in England.

Figure 11: Residents who assess their general health status as bad or very bad



A lower proportion of the Powys population report being treated for any illness, being limited by health problems or a disability or report their health as fair or poor compared with Wales. However, as no confidence intervals are available for this data, no robust conclusions can be drawn.

Figure 12: Self reported health status in adults in Powys and Wales

Reported health status (age-standardised) in adults	Powys	Wales
Currently being treated for any illness	47%	49%
Limited by health problems/disability a lot	13%	16%
Limited by health problems/disability	31%	34%
General Health Status fair or poor	18%	21%
SF-36 Physical component summary score	49.6	48.9
SF-36 Mental component summary score	51.0	49.7

Source: Welsh Health Survey 2011-12

Older people in Powys (those aged over 65 years) also report a better quality of life compared with older adults in Wales, although no robust conclusions can be drawn as no confidence intervals are available.

Figure 13: Quality of life indicators (observed) for persons aged 65 years and over, 2008-10.

	Powys	Wales
General health status: fair or poor	37%	40%
Limiting long term illness	49%	56%
SF-36 Physical component summary score	41	39
SF-36 Mental component summary score	53	51

Source: Welsh Health Survey 2008-10. Produced by Public Health Wales Observatory

Health service utilisation

Powys adults report using health services less than adults across Wales for both primary and secondary care. This may be a reflection of a good health status amongst Powys residents or may be due to difficulties in accessing health services, although it is difficult to draw any firm conclusions due to lack of information regarding statistical significance for this data. Figure 14 summarises health service utilisation for Powys residents compared with Wales.

Figure 14: Health service use for adults (aged 16+) in Powys compared with adults in Wales (age standardised)

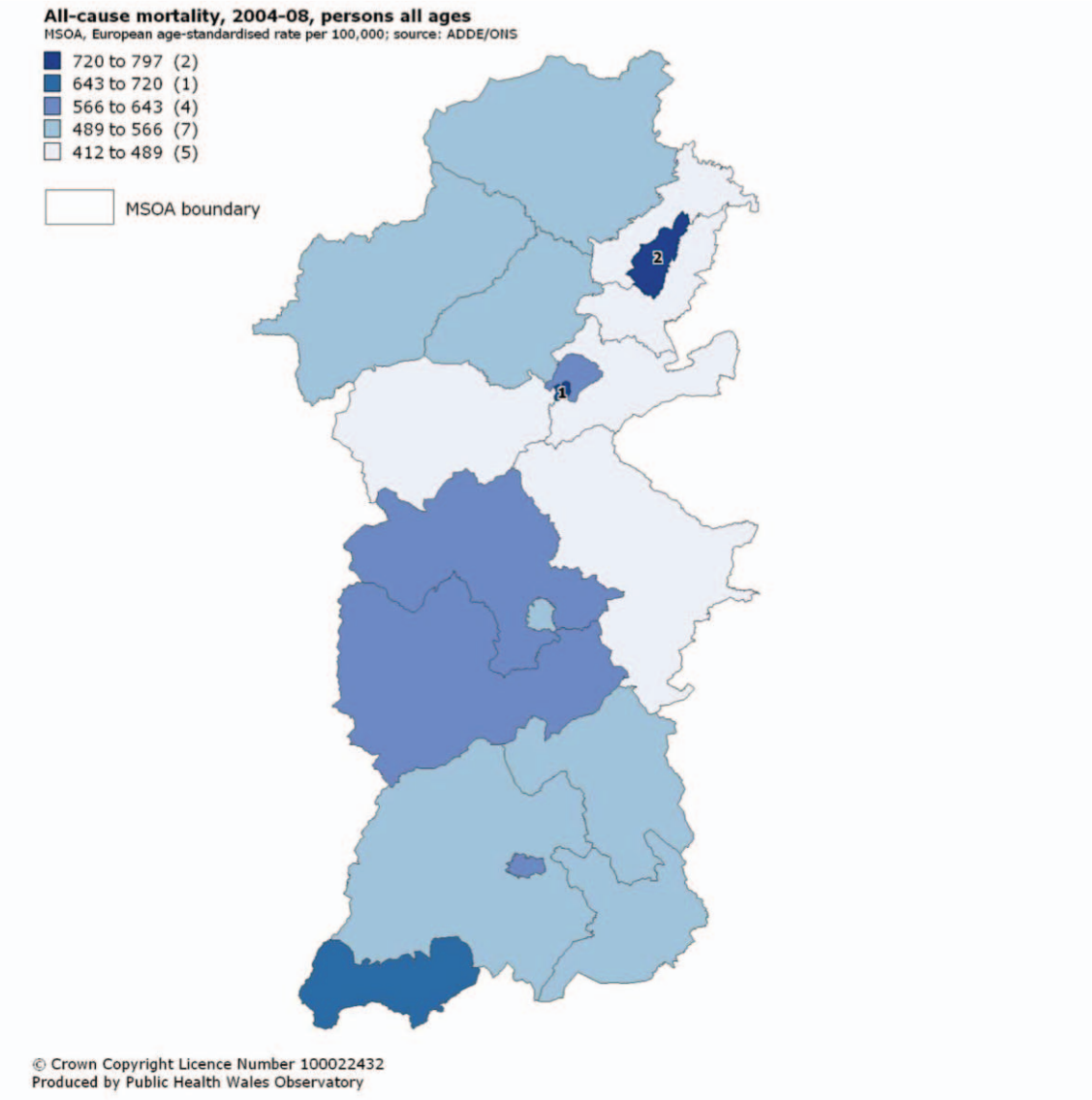
Health services used	Powys	Wales
GP in the past 2 weeks	14%	17%
Attended casualty in the past twelve months	13%	17%
In hospital as an inpatient in the past twelve months	8%	9%
Attended outpatients in the past twelve months	31%	32%
Saw a pharmacist in the past twelve months	63%	69%

Source: Welsh Health Survey, 2011 and 2012 (Welsh Government)

Mortality rates in Powys

Powys has a significantly lower age standardised all cause mortality rate for all persons (550 per 100,000) compared with Wales (635 per 100,000). Figure 15 shows the variation in all cause mortality for persons of all ages in Powys. There are two Middle Super Output Areas in Powys (Newtown and Welshpool) that have significantly higher all cause mortality rates compared with Wales.

Figure 15: All-cause mortality in Powys Teaching Health Board area, all persons, 2004-08, European age-standardised rates per 100,000



Source: Public Health Wales Observatory, using data from ONS (ADDE, MYE)

1. Health and Wellbeing of Individuals

In Powys, individual health and wellbeing means.....

- People of all ages lead healthy, active lives and feel mentally and physically well
- Vulnerable children and adults are protected

Individuals who are happy and healthy are better able to lead fulfilled lives and be active members of their community and also contribute to the economy.

There is a strong economic case for helping individuals to be engaged with their own health and enable them to adopt a healthier lifestyle. Approximately a decade ago, Wanless[3] reported that unless people were fully engaged in their own health and wellbeing, then the cost to the NHS of treating long term conditions would be unsupportable.

This section focuses on factors that enable individuals to have healthier lifestyles and improve their health and wellbeing:

- Reducing the number of smokers in Powys
- Promoting healthy weight through physical activity and healthy eating
- Increasing vaccination rates to protect against infectious diseases
- Reducing levels of harmful alcohol consumption
- Improving mental health and emotional wellbeing
- Improving sexual health
- Reducing accident and injury rates

The report also examines challenges facing specific groups:
Adults with long term conditions

- Vulnerable children
- Older people and the ageing population
- Carers
- Those with physical and sensory disabilities
- Homeless people

1.1 Reducing the number of smokers in Powys

Smoking is the single greatest avoidable cause of death and is the cause of nearly one in five deaths in Wales. Smoking contributes to approximately 30% of the difference in death rates between the most and least deprived areas in Wales. In adults, smoking is more common in males, with the highest rates in males aged 25-34 years (37% smoke) and 35-44 years (31% smoke)[4].

Eight out of ten smokers start smoking before the age of 19 years[5], with significant impact on health in later years. For example, those who start to smoke before the age of 15 years have at least double the risk of developing lung cancer compared with individuals who start smoking after the age of 25 years[6].

Smoking in pregnancy increases the risk of miscarriage and further complications in pregnancy. There is a 40% increased risk of infant mortality and a greater risk of babies being born with a low birth weight. The effects of tobacco exposure continue in later life, with children of mothers who smoke being more likely to develop ear and respiratory infections. A greater proportion of mothers smoke throughout pregnancy in Wales (16%) compared with England (12%) and the UK (12%)[7]. Of those women who smoke, 50% give up before of during pregnancy in Wales, compared with 54% across the UK. Smoking throughout pregnancy is more likely amongst pregnant women who work in routine and manual occupations (24%) or who have never worked (27%) compared with managerial and professional occupations (7%).

Smoking is more common amongst people with mental health problems. The reason for this is probably multi-factorial e.g. deprivation may be a confounding factor, as it is linked with both mental illness and smoking prevalence. Amongst patients in Mental Health Units, the prevalence of smoking may be as high as 70%[8]. Unlike England, Mental Health Units in Wales continue to be exempted from the legislation to ban smoking in enclosed public places, which came into force in 2007.

The Facts

- Children and young people

In Powys, 19% of children aged 11 to 16 years reported that they were exposed to second hand smoke in cars[9].

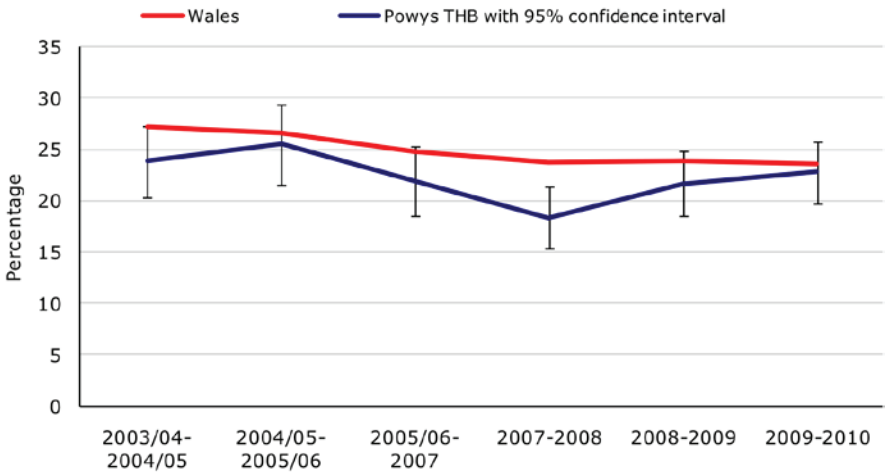
A similar proportion of young people in Powys aged 16 to 24 years (25.5%) reported that they smoked compared with young people across Wales (26.1%)[10].

- Adults

Whilst there has been a downward trend in smoking prevalence in Wales from 2003-04 to 2009-10, this has not been mirrored in Powys (figure 16), with there being no statistically significant difference in age standardised prevalence between 2003-04 (24%) and 2009-10 (23%). More recent data (2011-12) shows that age standardised smoking prevalence is 21% in Powys, which is not significantly lower than rates in Wales (23%)[11]. 15% of non smoking Powys residents report that they are regularly exposed to passive smoke indoors, compared with 23% in Wales.

Figure 16: **Percentage of adults who reported smoking daily or occasionally, Powys THB and Wales, age standardised, 2003/04-2010**

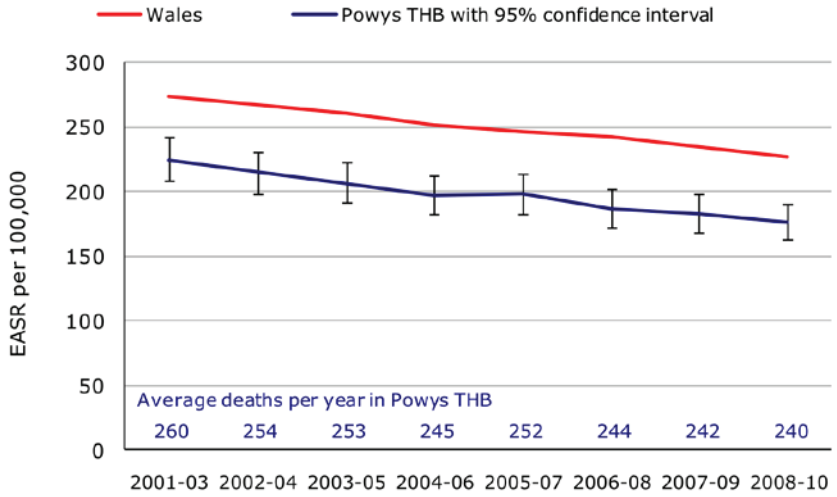
Produced by Welsh Government & Public Health Wales Observatory, using Welsh Health Survey (WG)



Smoking attributable mortality has fallen between 2001-03 and 2008-10 both across Wales and in Powys, with rates in Powys significantly below that of Wales.

Figure 17: **Smoking-attributable mortality, all persons aged 35+, European age-standardised rate (EASR) per 100,000, Powys THB and Wales, 2001-03 to 2008-10**

Produced by Public Health Wales Observatory, using ADDE / MYE (ONS), WHS (WG)

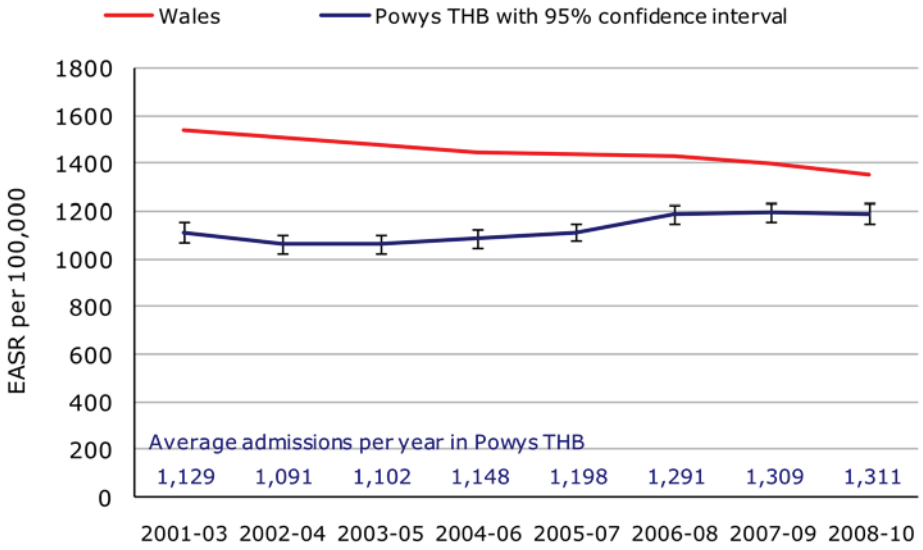


Over the same time frame, a downward trend has been observed for premature deaths for all persons from circulatory disease, respiratory disease and chronic obstructive respiratory disease across Wales and Powys, with rates being significantly lower in Powys. However, no downward trend has been seen in mortality from lung cancer at Wales or Powys level, although Powys rates remain significantly below Wales. In Powys, it is estimated that in 2010, 157 deaths in males and 83 deaths in females were due to smoking[12].

Whilst smoking attributable hospital admissions have fallen across Wales between 2001-03 and 2008-10, the reverse has happened in Powys, with an increase from 1,115 per 100,000 to 1,192 per 100,000 over the same time period.

Figure 18: **Smoking-attributable hospital admissions, all persons aged 35+, European age-standardised rate (EASR) per 100,000, Powys THB and Wales, 2001-03 to 2008-10**

Produced by Public Health Wales Observatory, using PEDW (NWIS), MYE (ONS), WHS (WG)



What does this mean for Powys?

With no clear downward trend in smoking prevalence in Powys, there continues to be preventable mortality and morbidity as a result of tobacco. In addition, smoking continues to contribute to health inequalities in Powys.

Achieving a sustained reduction in smoking prevalence in Powys poses a significant challenge to all partners. Multi-agency partnership working is required at both local and national level in order to achieve the Welsh Government target prevalence of 16% by 2020. A Powys Tobacco Control Strategic Group, with representation from key partners in Powys, provides leadership in Tobacco Control. The aims of the group are to reduce the uptake of smoking, reduce smoking prevalence and reduce exposure to second hand smoke.

Most of the smoking cessation services in Powys are delivered by Stop Smoking Wales and Level 3 Pharmacy Cessation Scheme. These services offer different levels of support to smokers who wish to quit. Stop Smoking Wales offers a behavioural support programme, offering both group and one to one support over a six week period. The Pharmacy Level 3 scheme offers motivational support to people who wish to quit over a 10 week period. Clients access this service directly through contact with their local pharmacy. Having both services means that smokers who wish to quit have a choice of cessation methods. In 2012-13, 202 smokers in Powys were treated by Stop Smoking Wales, with 26.2% having given up smoking at 4 weeks. In addition, 615 smokers were treated by Pharmacy Level 3 services, of whom 44% reported that they had given up at 4 weeks.

Recommendation 1

The Powys Tobacco Control Strategic Group should review progress with its action plan, to ensure the local approach is effectively targeted on the needs of children and young people

1.2 Promoting healthy weight through physical activity and healthy eating

Overweight and obesity have continued to increase in prevalence across Wales, with being overweight now “the norm” for adults. Obesity contributes to numerous long term conditions, including type 2 diabetes, hypertension, coronary artery disease, stroke, cancers and osteoarthritis. Obesity develops gradually and losing excess weight is difficult and takes time. However, even a modest amount of weight loss (5 - 10% of initial weight) helps to reduce the risk of developing type 2 diabetes, improves blood pressure and reduces total cholesterol[13]. The causes of overweight and obesity are complex, with the foundations being laid in early years and include biological, social and environmental factors.

Physical activity is important for health and wellbeing. It contributes to the maintenance of a healthy weight, as well as improving mental wellbeing and protecting against long term health problems. Increased physical activity levels in adults are associated with:

- Reduced risk of chronic diseases e.g. coronary heart disease, diabetes
- Improved mental wellbeing and reduced symptoms of depression and anxiety

(including through Trading Standards), pregnant smokers and communities with the highest smoking prevalence.

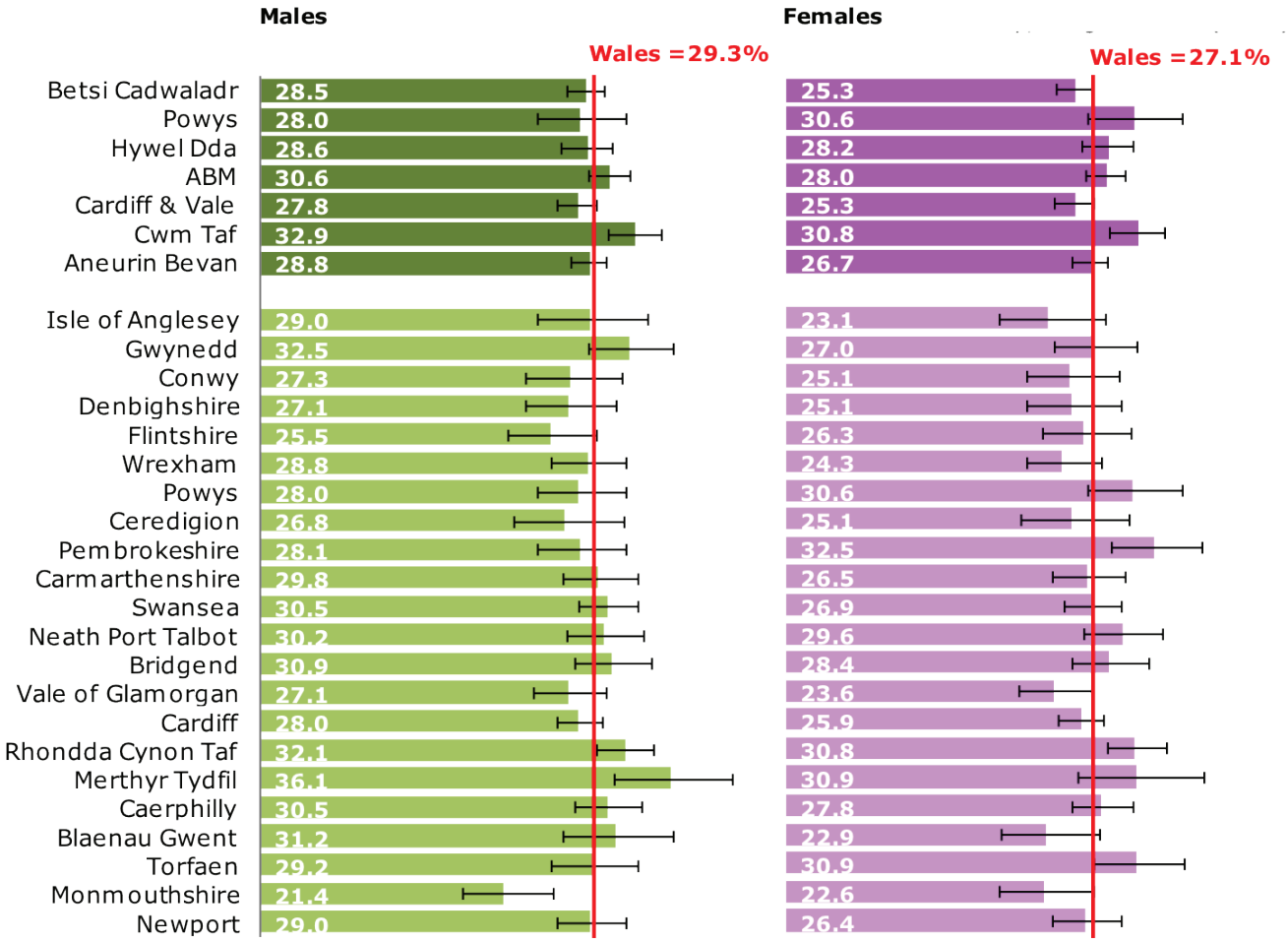
A healthy balanced and varied diet is vital for good health and helps reduce the risk of illness including cardiovascular disease, strokes, and cancer. In addition, those who eat a balanced diet are less likely to be overweight.

The facts

- Children and young people

Results of the Child Measurement Programme[14] show that Powys children have higher rates of overweight and obesity compared with Wales (Powys 29%, Wales 28.2%), although this difference is not statistically significant. In Powys, rates are higher in females (30.6%) than males (28%), although the reverse is true across Wales (males 29.3%, females 27.1%) (Figure 19). In Powys, 30.4% of young people aged 16-24 years reported that they were overweight or obese, similar to levels reported across Wales (31.4%)[15].

Figure 19: **% of children aged 4-5 who are overweight or obese, 2011/12**
Produced by Public Health Wales Observatory, using CMP data (NWIS)



- Adults

Self reported information from the Welsh Health Survey 2011-12 shows that:

- rates of overweight and obesity are lower in Powys (55%, age adjusted), compared with Wales (58%).
- 38% (age adjusted) of Powys adults report that they were physically active on 5 or more days in the past week, compared with 29% of adults across Wales.
- 41% of Powys adults report consuming fruit and vegetables to a level that meet national guidelines, compared with 33% of adults across Wales.

No confidence intervals are available for this data, which means that the results for Powys may not be significantly different to those for Wales. This data also needs to be treated with caution, as it is self reported.

What does this mean for Powys?

Increasing overweight and obesity levels and low levels of physical activity and fruit and vegetable consumption not only impacts on the health and wellbeing of individuals, but also has cost implications for the NHS as well as society as a whole.

Tackling overweight and obesity is complex, with no single intervention having been found to impact on population obesity levels. Prevention of obesity is key, as many weight loss interventions often have limited effectiveness and there is often weight regain. A partnership approach is key to developing a local response, as no single agency is able to have an impact alone.

A Powys Healthy Weight Steering Group has been convened with multi-agency partnership involvement to develop and oversee the implementation of a Healthy Weight Strategy.

Recommendation 2

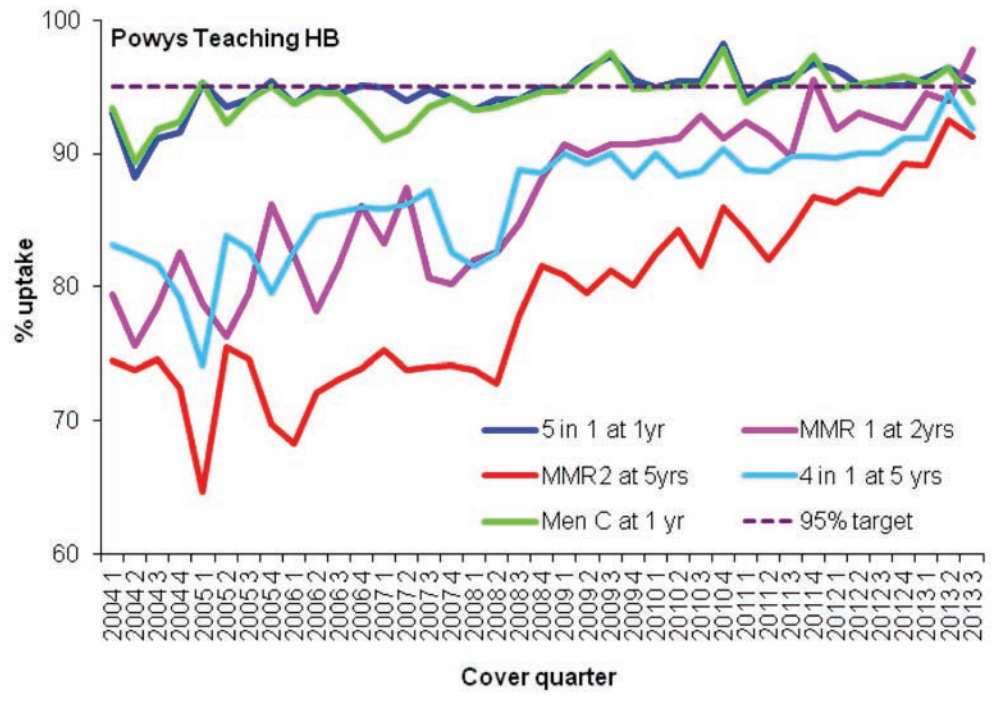
The Powys Healthy Weight Steering Group should agree further opportunities and actions to tackle the local obesogenic environment.

1.3 Increasing vaccination rates to protect against infectious diseases

Vaccinations are one of the most safe and effective public health interventions, protecting children and communities against serious infectious diseases. In the UK, children are routinely given vaccines to protect them against diphtheria, tetanus, pertussis (whooping cough), polio, Haemophilus influenzae type b, Pneumococcal disease, Meningococcal group C disease, measles, mumps, rubella and cervical cancer caused by human papillomavirus types 16 and 18.

Whilst uptake rates of childhood vaccinations are increasing overall across Wales and Powys, uptake for all vaccination has not reached the 95% target level required to prevent infectious diseases spreading in the community.

Figure 20: Powys teaching Health Board trends in routine childhood immunisations 2004-2013



Source: Public Health Wales Immunisation and Vaccine Preventable Disease Programme

Flu vaccination is offered to vulnerable members of the population (those aged over 65 years, those aged 6 months to 65 years with a long term health problem, carers, those living in residential care facilities, pregnant women) as well as to health and social care workers. Flu can be a fatal illness and vaccination has been shown to reduce the incidence of pneumonia, hospital admissions and deaths. In addition, vaccinating health and social care staff protects patients, other healthcare workers and family members. Flu vaccination also aids business continuity during the winter months by reducing staff sickness rates, when health and social care organisations face increased demands on resources.

The facts

In 2012-13, childhood vaccination uptake rates were similar to Wales', except for MMR vaccinations for those aged 5 years and 16 years, where rates in Powys lagged behind.

Figure 21: Uptake of selected immunisations in resident children reaching their 1st, 2nd, 5th and 16th birthday between 01/04/2012 and 31/03/2013 and resident on 01/05/2013

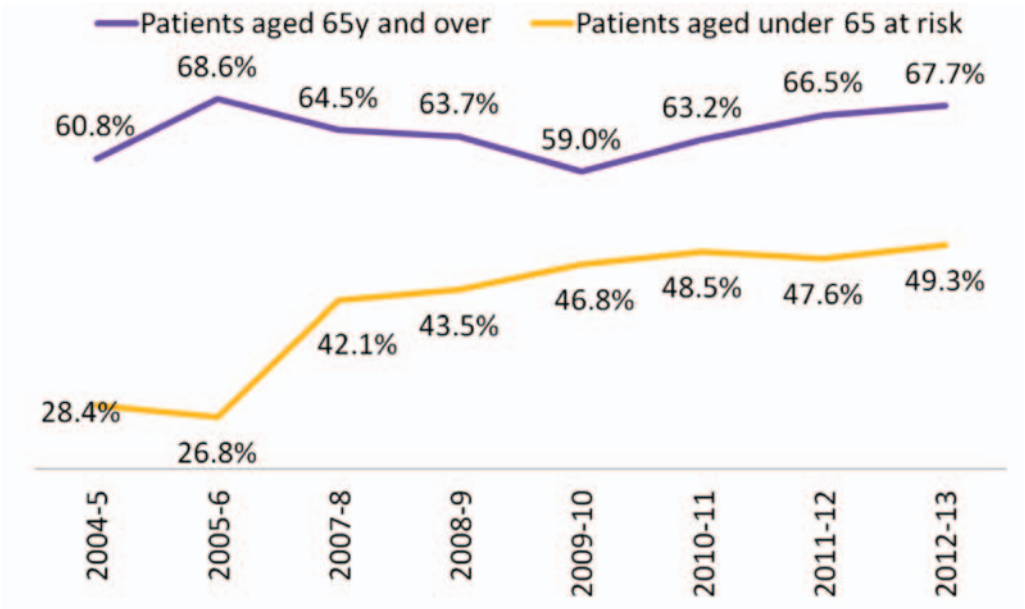
		Powys %	Wales %	Number of additional children requiring vaccination in Powys to achieve 95% target
Age 1 year	5 in 1	95.4	96.5	0
	MenC	95.5	96.1	0
Age 2 years	MMR 1	93.4	94.6	20
	PCV	95.0	95.2	0
	Hib / MenC booster	94.1	94.4	12
Age 5 years	MMR 2	87.5	89.6	97
	4 in 1	90.0	91.3	65
Age 16 years	MMR 1	86.4	91.1	129
	MMR 2	75.3	82.6	295
		78.9	77.6	241

Source: COVER annual report 2013

95% and higher
90% to 95%
Below 90%

The trend in flu vaccination uptake in Powys amongst patients aged 65 years and over and patients aged under 65 years in risk groups has shown an overall increase since 2004-05 (figure 22), although uptake remains below the national target of 75%.

Figure 22: Uptake of seasonal flu vaccine in Powys



Source: Public Health Wales Immunisation and Vaccine Preventable Disease Programme

In 2012-13, uptake amongst staff at Powys teaching Health Board increased to 36.8%, compared with 22.7% in 2011-12.

What does this mean for Powys?

Outbreaks of vaccine preventable diseases such as measles, whooping cough and rubella are likely to take place where vaccination uptake rates are not at 95% target. A measles outbreak, which started in South West Wales, also affected Powys in March - July 2013. During this period, there were 96 notifications of measles cases. Measles is a highly infectious disease that is potentially fatal or can lead to serious long term health problems. The response in Powys to controlling the outbreak demonstrated that all partners have a role to play in promoting and facilitating vaccination uptake. For example, promotion of MMR vaccination was undertaken through GP Practices, community health staff, schools, leisure centres, libraries, voluntary organisations and community groups.

Recommendation 3

The Powys Immunisation Steering Group should use external peer review to inform development of its flu vaccination action plan for the 2014-15 winter season.

1.4 Reducing levels of harmful alcohol consumption

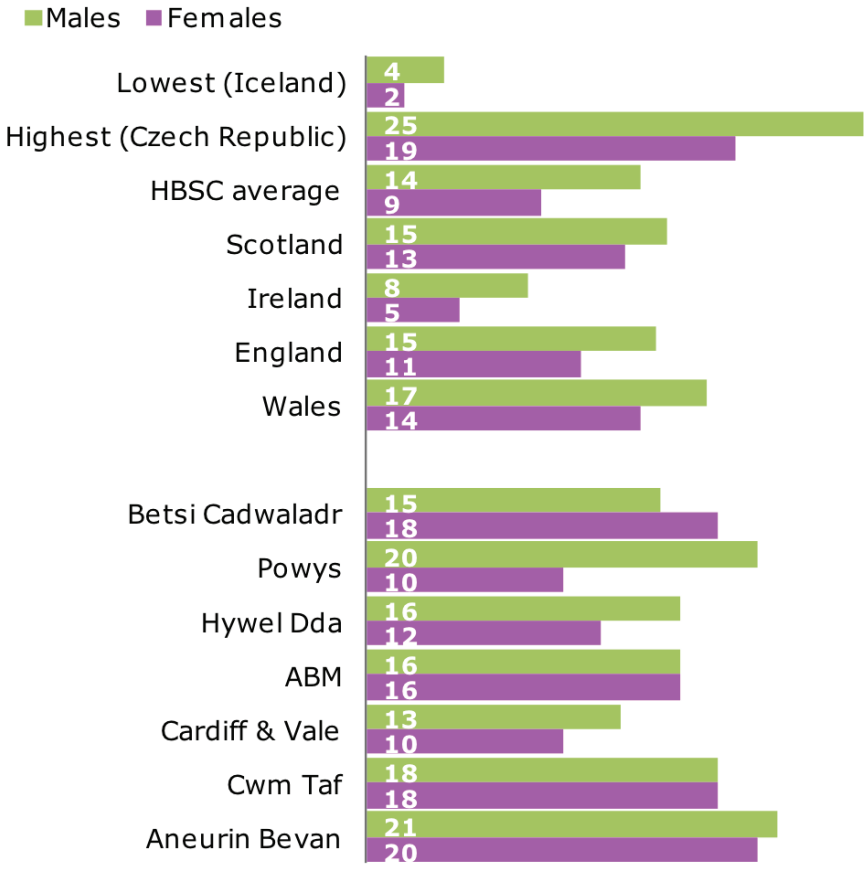
Alcohol can adversely affect individual health and wellbeing, as well as impacting on family members and the community. Alcohol is ranked by the World Health Organisation as the third leading cause of death and disability in the developed world[16]. Health effects of harmful or hazardous alcohol consumption include liver disease, intentional or unintentional injuries, pancreatitis, heart muscle damage (cardiomyopathy), and dementia. Social consequences include school absenteeism, unplanned and unprotected sexual activity and criminal activity. Alcohol contributes to crime and social disorder, as well as having an economic cost. The estimated health service cost in Wales of alcohol related chronic disease and acute incidents is between £70 million and £85 million each year[17].

The facts

- Children and young people

A higher proportion of children aged 11-16 years report that they drink alcohol in Wales compared with England, Scotland and Ireland. Boys in Powys have higher alcohol consumption rates compared with boys across Wales, whereas girls in Powys report lower consumption levels compared with Wales. As there are no confidence intervals available for this data, it is not possible to draw any firm conclusions.

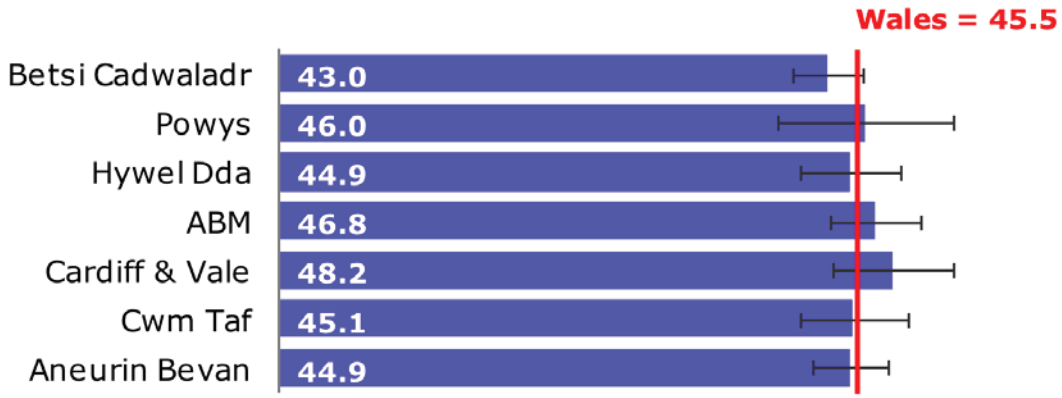
Figure 23: **% of persons aged 11-16* who reported drinking alcohol at least once a week, 2009/10**
Produced by Public Health Wales Observatory, using HBSC (WG)



*Country level data only includes ages 11, 13 and 15

A similar proportion of young people in Powys aged 16-24 years drink above recommended guidelines (46%) compared with Wales (45.5%).

Figure 24: **% of persons aged 16-24 who reported drinking above the recommended guidelines on at least one day in the previous week, 2008-2011**
Produced by Public Health Wales Observatory, using WHS (WG) & MYE (ONS)



- Adults

39% of adults in Powys reported consuming alcohol above guidelines, compared with 43% in Wales. 23% reported binge drinking on at least one day in the past week, compared with 27% of adults across Wales[18]. These figures need to be treated with caution as there are no confidence intervals available to demonstrate if there is a statistically significant difference between the rates in Powys and Wales.

In 2011-12, referral rates for alcohol treatment were 236 per 100,000 adult residents in Powys, compared with 289 per 100,000 in Wales[19].

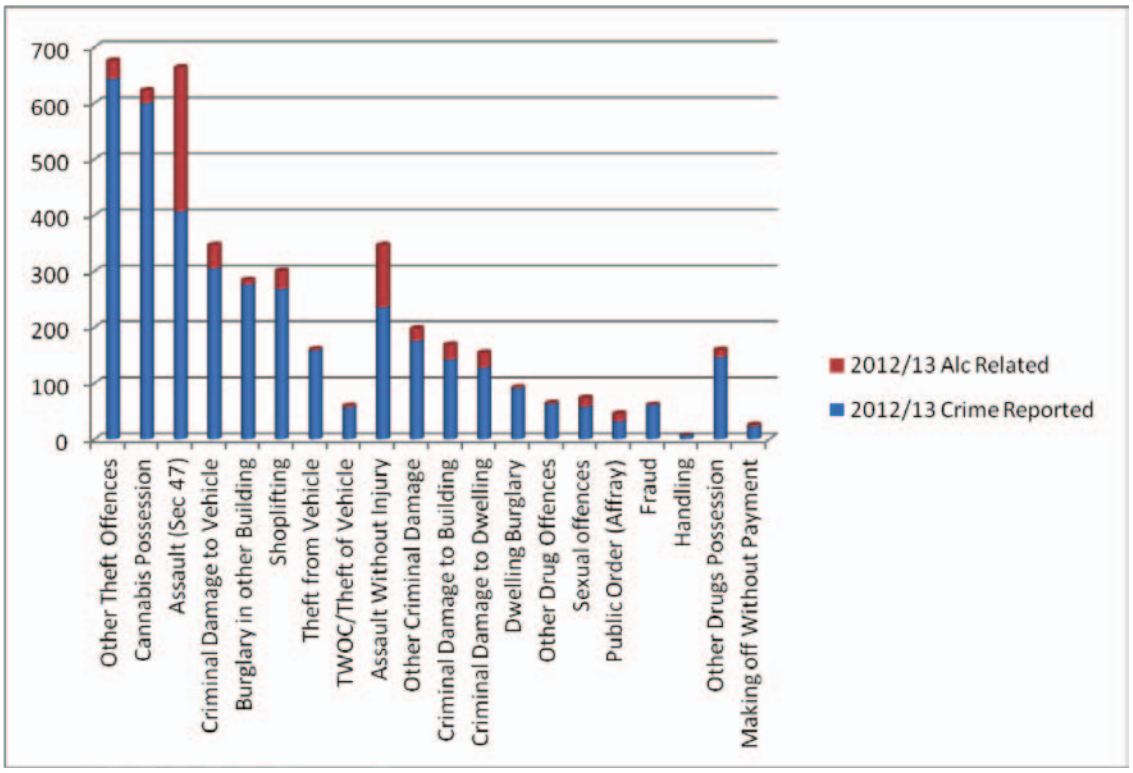
Whilst alcohol related and alcohol attributable mortality rates for females in Powys are similar to Wales' rates, rates for males are significantly lower in Powys. Alcohol attributable admissions are significantly lower in both males and females in Powys compared with levels in Wales[20].

What does this mean for Powys?

Whilst the data related to alcohol consumption and health harm is overall better in Powys compared with Wales, this information needs to be treated with caution, as studies to compare alcohol sales with reported alcohol use suggest that people consume more alcohol than they estimate.

This information should be seen in terms of the broader impact on families and communities. Problem use of alcohol increases the likelihood of criminal and anti-social activity, with research indicating that alcohol is a specific risk factor linked to the offending behaviour for the majority of offenders. Alcohol misuse is attributed with many incidences of crime. Figure 25 identifies the total number of recorded crimes per category and highlights those that have been flagged as alcohol related during 2012-13.

Figure 25: Number of total crimes and alcohol related crimes reported per category in Powys in 2012-13



Source: Powys Community Safety Partnership

In Powys, community safety issues related to alcohol are tackled through the Community Safety Partnership, which includes representation from the police, local authority, the NHS, businesses, the Fire and Rescue Service and voluntary organisations. The Powys Area Planning Board leads the planning, commissioning and performance management of substance misuse services within Powys, as well as providing a forum for partners to work together to reduce alcohol related harm

Case Study

Brecon Community Alcohol Project
Brecon Community Alcohol Partnership (B-CAP) was established in April 2012 and consists of a range of partners including schools, youth workers, police, trading standards and local retailers. B-CAP aims to tackle underage drinking through:

Awareness raising - through social media sites such as Facebook and Twitter; the development of B-CAP website; resources for teachers, parents and carers and the promotion of B-CAP through community venues and local events.

Diversionary activities – which have been identified with young people and include an evening youth cafe, consisting of a range of arts, cooking, drug and alcohol projects and reduced entry to a range of activities throughout Brecon.

Enforcement - Provision of training to on and off-license staff around tackling availability, including the introduction of the Challenge 25 scheme to provide a consistent approach to tackling availability of age restricted products, particularly alcohol.

An evaluation framework has been developed to capture the long, medium and short term impact using a range of quantitative and qualitative data. Future developments include Alcohol Brief Intervention Training for Police Community Safety Officer's, a Proxy Purchasing Campaign with Police, Licensing and Trading Standards as well as exploring the possibility of delivering the project in other areas of Powys.

Recommendation 4

Supported by a needs assessment, the Powys Area Planning Board should agree further opportunities and actions for the primary prevention of alcohol misuse by children, young people and adults.

1.5 Improving Mental Health and Emotional Wellbeing

Mental health underpins overall health. Poor mental health is associated with obesity, alcohol misuse and smoking, as well as a number of long term conditions such as diabetes, coronary heart disease and chronic obstructive pulmonary disease. The Welsh Health Survey showed that those who reported a higher number of healthy behaviours also reported better mental health and wellbeing.

Mental health covers a very wide spectrum, from the worries and grief experienced as part of everyday life, to suicidal depression or complete loss of touch with everyday reality. Mental health and emotional wellbeing are influenced by a wide range of physiological, social, economic and environmental factors. Of particular relevance to Powys is the higher rates of suicide amongst farm workers and farm owners, who make up 1% of suicides in England and Wales[21].

Mental health problems are common, with one in ten children aged 5 to 16 years and 18% of adults having a common mental disorder. A quarter of routine GP consultations are for people with a mental health problem. Approximately one in five people aged over 80 years are affected by dementia. Unfortunately, nearly nine out of ten people who experience mental health problems report that they face stigma and discrimination as a result.

In 2006-07 the NHS spent £8.4 billion on mental health services (excluding substance misuse) for all age groups. This was the highest spend on any individual area of healthcare, over £1.5 billion more than on coronary heart disease and almost twice as much as on cancer. In 2011-12, Powys teaching Health Board spent £211 per capita on mental health (crude expenditure), which equated to 11.5% of its total spend[22].

The facts

An estimated 7% of the adults aged 16 and over in Powys report being currently treated for a mental illness, compared with 11% of adults across Wales[23]. The average self-assessed SF-36 Mental health score for adults aged 16 and over is 51.0, compared with 49.7 for adults in Wales, with a higher score indicating better health. Results are similar for those aged over 65 years, with scores in Powys (53) higher than the Welsh average (51), although the difference may not be statistically significant[24].

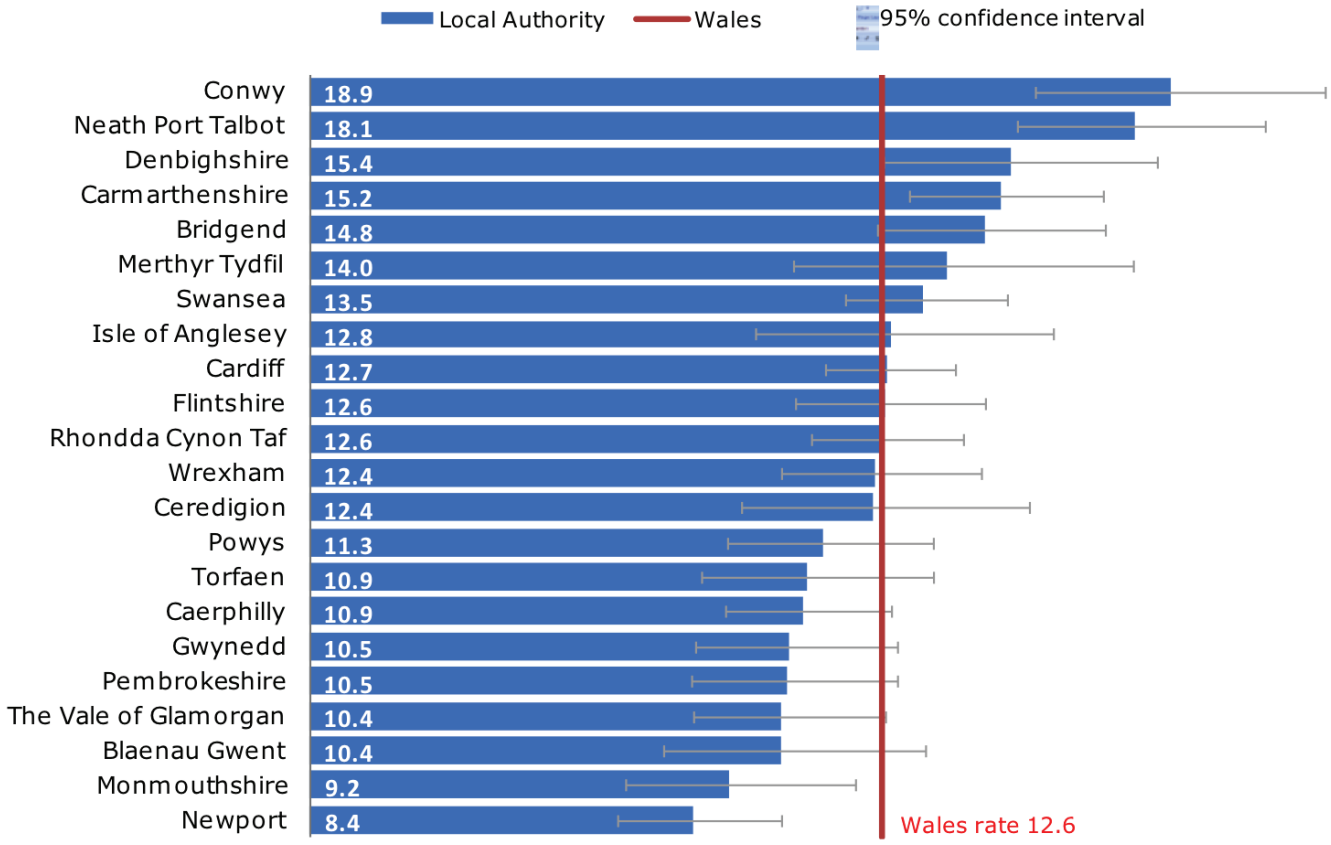
79.8% of adults in Powys report that they are free of a common mental disorder (as measured by a Mental Health Inventory 5 Score >60), significantly higher than the score for adults in Wales (74.5%)[25].

Suicide rates amongst those aged 15 years and over are lower in Powys (11.3 per 100,000 persons) than compared with Wales (12.6 per 100,000), although this difference is not statistically significant.

Figure 26:

Suicides, ranked local authorities, European age-standardised rate per 100,000, persons aged 15+, 2001-2010

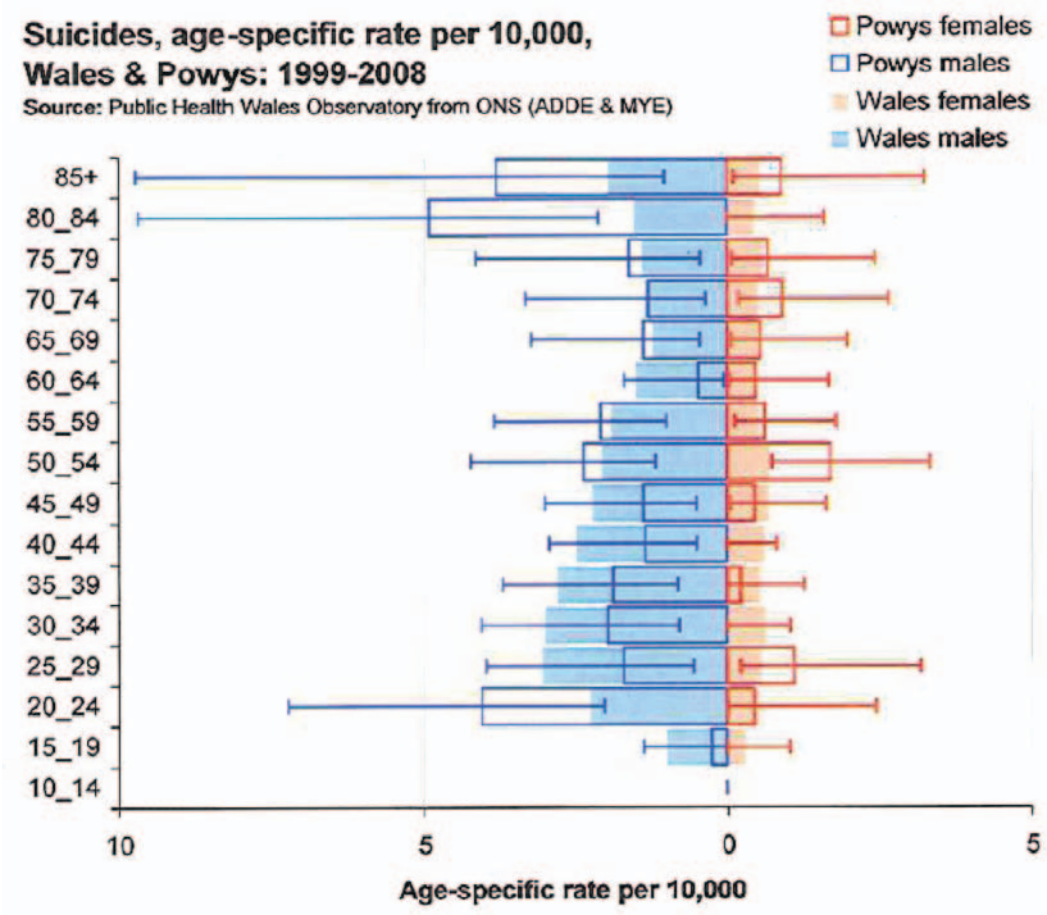
Produced by Public Health Wales Observatory, using ADDE & MYE (ONS)



Powys age specific suicide rates (per 10,000, 1999-2008) are higher in males aged 20-24 years and males aged 80 years and over compared with men of the same age in Wales. Whilst suicide rates amongst males aged 80-84 years appear to be significantly higher in Powys, this should be treated with caution, as the number of deaths is small (less than 5 each year for each of the age groups), resulting in very wide confidence intervals.

Figure 27: **Suicides, age-specific rate per 10,000, Wales & Powys: 1999-2008**

Source: Public Health Wales Observatory from ONS (ADDE & MYE)



What does this mean for Powys?

The promotion of mental health and wellbeing is being taken forward in Powys as part of “Hearts and Minds”, a Mental Health Strategy for Powys. Hearts and Minds has been developed through the Powys Mental Health Planning and Development Partnership. Actions to promote mental health and wellbeing in Powys include the introduction of an integrated face to face and internet based school counseling service and the continued delivery of Mental Health First Aid and Applied Suicide Intervention Skills Training (ASIST). Mind Cymru’s Time to Change campaign, which aims to prevent stigma and discrimination against people who experience mental health problems, was adopted and launched as a Powys Time to Change campaign across Powys teaching Health Board on World Mental Health Day in October 2012.

1.6 Improving sexual health

Sexual health is closely linked with economic, social and cultural influences, as well as drug and alcohol use. There is a strong link between social disadvantage and early initiation into sexual activity, with young people with lower aspirations being more likely to experience sexual ill-health or an unplanned pregnancy.

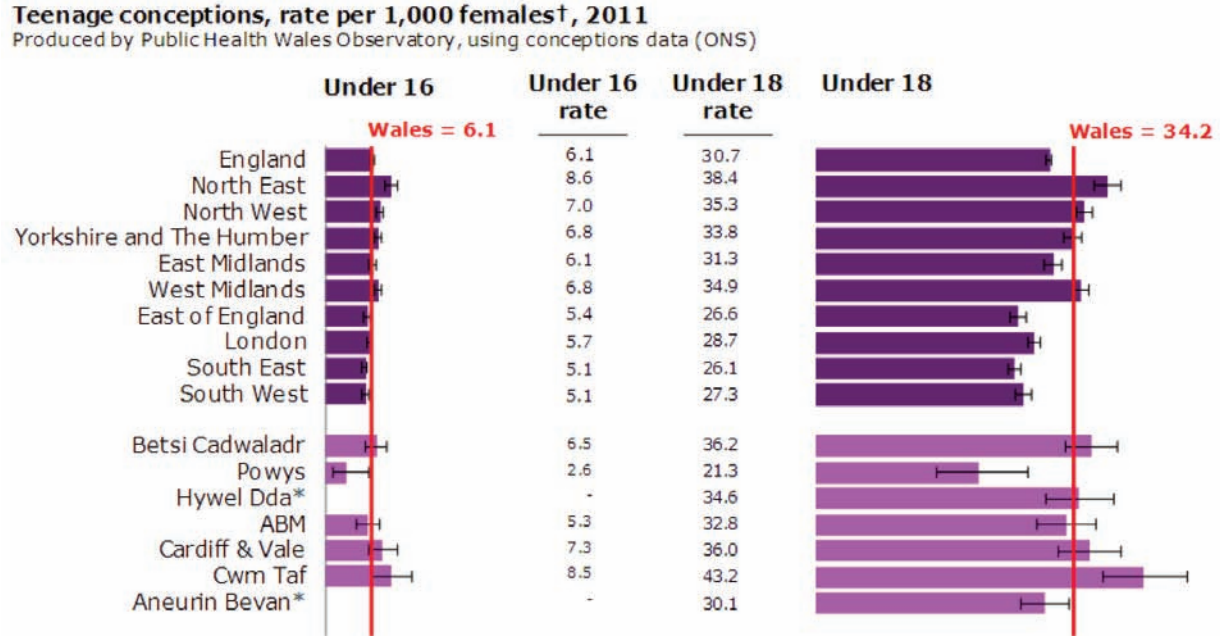
Becoming a parent at a young age can be a positive choice. However, females from deprived backgrounds are more likely to conceive under the age of 16. In Wales, girls aged 13-15 years from the most deprived fifth of the population have a conception rate of 12.4 per 1,000, compared with girls from the least deprived fifth of the population, where the rate is 3.9 per 1,000[26]. Other groups who are particularly vulnerable to becoming teenage parents include young people in or leaving care, those with no or low educational attainment or no qualifications, children of teenage mothers and those who are involved in risky behaviours such as early onset of sexual activity or alcohol and substance misuse[27]. Young mothers are less likely to complete their education and are more likely to suffer from post natal depression. Babies of teenage parents are more likely to live in poverty and are less likely to be breastfed.

Preventing unplanned pregnancy and sexually transmitted infections provides a cost saving to the NHS. For example, for every £1 spent on contraception, there is a £10 saving on public expenditure[28].

The facts

Conception rates in Wales in under 16 year olds is similar to that of England, although the rate in under 18 year olds is significantly higher in Wales (Wales 34.2 per 1,000, England 30.7 per 1,000). In 2011, there were 6 conceptions in under 16 year olds in Powys (2.6 per 1,000), lower than compared with Wales (6.1 per 1,000), although this difference is not statistically significant. Teenage conception rates in females under 18 years in Powys (21.3 per 1,000, 53 conceptions) are significantly lower than rates for Wales (34.2 per 1,000).

Figure 28:



Teenage conception rates have fallen compared with previous years. In 1996, rates in under 16 year olds were 11.7 per 1,000 in Wales and 6.5 per 1,000 in Powys. Similarly, rates in under 18 year olds was 53.5 per 1,000 in Wales and 31.4 per 1,000 in Powys[29].

What does this mean for Powys?

Whilst Powys has lower than Wales average teenage conception rates, those from deprived communities are more likely to be affected, thereby exacerbating health inequalities within the county.

Local partnerships have a key role to play in improving the sexual health of young people. For example, funding from the Children and Young People's Partnership and joint working between key partners including the Powys Healthy Schools Scheme, School Nurses, teachers, schools and Education has enabled the continued delivery of the APAUSE (Added Power And Understanding In Sex Education) scheme to High Schools in Powys. This is an evidence based programme that has been shown to result in positive changes in young people's knowledge, attitudes and behaviour on the subject of sex and relationships.

Partnership working through the Powys Sexual Health Forum has enabled Powys to establish a C-Card scheme. This is a national scheme that allows young people to access sexual health advice and condoms at local venues through presenting a personalised card to a qualified worker. The scheme has been named locally by young people in Powys as the "Sorted" scheme and is run in partnership between Powys Youth Service and Powys teaching Health Board.

In 2012, the "Empower to Choose" project was launched across Wales. The aim of this project is to reduce repeat teenage conceptions by encouraging the uptake of long acting reversible contraception. In Powys, midwives liaise with GP Practices, who offer this service. Anyone aged 17 years and under who presents as pregnant is given advice and provided with long acting reversible contraception post birth or termination of pregnancy.

1.7 Reducing accident and injury rates

Across Wales, injuries are the leading cause of death for those aged between one and 45 years and are an important cause of death and disability amongst all other age groups. In 2009, there were 1,102 deaths, 41,817 hospital admissions and at least 444,274 Emergency Department attendances due to injury in Wales, with an estimated associated cost of at least £25.9 million.

Children from deprived communities in Wales are the most likely to suffer accidents both within the home and outside. The most deprived communities suffer double the rate of deaths and hospitalisations compared with the most affluent.

The leading causes of deaths are falls (23%), motor vehicle crashes (11%) and poisonings (14%). This data is based on poor coding and the true numbers are likely to be higher. The leading cause of hospital admissions are falls (48%), poisonings (18%) and motor vehicle crashes (4%)[30].

Male road traffic crash injury rates are consistently higher than for females, especially from the age of 15 years onwards. Road traffic crash mortality is generally highest in rural areas and is 80% higher in the most deprived communities compared with the least[31].

Falls are very common amongst older people, with 30-60% falling each year and between 15-30% falling more than once. Following a fall, approximately 2-6% of elderly people experience a serious injury and 1% have a hip fracture. In 2009, it is estimated that there were 44,257 attendance at Emergency Departments, 20,058 inpatient admissions and 252 deaths due to falls in Wales[32].

The facts

Deaths rates due to injuries is similar for all Health Board areas. However, in-patient admissions due to injuries is significantly lower in Powys compared with other Health Boards.

Figure 29:

Injury death rates, European age-standardised rates per 100,000 with 95% confidence intervals, by health board, 2009
Produced by Public Health Wales and Swansea University, using ADDE & MYE (ONS)

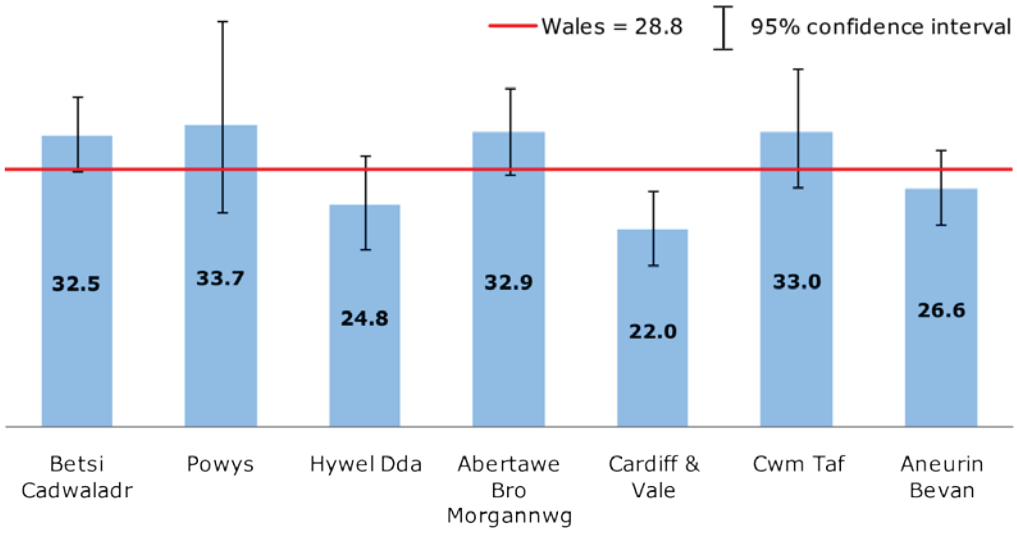
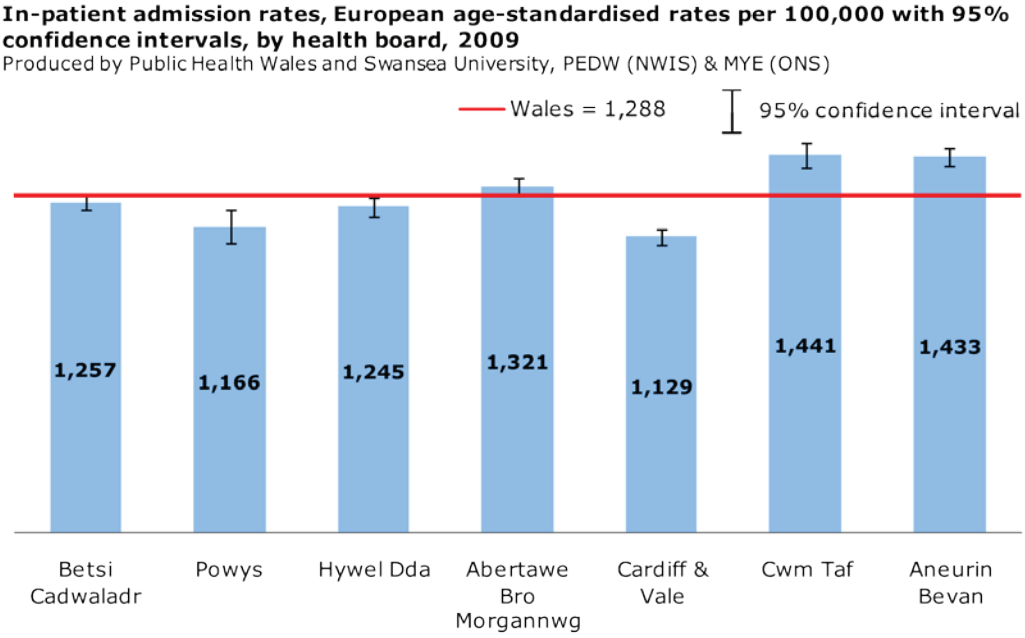


Figure 30:



Road traffic crash rates for males are higher in Powys compared with other Health Board areas (10.6 per 100,000), which may be linked with the rurality of Powys. However, this data needs to be treated with caution as the results may not be statistically significant. Female road traffic crash mortality rates are similar across all Health Board areas[33].

Figure 31: Road Traffic Crash related mortality rates (per 100,000), all males and females, 2011, by Health Board

Health Board	Male	Female
Betsi Cadwaladr	4.4	1.4
Powys	1.6	0
Hywel Dda	3.2	1
Abertawe Bro Morgannwg	3.9	1.5
Cardiff and Vale	0.9	0.8
Cwm Taf	6.3	0.7
Aneurin Bevan	5.3	1.7

Produced by Public Health Wales and Swansea University, using EDDS (NWIS) & MYE (ONS)

In relation to the length of road networks, Powys has the lowest number of accidents per 100km, compared with all other local authorities in Wales.

There is much variation in fall related mortality rates, with Powys having the second highest rate for males aged over 60 years (12 per 100,000) and one of the lowest rates for females (4 per 100,000). This data needs to be treated with caution, as there are considerable problems with data quality related to injuries[34].

Figure 32: Fall related mortality rates per 100,000 for over 60 year olds, 2011, by Health Board

Health Board	Male	Female
Betsi Cadwaladr	17	15
Powys	12	4
Hywel Dda	4	4
Abertawe Bro Morgannwg	10	6
Cardiff and Vale	3	7
Cwm Taf	8	10
Aneurin Bevan	4	5

Source: Public Health Wales and Swansea University, using EDDS (NWIS) and MYE (ONS).

What does this mean for Powys?

Welsh Government has set targets to reduce the number of people killed or seriously injured on roads. By 2020, the target is for a:

- 40% reduction in the total number of people killed and seriously injured
- 25% reduction in the number of motorcyclists killed and seriously injured
- 40% reduction in the number of young people (aged 16-24) killed and seriously injured

The Powys Road Safety Partnership is working towards achieving this objective and has identified road safety as a priority in its Strategic Assessment for 2013-14.

1.8 Long term conditions

Long term conditions such as diabetes, arthritis and hypertension are more common in older people, with 58% of those aged over 60 years having one or more condition, compared with 14% of under 40 year olds. People from the poorest communities are 60% more likely to have a long term condition than the most affluent population and are more likely to have a greater severity of disease[35]. Deprived communities are also more likely to have multiple long term conditions, and there is evidence to suggest that the number of long term conditions is a greater determinant of health service use than the specific diseases[36]. Having a long term condition usually reduces an individual's quality of life, particularly due to chronic pain. People with long term conditions are less likely to be in work[37]. Mental health problems are much more common and people with two or more conditions are seven times more likely to have depression[38].

50% of GP appointments, 64% of outpatient appointments and over 70% of all inpatient bed days are in people with long term conditions. Approximately £7 in every £10 of health and social care expenditure is for the treatment and care of those with long term conditions.

Whilst some long term conditions, particularly those that arise in younger people, cannot be prevented, e.g. asthma or type 1 diabetes, the risk of conditions such as heart disease and type 2 diabetes can be reduced by adopting healthier lifestyles such as not smoking, maintaining a healthy weight and reducing alcohol consumption to recommended levels.

The facts

A similar proportion of Powys residents report being treated for any illness (50%) compared with Wales average (49%). When this data has been age standardised, to reflect the older age demographic in Powys, Powys has less residents reporting that they are being treated for an illness (47%). The age standardised prevalence for various long term conditions is slightly lower in Powys than Wales. No firm conclusions can be drawn from this data as no confidence intervals are available to ascertain statistical significance.

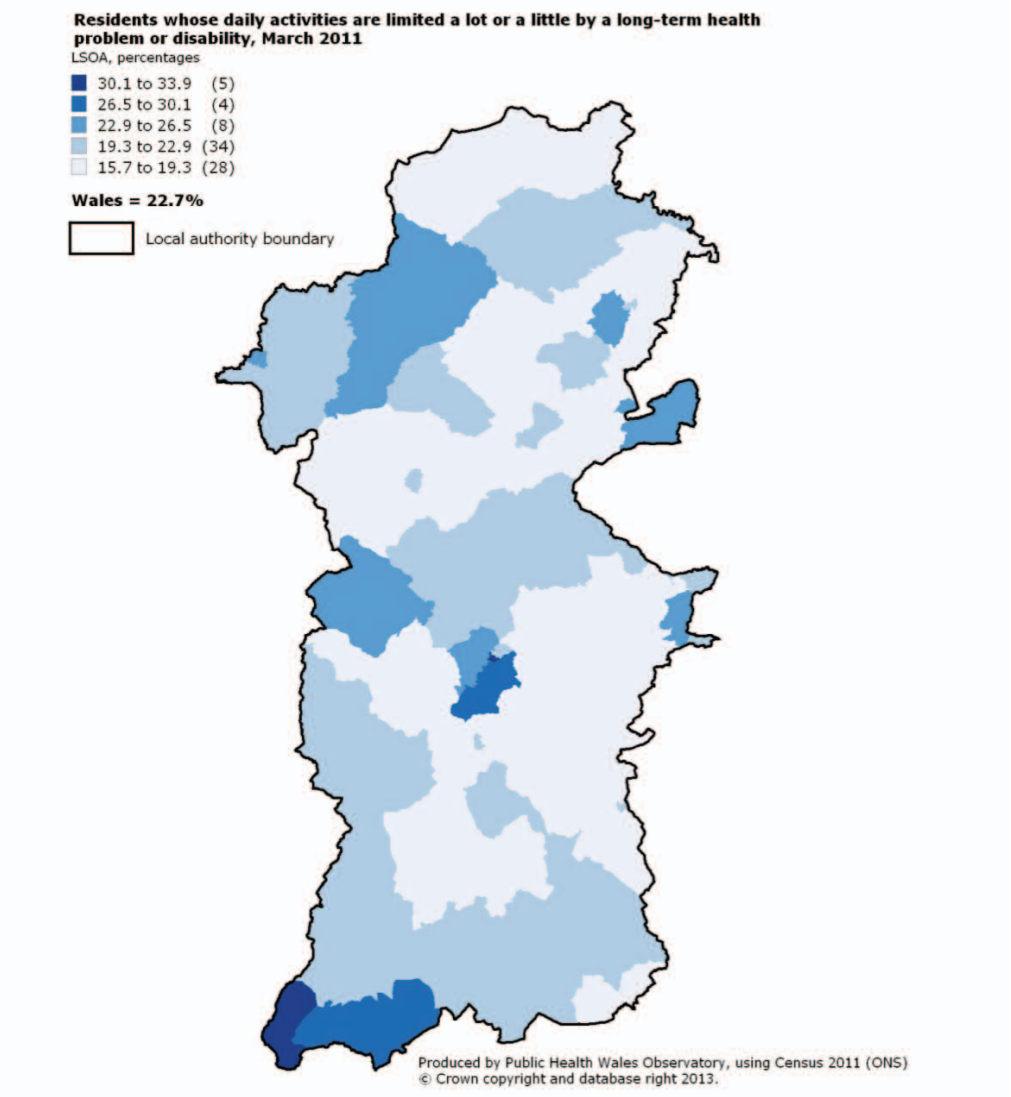
Figure 33: Adults in Powys who report key illnesses

	Powys		Wales
	Observed	Age standardised	
Limited a lot by a health problem / disability	15%	13%	16%
Limited at all by a health problem / disability	34%	31%	34%
Being treated for any illness	50%	47%	49%
Being treated for high blood pressure	22%	19%	20%
Being treated for any heart condition	8%	7%	9%
Being treated for any respiratory illness	13%	12%	14%
Being treated for any mental illness	8%	7%	11%
Being treated for arthritis	11%	9%	12%
Being treated for diabetes	6%	6%	7%

Source: Welsh Health Survey 2011-12

Overall, 21.4% of Powys residents report that their day to day activities are limited a lot or a little by a long term health problem or disability. Figure 34 shows how long term health problems limit daily activity across Powys, with Ystradgynlais having the highest proportion of residents being affected.

Figure 34: Residents whose daily activities were limited by a long-term health problem or disability



What does this mean for Powys?

An ageing population in Powys means that the number of people affected by a long term condition is likely to rise. This will increase demand on health services (both planned and emergency care) and on services provided by partner agencies, with considerable cost implications.

An increase in long term conditions will have an impact on the individual e.g. increased mental health problems and risk of social isolation, as well as impacting on the family and community e.g. increased caring needs and support from voluntary organisations.

Improving the treatment and management of people with long term conditions is one of the most important challenges facing the NHS. The impact of long term conditions can be reduced by taking a more holistic approach, where people with long term conditions play a proactive role in their care and management[39].

1.9 Vulnerable children

Looked after children includes those in foster or residential homes, those living with parents but subject to a 'Care Order' and children who are temporarily looked after on a planned basis. Nearly two thirds of looked after children come into care following child protection concerns e.g. neglect or abuse[40]. The health of looked after children is worse than their peers, with 45% experiencing mental health disorders compared with 10% of the general population aged 5 to 15 years[41]. Two thirds of looked after children have at least one physical health complaint e.g. speech and language problem, bedwetting. Children leaving care have higher levels of teenage pregnancy, smoking and substance misuse. They are also more likely to have dropped out of school or have poor educational attainment.

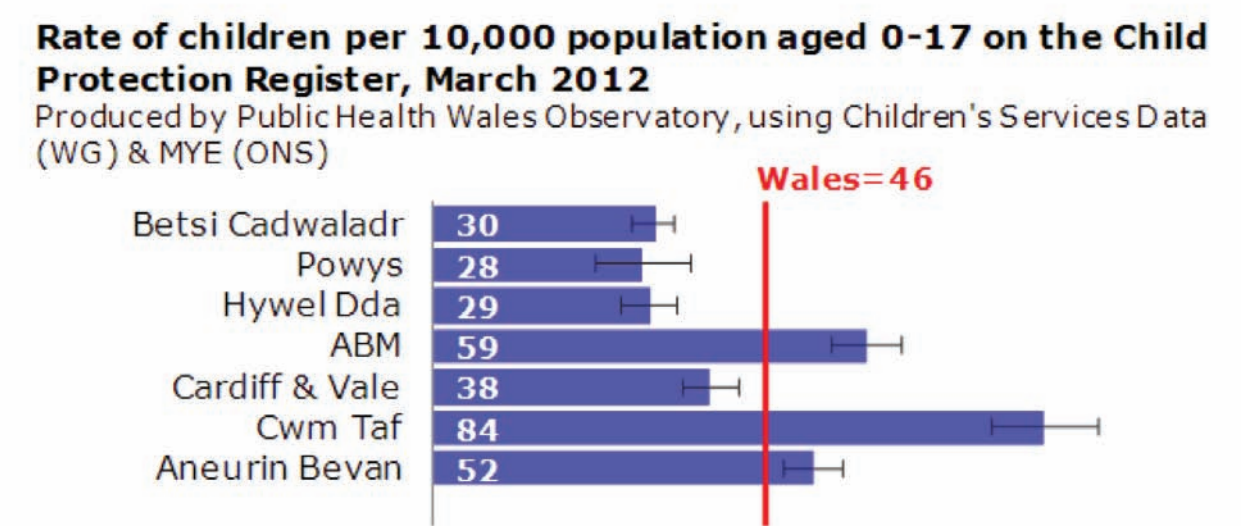
Children on the child protection register are those who are at continuing risk of physical, emotional or sexual abuse or neglect, and for whom there is a child protection plan.

The legal definition of "children in need" is children who are under 18 years and need local authority services to achieve or maintain or prevent significant harm to achieving a reasonable standard of health or development. The definition also covers children who have a disability.

The facts

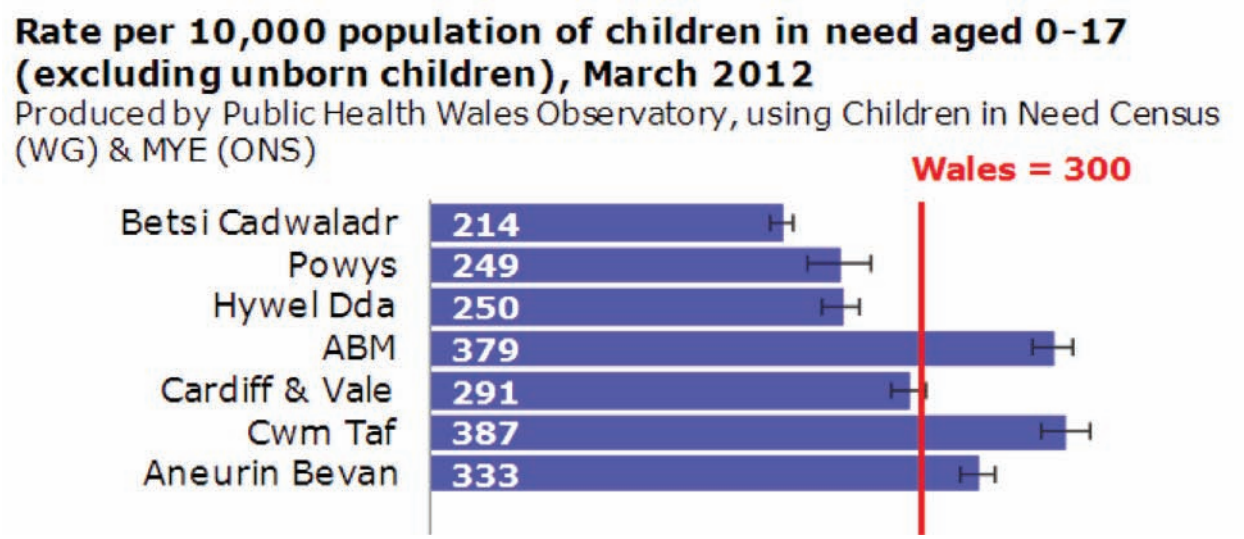
There has been a reduction in the number of looked after children in Powys between March 2012 (172 children) and March 2013 (151 children).
The average educational points scored by looked after children aged 15 was 222 in 2012-13. This was 275 points below the score achieved by the general school population in Powys (497 points).
Powys has a significantly lower rate of children on the child protection register (28 per 10,000 children aged 0-17, 75 children) compared with Wales (46 per 10,000 children aged 0-17).

Figure 35:



There are significantly less children in need aged 0 to 17 years in Powys (249 per 10,000 children aged 0-17 years, 650 children) compared with Wales average (300 per 10,000 children aged 0-17 years).

Figure 36:



What does this mean for Powys?

Following a 14% increase in the number of looked after children in March 2011, concerted efforts were invested in changing the way that services are delivered, providing a greater focus on early intervention and prevention. This may have helped support the recent decrease seen in the number of looked after children.
Continued joint effort is needed to support vulnerable children to achieve educational and health outcomes comparable with their peers.

1.10 Older people and the ageing population

Evidence suggesting that the ageing population may increase demand on services[42]:

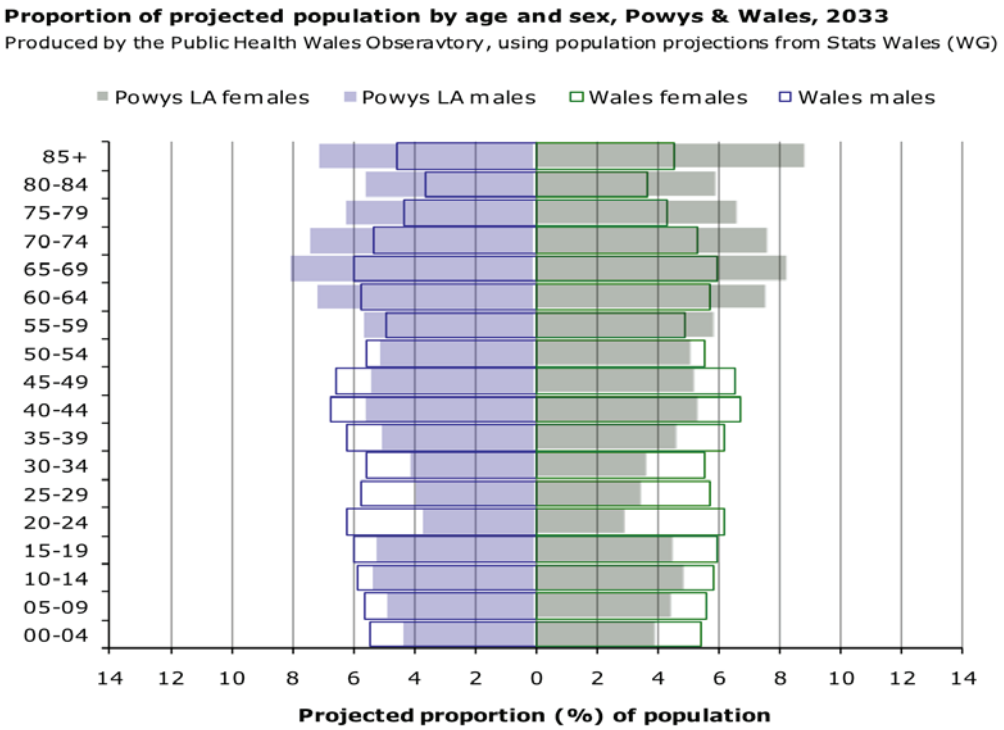
- Projections indicate that a greater proportion of older people will be living on their own and are more likely to need formal care. In the next 20 years, it is anticipated that there will be a 60% increase in the number of older people who have care needs.
- The current costs of health and social care are greater for older people. The number of hospital admissions (elective and non elective) for older people has increased faster than the growth in the number of older people.
- There will be an increase in the number of people with long term conditions and frailty, resulting in increased demand for health and social care. For example in 2011, there were 1,058 people aged over 85 with dementia in Powys. However, by 2031, this number will double to 2,236.
- It is estimated that there will be 349 people over the state pension age for every 1,000 people of working age in 2032, compared with 314 in 2009.

However, older people who remain healthy and engaged members of society can create social and economic benefits. For example, an increasing proportion of older people are remaining in work, with 2.7% of over 65 year olds in full time work in 2010, compared with 1.2% in 2001[43]. Older people also contribute through volunteering, their charitable donations and overall general spending power, as well as acting as carers for others.

The facts

The projected population pyramid for Powys for 2033 shows that there will be a smaller proportion of under 55 year olds compared with Wales and there will be a substantial growth in the number of those aged over 60 years, who will form a large proportion of the Powys population. The over 65 age group is set to increase dramatically by 80% between 2008 and 2033.

Figure 37: Proportion of population by age and sex, Powys and Wales, 2033



It is projected that by 2036 there will be 18,900 people aged 80 and over living in Powys, an increase of 10,550 from 2011[44]. Those aged over 80 years will form 14% of the Powys population in 2036, compared with Wales, where they will form 9.3% of the population[45].

Welsh Health Survey results for over 65s show that the proportion of people participating in healthy behaviours is on the whole better in Powys compared with Wales, although this difference may not be statistically significant.

Figure 38: Proportion of adults over 65 years engaging with different health related behaviours (2008-10)

	Powys	Wales
Adults who report being a current smoker	10%	12%
Adults who reported drinking above guidelines on at least one day in the previous week	23%	24%
Adults who reported eating five or more portions of fruit and vegetables the previous day	41%	36%
Adults who reported being physically active on 5 or more days in the past week	19%	16%
Adults who were overweight or obese	59%	59%

Source: Public Health Wales Observatory, using Welsh Health Survey data, 2008 / 2010

The proportion of over 65s in Powys being treated for long term conditions is lower than compared with Wales.

Figure 39:Welsh Health Survey results (observed) for selected conditions, persons aged 65 and over, 2008-10.

Currently treated for	Powys	Wales
High blood pressure	50%	51%
Heart condition	25%	29%
Respiratory condition	17%	22%
COPD	5%	7%
Mental illness	8%	10%
Arthritis	27%	33%
Diabetes	14%	15%

Source: Public Health Wales Observatory, using Welsh Health Survey data, 2008 / 2010

However, there are no confidence intervals for this data, which means that any difference compared with Wales may not be statistically significant.

What does this mean for Powys?

Addressing issues related to the ageing population is vital to ensuring that partner organisations can meet their financial challenges.

A Joint Older Peoples Commissioning Strategy for Powys is being developed. Interim priorities that have been highlighted include providing good information and advice services to older people, ensuring access to a range of services for day to day living, supporting people to remain at home, providing services for carers and focusing on health promotion and disease prevention as a method of maintaining independence and reducing hospital and care admissions.

1.11 Carers

Whilst caring can be rewarding, it is often a life changing experience. Some carers give up an income and employment opportunities, whilst others continue to juggle jobs or education with their caring responsibilities[46]. There is increasing evidence that being a carer can have a negative effect on physical, mental and emotional health, with many carers experiencing high levels of stress over prolonged periods and social isolation. The impact is greater on those who have more caring responsibilities. Carers in Wales who provide high levels of care are a third more likely to suffer ill health than non-carers. Young carers are twice as likely as non carers to suffer from mental health problems[47].

The increased move towards providing health and social care in the community means that there is a greater need for community support and for carers.

The facts

In Powys, 2% of children aged 15 years and under (387 individuals) provide unpaid care, higher than the Wales average of 1%. Within this group, 84% provided between 1-19 hours of unpaid care per week, 8% provided 20-49 hours and a further 8% provided over 50 hours[48]. In addition, 5% of 16 to 24 year olds in Powys (551 individuals) were unpaid carers.
In 2011, there were 16,154 carers aged 18 years or over in Powys, a 14% increase compared with 2001, when there were 14,118 adult carers[49].
The total number of referrals that have received by Powys Carers has risen between 2008-09 and 2012-13.

Figure 40: Referrals to Powys Carers

	2008/09	2009/10	2010/11	2011/12	2012/13
Total number of referrals to Powys Carers	249	294	344	379	642

Source: Powys Carers Service Quarterly Report. April – June 2013.

In December 2012, there were a total of 1,869 people registered with Powys Carers. 329 carers were under 18 years of age and approximately half of all carers were of working age. 22% were full time carers, although 8% continued to be in full time employment and 17% were in full time education. 65% lived in the three most deprived areas of Powys.

What does this mean for Powys?

Carers provide invaluable support and are a vital part of developing resilient communities. The rurality of Powys, along with its poor transport networks provides an extra challenge to carers, increasing the risk of social isolation.

Welsh Government has placed a requirement on the NHS and Local Authorities to work in partnership to prepare, publish and implement a strategy for the benefit of unpaid carers. A Carers Strategy has been developed in Powys, with the aim of ensuring that carers receive information in a systematic way. This will help to ensure that carers have also their health needs considered.

1.12 Physical and sensory disabilities

The World Health Organisation uses the term "disabilities" as an umbrella term to cover impairments (problem in body function or structure), activity limitations (difficulty encountered by an individual in carrying out a task or action), and participation restrictions (problem experienced by an individual in involvement in life situations). Disability is not just a health problem but is a reflection of the interaction between an individual with the society in which they live.

Increasing age is frequently associated with increasing disability and loss of independence, with functional impairments such as loss of mobility, sight and hearing.

It is recognised that people with disabilities face barriers in accessing health services as well as other public services such as transport or leisure and recreation facilities. People with disabilities are also more likely to experience poverty and social exclusion. Overcoming the difficulties faced by people with disabilities requires interventions that remove environmental and social barriers.

The facts

In 2012, there were 6,053 Powys residents with a registered physical disability, of whom 4,492 were aged 65 years or over[50].
Results of the Powys Citizen's Survey (2012-13) show that 13.7% of residents were registered with a physical disability, 1.7% with a mental disability, 1.6% were visually impaired, 1.2% were hearing impaired and 0.5% had a learning disability. People with a disability were less likely to rate Powys as:

- "very good" or "good" place to live
- "very good" or "good" in terms of community spirit
- "good" place to live in terms of job opportunities

37% of people with disabilities reported that they had never taken part in community events and activities, compared with 18% of the general Powys population.
45% of disabled Powys residents aged 16 to 64 years are employed, compared with 79% of non disabled residents. This is similar to Wales figures, where 43% of disabled people are employed compared with 74% who do not have a disability.

What does this mean for Powys?

The growing number of older people living in Powys means that there are likely to be an increasing number of people with disabilities living in Powys.
Issues that cause the most significant disadvantage for people with disabilities in Powys include barriers to accessing transport, public services needing better design around specific needs, and poorly accessible information on available council and health services[51].
In addition, the rurality of Powys means that people with disabilities are more likely to be vulnerable to social isolation.

This requires all local partners to consider the needs of people with disabilities when designing, commissioning and delivering services.

1.13 Homelessness

Homelessness is defined by Welsh Government as “where a person lacks accommodation or where their tenure is not secure”. This is a broad definition and recognises that whilst rough sleepers are the most visible form of homelessness, they are a small proportion of the overall homeless population. Also included in this definition are those who are at risk of becoming homeless, houseless or living in insecure and inadequate accommodation. A combination of poor economic climate and welfare reforms means that an increasing number of people are at risk of homelessness.
Homeless people experience worse health outcomes compared with the general population and frequently have complex needs.

The facts

In Powys, the number of households accepted as homeless and in priority need by the local authority rose from 190 in 2009-10 to 410 in 2011-12 and then decreased to 260 in 2012-13[52]. The number of homeless households accommodated temporarily by Powys County Council in the first quarter of each financial year rose from 125 in 2009-10 to 180 in 2010-11 and then dropped back to 160 in 2011-2012 and remained at 160 in 2012-2013.

What does this mean for Powys?

A review of temporary accommodation in Powys showed that unless the primary issue that is causing people to lose their tenancies was addressed, there was increased risk that people would continue to re-enter the homeless system.

Before entering the “homeless system” many people first present to other council services. This offers an opportunity to engage with vulnerable individuals and families who are at risk of homelessness and offer early intervention.

2. Health and Wellbeing of Communities

Community wellbeing in Powys means.....

- **People take an active role in their communities and feel they belong**
- **Houses are in good condition and there are accessible affordable homes to rent, buy and live in**

A community is a group of people with common characteristics, such as occupation, age, shared interest, shared faith or religion or some other common bond. Communities are also defined as people who live in the same location e.g. street, village, town or region.

Evidence suggests that by working with our communities as equal partners, or by giving our communities greater control, we are more likely to achieve positive health outcomes[53]. Programmes or interventions are more likely to be sustainable in the long term if they are embedded and owned by communities and built on community assets.

This section looks at four areas that are essential components to building thriving communities, where people want to live and work.

- Community cohesion
- Social participation
- Housing need, housing affordability and housing quality
- Community safety

2.1 Community Cohesion

Community cohesion describes how people live alongside each other, with respect and mutual understanding. Members have a sense of belonging, local identity and a shared vision for their community, whilst recognising and valuing diversity[54]. Cohesive communities are safe and vibrant places to live, and are able to develop solutions to their problems, making them resilient and sustainable.

Factors that promote community cohesion include members of the community being involved in decision making about local services, service providers committing to joined up working, good affordable public transport, low levels of crime and effective democratic neighbourhood representation[55]. Factors that have a negative impact on community cohesion include poverty and economic deprivation, social exclusion and lack of affordable housing.

The facts

In 2012-13, 83% of Powys residents aged over 16 years said they had a feeling of belonging to their local area, compared with 76% across Wales.

86% of Powys respondents rated Powys as either “good” or “very good” for its community spirit and feeling of belonging. Residents with a disability were less likely to respond positively (80%) than the rest of the population. Those who had only lived in Powys for five years or less, council tenants and those aged under 45 years had a similar score at 82%.

Llandrindod had the lowest proportion of respondents (59%) who felt where they lived had good community spirit. This was followed by Newtown and surrounding areas (76%)[56].

What does this mean for Powys?

Rural areas of Powys may face particular challenges to community cohesion including:

- fewer community facilities where local people can meet
- social isolation due to lack of public transport
- fewer local employment opportunities and low income
- young people moving out of rural communities due to lack of employment or affordable housing

This highlights the importance of considering the different needs of urban and rural communities.

2.2 Social Participation

Local clubs, societies and volunteering activity are all indications of the extent to which people are participating in their community. Social relationships are a key ingredient for promoting wellbeing and are protective against mental ill health. Having a "primary social network" i.e. the total number of close relatives and friends, of three or less people increases the probability of developing a common mental health disorder[57]. Happy people tend to have stronger social relationships than less happy people, although determining if this is a causal factor is difficult[58]. Strong social relationships with a few people provide support and meaning, whilst broader more "superficial" relationships help provide a sense of connectedness and self worth, linking a person to their community. Overall, developing both strong and broad social networks is important for wellbeing[59], both for individuals and communities.

The facts

56% of adults surveyed in Wales in 2010 were involved in activities organised by local and national groups and societies. 39% of respondents had carried out voluntary work for a local charity / organisation during the previous 12 months. 30% had attended a public meeting in the previous 12 months[60].

In Powys, there are approximately 2,000 organisations on the database of Powys Association of Voluntary Organisations (PAVO). A further 1,000 organisations are based outside Powys, but are active within the county. There are 22,313 trustees or management committee members and a further 26,346 volunteers known to PAVO[61].

What does this mean for Powys?

Rural areas of Powys may face particular challenges to community cohesion including:

- fewer community facilities where local people can meet
- social isolation due to lack of public transport
- fewer local employment opportunities and low income
- young people moving out of rural communities due to lack of employment or affordable housing

This highlights the importance of considering the different needs of urban and rural communities.

2.3 Housing need, housing affordability and housing quality

There are four dimensions of housing, which can all have an impact on physical and mental health:

- the physical structure of the dwelling
- the home - the interaction between occupants, including the economic and cultural environment created by household members
- the neighbourhood - the immediate environment in which the house is situated
- the community - the social environment, people, services within the neighbourhood

Poor housing has been shown to be a key determinant of population health. The World Health Organisation estimates that per 100,000 population, 13 deaths are caused by low indoor temperatures, exposure to second-hand smoke is linked to 7 deaths and the use of solid fuels as an energy source is associated with 17 deaths[62]. Damp accommodation is known to be a contributory factor to asthma and other respiratory problems. Overcrowding is associated with poorer educational attainment in children[63].

Housing affordability is recognised as an issue for rural communities in Wales, with rural house prices being on average 40% higher than urban areas. Barriers to accessing affordable housing include the availability of mortgages and the high house price to local income ratios.

The facts

The estimated number of households in Powys increased from 59,500 in 2009 to 59,800 in 2010, an annual increase of 0.5%, slightly lower than the increase seen in Wales (0.8%). The estimated household size fell from 2.24 persons per household, in 2009 to 2.22 in 2010[64]. The 2011 Census found 5,137 household spaces that had no usual residents, equivalent to 8.1% of all household spaces in Powys[65].

The mean average price paid for a residential property sold in Powys in 2012 was £170,900, compared with £152,200 in Wales. This is approximately 8.7 times the median annual gross pay for a full time job in Powys, compared with Wales, where this ratio is 6.4.

24 of the 75 Electoral Divisions in Powys were among the worst 20% of areas for housing quality in the Welsh Index of Multiple Deprivation 2000.

A 2004 survey commissioned by Powys County Council concluded that a fifth (11,900) of the private sector dwellings in Powys required major repairs. Over 7,000 of these dwellings were built pre-1919. Only one in a thousand private sector dwellings would meet the Welsh Housing Quality Standard if it were applicable to private housing stock.

Only 9% of private sector dwellings met the Welsh Health Quality Standard SAP (Standard Assessment Procedure) ratings on energy efficiency in Powys in 2004. On a scale of 1 (worst) to 100 (best) the average private sector dwelling in Powys had an energy efficiency SAP rating of 46 in 2004 (UK average 51).

What does this mean for Powys?

Like other rural areas, Powys has a shortage of affordable homes, making it difficult for people to continue to live in their local area. Overall, this places an increased demand on council housing stock, much of which is 3 bedroom homes, whilst the majority of need is for 1 or 2 bedroom homes. Some housing needs could be met from existing stock such as vacant dwellings, rather than by building new homes.

Affordable houses can also be provided through housing association, through land trusts, co-operative ventures or by private developers. Rural Housing Enablers are a network of independent experts supported by Welsh Government, local authorities, national parks and affordable housing providers. They work in rural communities to address the shortage of affordable homes by identifying local housing needs and searching for development opportunities or empty properties to bring back into use. In Powys, projects have been undertaken in Castle Caereinion, Bwlch and Llanwrtyd Wells.
Housing stock in Powys is older and less energy efficient, making it more expensive to heat, more exposed to the elements, difficult to insulate, draught-proof and damp-proof.

2.4 Community Safety

Community safety means preventing, reducing or containing factors that cause crime or the fear of crime. Crime is not just a policing matter and social approaches are required to reduce crime, with all statutory agencies and local residents having a part to play.

Community safety concerns frequently correspond with high levels of deprivation and poor health. Crime and the fear of crime impacts on people's health and wellbeing, affecting victims, witnesses, families and communities.

Violence is strongly related to deprivation, with hospital admissions for assault in adults and children being six times higher in the most deprived fifth of the population than the least deprived[66]. Crime and violence has a direct impact on the NHS e.g. Accident & Emergency department attendance and violence towards staff.

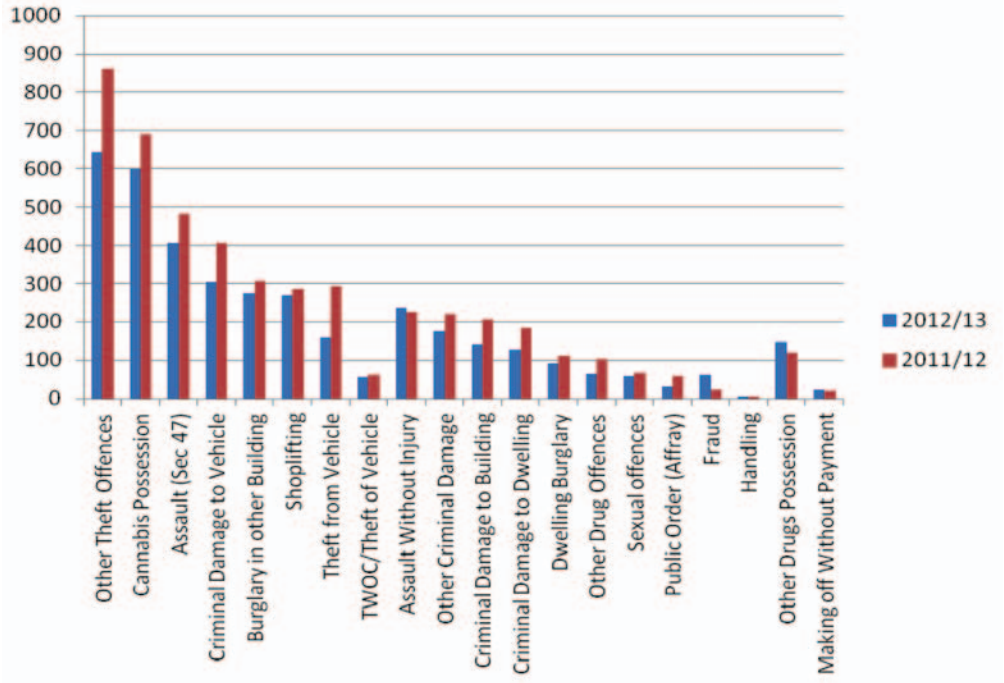
Domestic violence is defined as any incident involving controlling, coercive or threatening behaviour, violence or abuse between adults who are or have been partners or family members. This includes psychological, physical, sexual, financial and emotional abuse. Nationally, domestic abuse represents approximately 25% of all violent crime. Domestic Abuse is widely recognised as a hidden crime and is underreported.

Doorstep crime particularly impacts on the elderly, with the average age of victims being 81 years. In the two years following a distraction burglary, elderly victims are almost 2.5 times more likely to be in residential care or have died.

The facts

There has been a 19% reduction in recorded crime in Powys between 2012-13 and 2011-12, reflecting a trend seen across the Dyfed-Powys Police area. Crime has reduced in all categories except for fraud, other drug possessions and assault without injury.

Figure 41: Crime recorded in Powys during the period in 2011-12 and 2012-13



There were a total of 4,718 incidences of Anti Social Behaviour recorded in Powys in 2012-13 compared to 5,353 in 2011-12, a reduction of 12%.

In Powys, there are on average 10 domestic abuse incidents reported to the police each week, with 525 incidents reported in 2012-13. 15.6% (82) of the incidents recorded were repeat incidents of domestic abuse. Domestic abuse was a contributing factor to 33% of "open" cases that were referred to children's social care services[67].

What does this mean for Powys?

In policing terms, Powys is typified by low crime. However, results from the British Crime Survey and Community Safety Partnership strategic assessment show that there is a slightly disproportionate fear of crime. Anti Social Behaviour is the most frequently identified issue of concern in Powys, particularly relating to environmental crime and disorder such as dog fouling, littering and graffiti.

The health service has much to contribute to community safety, as it provides an access point for help and support for individuals and families e.g. identification of domestic violence or the early signs of drug abuse.

3. Economical wellbeing

Economical wellbeing in Powys means.....

- **People have suitable paid employment**
- **People can benefit from a thriving economy**
- **People are supported to get out of poverty**
- **Children and young people receive a good education at school or college and adults can access training they want and need**

The economy is one of the biggest external influences on health and wellbeing. One of the current concerns is the impact of the economic downturn, as well as the austerity measures on Powys residents. The impact of an economic recession can be seen in the short, as well as long term, even once the economy has improved. Most of the research looking at the impact of the economic downturn on health is related to the increase in unemployment rates. The strongest negative health effect is on mental health, where there is an increased risk of suicide. However, there is evidence of potential health benefits, such as reduced smoking levels and reduced road traffic accidents[68].

Individuals and communities vary in the degree to which they are vulnerable to the impacts of the economic downturn. Those with a low socio-economic status are at greater risk of becoming unemployed and being negatively affected by job loss. Job loss in turn affects health through a number of mechanisms including increased financial strain, negative self identity and stigma, increased isolation and increased risk of being unemployed in the future.

Neighbourhoods and communities are also affected, as the loss of a thriving economy results in reduced local resources e.g. community facilities and a negative impact on the development of social networks.

This section includes an analysis of poverty and deprivation in Powys, as well as the factors impacting on Powys having a thriving economy:

- Poverty and deprivation
- Educational attainment and pupil support
- Employment and earnings
- Transport
- Internet and communications

3.1 Poverty and Deprivation

Poverty can be defined as not having adequate money or other essentials to "get by". Deprivation refers to problems caused by lack of resources and opportunities e.g. economic, cultural or social opportunities.

Poverty rates in Wales have decreased in line with those of England, with 22% of Welsh residents living in relative income poverty (60% of the median UK income after housing costs), compared with 22% in England, 19% in Scotland and 21% in Northern Ireland[69]. In Wales, 31% of children and 15% of pensioners are living in relative poverty. Of concern, 20% of children in Wales live in material deprivation and low income, compared with 16% of children in England.

Persistent poverty is defined as living in relative poverty for three or more years during a four-year period. In Wales, 19% of children, 10% of working age adults and 7% of pensioners were found to be living in persistent poverty in 2008.

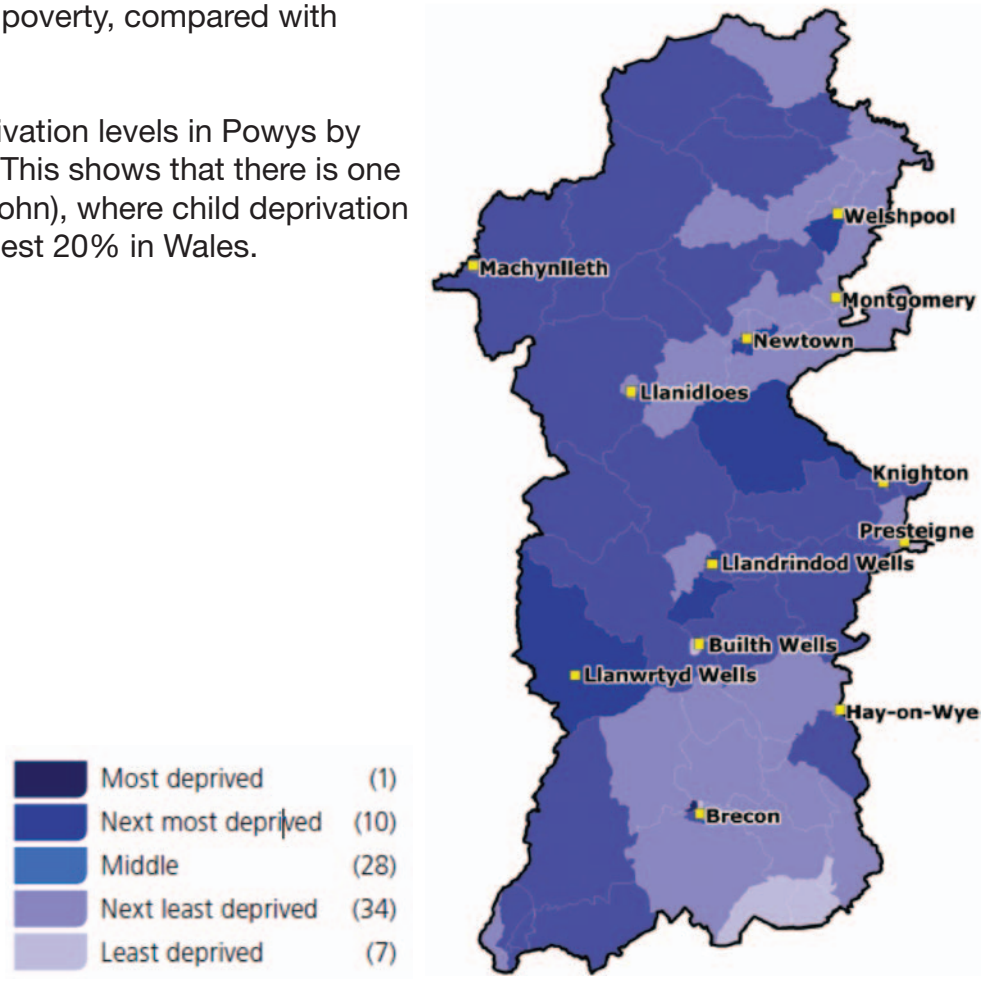
UK domestic fuel prices have risen sharply in the last decade, and gas has more than doubled in price. 30% of Welsh residents were estimated to be living in fuel poverty in 2012 i.e. spending more than 10% of their household income on fuel[70].

The facts

In Powys, 13.4% (3,535) of children and young people aged under 20 years live in poverty, compared with 22.2% in Wales[71].

Figure 42 shows child deprivation levels in Powys by Lower Super Output Area. This shows that there is one area of Powys (Brecon St John), where child deprivation levels are amongst the highest 20% in Wales.

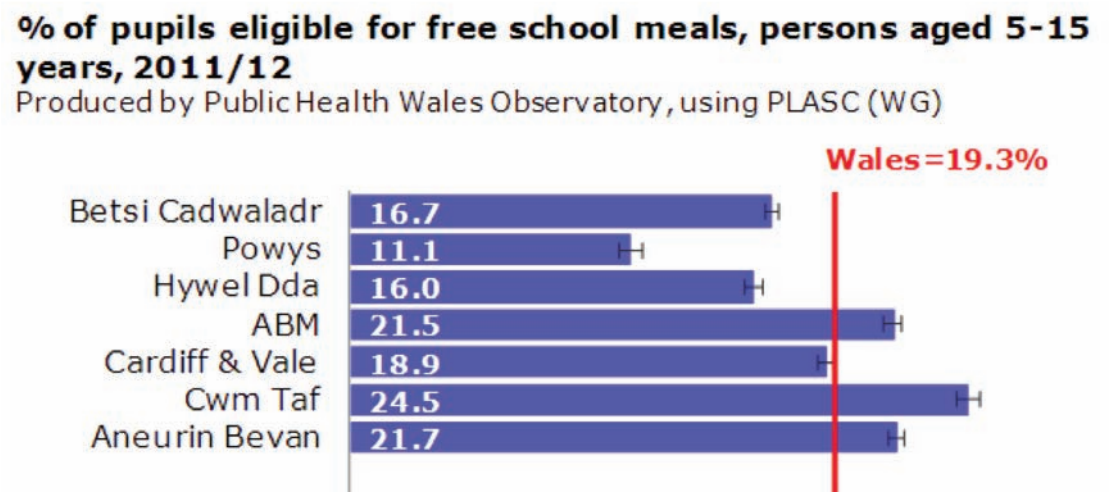
Figure 42: Child Deprivation in Powys



Source: Public Health Wales Observatory, using data from 2011 Welsh Index of Multiple Deprivation (WG). © Crown Copyright and database right 2013. Ordnance Survey 100044810

The proportion of pupils aged 5-15 years eligible for free school meals is significantly lower in Powys (11.1%, 1,685 pupils) compared with Wales (19.3%) and also lower than all other Local Authority areas in Wales.

Figure 43:



3,800 people (2.9% of the Powys population) are living in the three areas of Powys that are in the worst 20% of Lower Super Output Areas in Wales for Income Deprivation; Ystradgynlais 1, Brecon St. John 2 and Llandrindod East/West[72].

There were an estimated 7,800 workless households in Powys in 2011, equivalent to 19.6% of all households (Wales 22.4%). Approximately 2,100 children are living in workless households in Powys, equivalent to 11.2% of all children aged under 16 years[73].

The estimated Gross Disposable Household Income per head at current basic prices in Powys in 2011 was 92.4% of the UK figure (Wales 88.1%)[74].
There were 10,940 people claiming Housing Benefit and / or Council Tax Benefit in Powys in February 2013, equivalent to 9.9% of the population aged 16 years and over (Wales 14.0%)[75].

This data needs to be interpreted with caution, as any differences between Powys and Wales may not be statistically significant.

What does this mean for Powys?

Statistical indicators such as Welsh Index of Multiple Deprivation measure concentrations of deprivation, which means that poverty in rural areas such as Powys is often not recognised. Rural areas frequently have small pockets of deprivation, which are hidden amongst overall affluent areas.

Many of those in employment in rural areas remain in poverty as incomes tend to be lower, work is more likely to be seasonal and there is a greater dependence on small businesses, agriculture and the public sector. People in rural areas are less likely to access benefits compared with urban areas, which may be due to concerns about social stigma[76]. Increasing fuel prices disproportionately affect rural areas due to a greater dependence on cars and homes that use non mains energy sources.

Neighbourhood level needs assessments currently being carried out in Powys will help to provide a better picture of deprivation in local communities. A recent assessment carried out in Newtown has found that 30% of children in the area are living in poverty.

Recommendation 5

As part of its performance framework, the Powys Local Service Board should agree a set of high level metrics with which it will track the local impact of the economic situation (including benefits changes) on health and wellbeing, including health inequalities within Powys.

3.2 Educational attainment and pupil support

Education helps to improve life chances by increasing skill levels and access to employment and is frequently viewed as a route out of poverty. Education also increases understanding of health information and helps people to be able to articulate their needs and access services. Educational attainment provides a sense of achievement and self worth. Parental education is known to increase health, wellbeing and life chances of children[77].

In children, learning is important for social and cognitive development[78]. School exclusion is associated with teenage pregnancy, unemployment, anti-social behaviour and homelessness.

Learning in adults helps to promote self esteem and social interaction and in older people has been shown to help with the management of depression[79].

Evidence linking education with health outcomes include:

- Being educated to Level 2 or below is associated with 75% increased likelihood of smoking by age 30 compared with someone educated to degree level or higher[80].
- Women who have qualifications at Level 2 or above are more likely to take up cervical screening compared with women with education lower than Level 2[81].

The facts

In 2011-12, 65% of Powys pupils aged 15 achieved five or more GCSEs grade A*- C or the vocational equivalent, compared with 56% in Wales[82].

In 2012-13, 58% of Powys pupils achieved five A*- C GCSE grades including in English / Welsh and Maths. This was 5% above the rest of Wales.

At Key Stage 4, 65% of pupils who were not eligible for free school meals in Powys achieved the Level 2 threshold (Wales 56.57%), compared with 29% of those eligible for free school meals in 2011-12 (Wales 23.35%). Figure 44 shows Key Stage educational attainment mean scores for Middle Super Output Areas in Wales.

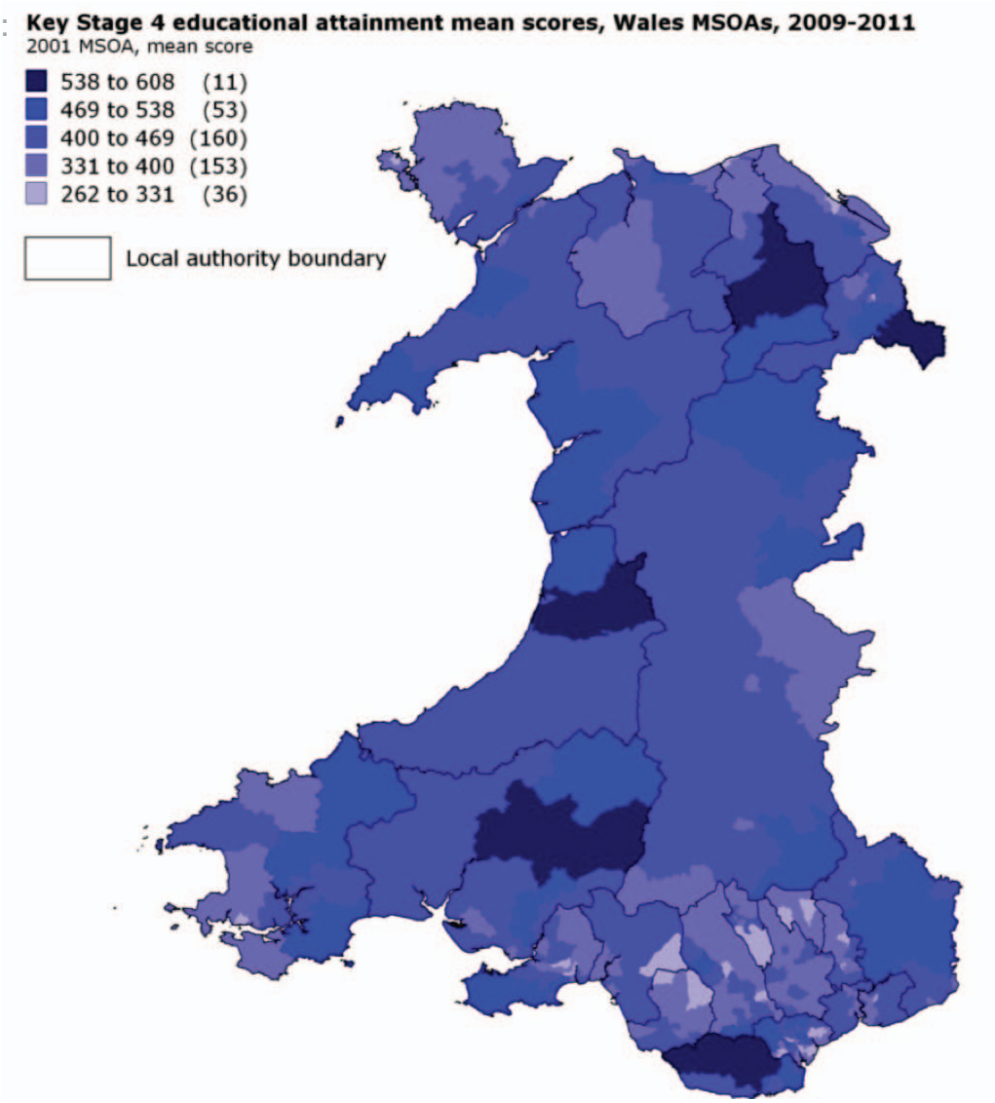
There were 10 pupils permanently excluded from maintained secondary schools in Powys in 2011-12, equivalent to an exclusion rate of 1.2 per 1,000 full time pupils, (Wales 0.5 per 1,000)[83].

0.2% of 15 year olds in Powys left full-time education with no qualifications in 2011-12 (Wales 0.43%). 24.8% of Powys residents aged 16 to 74 years had no academic qualifications, compared with 25.9% in Wales.

In 2011, 3% of Year 11 school leavers were known not to be in education, employment or training (NEET), significantly lower than the rate in Wales (4.4%).

In Powys, 3.3% of pupils aged 5 to 15 years had a statement of special educational need in 2010-11, similar to the rate in Wales (3.1%)[84].

Figure 44: **Key Stage 4 educational attainment mean scores, Wales MSOAs, 2009-2011**



What does this mean for Powys?

Good education and good qualifications give young people more choices about their future career and improve job prospects. However, for some pupils education is a struggle. Some may have additional learning needs, which impact on their ability to learn.

Powys has consistently had the lowest percentage of pupils in receipt of free school meals in Wales. In 2012-13, 11% of pupils received free school meals compared to a Wales average of 20%. Not all pupils who are eligible for free school meals take up their entitlement. The difference in attainment between children eligible for free school meals and those who are not is similar to other areas in Wales. Improving the educational attainment of pupils receiving free school meals is a priority for Powys.

Recognising the link between poverty and educational attainment, there is a need to continue to improve the performance of all learners in Powys, to ensure that Powys is ranked amongst the highest performing authorities in Wales and so that each child achieves their potential.

3.3 Employment and Earnings

As well as providing an income source, work has been shown to be good for mental and physical health and wellbeing. Work can help give an identity by providing a social role and social status. However, the reverse is true for jobs that are insecure, low paid or allow individuals limited decision making.

Just as unemployment can be a threat to health, then ill health can limit employment prospects[85]. Unemployment is associated with higher mortality, higher rates of long term condition, poorer mental health and higher medical consultation and hospital admission rates. For those who are sick or disabled, and where the condition permits, work has been shown to be therapeutic, and can help to promote recovery.

Lack of employment in younger people who are transitioning from education is associated with a higher likelihood of future unemployment.

Research into the effects of the economic downturn on health has shown that job insecurity and anticipated job loss is associated with significant negative mental health effects. Job loss can result in financial strain, which can directly impact on health e.g. inability to meet nutrition needs, as well as indirectly e.g. through family strain, and housing repossession[86].

The facts

1,464 (1.8%) working age adults living in two areas of Powys (Ystradgynlais 1 and Llandrindod East/West) are in the worst 20% of Lower Super Output Areas in Wales for employment deprivation in the Welsh Indices of Multiple Deprivation 2011[87].

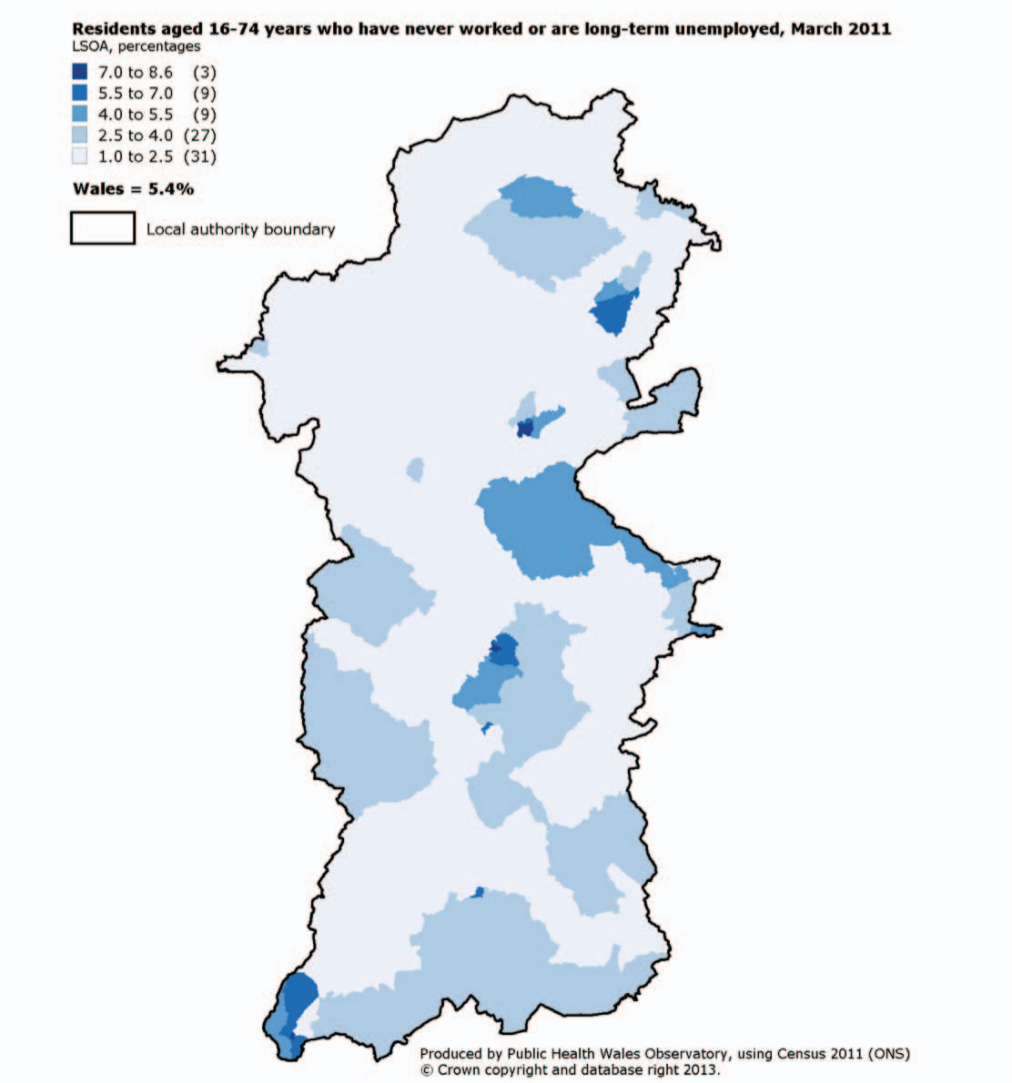
The proportion of working age Powys residents in employment that were working part-time increased from 27.2% in 2009-10 to 31.9% in 2012-13[88].

The mean average gross annual pay for part time jobs in Powys fell from £10,081 in 2011 to £9,562 in 2012, whilst wages in Wales dropped from £10,216 to £9,849[89].
The median average gross annual pay for full time jobs in Powys rose from £19,173 in 2011 to £19,586 in 2012, similar to the increase across Wales (from £23,397 to £23,617)[90].

In March 2013, an estimated 32% of working age Powys residents were employed in the Public Administration, Education and Health sector and 8.2% were working in the Agriculture and Fishing sector[91].

In March 2013 an estimated 4.6% of adults aged 16 years and over in Powys were unemployed, compared with 8.3% of adults in Wales[92]. Amongst those aged 16 to 24 years, unemployment rates were 12%, compared with 15.7% in Wales. Figure 45 shows rates of long term unemployment and those who have never worked in Powys.

Figure 45: Residents aged 16-74 years who have never worked or are long-term unemployed



What does this mean for Powys?

Powys wages for full time workers are lower than the Welsh average, with the median annual wage approximately just over £4,000 less than the Welsh average, contributing to increasing poverty levels. Almost a third of residents are employed in the public sector, which is vulnerable to public sector redundancies. Residents in Powys are more likely to experience underemployment, in the form of part-time, seasonal and casual work, which conceals periods of unemployment and may be a contributory factor to Powys having lower than Wales average unemployment rates.

3.4 Transport

There are clear links between health and transport, both positive and negative. A transport system that promotes a balance between walking, cycling, car use and public transport can result in increased physical activity, help to protect the environment, improve air quality, connect communities to each other and to services and can be cost saving. However, transport systems that are over reliant on cars can place barriers to accessing services, increase pollution, result in increased road traffic accidents and limit opportunities for physical activity, thereby contributing to increased obesity levels and some long term conditions.

The facts

Powys has one of the highest car ownership rates in Wales, with 15% of households in Powys not having a car or van[93]. This needs to be interpreted with caution, as high levels of car ownership are likely to be due to lack of alternative transport methods rather than being an indicator of affluence.

In 2011, 68.5% of Powys adult residents travelled to work by car as either driver or passenger, 13.1% worked mainly from home and 13.7% walked to work, compared with Wales where 74.2% travelled by car, 5.4% worked from home and 10.6% walked[94].

The number of members of community transport schemes in Powys fell from 7,973 in 2011 to 7,177 in 2013[95].

What does this mean for Powys?

Affordable transport is a key issue in rural Powys. People living in rural areas are particularly reliant on cars as there is limited public transport. Residents may sacrifice spending in other areas in order to buy and run a car. The costs of running a car are also higher in rural communities, increasing the likelihood of rural residents experiencing fuel poverty.

Some groups are disproportionately affected by lack of accessible transport e.g. children, the elderly, those with disabilities, and those who are least affluent, resulting in increased social isolation and not being able to access services and amenities.

3.5 Internet and communication

As well as being a tool for communicating with friends and family and accessing information, the internet and modern communications can be a vital tool for delivering health and social care e.g. telehealth and telecare. The internet allows patients and public to readily access information if they have health concerns and find out about services available to them. However, this requires residents to be able to access technology that is of sufficient speed, and also means that residents need the skills to use the technology.

The facts

OFCOM ranks Powys among the worst 13% of all local authorities in the UK for fixed broadband. No premise in Powys has access to superfast broadband networks compared with 31% in Wales and 58% in the UK.

87.5% of adults in Powys reported that they were internet users in January-March 2013, an increase from 70.4% in January-March 2012.

1.6% of Powys premises are 'not-spots' with no 2G coverage at all.

15% of Powys premises are 'not-spots' for 3G services, compared with 3.5% in Wales and 1.2% in the UK[96].

What does this mean for Powys?

Access to the internet and telecommunications is particularly important in rural Powys, and will have to be a critical feature of any modernisation of public services.

Local areas are working with Welsh Government to assist with the national Superfast Cymru[97] project, with the aim helping local communities benefit from increased broadband speeds.

4. Environmental wellbeing

Environmental wellbeing in Powys means.....

- **We have a clean environment**
- **We are reducing our "carbon footprint" and tackling climate change**
- **People access and enjoy all the Powys countryside has to offer**

The local and global environment to which we are exposed has a large degree of influence on our health and wellbeing. For example, at a local level, factors such as pollution have a direct impact on our health, both in the short and long term.

At a global level, climate change effects are likely to include unpredictable droughts and rainfall, resulting in water shortages, floods and crop failures, which in turn can negatively affect our ecosystem and economy. It is the most disadvantaged communities where the impact is likely to be greatest [98,99].

Interventions that help tackle climate change also have a positive impact on health i.e. the two go "hand in hand". Partners in Powys can work together, both as commissioners and service providers, to ensure that tackling climate change is integrated into efforts to improve health and wellbeing and contribute to building more sustainable communities[100].

In this section, we look at two areas in greater depth:

- Pollution
- Energy consumption and carbon emissions

4.1 Pollution

Clean air and water are essential for health and wellbeing. Evidence continues to emerge about the relationship between air pollution and health. Although air pollution has reduced since the 1990s, man-made particulate air pollution (PM10, PM2.5 and PM1) is estimated to result in the loss of 340,000 life years in the UK[101]. The major threat to clean air is traffic emissions, caused by motor vehicles emitting carbon monoxide (CO), oxides of nitrogen (NOx) and volatile organic compounds (VOCs). Other sources of air pollution include industrial and domestic combustion of fossil fuels and non combustion sources such as construction, quarrying and mining and the ceramics industry.

In the UK, we take access to clean water for granted. Water companies must meet water quality regulations and the Drinking Water Inspectorate ensures that these standards are met and that water is safe for consumption. Water polluted by households, industry or by agriculture eventually returns to the environment, where it may cause damage to the environment or human health.

Chemicals are present in soil due to previous industrial activities, accidental releases or they may occur naturally e.g. radon. Radon is a colourless, odourless radioactive gas which is formed by the decay of uranium that occur naturally in all rocks and soils.

The facts

According to the Welsh Index of Multiple Deprivation (2008), 9% of Powys population lived in an area which was among the worst fifth of areas in Wales for environmental deprivation. This assessment included air quality, air emissions, flood risk, proximity to waste and industrial sites.

1.2% of river water was found to be of poor or bad biological quality in Powys in 2008, a reduction from 2.5% in 2002 and higher than levels in Wales (0.7% in 2008).

1.1% of river water was of poor or bad chemical quality in Powys in 2008, an increase from 0.1% in 2002, but lower than levels in Wales (1.9% in 2008).

Brecon Beacons National Park has been the fifth destination in the world to be granted International Dark Sky Reserve status, due to its lack of light pollution.

What does this mean for Powys?

Approximately 1% of the population of England and Wales have private water supplies to their homes i.e. not provided by water companies or licensed water suppliers. Most of these private supplies are situated in rural areas. In mid and west Wales, there were 8,954 private water supplies to domestic dwellings in 2011[102]. Many of these were single domestic dwellings, which are exempt from regulatory monitoring. In those private water supplies that were tested in Wales in 2011, it was found that 10.6% failed due to the presence of E.Coli and 11.7% failed due to Enterococci.

4.2 Energy Consumption & Carbon Emissions

Carbon dioxide is released into the atmosphere when fossil fuels such as gas, coal or oil are burnt. The build up of carbon dioxide, along with other greenhouse gases, is known to contribute to climate change[103]. Climate change is a threat to the worldwide population, and more so to those living in low income countries[104]. Measures that help to reduce carbon dioxide emissions such as increased active transport, reduced car use in urban settings or reduced consumption of animal products are also linked to improved health outcomes e.g. reduced ischaemic heart disease, reduced respiratory disease and improved mental wellbeing[105] .

The facts

On average, domestic consumers in Powys used 28.72 KWh of energy per person per day in 2010, compared with 23.72 KWh per person per day in Wales[106].

The average domestic consumption of mains gas in Powys homes in 2010 was 8.0 KWh per person per day, lower than Wales (14.5 KWh per person per day) and reflecting the limited availability of mains gas in the county[107].

Domestic consumption of petroleum products (coal, manufactured solid fuels and heating oils) in Powys in 2010 was the equivalent of 11.63 KWh per person per day[108].
Net annual carbon dioxide emissions per capita from Powys was 9.2 tonnes per person in 2011, compared with 9.5 tonnes per person in Wales[109].

What does this mean for Powys?

Cutting carbon emissions is a key component in tackling climate change and the Welsh Government has set targets for reducing emissions. In Powys, emissions of carbon dioxide per capita have increased between 2005 and 2011, with Powys moving from being a carbon sink (removing carbon dioxide) to becoming a contributor.

Within Powys, domestic consumers use more electricity and petroleum products, notably heating oil, than the Wales average. The high usage of carbon fuels in Powys makes reducing the carbon footprint difficult and contributes to the proportion of the population likely to experience fuel poverty.

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