

POWYS TEACHING HEALTH BOARD



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Health Board

DIRECTOR OF PUBLIC HEALTH ANNUAL REPORT 2015/16



Acknowledgements

The content for the 2015/16 Annual Public Health Report for Powys is based on products produced by Public Health Wales: the Public Health Wales Observatory and the Wales Cancer Intelligence and Surveillance Unit. I would therefore like to express my thanks to staff involved with the range of reports and tools encompassed in this report:

- Dr Gareth Davies, Principal Public Health Intelligence Analyst, Public Health Wales Observatory
- Dr Ciaran Humphreys, Director of Health Intelligence, Public Health Wales
- Nathan Lester, Head of Observatory Analytical Team, Public Health Wales Observatory
- Tracy Price, Advanced Public Health Intelligence Analyst, Public Health Wales Observatory
- Dr Rebecca Thomas, Senior Statistician, Welsh Cancer Intelligence and Surveillance Unit
- Dr Ceri White, Principal Statistician, Welsh Cancer Intelligence and Surveillance Unit

Staff in the Powys Public Health Wales local team also contributed to specific sections. I would like to thank:

- John Bradley, Principal Public Health Practitioner
- Mary Evans, Healthy Schools Coordinator
- Dr Alison Merry, Consultant in Public Health
- Tessa Morgan, Senior Public Health Practitioner
- Anna Prothero, Senior Public Health Practitioner

Powys Teaching Health Board staff also supported production of the report. My thanks go to Ffion Ansari, Planning and Projects Manager and Cate Langley, Head of Midwifery and Sexual Health Services, for their support with Chapters 1 and 2 respectively. I would also like to thank Tin Mellerick-Wheeler, Communications Manager, for his support with design and print. Finally and in particular, I would like to thank Stuart Bourne, Deputy Director of Public Health, for coordinating production of the report and for his work in reviewing the progress with previous recommendations.

Dr Catherine Woodward
Director of Public Health

Contents

Foreword	6
Summary of Recommendations	9
1: Introduction	10
2. The Early Years	14
3. Primary Care Clusters	32
4. Cancer Incidence, Mortality and Survival	36
References	52
Appendix: Index of Past Contents	54

List of Tables and Figures

Table 2.0:	Rates of smoking, excess drinking and obesity at initial assessment by health board, 2014/15.	16
Figure 2.0:	Rates of smoking, excess drinking and obesity at initial assessment by health board, 2014/15.	16
Table 2.1:	Breastfeeding rates at birth, 10 days and 6 weeks by health board, 2014/15.	17
Figure 2.1:	Breastfeeding rates at birth, 10 days and 6 weeks by health board, 2014/15.	17
Figure 2.2:	Singleton live births, % low birth weight (less than 2,500g), Powys and Wales, 2005-14.	19
Table 2.2:	Pregnancy and childhood surveillance tool 2016: childhood indicators.	21
Figure 2.3:	Percentage eating fruit once a day or more, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14.	23
Figure 2.4:	Percentage eating veg once a day or more, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14.	23
Figure 2.5:	Percentage overweight/obese, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14.	24
Figure 2.6:	Percentage smoking at least once a week, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14	25
Figure 2.7:	Percentage drinking alcohol at least once a week, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14	26
Figure 2.8:	Percentage that have taken any drugs, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14	26
Figure 2.9:	Percentage that have tried e-cigarettes occasionally or regularly, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14	27
Figure 2.10:	Percentage active 60 mins every day, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14	28
Figure 2.11:	Percentage walking or cycling to school, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14	28

Figure 2.12:	Percentage who reported fair/poor health, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14	29
Figure 2.13:	Percentage that have been bullied in the past two months, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14	30
Figure 2.14:	Percentage who reported high life satisfaction, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14	30
Table 3.0:	General Practice Population Profiles 2013/14	34
Figure 4.0:	Cancer incidence 2012-14, PTHB	38
Figure 4.1:	Change in the number of new cases of cancer 2002-04 to 2012-14, PTHB	38
Figure 4.2:	Cancer incidence 2012-14, PTHB and Wales	39
Figure 4.3:	Cancer one-year survival (%) 2009-13, PTHB	40
Figure 4.4:	Cancer one year survival (%), 2009-13, PTHB and Wales	41
Figure 4.5:	Percentage change in cancer one year survival 2004-08 to 2009-13, PTHB	42
Figure 4.6:	Bladder cancer one year survival 2004-08 to 2009-13, PTHB and Wales	43
Figure 4.7:	Cancer five year survival 2005-09, PTHB	44
Figure 4.8:	Cancer five year survival 2005-09, PTHB and Wales	45
Figure 4.9:	Oesophageal cancer five year survival 1995-99 to 2005-09, PTHB and Wales	46
Figure 4.10:	Percentage change in five year survival for cancer 2000-04 to 2005-09, PTHB	47
Figure 4.11:	Ovarian cancer five year survival 2000-04 to 2005-09, PTHB and Wales	48
Figure 4.12:	Cancer mortality 2012-14, PTHB	49
Figure 4.13:	Cancer mortality 2012-14, PTHB and Wales	49
Figure 4.14:	Change in number of deaths from cancer 2002-04 to 2012-14, PTHB	50

Foreword

Dear Reader

Welcome to the 2015/16 Annual Report of the Director of Public Health for Powys. Considering recent reports, the 2011/12 report focused on the importance of prevention in maximising health and well-being. In 2012/13, the report focused on the key determinants of health and well-being and the importance of partnership working. The 2013/14 report focused on the health and well-being of children and young people in Powys. The 2014/15 report was based on a recent series of analyses and intelligence products published by Public Health Wales and this approach is continued in my 2015/16 report.

Timely, accurate intelligence remains crucial for the planning and delivery of health and care services. For example, the NHS Wales Prudent Healthcare principles – including the requirement to care for those with the greatest health need first and to reduce inappropriate variation through an evidence-based approach - demand an analytical approach. Linked to this, the surveillance and assessment of a population's health and well-being is a fundamental element of public health practice, encompassing statistical and epidemiological analysis. Such approaches are evident in the individual chapters of this report which present

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a range of themes and topics, including pregnancy, the health-behaviour of school-aged children and cancer incidence, survival and mortality.

Looking ahead to 2016/17, the Well-being of Future Generations Act (2015) requires local partners to work together to produce a well-being assessment, encompassing the economic, social, environmental and cultural well-being of the population under consideration (this to be published by 31st March 2017). The individual public bodies in

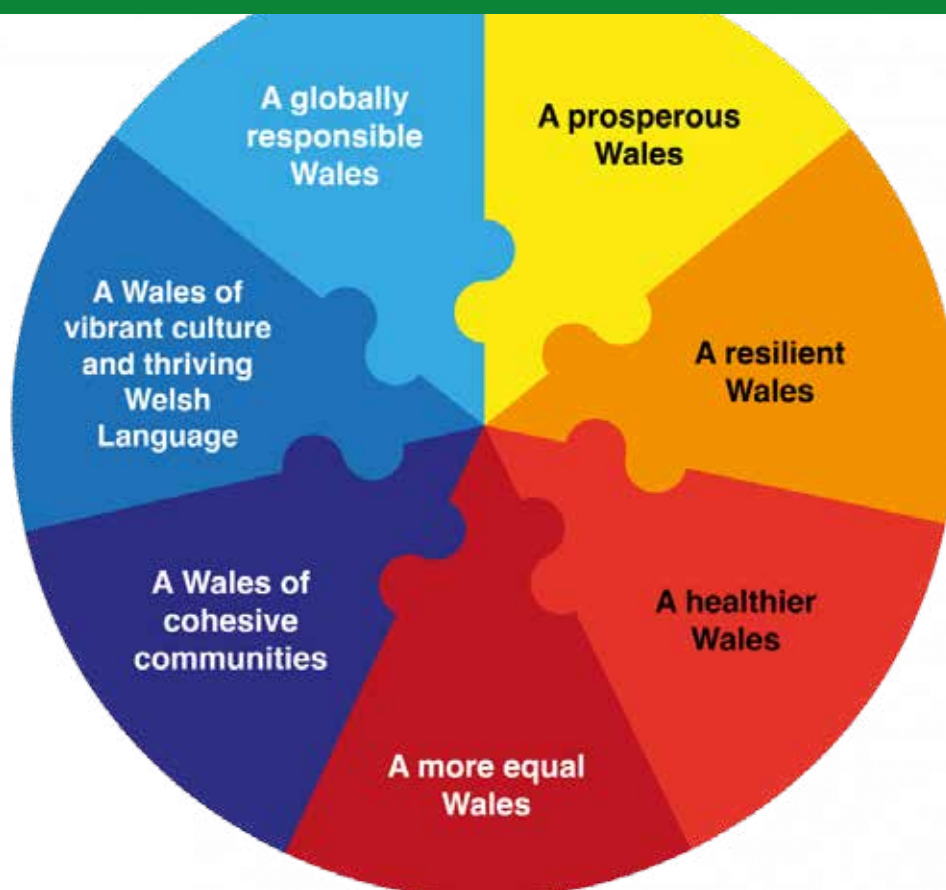
scope are also required to publish their well-being objectives, in support of the Act's well-being goals. In this context, at the time of writing, the national planning guidance for the 2017/18 Health Board Integrated Medium Term Plans had not yet been released.

I make six recommendations for local action in this year's report; the position and progress with these will be reviewed in my 2017/18 report. As expected, I also review progress with the recommendations of my 2013/14 report, in this report.

As ever, I am very grateful to the many individuals who contributed ideas, information and text for this report. I hope you find it an enjoyable and useful read. Along with the Powys Public Health Team, I welcome all questions, comments and suggestions.

Dr Catherine Woodward
Director of Public Health
Powys Teaching Health Board
GMC 3085499
September 2016

*Well-being of Future Generations Act (2015):
The Well-being Goals*





Ystradgynlais Hospital



Summary of Recommendations

Recommendation 1

PTHB should continue to fully support the UNICEF “Baby Friendly” programme; the programme should be reported to the Patient Experience, Quality and Safety Subcommittee of the Board, as part of the established assurance arrangements for PTHB Maternity Services.

Read more on page 18

Recommendation 2

As part of its commissioning development programme, PTHB should ensure that assurance arrangements are established for the quality (including outcomes) of all maternity services commissioned from other NHS providers; arrangements should encompass Powys-specific intelligence.

Read more on page 19

Recommendation 3

The information and intelligence presented in Chapter 3 should be used to inform further primary care assessment and development in Powys.

Read more on page 35

Recommendation 4

The PTHB Cancer Partnership Group should establish arrangements to ensure that it routinely considers all intelligence outputs from the Wales Cancer Intelligence and Surveillance Unit.

Read more on page 37

Recommendation 5

The trend in five year survival for oesophageal cancer in Powys should be re-assessed by the PTHB Cancer Partnership Group as soon as the intelligence for the 2006-2010 cohort becomes available; further action should be agreed at that point.

Read more on page 46

Recommendation 6

While recognising the impact of relatively low numbers on the analyses in this report, the PTHB Cancer Partnership Group should agree whether there is a case to complete a wider review of ovarian cancer pathways and outcomes in the local population.

Read more on page 47

1. Introduction

- 1.0 Each year a substantial amount of intelligence is published by Public Health Wales about the health and well-being of the population of Powys. Toolkits and other analytical products are released which provide information about the prevalence of different diseases and the main causes of death. Intelligence on the underlying determinants of health and health-related behaviour is also released. The toolkits analyse and benchmark data, to present information to aid interpretation and comparison. In this way, work by Public Health Wales can support local health assessment and planning.
- 1.1 This Annual Public Health Report presents intelligence products released by Public Health Wales during 2015 and 2016. These are the:
 - Pregnancy and childhood surveillance tool
 - Health behaviours in school-aged children study
 - General practice population profiles
 - Cancer in Wales report
- 1.2 These products are presented in the three chapters of this year's report: early years, primary care clusters and cancer. Inevitably there is some degree of technical content; however, this has been kept to the necessary minimum. It is hoped that the report remains an interesting and useful read for Powys Teaching Health Board and other staff engaged in the planning of health and care services, as well as to others with an interest in health and well-being. The partner organisations of the Powys Public Service Board will also have an interest in the report.
- 1.3 The report will be made available via the Powys Teaching Health Board website www.powysthb.wales.nhs.uk Questions or comments about the report should be forwarded to the Public Health Team via PowysPHT.admin@wales.nhs.uk.
- 1.4 This report also provides an update on the status of the recommendations from the 2013/14 Director of Public Health Annual Report. The position/progress with the eight recommendations from 2013/14 are presented below; content was provided by officer leads from the health board and from the Public Health Local Team.

Review of Recommendations of the 2013/14 Annual Public Health Report for Powys

Recommendation 1

Senior lead officers from Powys Teaching Health Board should explore whether there are any opportunities to further develop and tailor support for pregnant smokers, based on lessons learned from the local breast feeding programme.

- 1.5 The recommendation was effectively superseded by other local and national work. In summary, a service improvement project (Models for Access to Maternal Smoking Cessation Support, MAMSS) was implemented in four of the Welsh health boards, with the aim of improving the uptake of smoking cessation services amongst pregnant women. The final project evaluation report is awaited; work is being taken forward by the national Smoking in Pregnancy Group. Related to this, the local Midwifery and Public Health Teams are also working together to ensure local implementation of the recommendations from the Group, along with NICE guidance on smoking cessation in pregnancy and following childbirth.
- 1.6 More specifically, Powys midwives have been issued with a carbon monoxide monitor for routine use with clients. For women who smoke, midwives have implemented an “opt out” approach to referral to smoking cessation services. All midwives have received Making Every Contact Count (MECC) training to support them in this approach. A local review has assessed potential barriers to implementation of the NICE guidance – once complete, findings will be used to further inform local implementation plans.

Recommendation 2

Powys Teaching Health Board should further explore the relationship between local vaccination rates and socioeconomic status, with support from Public Health Wales. Immunisation plans may need to be updated in the light of this review.

- 1.7 Further analysis of the relationship between local vaccination rates and socioeconomic status in Powys was undertaken by the Public Health Wales Vaccine Preventable Disease Programme (VPDP) and Communicable Disease Surveillance Centre (CDSC).
- 1.8 In summary, over the past three years (2013/14 to 2015/16), data for the percentage of children who are up-to-date with their routine immunisations at the age of four appear to have shown an inverse relationship between vaccine uptake and deprivation in Powys, in contrast to the relationship seen for Wales as a whole.
- 1.9 As discussed in the 2013/14 report, uptake for the least deprived quintile was 86.5% in Powys, while uptake for quintile four was 89.0%. (N.B. Powys data for the most deprived quintile was suppressed due to small numbers). In 2014/15, uptake for the least deprived quintile was 87.1%, while uptake for the most deprived quintile was 91.8%. 2015/16 uptake for the least deprived quintile was 83.8%, and uptake for the most deprived quintile was 90.9%.
- 1.10 Even though this data appears to show a consistent inverse relationship between vaccine uptake and deprivation in Powys, further analysis has shown that the differences between the most and least deprived quintiles in Powys do not reach the level of statistical significance.

- 1.11 Further joint work with PHW is required to understand the picture in Powys across the broader immunisation programme, encompassing trend analysis and other population determinants. This work, together with actions arising from it, will be picked up through the action plan of the Powys Vaccination Group.

Recommendation 3

The Powys Healthy Weight Steering Group should review the scope and impact of its actions in preschool settings. This work may need to take due account of the outcome of the current health improvement review by Public Health Wales.

- 1.12 A multi-agency sub-group of the Powys Healthy Weight Steering Group reviewed the local action plan for healthy weight in pregnant women and pre-school children. The Public Health Wales Healthy Schools Coordinator for Powys then developed and implemented further actions in local pre-school settings, also in line with the national programme. This included support for pre-schools in providing an environment to encourage children to eat healthily and be physically active, both at pre-school and at home. 19 pre-schools in Powys are currently part of the scheme, aiming to increase to at least 30 by March 2017.

Recommendation 4

The Powys Children and Young People's Partnership should receive a comprehensive report on the Powys Healthy Preschools and Schools schemes on an annual basis, encompassing outcome measures.

- 1.13 Presentations were made to the Powys Children and Young People's Partnership (CYPP) in November 2014. Progress against key national targets for the local scheme, with a particular emphasis on the Powys Excellence Award (introduced to support specific schools for the national assessment) was included.
- 1.14 A comprehensive report on one of the key aspects of delivery of the scheme, the sexual health programme "APAUSE", was also provided to the CYPP Emotional Health and Wellbeing Subcommittee during 2015.
- 1.15 More widely, an update on the scheme was included in the PTHB 2015/16 Annual Report. Further reports presenting the status and progress of the scheme will be presented to the PTHB Patient Experience, Quality and Safety Subcommittee and to the CYPP later in 2016/17.
- 1.14 Going forward, annual reports will continue to be presented to both PTHB and the CYPP.

Recommendation 5

Powys Teaching Health Board should further explore and address local inequities in the uptake of NHS dental services amongst children and young people.

- 1.16 In starting this work it was found that overall uptake of NHS dental services in children and young people appeared to have fallen in recent years, and it became apparent that a wider piece of work is required to investigate access to dental services for children and young people - including in relation to inequitable access. There are a number of factors which may have led to this apparent reduction in dental attendance among children, including local difficulties in recruiting dentists. The health board is currently working with national dental public health leads to explore options for increasing access to dental services and

to reduce inequities in access, and there are plans to review the approach to oral health improvement, dental access and oral health inequities in the context of the National Oral Health Plan.

Recommendation 6

The Powys Teaching Health Board Public Health Team should lead a needs assessment of local sexual health services during 2015/16. This should encompass services provided and commissioned by the Health Board, to ensure effectiveness and value for money.

- 1.17 The Public Health Team worked with the PTHB Maternity Service to produce a profile of health needs, although it has not been possible to date to prioritise the wider review. The health profile formed part of a business case for the development of community-based sexual health services in Powys. The information encompassed general fertility, teenage conception, termination of pregnancy and sexually transmitted infections.

Recommendation 7

As part of the wider engagement work being led by the Powys Children and Young People's Partnership, Powys Teaching Health Board should ensure that its refreshed engagement strategy fully encompasses children and young people.

- 1.18 The health board's Engagement Strategy 2015/16 applies to all services and all age groups. A copy of the strategy is available via www.powysthb.wales.nhs.uk/document/272231

Recommendation 8

Leading on from this, Powys Teaching Health Board should receive an annual report on all its engagement activities with children and young people in Powys.

- 1.19 Key health board engagement activities and outcomes are reported to the Board via its Finance and Performance Sub-committee, on a bi-annual basis. Where appropriate, this will include key engagement activities relating to Children and Young People. The Board is also due to receive the Annual Quality and Safety Report for Women and Children's Services in Q1 of 2017/18; this will have a specific focus on engagement with children and young people. Other engagement activity is reported through the Powys Children's and Young People's Partnership, of which the health board is a member.

2. The Early Years

www.wales.nhs.uk/sitesplus/922/news/40235

Key Messages for Powys:

- Women giving birth in PTHB maternity services have the lowest (best) rates of smoking, alcohol consumption and obesity in Wales. However, absolute positions confirm the need for further action to improve maternal health status.
- Rates of breastfeeding from birth to six weeks are the highest (best) in Wales.
- Rates of low birth weight births for women resident in PTHB are not significantly different to Wales.
- PTHB has relatively low rates of:
 - Teenage conception
 - Decayed, missing or filled teeth amongst five year old children
 - Emergency admissions due to injury amongst children under four years
- The teenage conception rate has declined (improved) by almost 50% since 2004.
- Findings from the Health Behaviour of School-Aged Children Survey indicate an improving trend in relation to alcohol misuse; however, further effort is required in relation to other lifestyle issues, including obesity.

Introduction

- 2.0 The Public Health Wales pregnancy and childhood surveillance tool 1 encompasses two sets of indicators: pregnancy indicators, presented at health board level and other childhood indicators, presented at local authority level. The intelligence has been shared at local authority level by Public Health Wales.
- 2.1 The tool is produced as part of the surveillance workstream of the Public Health Wales Early Years Programme.² The Early Years Programme was established to support a joint approach across, for example, services, academia, policy and other areas, in an effort to ensure every child has a good start in life. In producing the tool, the Observatory has taken account of the Welsh Government Early Years Outcome Framework,³ to support consistency in reporting.

Pregnancy Indicators

- 2.2 The pregnancy surveillance tool encompasses a set of indicators linking back to the 2011 Welsh Government Maternity Strategy.⁴ Intelligence is presented for births during the period April 1st 2014 to March 31st 2015. The indicators encompass:
- Lifestyle factors
 - Low birth weight
 - Breastfeeding
 - Mode of delivery - for example, caesarean section
 - Initial assessment (10 weeks of pregnancy)
- 2.3 In most cases, the data is derived from health board maternity datasets, which contain information about the mother and baby. Data collection reflects the maternity pathway. Information is largely based on Welsh health boards as providers of maternity care and is not residence-based; the Powys intelligence reflects annual maternity activity provided by PTHB, which is around 20% of Powys births. The scope of the intelligence provided by Public Health Wales for PTHB also reflects that the PTHB maternity service is midwifery-led, for relatively low-risk deliveries. For example, there is no Powys-specific intelligence for caesarean section activity, as the procedure is not performed by the PTHB service. More widely, as the methodology for data collection for some of the PHW measures is not fully standardised, it is not yet possible to make valid comparisons between health boards for these measures.
- 2.4 PTHB assures itself of the quality and safety of the maternity service it provides through a process of annual reporting involving the Director of Nursing, the Executive Team and the Board. The approach is based on performance review against the key performance indicators of the national maternity strategy. Annual reporting is supplemented by a specific process in relation to perinatal, neonatal and maternal mortality rates, as part of an indicator set presented to the PTHB Patient Experience, Quality and Safety Sub-committee of the Board (on a quarterly basis). The PTHB Maternity Service also reports on an annual basis to the national Maternity Board.

Summary of Intelligence

Lifestyle Factors

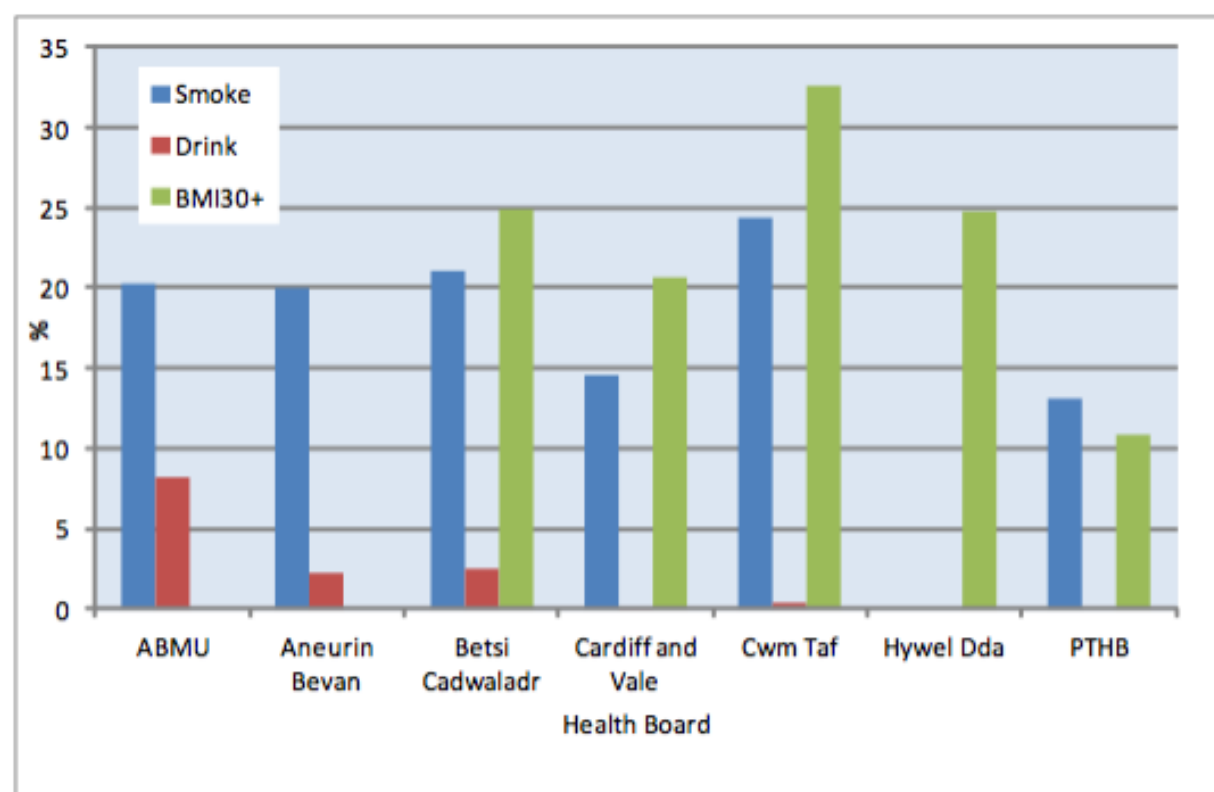
2.5 Table 2.0 and Figure 2.0 summarise rates of smoking, excess alcohol consumption (defined as 5 or more units of alcohol/week) and obesity (BMI 30+) as recorded at the initial maternity assessment (the column headers are fixed). For each of these three measures, women receiving maternity care from PTHB maternity services have relatively low prevalence rates for these measures (although no confidence intervals are available). The absolute positions for two measures demonstrate the need for a continuing focus on these issues through the health board's preventive programmes.

Table 2.0: Rates of smoking, excess drinking and obesity at initial assessment by health board, 2014/15.

Health Board	Smoke	Drink	BMI30+
ABMU	20.2	8.2	NA
Aneurin Bevan	20	2.2	NA
Betsi Cadwaladr	21	2.5	24.9
Cardiff and Vale	14.6	0.1	20.6
Cwm Taf	24.4	0.3	32.6
Hywel Dda	NA	NA	24.8
PTHB	13.1	0	10.9

Source: Public Health Wales Observatory
NA Not available

Figure 2.0: Rates of smoking, excess drinking and obesity at initial assessment by health board, 2014/15.



Source: Public Health Wales Observatory

Breastfeeding

2.6 Table 2.1 and Figure 2.1 summarise patterns of breastfeeding. Rates immediately following birth are health board provider-based; rates at 10 days and 6 weeks are resident-based. For Powys, this limits interpretation across the care pathway, as the denominator populations differ. Nevertheless, while recognising these limits and the lack of confidence intervals, breastfeeding rates for the Powys population are high – in absolute and relative terms (being the highest rates in Wales, based on this intelligence).

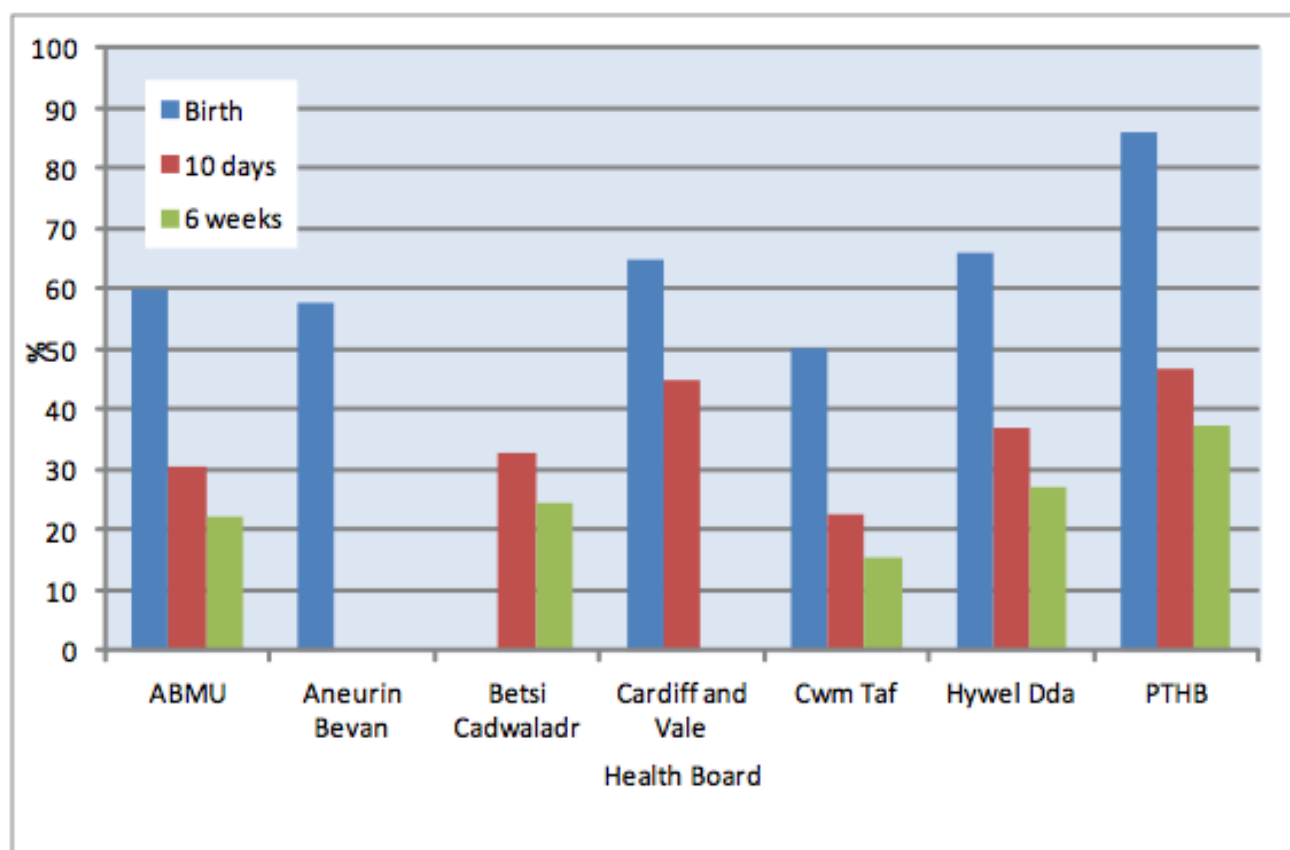
Table 2.1: Breastfeeding rates at birth, 10 days and 6 weeks by health board, 2014/15.

Health Board	Breastfed		
	Birth	10 days	6 weeks
ABMU	59.9	30.4	22.3
Aneurin Bevan	57.8	NA	NA
Betsi Cadwaladr	NA	32.9	24.4
Cardiff and Vale	64.9	44.7	NA
Cwm Taf	50	22.5	15.5
Hywel Dda	66.1	36.8	27.2
PTHB	85.8	46.8	37.5

Source: Public Health Wales Observatory

NA Not available

Figure 2.1: Breastfeeding rates at birth, 10 days and 6 weeks by health board, 2014/15.



Source: Public Health Wales Observatory

- 2.7 Amongst other benefits, breastfeeding reduces the risk of infections in infancy and confers longer-term benefits in relation to other outcomes, including, for example, maternal weight and childhood obesity. Exclusive breastfeeding is now recommended for the first six months of a baby's life. In this context, PTHB has now been awarded UNICEF "Baby Friendly" Level 3 accreditation. This is testament to the ongoing expertise and efforts of a range of local services – including midwives, health visitors and peer support groups (Bron I'r Babi) – across Powys. The role of the infant feeding coordinator – for example, in ensuring that education is up to date and that the necessary audits are completed – was crucial to this success.

Recommendation 1

PTHB should continue to fully support the UNICEF "Baby Friendly" programme; the programme should be reported to the Patient Experience, Quality and Safety Subcommittee of the Board, as part of the established assurance arrangements for PTHB Maternity Services.

- 2.8 For patients and the public, information about the benefits of breastfeeding can be found on the NHS Choices website (www.nhs.uk/Conditions/pregnancy-and-baby/Pages/benefits-breastfeeding.aspx).

Delivery

- 2.9 PHW has defined a "healthy birth" in detail for this dataset; in summary, the definition includes, for example, criteria such as a spontaneous onset of labour, a non-augmented labour and a term delivery. Events such as caesarean section and stillbirth are excluded. Low birth weight (LBW) is defined as any live singleton birth where the birth weight is less than 2,500g. In addition, only complete records (i.e. with 100% of relevant fields completed) were included in the analysis; for this and other reasons, findings for different health boards are not directly comparable.
- 2.10 Based on this analysis, PHW reports that PTHB had a "healthy birth" rate of 74.8% and a low birth rate of 2.0% (which, as expected, is relatively low) during 2014/15. The other deliveries by PTHB maternity services were not defined as "healthy" due to the following factors:
- Augmented labour
 - Gestational age <37 weeks
 - Perineal trauma/repair
 - Birth weight <2,500g or >4,000g
 - Blood loss >500ml
 - Apgar score <7 at 5 minutes
- 2.11 Based on this classification, there is no recognised reference value or range for midwifery-led maternity services. Historic data suggests that the rate of healthy births has remained stable at around 75% of births in the PTHB maternity service. A number of the outcomes summarised above cannot be screened for during the antenatal period; some can (and do) occur as a consequence of a natural birth. As further evidence, Powys midwives can safely augment labour through an artificial rupture of the membranes; and some women will deliver before 37 weeks gestation, which is in itself a risk factor for low birthweight.
- 2.12 The relatively low rate of low birthweight births in the PTHB maternity service is attributable to two factors. Firstly, the service looks after women who are expected to have a normal pregnancy and a low-risk delivery. Secondly, following

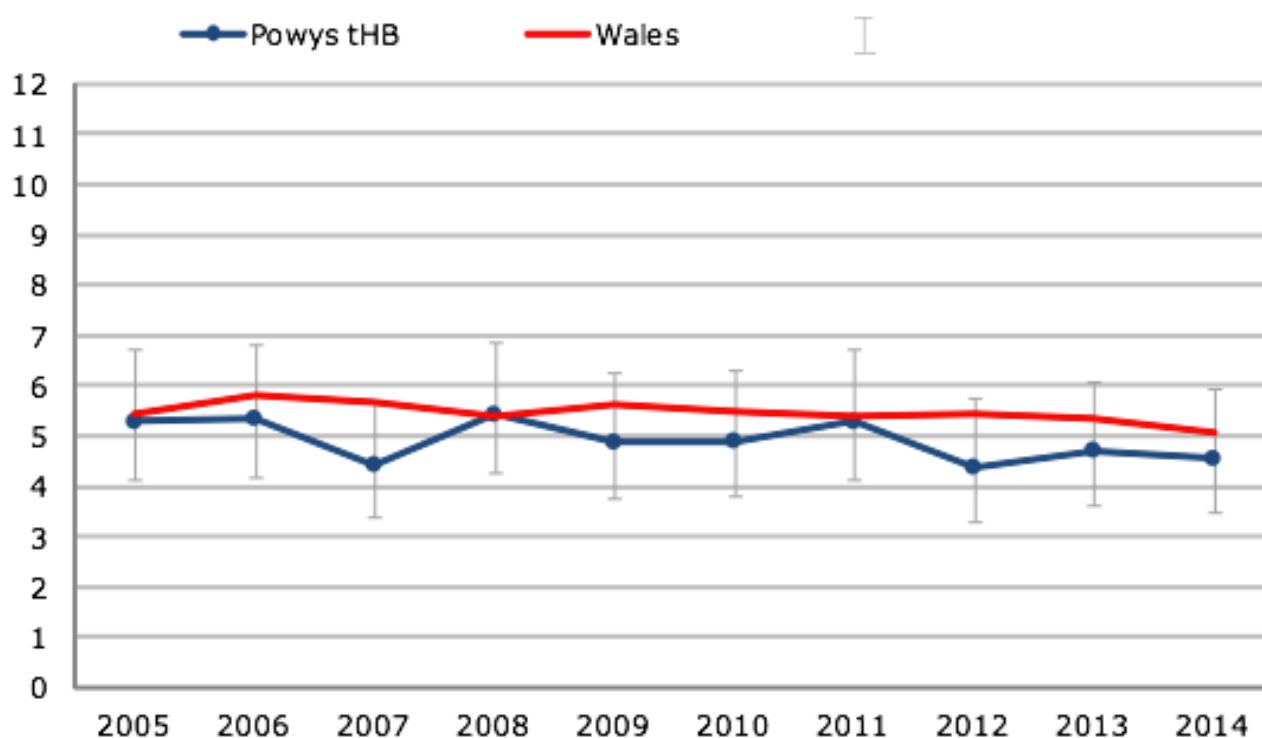
initial assessment, women are actively monitored during their pregnancy for any signs that the baby is potentially at risk of a low birth weight. For example, customised growth charts and, where indicated, onward diagnostic and consultant referral pathways are used from 28 weeks gestation. Enhanced screening is undertaken for any women who have already had a baby below the 10th weight centile.

- 2.13 Public Health Wales has also provided resident-based intelligence on low birth weight; this includes the more high-risk Powys deliveries managed by other NHS providers of maternity care. This intelligence also includes pre-term births and babies born with congenital anomalies (which is not necessarily the case with other reviews, for example, the All Wales Perinatal Survey 5). The rate of low birthweight births for Powys women was not significantly different to the national rate for any year between 2005 and 2014. The Powys annual rate is relatively stable, at around 5% of births.

Recommendation 2

As part of its commissioning development programme, PTHB should ensure that assurance arrangements are established for the quality (including outcomes) of all maternity services commissioned from other NHS providers; arrangements should encompass Powys-specific intelligence.

Figure 2.2: Singleton live births, % low birth weight (less than 2,500g), Powys and Wales, 2005-14.



Source: Public Health Wales Observatory

Childhood Surveillance Indicators

2.14 The Public Health Wales childhood surveillance indicators encompass a broad range of issues (Table 2.2). Development of the indicator set was informed by the Plentyn Gwent Child Early Years Surveillance Tool pilot 6 (which reported on the well-being of children living in Gwent) and the Welsh Government Early Years Outcomes Framework.³

Summary of Intelligence

2.15 Table 2.2 summarises the childhood surveillance indicator tool for the Powys population. There are four indicators where the Powys position was significantly lower (better) than the Wales average, at that point in time. These were:

- Children in need (children in receipt of social services)
- Teenage conceptions (conceptions amongst females aged 15-17yrs)
- Five year olds with decayed, missing or filled teeth
- Emergency admissions due to injury in the 0-4 year old age group

Live births to women under 20 years were also significantly lower in Powys.

2.16 Although confidence intervals are not available, rates for the following health indicators were better in Powys than the national average:

- Children who were overweight or obese
- Infant mortality
- Child mortality (0-17 years)

2.17 Teenage conceptions in the Powys population declined (improved) by nearly 50% during the period in question. Overweight/obesity amongst four and five year olds also declined (improved) by around 5% between 2011/12 and 2013/14. However, in absolute terms, the rate of overweight/obesity amongst four and five year olds remains of significant concern, at both national and local levels. For some indicators, comparability could not be assessed for technical reasons.

2.18 Adults who are physically or sexually abused as children, or brought up in households where there is domestic violence, alcohol or drug abuse, are more likely to adopt health-harming and anti-social behaviours in later life. For example, findings from the PHW Welsh Adverse Childhood Experience study showed that suffering four or more harmful experiences in childhood increased the chances of high-risk drinking in adulthood by a factor of four; of being a smoker, by a factor of six; and of being involved in violence in the last year, by a factor of around 14.7. The survey found evidence that around one in every seven Welsh adults aged 18 to 69 years had experienced four or more adverse childhood experiences during their childhood; and that just under half had experienced at least one. The report by PHW also estimated the burden of impact of health-harming behaviours on the NHS which could have been avoided if adverse childhood experiences were to be prevented in Wales.

2.19 PHW is now progressing this approach by working to develop systems to analyse the early indicators of harm, enabling the police and other partners to identify those who may be particularly vulnerable. For example, the first project is taking place between PHW, South Wales Police, NSPCC Cymru and Bridgend Council, with findings becoming available during the course of the next two years.

Table 2.2: Pregnancy and childhood surveillance tool 2016: childhood indicators.

Select local authority:

Local authority rate compared to Wales: Lower Comparable Higher Could not be calculated

Indicator	Local authority Count	Local authority Rate	Health board Count	Health board Rate	Wales Rate	Trend
% children living in poverty ^{1,a,b}	-	20.1	-	-	30.4	Not available
Homelessness ^{2,c,d} (counts rounded to nearest 5)	85	43.1	85	-	41.0	
Children in need ^{3,e,e}	223	212	223	212	283	
% 4/5 year olds overweight or obese ^{4,a,f}	254	23.9	254	23.9	26.5	
Teenage conceptions <18 ^{5,a,g}	38	16.0	38	16.0	27.3	
Live births to females <20 ^{6,a,h}	43	11.6	43	11.6	18.9	
% 4 year olds up to date with immunisations ^{7,i}	1,101	88	1,101	88	86	
5 year olds dmft ^{8,j} (count is the number of children examined)	387	1.3	387	1.3	1.6	
Emergency admissions for injury ^{9,a,k}	91	143	91	143	177	
Infant mortality ^m ^{10,l,m} (annual average count)	5	3.8	5	3.8	4.1	
Child mortality ⁿ ^{11,a,j} (annual average count)	8	30.1	8	30.1	31.5	
Social worker provision ^{12,a,n}	45	1.8	45	1.8	2.2	Not available

Numbers which were not available or which were suppressed to maintain data confidentiality are denoted by a dash (-)

* numbers too small to produce a local authority trend

Indicator and time period (counts and rates are presented for last year of trend unless stated otherwise): 1. % of children aged 0-4 years living in income deprivation (2012/13); 2. Percentage of homeless households which include dependent children (2005/06-2014/15). Trends were supplied by WG; 3. Rate per 10,000 children aged 0-7 looked after by local authorities and who had a case open for at least 3 months as at 31st March each year, 2012 and 2014; 4. % with body mass index in the 85th centile (UK 1990) or above, 2011/12 and 2013/14; 5. Conception rate per 1,000 females aged 15-17 years, 2004-2013; 6. Rate of live births per 1,000 females aged 15-19 years, 2005-2014; 7. % up to date with routine immunisations, 2010/11-2014/15; 8. The count is the number of children examined and the rate is average number of decayed, missing or filled teeth, 2007/08 and 2011/12; 9. Emergency hospital admissions for injury, rates per 10,000 population, 0-4 year olds, 2005/06-2014/15; 10. Rate of deaths in children aged <1 year of age per 1,000 live births, 2005-2014 combined for local authority, health board and Wales, and 2005-2014 single years for Wales trend; 11. Crude mortality rate per 100,000 population aged 0-17, the rates displayed are for 2012-2014 for local authority, health board and Wales, and single years 2005-2014 for the Wales trend; 12. Counts and crude rates WTE social workers working in children and young people's services per 1,000 children aged 0-17 years, 2014/15 (local authorities also provide services using the independent sector, whose staff are not included in these figures).

Data source: a. Mid-year population estimates (ONS); b. DWP and Child Benefit Data (HMRC); c. Homelessness Data Collection (WG); d. Household estimates (WG); e. Children in Need Census (WG); f. Child Measurement Programme (PHW & NWIS); g. Conceptions (ONS); h. Live births (ONS); i. Communicable Disease Surveillance Centre (CDSC) and Vaccine Preventable Disease Programme (VPDP), (PHW); j. Welsh Dental Survey (WOHIU); k. Patient Episode Database Wales (NWIS); l. Public Health Mortality (PHM), (ONS); m. Public Health Births (PHB), (ONS); n. Social Services Data Collection team (WG).

2ii THE HEALTH BEHAVIOUR OF SCHOOL-AGED CHILDREN

Introduction

2.20 The Health Behaviour of School-aged Children (HBSC) study is a World Health Organisation (WHO) collaborative study, which is an important driver of national and international policy for adolescent health.⁸ Every four years, nationally representative data relating to 11, 13 and 15 year olds are collected in a number of countries. Following each survey, results are also presented as part of an international report co-published by the WHO.

2.21 The main objectives of the Wales study include:

- To provide an in-depth understanding of young people's health and well-being, including the social determinants of health;
- To inform policy and practice to improve young people's lives;
- To disseminate findings to various groups, including policy makers, the NHS and local government;
- To initiate and sustain national and international research on health behaviour and the social context of health amongst young people.

As with all self-reported surveys of this nature, there is a tendency for individuals to under-report potentially adverse/harmful behaviour.

2.22 In 2013/14, some 9,000 young people in secondary schools across Wales (school years 7 to 11 years) participated in the study. This section of the report presents information on a range of indicators at health board level. Where available, historical intelligence is provided for a number of indicators (back to 2009/10.) Confidence intervals are not available for this data; it is not possible to comment on the statistical significance of the findings.

Diet and obesity

2.23 Across all the health boards, girls have a higher rate of daily consumption of fruit than boys (Figure 2.3). In PTHB, boys have one of the lowest rates of daily fruit consumption (28%), while girls report the highest rate in Wales (39%). For both boys and girls, the Powys rate has declined slightly since the survey was last completed in 2009/10.

2.24 Despite reporting one of the lowest rates of regular fruit consumption, boys in Powys report the highest rate of daily vegetable consumption across the health boards (Figure 2.4). Girls in Powys report a rate of vegetable consumption which is the second highest in Wales. Consumption has risen amongst boys since 2009/10, while remaining largely stable for girls. Currently in Powys, 41% of boys and 47% of girls aged 11-16 years report consuming vegetables at least once a day.

2.25 Across Welsh health boards, overweight and obesity is more prevalent amongst boys than girls (Figure 2.5). In Powys, the survey reports a rate of overweight and obesity amongst boys which is the third highest in Wales; amongst girls, the rate is the lowest in Wales. This measure was not assessed in the 2009/10 survey. Based on this survey, in Powys, 23% of boys and 12% of girls aged 11-16 years are overweight or obese.

Figure 2.3: Percentage eating fruit once a day or more, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14.

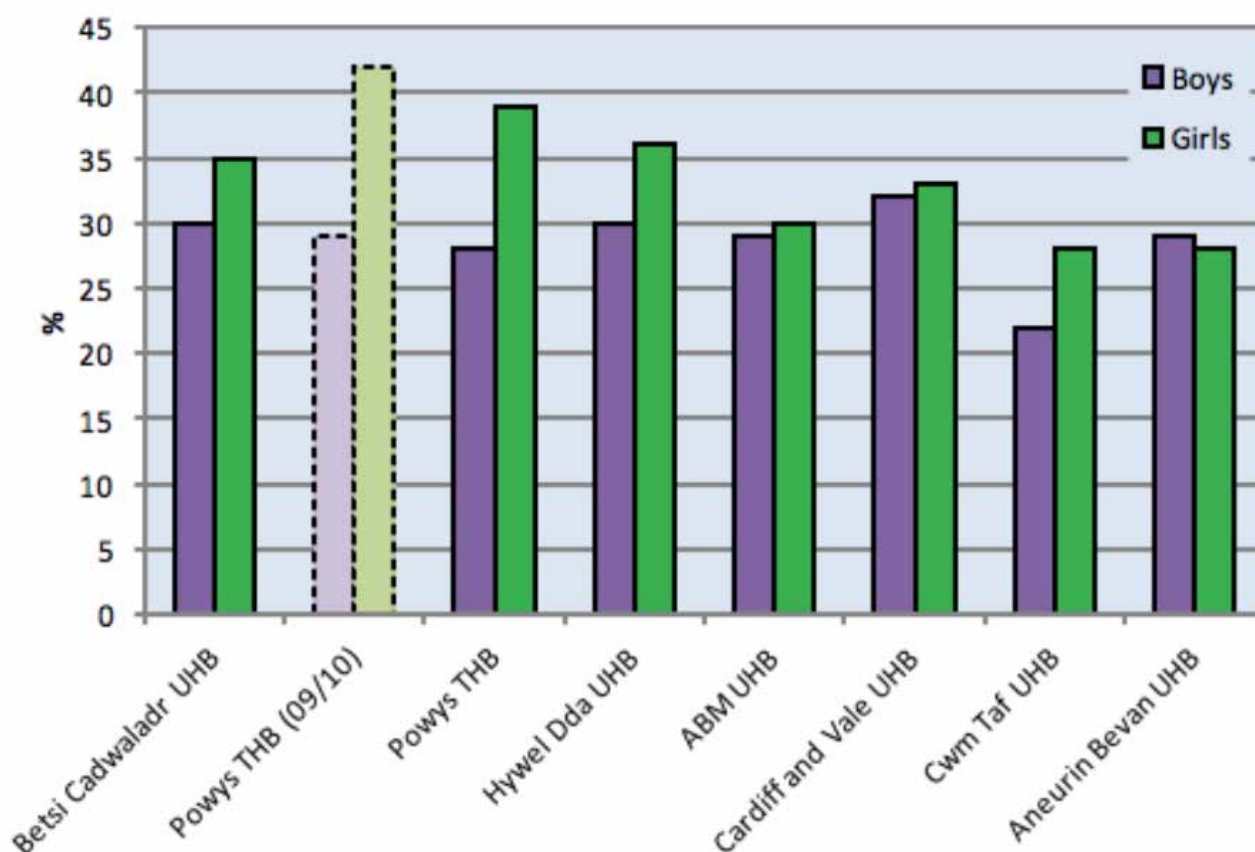


Figure 2.4: Percentage eating veg once a day or more, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14.

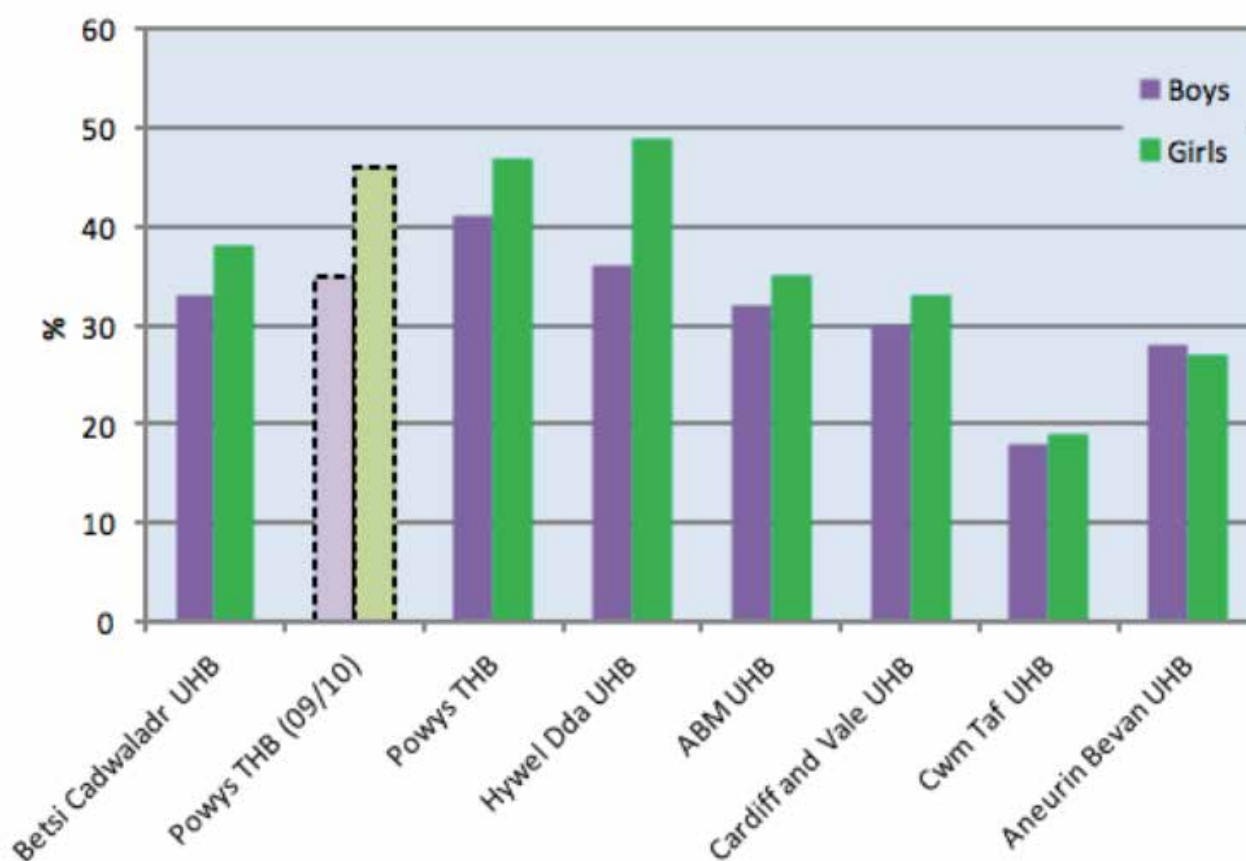
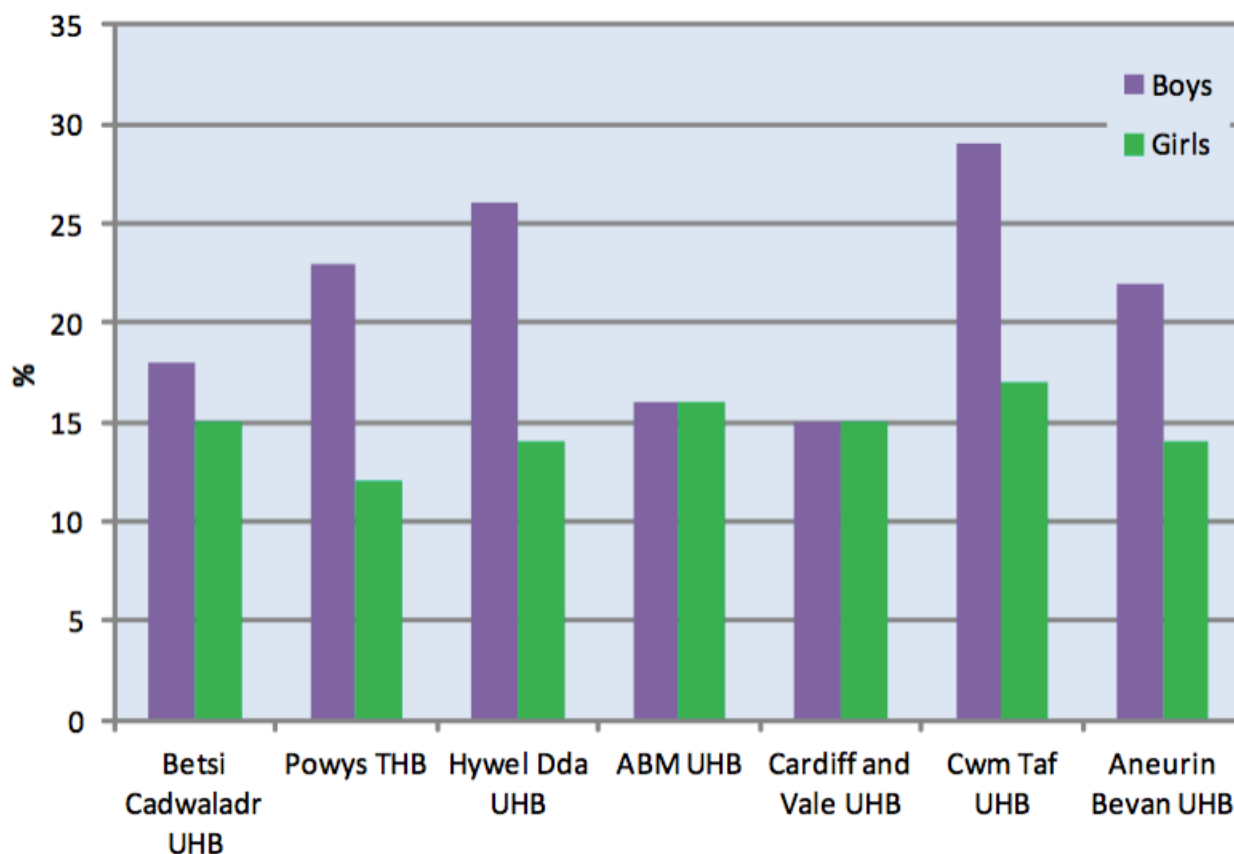


Figure 2.5: Percentage overweight/obese, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14.



Source: Public Health Wales Observatory

- 2.26 Data on overweight and obesity is also provided by the Child Measurement Programme (CMP) in which 4-5 year old children in reception are weighed and measured. This provides a more objective set of measures than the self-reported health behaviour of school-age children survey, although it only collects data on 4-5 year olds.
- 2.27 Based on the most recent CMP survey (2014/15), the proportion of 4-5 year olds (girls and boys) who are overweight or obese is 23.6% in Powys and 26.2% in Wales, although the difference between Powys and Wales is not statistically significant. The proportion of children who are obese is however significantly lower in Powys (9.2%) than Wales (11.6%). Obesity prevalence in this age group has been lower in Powys compared to the Welsh average for the last three years, but 2014/15 is the first year that this difference has been statistically significant.
- 2.28 The prevalence of overweight and obesity across Wales as a whole is significantly higher in boys (26.9%) than girls (25.4%), which is line with the findings of the health behaviour of school-age children survey, although within Powys the differences between boys (25.2%) and girls (22.0%) are not statistically significant.
- 2.29 For obesity alone, the prevalence across Wales is significantly higher in boys (12.2%) than girls (11.0%) although there are no significant differences between boys (8.7%) and girls (9.7%) within Powys. The rate of obesity in boys is significantly lower in Powys compared to Wales, although in girls the differences between Powys and Wales are not significant.

Smoking and substance misuse

2.30 Rates of reported smoking at least once a week are summarised in Figure

2.6. Most of the health boards display little gender difference in the reported rates, with rates at or below 5%. The rate amongst Powys boys has remained unchanged since 2009/10, while the rate amongst girls reduced. Currently, 3% of both boys and girls aged 11-16 years report smoking at least once a week in Powys.

2.31 The rate of regular (weekly) alcohol consumption amongst boys and girls in Powys has declined since 2009/10 (Figure 2.7). Amongst boys, alcohol consumption has halved, from 20% to 10%; amongst girls, the rate has declined from 10% to 4%. Despite these improvements, alcohol consumption remains relatively high amongst Powys boys.

2.32 Comparatively few boys and girls in Powys report ever having taken drugs (Figure 2.8); the gender difference is minimal. There is no historic survey data on this measure.

2.33 As reported, e-cigarette use is relatively low in Powys (Figure 2.9); 8% of boys and 6% of girls report having tried e-cigarettes either regularly or occasionally. This is lower than in most other health boards, but will require ongoing surveillance. Again, the survey offers no historic data for this measure.

Figure 2.6: Percentage smoking at least once a week, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14

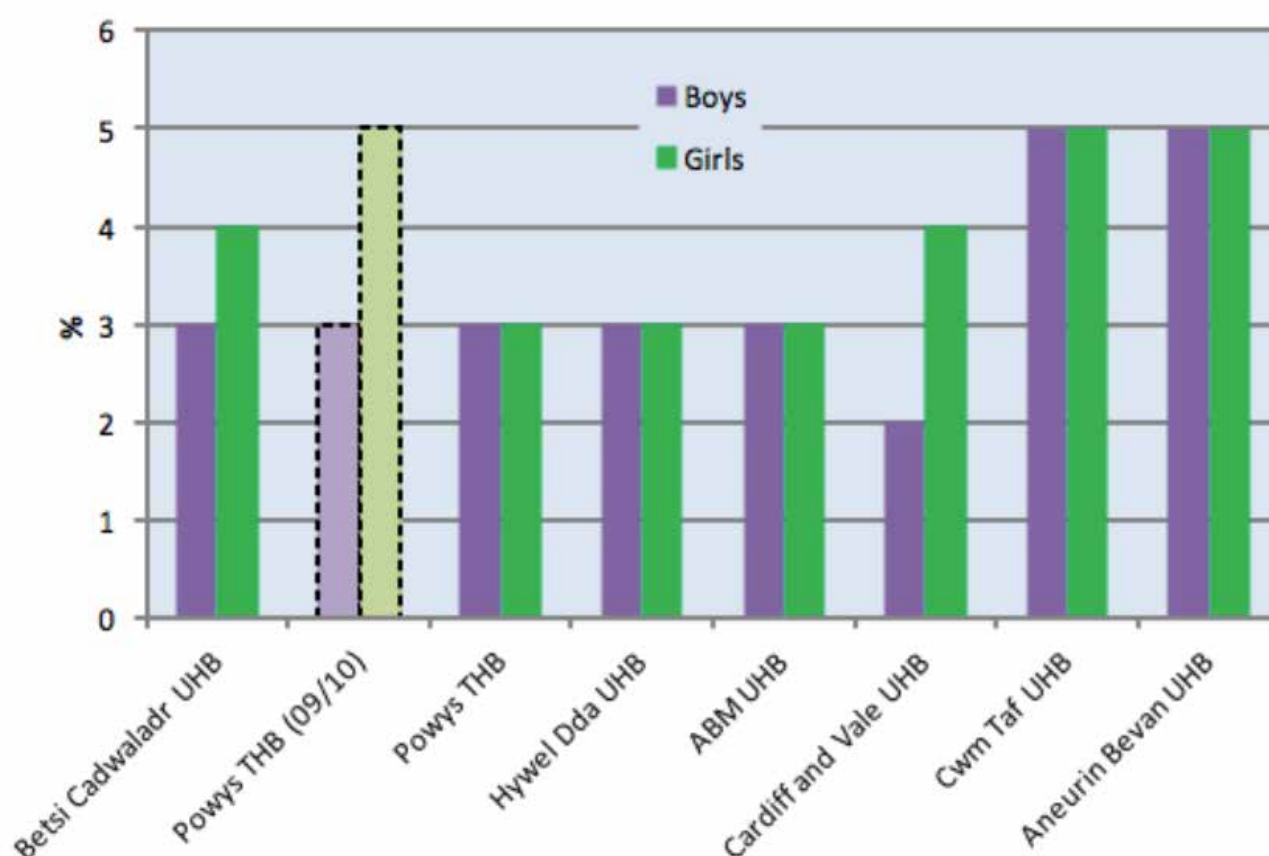


Figure 2.7: Percentage drinking alcohol at least once a week, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14

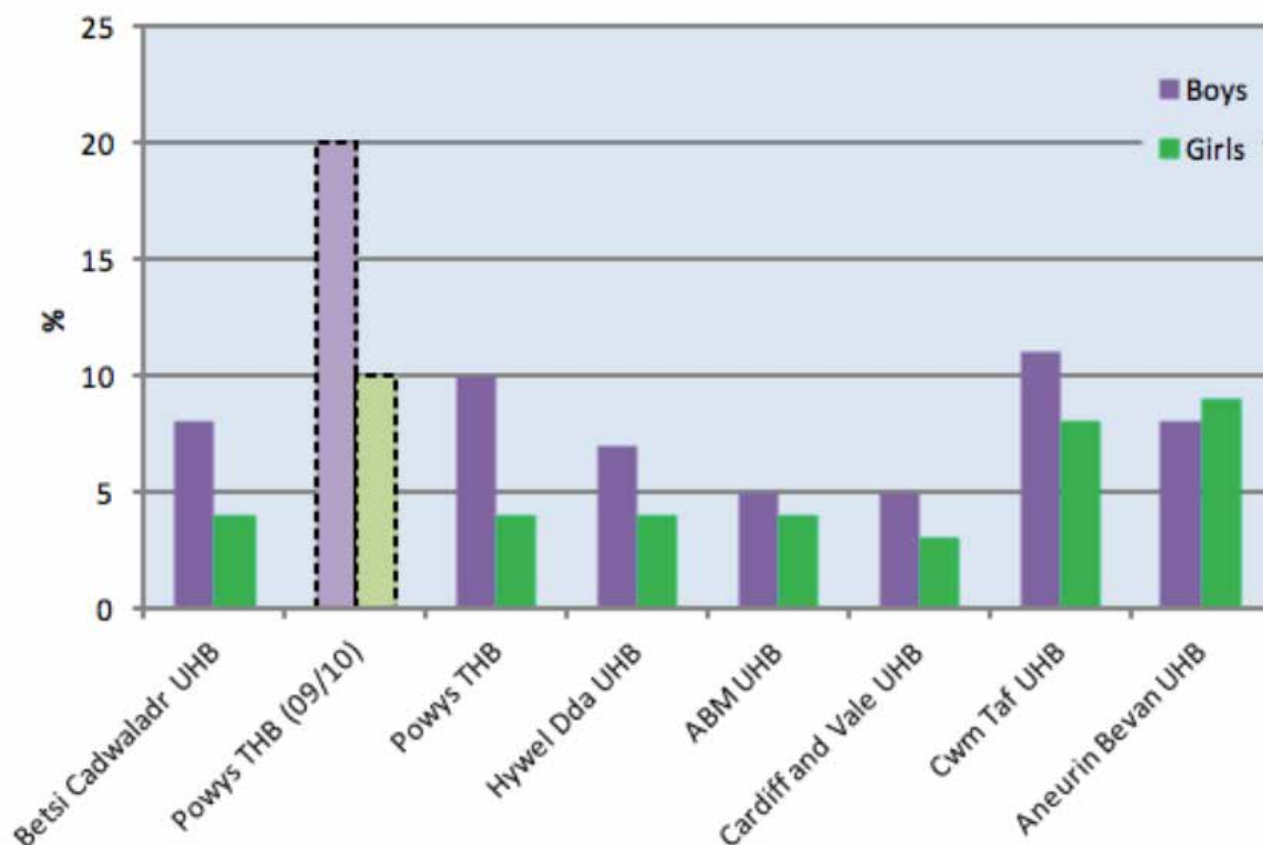


Figure 2.8: Percentage that have taken any drugs, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14

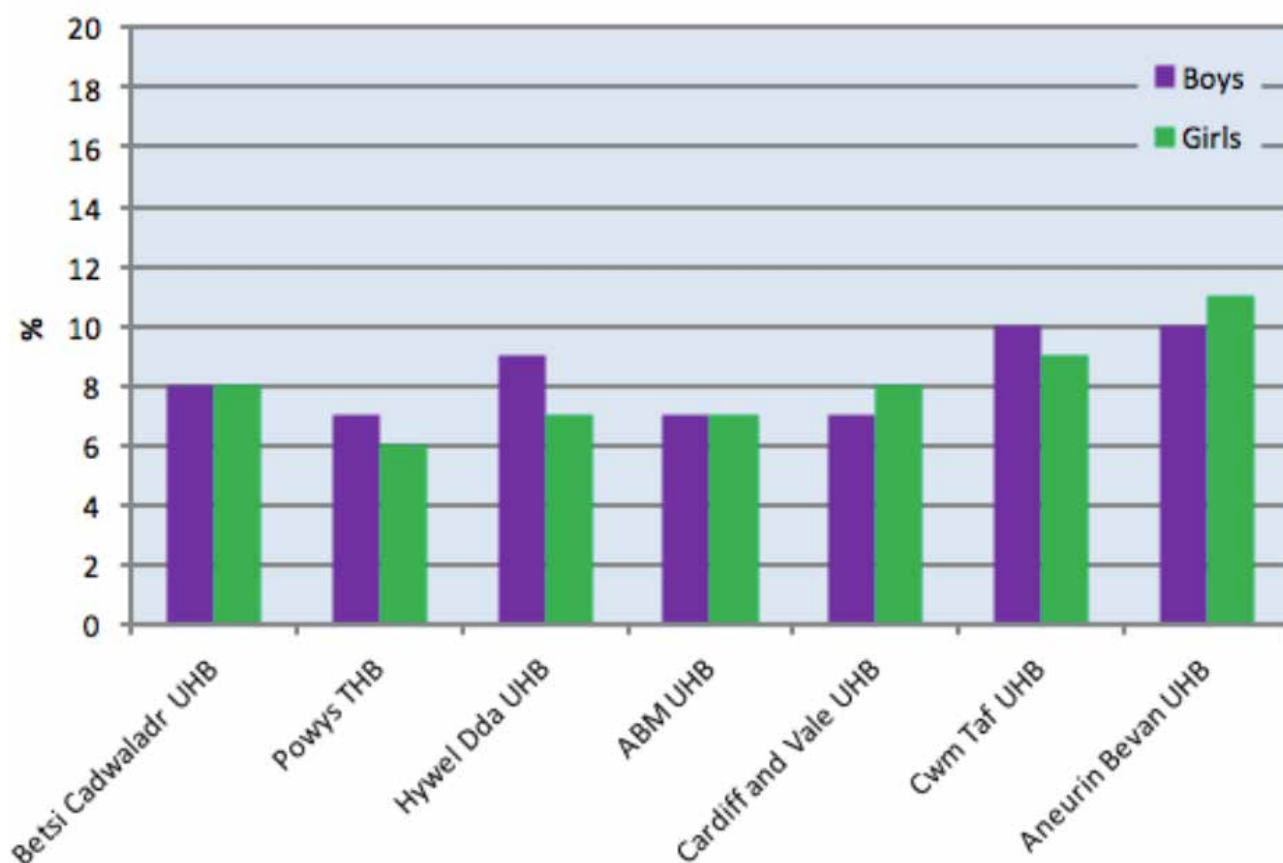
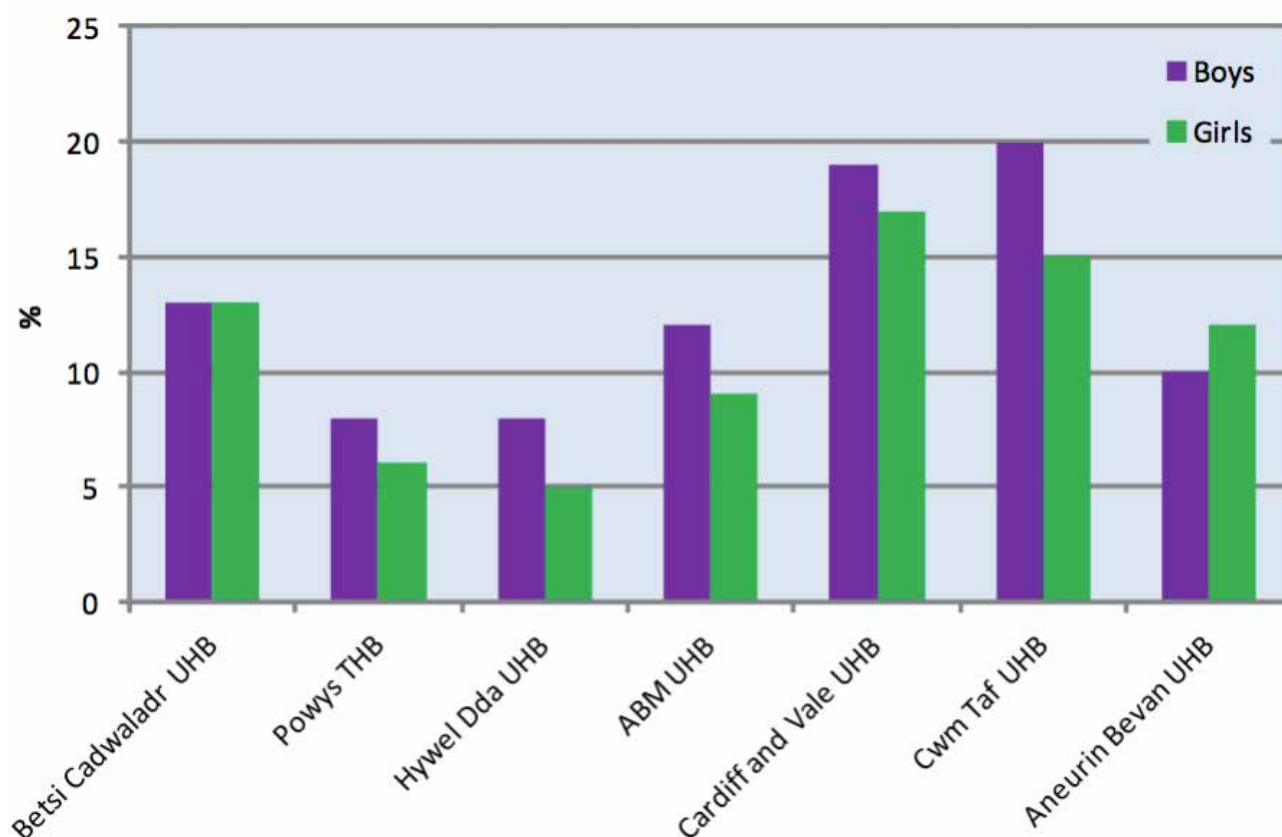


Figure 2.9: Percentage that have tried e-cigarettes occasionally or regularly, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14



Source: Public Health Wales Observatory

Physical Activity

2.34 Rates of physical activity are relatively high for Powys boys (Figure 2.10). Around 22% of boys and 10% of girls report that they are active for an hour or more each day. For boys, the rate is one of the highest amongst the health boards; the rate for girls is closer to the average position. There is no historic data.

2.35 In Powys, 22% of boys and 23% of girls report that they walk or cycle to school (Figure 2.11). These are amongst the lowest rates reported in the survey. The health board range on this measure may reflect, for example, geography and patterns in the distance needed to travel to school.

Figure 2.10: Percentage active 60 mins every day, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14

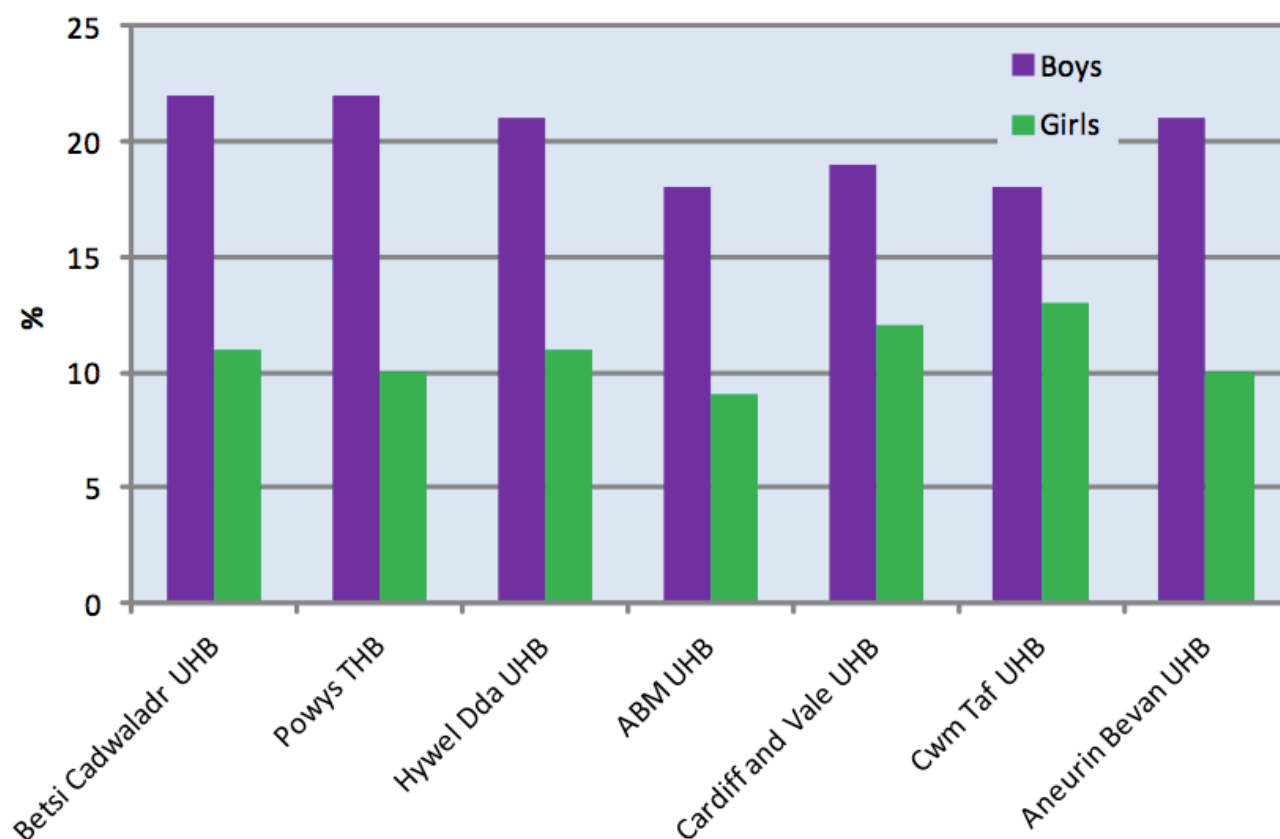
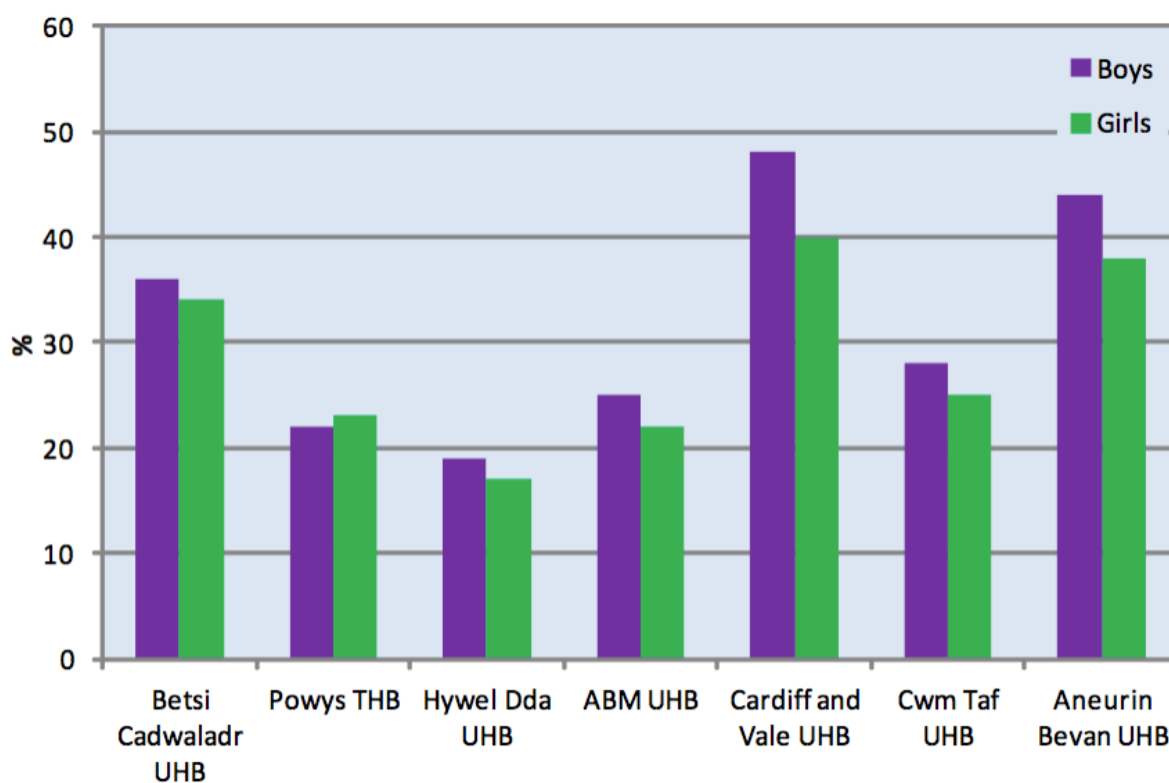


Figure 2.11: Percentage walking or cycling to school, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14



Source: Public Health Wales Observatory

Life satisfaction

- 2.36 Rates of self-reported health status as only fair or poor was similar for boys (18%) and girls (19%) in Powys (Figure 2.12). Amongst boys, the local position was close to the Wales average; for girls, the finding was amongst the lowest (best) across the health boards. The rate amongst Powys girls has improved since 2009/10.
- 2.37 The survey also explored self-reported experience of being bullied (Figure 2.13). In Powys, the rate slightly declined (improved) amongst boys from 38% in 2009/10, to 36% in 2013/14. Amongst girls, as measured by this survey, the rate increased (deteriorated), standing at 38% at the time of the survey.
- 2.38 85% of boys and 80% of girls in Powys report high levels of life satisfaction (Figure 2.14). In Powys, the rate deteriorated slightly amongst boys but remained stable for girls. In responding to this question, young people were asked to rate their life satisfaction using a visual analogue scale (the Cantril ladder). There are 11 steps: the top indicates the best possible life and the bottom the worst. Respondents were asked to indicate the ladder step at which they would place their lives at present (from zero to 10). Findings presented here show the proportion reporting high life satisfaction, defined as a score of six or more on the Cantril ladder.

Figure 2.12: Percentage who reported fair/poor health, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14

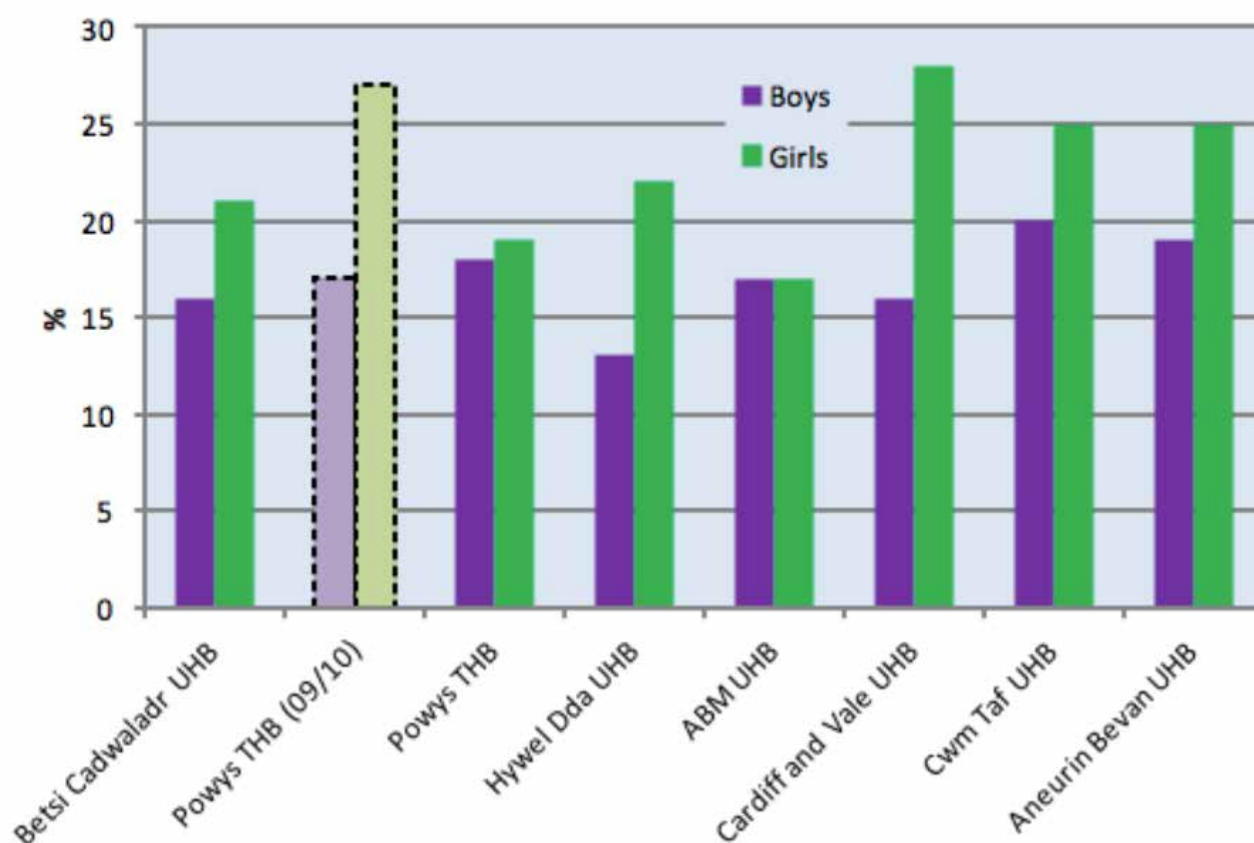


Figure 2.13: Percentage that have been bullied in the past two months, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14

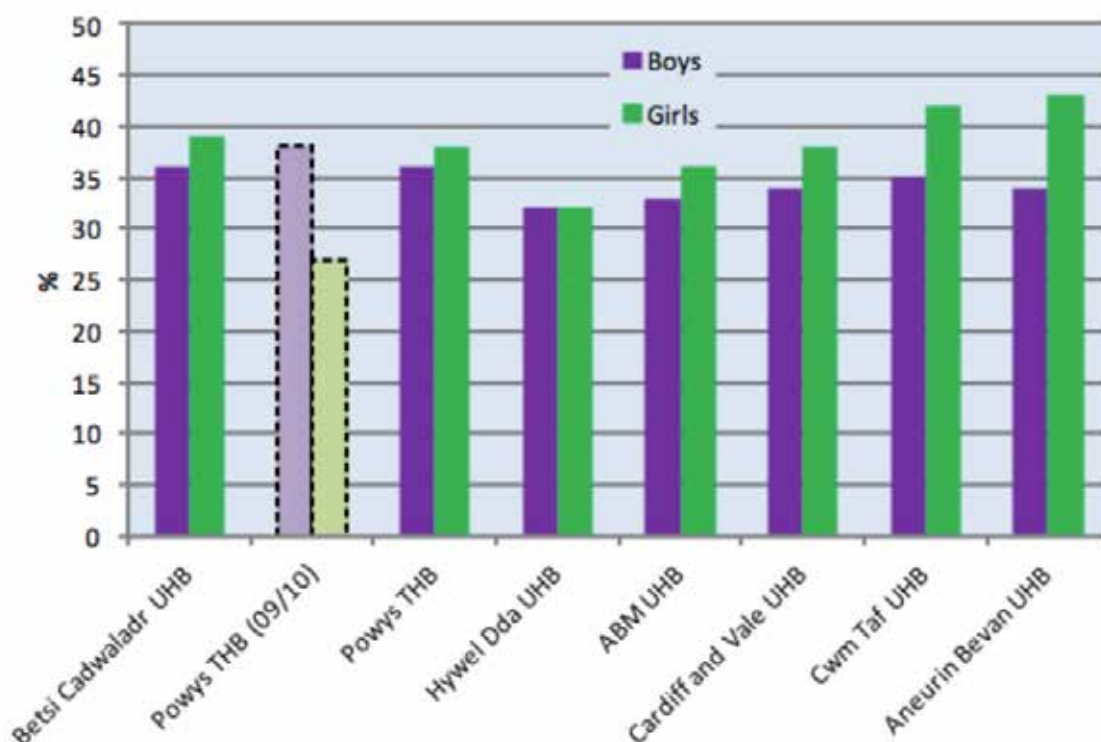
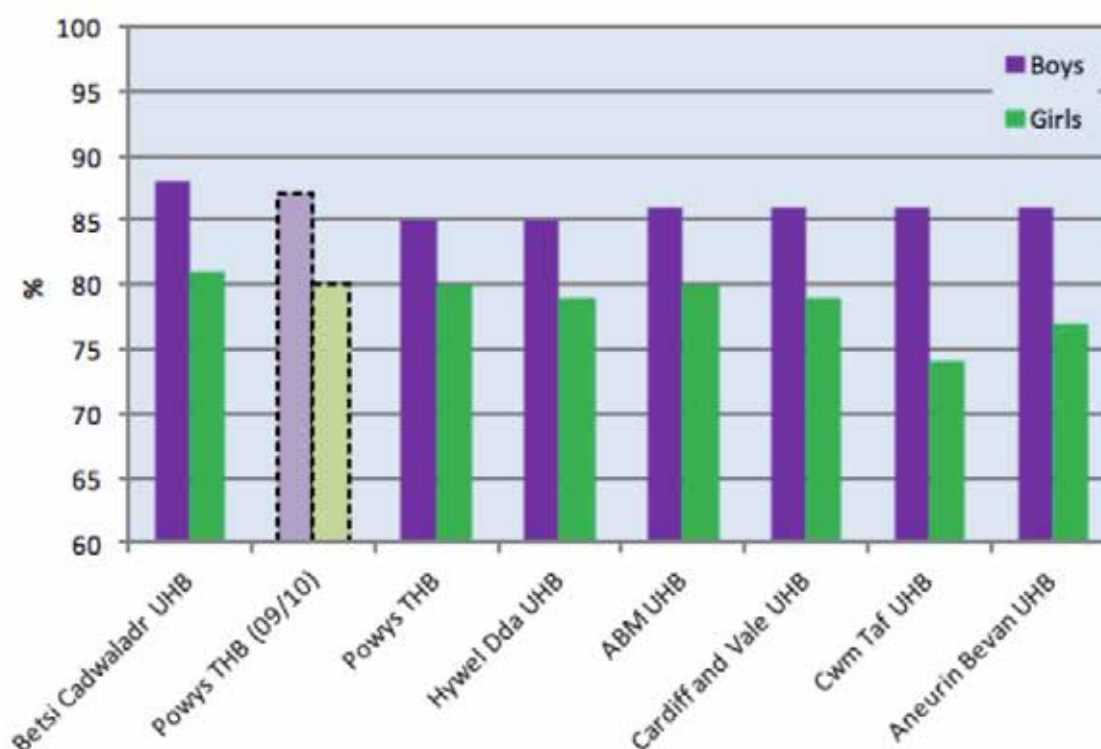


Figure 2.14: Percentage who reported high life satisfaction, boys & girls aged 11 to 16yrs, Wales health boards, 2013/14



Source: Public Health Wales Observatory

Further information:

Health Behaviour in School-aged Children (HBSC) Wales: key findings

<http://gov.wales/docs/caecd/research/2015/151022-health-behaviour-school-children-2013-14-key-findings-en.pdf>



3. Primary Care Clusters

Key Messages:

- Chapter 3 assesses a range of lifestyle/social, demographic and chronic disease indicators at practice level within Powys, including their relative local distribution.
- The approach also enables an “at a glance” comparison to the average Wales position.
- Based on the analysis presented, the indicators which demonstrate the most variation across Powys practices include rural isolation, deprivation, overcrowding and % care home residents.

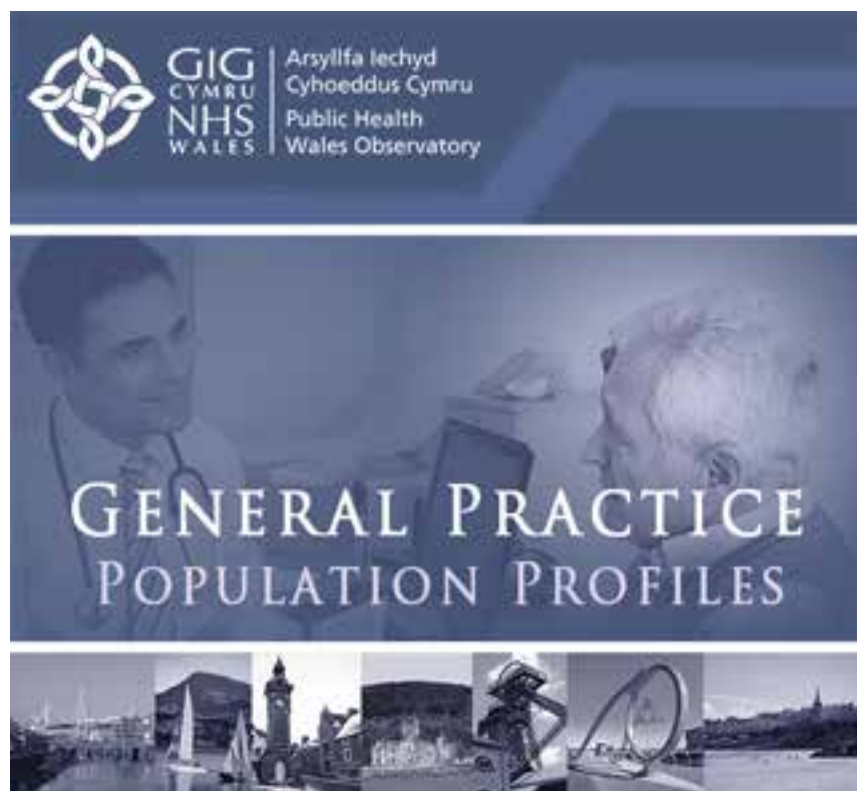


Introduction

- 3.0 Chapter 3 reports the findings of the Public Health Wales GP Practice Population Profiles. In most instances, the data has been analysed at practice and cluster level and is reported on a registered population basis where possible. For a number of indicators, the rates shown are derived solely from records taken from the Wales resident population. The technical note accompanying table 3.1 indicates where this is the case. The content of this chapter is primarily aimed at locality managers, practice managers, GPs and health board clinical leads.
- 3.1 The GP Practice Population Profiles contain information about the distribution of some behaviours and social factors which impact on health, as well as information about recorded chronic disease prevalence. The intelligence is a valuable tool for health board service planners and for public health staff involved in the planning and/or provision of primary preventive services. The content of Chapter 3 is based on the second edition of the PHW profiles tool.

General Practice Population Profiles

www.wales.nhs.uk/sitesplus/922/page/87851



- 3.2 Under the national Quality and Outcomes Framework, all general practices in Wales are required to produce practice development plans which will in turn inform GP Cluster development plans. The primary purpose of the GP Population Profile tool is that it supports practice and cluster development planning.
- 3.3 It is estimated that around 90 per cent of all NHS patient contacts occur in general practice. Therefore, a better understanding of general practice populations is of great use to a range of staff who are working to improve population health.
- 3.4 The GP population profiles encompass a population-based peer group approach, allowing practices to compare themselves with similar practices across Wales. The peer groups were determined by PHW following a statistical process which grouped practices depending on their list size, proportion of older people, deprivation and population in rural areas. Further details on how the peer groups

were derived can be found in the technical guide on the Public Health Wales Observatory intranet website.⁹ Peer group, i.e. outside Powys, comparisons are not discussed in this chapter, but can also be accessed via the Public Health Wales Observatory website.

- 3.5 The indicators are provided in three interactive Excel data files and are sourced from a number of data sources, including the Census, Welsh Health Survey, Welsh Demographic Service and practice chronic disease registers. The profile allows general practices to compare themselves with a range of reference values including cluster, health board and peer group averages. There is also the option to view data in a standardised or non-standardised format. A summary of some of the key findings from the GP population profile is presented in the rest of this chapter.

Findings

- 3.6 The profile is constructed around three main spreadsheets covering list size (demography); chronic conditions; and lifestyle and social factors. Data is displayed in different formats in each of the three worksheets, ranging from simple tables describing list size change, to spine charts of data with multiple comparators. This makes the data rather difficult to present in a complete, relatively succinct format for each individual practice. Therefore, to collate and summarise the data in a more straightforward way, the values contained in each of the three spreadsheets have been extracted and used to create the summary shown in Table 3.0. This allows the individual values for each indicator across the three spreadsheets to be presented in a single line, for each practice in Powys. This provides an “at a glance” summary to all the data available in the profile.

Table 3.0: General Practice Population Profiles 2013/14

		Lifestyle & Social Factors											Demography			Chronic Disease (2016 data)							
Cluster	GP practice	Mental health %	Rural isolation %	Welsh language %	Care home population %	Unemployment %	Overcrowding %	Older people living alone %	Smoking %	Alcohol %	Overweight or Obese %	Fruit & Veg Consumption %	Physical activity %	Deprivation %	%Pop change 2005-14	% Pop 65+ yrs	Asthma %	Hypertension %	CHD %	COPD %	Diabetes %	Epilepsy %	Heart Failure %
Mid	W96004	1.0	30.5	8.7	1.8	5.1	0.0	29.9	18.5	24.5	57.7	35.9	29.3	0.1	-12.3	27.2	7.5	18.8	4.3	2.4	6.5	0.7	1.1
	W96006	0.6	37.7	12.1	8.5	4.7	0.0	30.7	19.1	23.2	59.4	35.3	28.5	0.6	-3.5	30.1	5.0	18.5	4.9	3.1	8.1	1.1	2.2
	W96007	0.8	66.5	14.5	2.8	4.4	16.6	29.8	16.5	24.5	58.3	35.2	28.8	5.2	0.3	27.3	5.6	16.8	4.2	2.7	7.0	0.8	1.3
	W96013	1.2	44.9	11.9	3.3	7.2	0.1	32.0	19.6	24.3	59.3	34.1	28.9	21.5	0.7	26.6	7.2	17.4	4.7	2.7	8.1	1.1	1.5
	W96438	0.8	18.8	9.0	1.2	5.0	0.0	29.6	16.3	23.5	57.4	36.3	28.3	0.0	12.5	31.4	8.2	23.4	4.8	3.1	8.1	1.1	2.2
North	W96001	0.9	81.7	12.2	2.0	3.4	10.2	30.6	16.2	25.0	57.7	35.6	28.7	8.8	-4.6	27.1	7.4	15.9	4.7	1.7	7.2	0.8	1.1
	W96005	0.5	66.7	20.8	1.5	3.5	0.2	30.4	15.8	24.7	58.3	35.6	29.3	0.2	-3.6	26.2	5.9	15.4	4.1	1.5	7.3	0.8	1.1
	W96009	0.9	94.0	31.4	0.9	2.8	3.8	26.2	15.1	25.1	58.6	35.6	29.6	2.2	4.8	25.6	6.6	20.8	4.5	1.7	6.7	0.6	1.0
	W96010	0.8	43.8	13.4	6.6	4.6	42.7	35.5	20.8	25.7	57.8	33.8	29.3	25.3	4.4	21.9	8.6	12.9	3.6	2.0	6.7	0.9	0.8
	W96011	1.0	84.0	53.5	1.2	3.5	0.4	31.4	14.9	24.6	60.4	35.1	29.4	0.5	9.9	26.1	6.9	19.9	4.0	2.5	8.9	0.6	2.1
	W96012	0.6	99.6	27.3	3.1	3.1	0.1	28.8	16.0	25.0	58.7	35.3	29.6	0.0	7.9	24.4	6.2	16.9	4.3	2.2	6.4	0.6	2.1
	W96014	1.1	56.3	52.7	3.0	4.1	0.1	36.4	18.8	25.0	59.1	34.8	29.8	0.2	-7.7	24.0	7.6	18.8	4.3	3.6	8.3	0.7	2.1
	W96015	0.9	27.7	15.0	3.5	5.9	48.2	34.4	25.4	26.9	57.5	33.1	29.5	48.1	0.7	18.7	5.8	13.4	3.4	2.0	5.9	1.0	0.6
South	W96002	1.1	20.5	41.6	5.9	7.5	17.2	37.1	20.1	25.2	60.2	32.1	29.1	50.6	-1.1	22.1	7.7	20.0	4.5	3.6	8.9	0.8	1.4
	W96003	0.9	45.8	14.2	3.9	4.0	32.4	34.1	16.5	25.8	56.5	35.4	29.0	9.6	-0.7	22.8	6.5	18.5	3.5	2.3	7.3	0.6	1.1
	W96016	0.9	47.8	9.4	5.6	4.8	0.3	28.2	13.5	24.7	56.9	36.4	27.7	0.4	12.7	29.1	6.8	16.9	4.7	1.4	6.4	0.7	1.4
	W96017	1.3	60.1	9.9	2.7	3.3	20.3	31.8	16.3	25.0	57.6	36.1	29.1	0.0	5.3	26.3	6.8	18.6	3.8	1.9	6.1	0.8	1.6
	PTHB (%)	0.9	52.5	19.6	3.7	4.7	16.8	31.9	18.1	25.1	58.1	34.8	29.1	15.4	1.3	24.6	6.7	16.7	4.1	2.1	6.4	0.8	1.1
	Wales (%)	0.9	14.1	18.9	3.8	7.0	40.7	32.7	20.5	26.6	57.9	32.8	29.3	39.9	2.8	19.5	6.7	15.4	3.9	2.2	6.6	0.9	0.9

Powys relative fifth key

	Lowest 20%
	Next lowest 20%
	Middle 20%
	Next highest 20%
	Highest 20%

Technical notes:

1. For each indicator, the % value is based on the proportion within each practice population.
2. A number of indicators do not include information from patients resident outside Wales. These are: rural isolation, welsh language, care home population, unemployment, overcrowding, older people living alone, alcohol, overweight or obese, fruit and veg consumption, physical activity, deprivation, pop change, pop 65+years.

- 3.7 The lifestyle, social factors and demography figures are for Wales residents registered with Wales GP practices. Preliminary discussions with GP practices have revealed that the lifestyle and social factor indicators remain sensible estimates, despite England residents not being included in the analyses for some practices. Further information about the indicators used in the profile can be found in a technical guide published by Public Health Wales.⁹
- 3.8 In Table 3.0, the high to low values for each measure have been used to place practices into fifths or quintiles of distribution. This provides a quick reference guide as to where individual practices are distributed along the low to high continuum for each indicator. By considering the colour distribution, it is possible to more easily assess which practices occupy the higher or lower prevalence ranges. This helps to highlight patterns such as the relatively high prevalence of rural isolation in the North Powys cluster, the (almost) universally high levels of fruit and vegetable consumption in all practices and large changes in population dynamics in the Mid Powys cluster.
- 3.9 Other features of note in Table 3.0 can be seen by comparing the Powys and Wales values - some of the main areas of difference can be identified. The difference in the rate of rural isolation is perhaps the most striking comparison, with over half the Powys population classed as rurally isolated, compared to just 14% across Wales. Rurality is based on the percentage of patients in the GP practice who are resident in Wales and are living in a Lower Super Output Area (LSOA) area which is classified as rural by the Office of National Statistics (ONS).
- 3.10 The other measures where there is wide variation from the national average includes overcrowding and rates of deprivation, where rates are much higher in Wales; and the proportion of the population over 65yrs of age, which is much higher in Powys.
- 3.11 The General Practice Population Profile tool does not provide an overall assessment for each practice across the range of indicators included. This makes it difficult to get a sense of what the data is saying about how practices relate to each other. Some observations that are apparent are that practice W96011 in the North Cluster demonstrates relatively high levels of rural isolation, overweight and obesity, hypertension and diabetes. In the Mid Cluster, practice W96013 has relatively high rates of mental health issues, unemployment, and overweight and obesity. In the South Cluster, practice W96002 exhibits high rates of unemployment, older people living alone, smoking, overweight and obesity, deprivation and diabetes. The categorisation in Table 3.0 does not attempt to replicate or replace existing formulas for calculating need in general practice - it simply provides a basic guide to the average quintile distribution of practices.
- 3.12 Looking ahead, the Public Health Wales Observatory plans to update the chronic conditions data once the GP Population Profile has been made publicly available on the internet. All other data will remain the same; there are no current plans to alter the functionality of the tool.

Recommendation 3

The information and intelligence presented in Chapter 3 should be used to inform further primary care assessment and development in Powys.

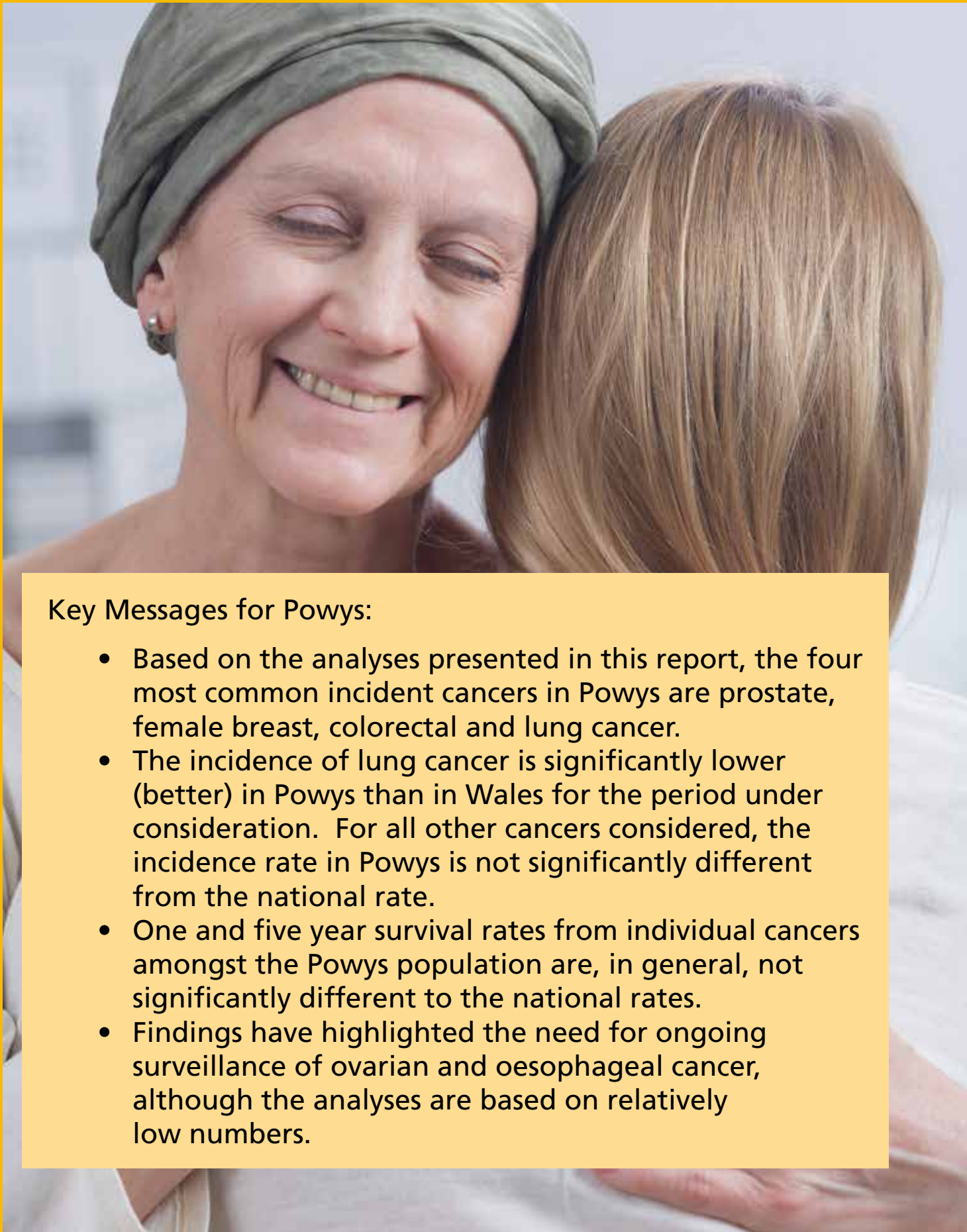
Further information:

Public Health Wales Observatory

www.wales.nhs.uk/sitesplus/922/home

4. Cancer Incidence, Mortality and Survival

www.wcisu.wales.nhs.uk/cancer-in-wales-1



Key Messages for Powys:

- Based on the analyses presented in this report, the four most common incident cancers in Powys are prostate, female breast, colorectal and lung cancer.
- The incidence of lung cancer is significantly lower (better) in Powys than in Wales for the period under consideration. For all other cancers considered, the incidence rate in Powys is not significantly different from the national rate.
- One and five year survival rates from individual cancers amongst the Powys population are, in general, not significantly different to the national rates.
- Findings have highlighted the need for ongoing surveillance of ovarian and oesophageal cancer, although the analyses are based on relatively low numbers.

Introduction

4.0 This chapter is based on national information published by the Wales Cancer Intelligence and Surveillance Unit (WCISU) in early 2016. The chapter provides information on cancer incidence (the number of new cancers), survival at one year and five years after diagnosis and all-age mortality. Information is available at the level of Powys Teaching Health Board (resident population basis), with comparisons against Wales as a whole, as well as historical trend analysis for the majority of cancers. Importantly, analyses include confidence intervals, allowing judgements to be made about the significance of differing values. The information contained in this chapter will be useful, for example, in informing the development of the local cancer plan.

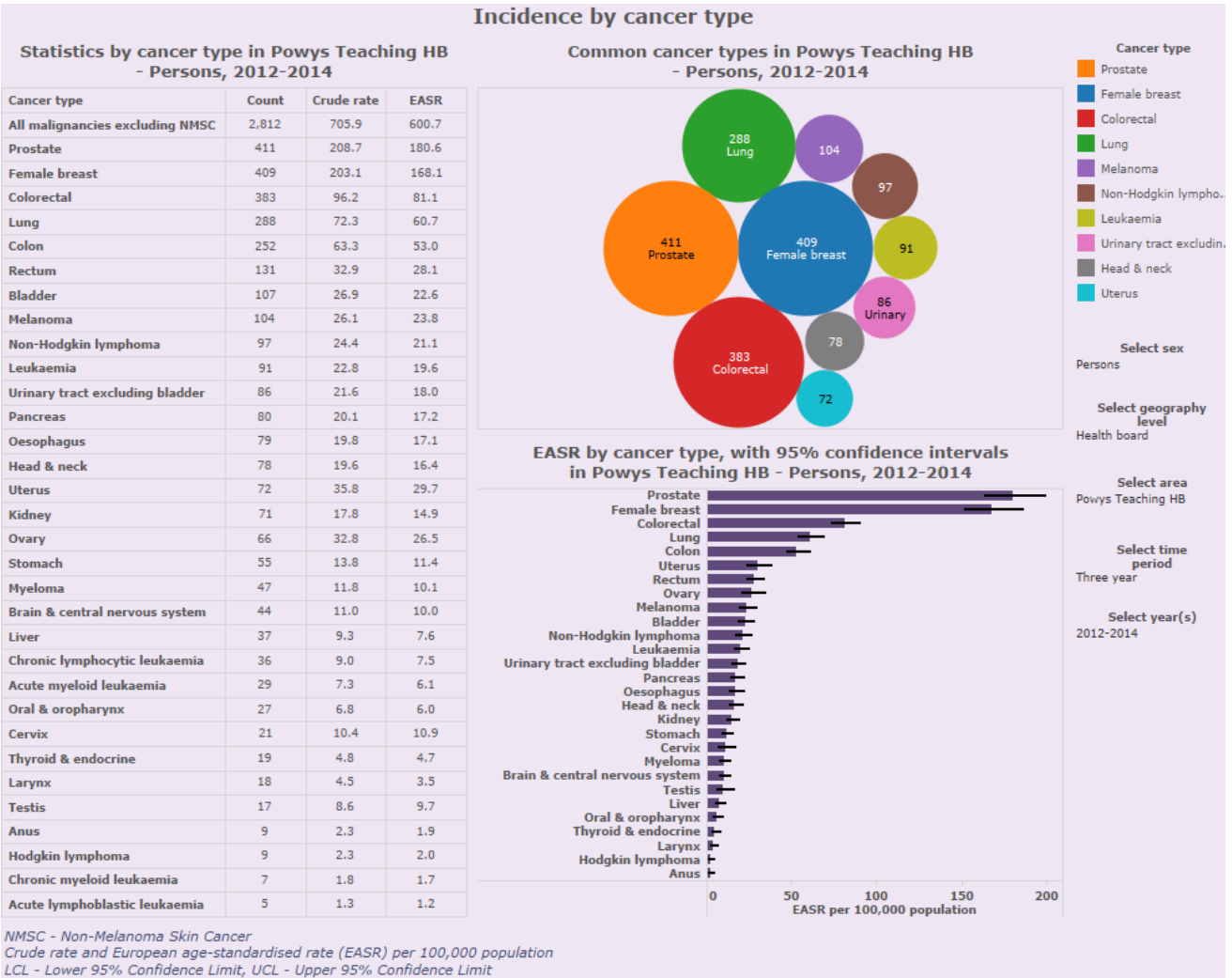
Recommendation 4

The PTHB Cancer Partnership Group should establish arrangements to ensure that it routinely considers all intelligence outputs from the Wales Cancer Intelligence and Surveillance Unit.

Cancer Incidence

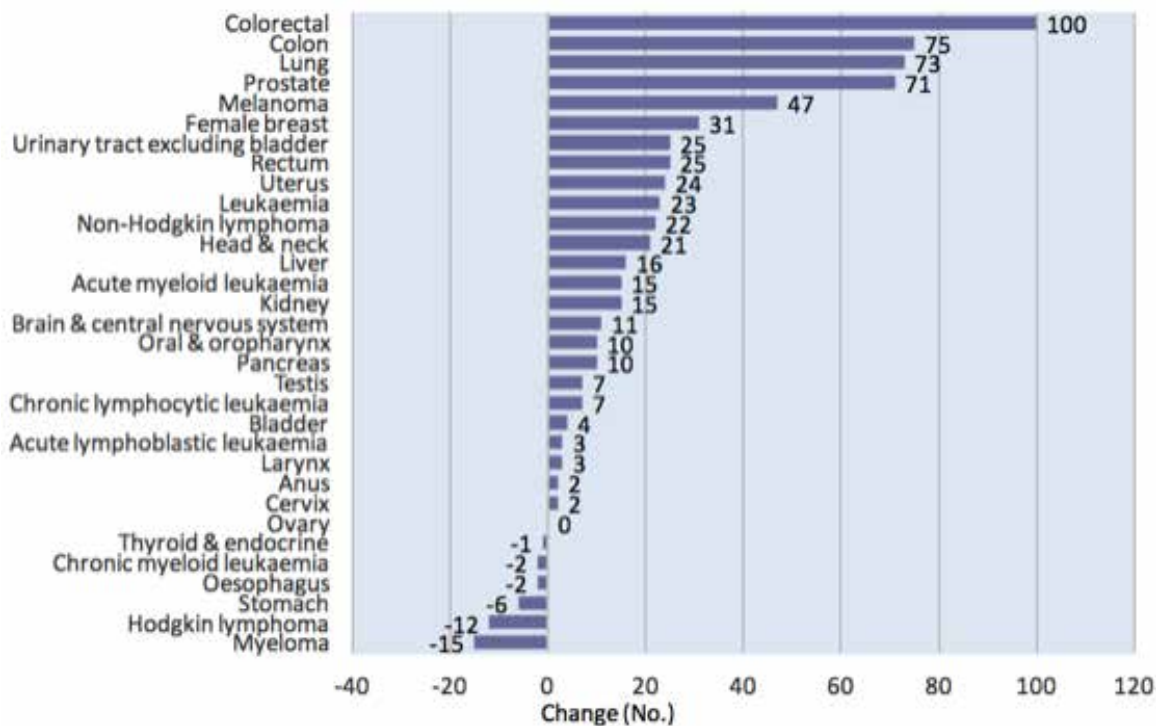
- 4.1 Cancer incidence is the number of new cases of primary cancer diagnosed in a specific population in a specific time period (it does not, for example, include secondary cancers or recurrences). Figure 4.0 (page 41) shows that four types of cancer make up most of the incident cancers in the Powys population: prostate, female breast, colorectal and lung cancers. Taken together, these four cancers accounted for 53% of the 2,812 new cancers diagnosed in Powys during 2012-14.
- 4.2 Figure 4.1 summarises changes in the number of new cases of cancer diagnosed in Powys between 2002-04 and 2012-14. The largest change was the increase in the number of new cases of colorectal cancer. There were an additional 100 new cases of colorectal cancer diagnosed in 2012-14 compared to 2002-04. However, the corresponding age-standardised rate in 2012-14 is not statistically significantly different to the 2002-04 Figure.

Figure 4.0: Cancer incidence 2012-14, PTHB



Source: Welsh Cancer Intelligence and Surveillance Unit

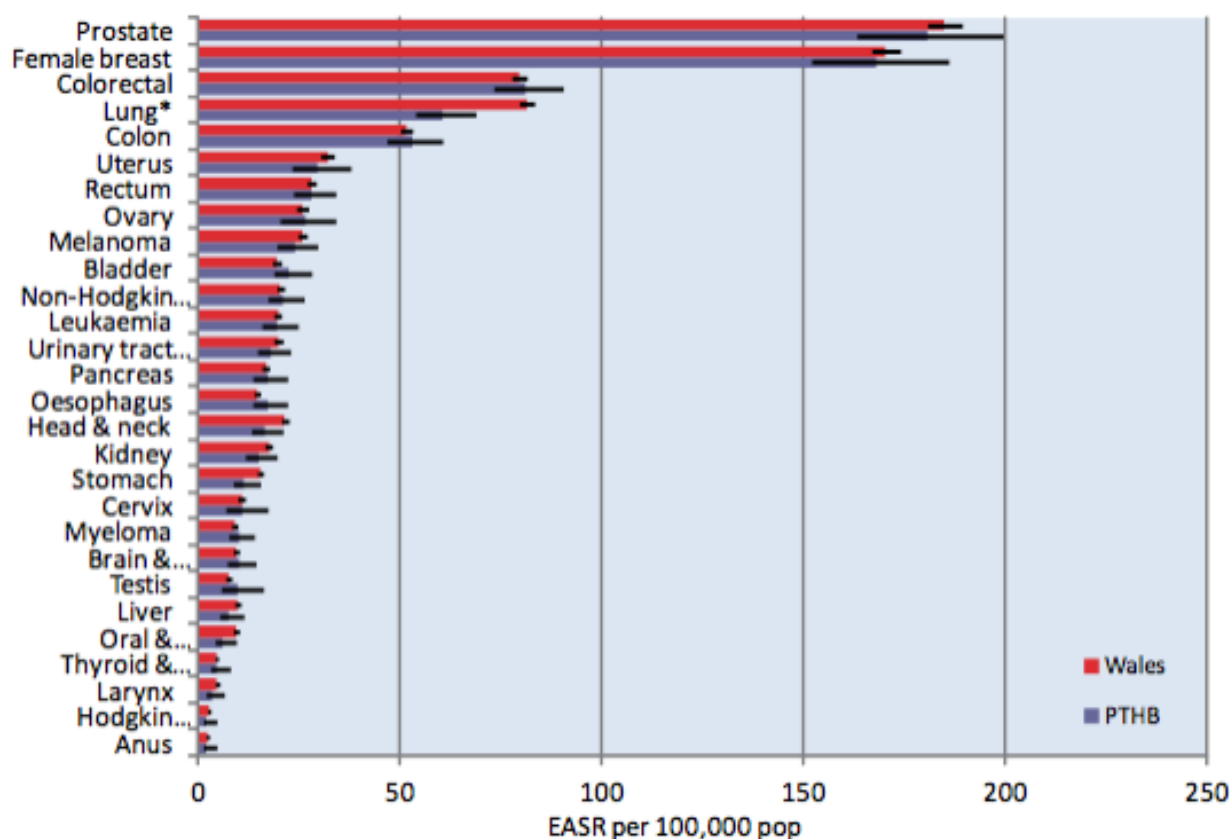
Figure 4.1: Change in the number of new cases of cancer 2002-04 to 2012-14, PTHB



Data sourced from the Welsh Cancer Intelligence and Surveillance Unit

- 4.3 Considering some of the most common cancers, there were also increases in the number of annual incident cases of cancer of the colon, lung and prostate, although again the age standardised rates were not significantly different between 2002-04 and 2012-14.
- 4.4 For all cancers apart from lung, the incidence rates in Powys are not significantly different to Wales. The incidence rate of lung cancer is statistically significantly lower in Powys than in Wales (Figure 4.2).

Figure 4.2: Cancer incidence 2012-14, PTHB and Wales



Data sourced from the Welsh Cancer Intelligence and Surveillance Unit

* = statistically significant

- 4.5 An apparently low incidence of a specific cancer could raise questions about the relative availability of diagnostic services. It is plausible that difficulty accessing diagnostic services might delay or prevent a diagnosis being made in some circumstances.
- 4.6 In the case of lung cancer in Powys, there is evidence to suggest that the difference between PTHB and Wales reflects a real difference in incidence. If a difference in an incidence rate was due to diagnostic delay (for example), this could reasonably be expected to adversely affect the outcome from that cancer, including survival and mortality. This is not the picture for lung cancer in Powys - one and five year survival rates are not significantly different from Wales (Figures 4.4 and 4.8) and mortality is significantly lower (better) (Figure 4.13).
- 4.7 Smoking is the single most significant preventable risk factor for lung cancer and is estimated to be responsible for around 85% of cases.¹⁰ The relatively low rate of lung cancer incidence in Powys should also be seen in the context of the relatively low rates of smoking prevalence in Powys, compared to other parts of Wales. All efforts to further reduce smoking prevalence in Powys should continue.

Cancer Survival

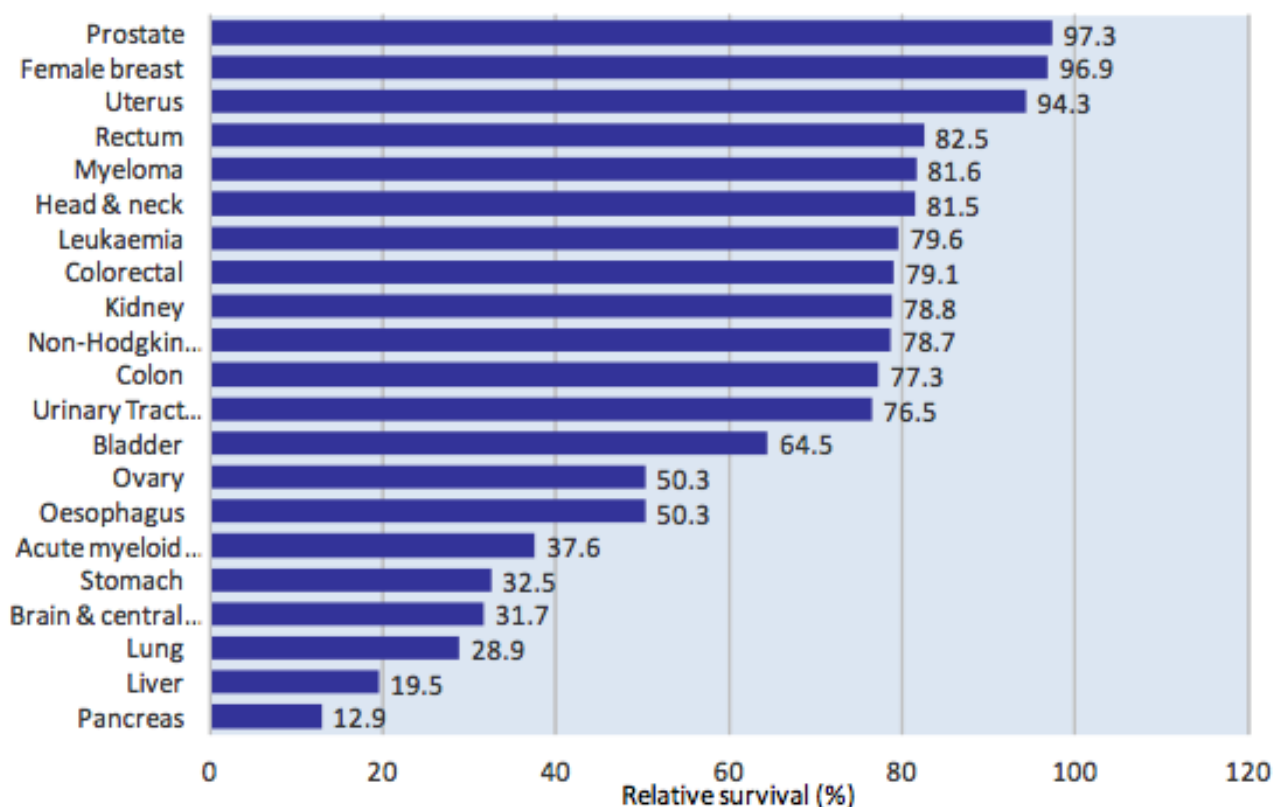
4.8 For most cancers, one and five year survival patterns in Powys are not significantly different to the national rate. Women tend to survive longer than men – although the gap is decreasing. However, it is important to recognise the wider picture. For example, Wales has one of the lowest five year survival rates from cancer in Europe. A study of over 20 million cancer patients found survival in Wales was poorer than every other country in Western Europe, with the exception of Scotland.¹¹ Five year survival from all cancers in Wales was 50%, compared to 65% in the best performing country.

One Year Survival

4.9 One year survival is influenced by a range of factors, including the stage of the cancer at presentation. Evidence suggests that general awareness of the signs and symptoms of cancer is related to age, sex, socioeconomic status and ethnicity (although patterns may be complex).¹² Survival rates are also related to specific tumour characteristics which influence, for example, the growth and spread of that cancer.

4.10 For Powys patients diagnosed between 2009-13, relative survival one year after diagnosis for individual cancers ranges from 97.3% for prostate cancer, to 12.9% for pancreatic cancer. One year relative survival for all major cancers is summarised in Figure 4.3 (some cancers were excluded from this analysis due to the effect of small numbers affecting rate reliability.)

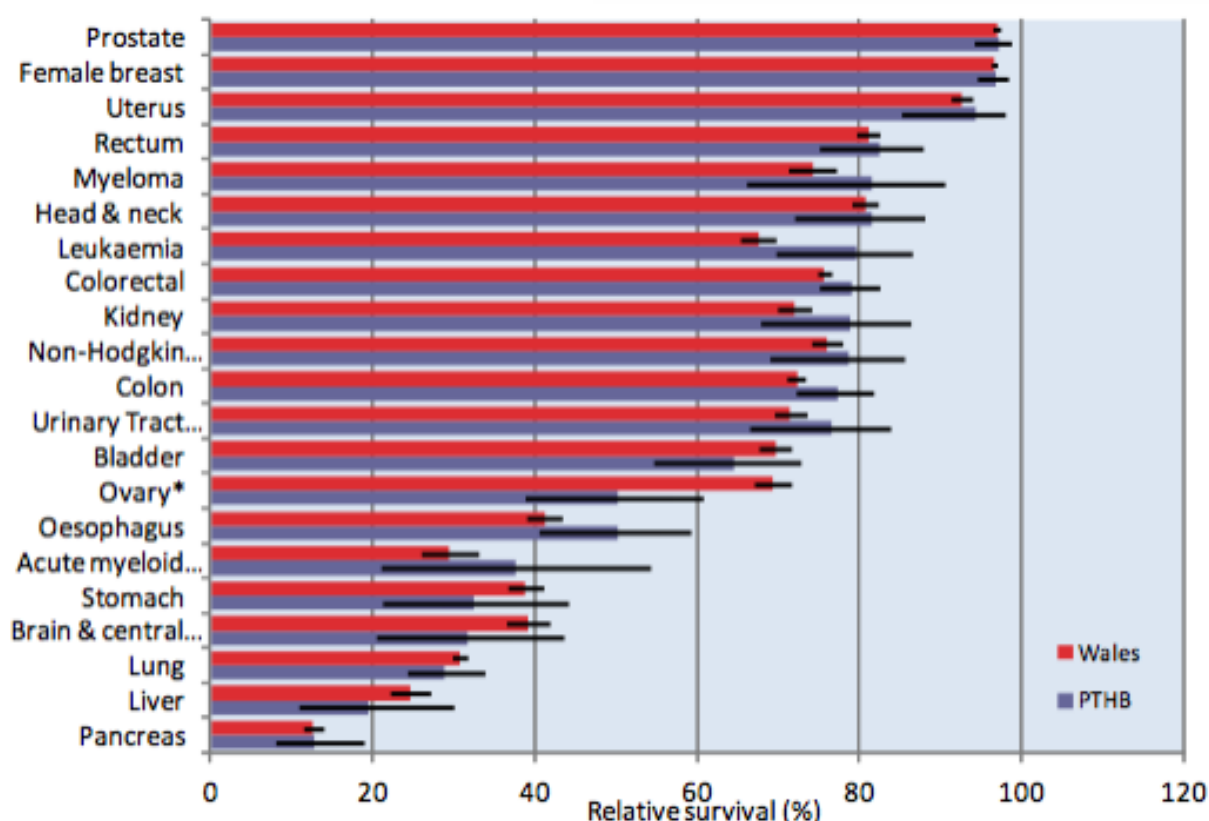
Figure 4.3: Cancer one-year survival (%) 2009-13, PTHB



Data source from the Welsh Cancer Intelligence and Surveillance Unit

- 4.11 To contextualise these figures, Figure 4.4 compares one year survival in Powys and Wales for cancers diagnosed during the period 2009-13.
- 4.12 There were no significant differences between PTHB and the rest of Wales in one year survival, apart from ovarian cancer. For ovarian cancer, the one year survival rate in Wales was 69.4% (95% CI 67.1% to 71.6%), compared to 50.3% (95% CI 38.7% to 60.8%) in Powys. Around 22 women are diagnosed with ovarian cancer in Powys each year, so this equates to about four fewer women being alive at one year in Powys than would have been the case if the Wales rate had applied locally. However, it should be noted that this estimate is based on very small numbers.

Figure 4.4: Cancer one year survival (%), 2009-13, PTHB and Wales

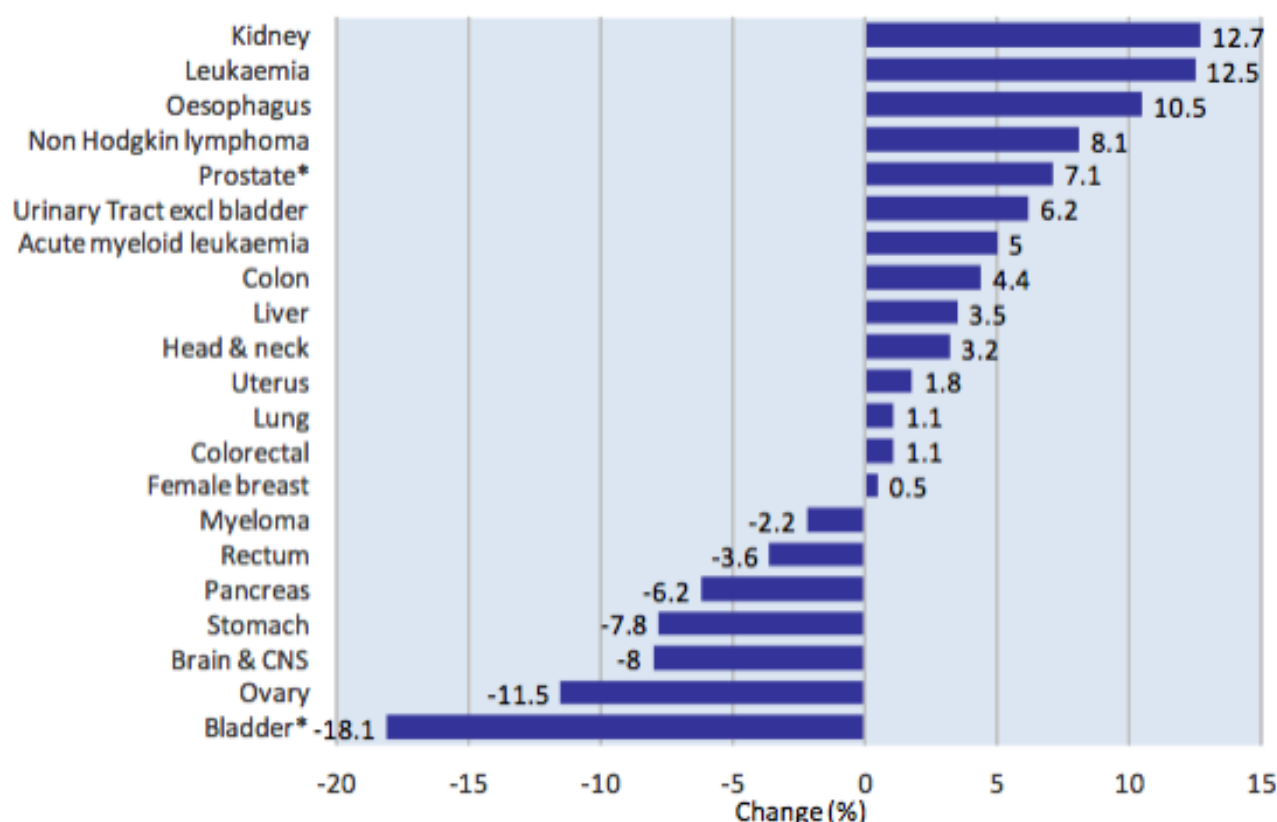


Data sourced from the Welsh Cancer Intelligence and Surveillance Unit

* = statistically significant

- 4.13 In general, survival is influenced by the stage of a cancer at the time of its diagnosis. However, ovarian cancer may be asymptomatic in its early stages or cause only relatively non-specific symptoms. 13 It is currently difficult to propose evidence-based recommendations for improving the early diagnosis of ovarian cancer at general population level and no screening test is currently available.
- 4.14 Longitudinal changes in cancer survival can be examined through the WCISU data. Figure 4.5 summarises the change in one year survival between cases diagnosed during 2004-08 and cases diagnosed during 2009-13, for a range of cancers.

Figure 4.5: Percentage change in cancer one year survival 2004-08 to 2009-13, PTHB



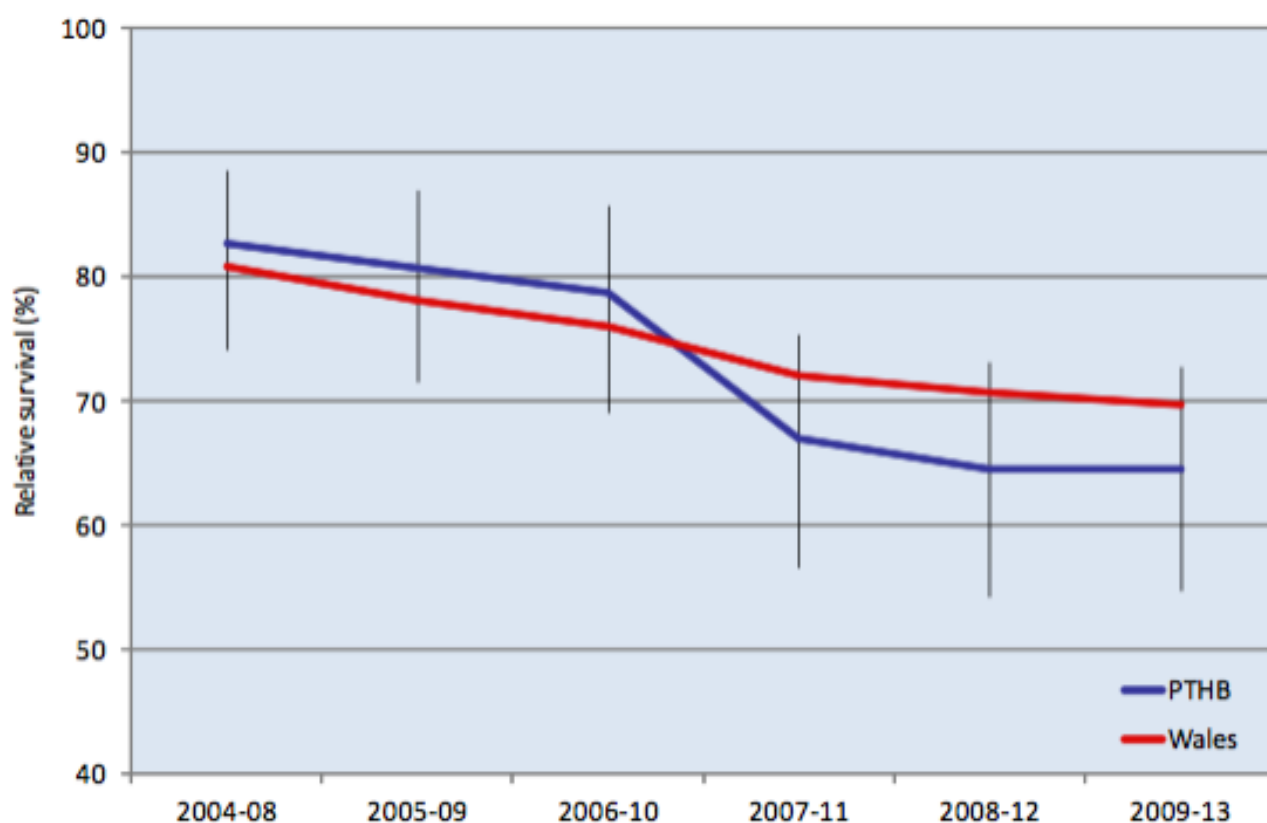
Data sourced from the Welsh Cancer Intelligence and Surveillance Unit

* = statistically significant

4.15 For most cancers, the change in one year survival during this period is not statistically significant. However, one year survival from prostate cancer improved significantly. For men diagnosed in 2009-13, 97.3% of patients (95% CI 94.1% to 98.8%) were alive at one year, compared to 90.2% (95% CI 86.3% to 93%) in 2004-08. Conversely, one year survival from bladder cancer apparently deteriorated significantly. Amongst people diagnosed between 2004-08, 82.6% (95% CI 74.1% to 88.5%) survived to one year; those diagnosed between 2009-13 had a one-year survival rate of 64.5% (95% CI 54.7% to 72.8%).

4.16 However, to provide further information in relation to one year survival from bladder cancer, Figure 4.6 compares trends in PTHB and Wales during 2004-08 to 2009-13 (five year rolling average basis). WCISU has provided assurance that the apparent deterioration in survival in PTHB (and Wales) is due to a national coding change which was implemented from 2007, which led to less invasive bladder cancers being removed from the classification. This has resulted in an apparent deterioration in survival from bladder cancer. There were no statistically significant differences between the one year survival rates in Powys and Wales for any of the time periods shown in Figure 4.6.

Figure 4.6: Bladder cancer one year survival 2004-08 to 2009-13, PTHB and Wales

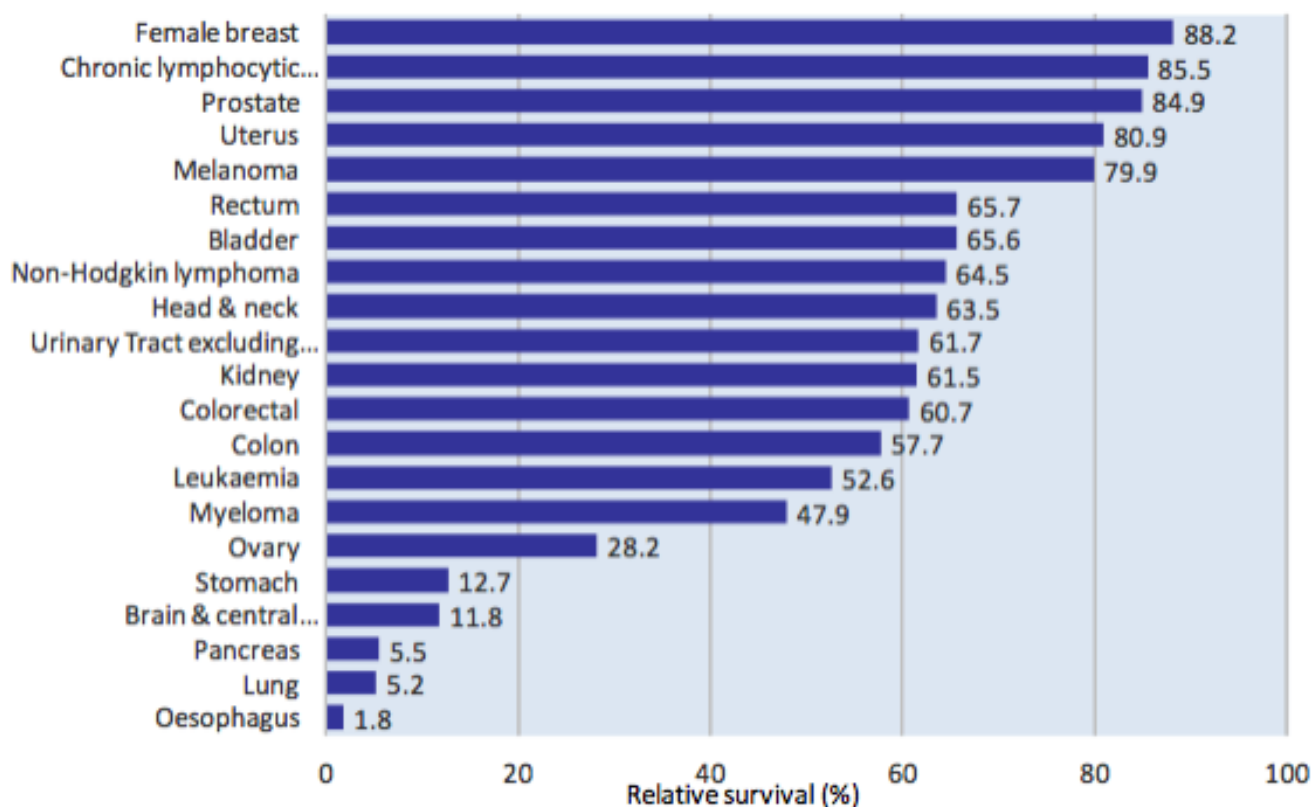


Data source from the Welsh Cancer Intelligence and Surveillance Unit

Five Year Survival

4.17 Some cancers are inherently less aggressive than others. Five year survival may also be determined by the primary cancer site, with generally poor five year survival rates for pancreatic, lung and oesophageal cancer; and relatively better survival rates for breast, prostate and uterine cancer (Figure 4.7). Nevertheless, five year survival is a useful analysis when comparing the same cancer over time, as effective clinical developments in (early) diagnosis and treatment should become evident through survival gain.

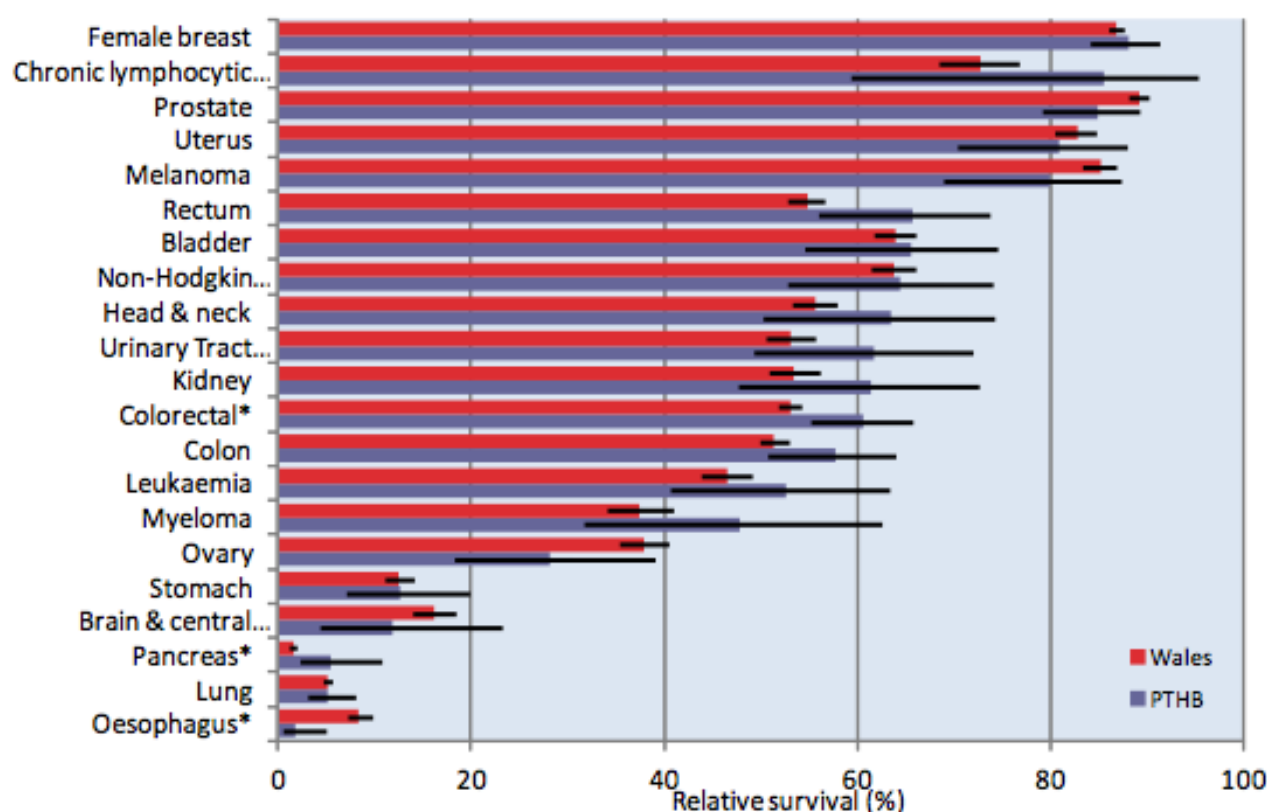
Figure 4.7: Cancer five year survival 2005-09, PTHB



Data sourced from the Welsh Cancer Intelligence and Surveillance Unit

- 4.18 When comparing five year survival rates from different cancers, it is important to recognise that some cancers are included in the national screening programmes provided by Public Health Wales - for example, breast and bowel cancer. Screening can detect cancers at an earlier stage, including before the patient is aware of any symptoms.
- 4.19 There are three cancers where five year survival rates in the Powys population differ significantly from Wales (Figure 4.8). These are colorectal, pancreatic and oesophageal cancer. For patients diagnosed during the period 2005-2009, five year survival from colorectal and pancreatic cancer was significantly higher in the Powys population; for oesophageal cancer, five year survival was significantly lower.

Figure 4.8: Cancer five year survival 2005-09, PTHB and Wales

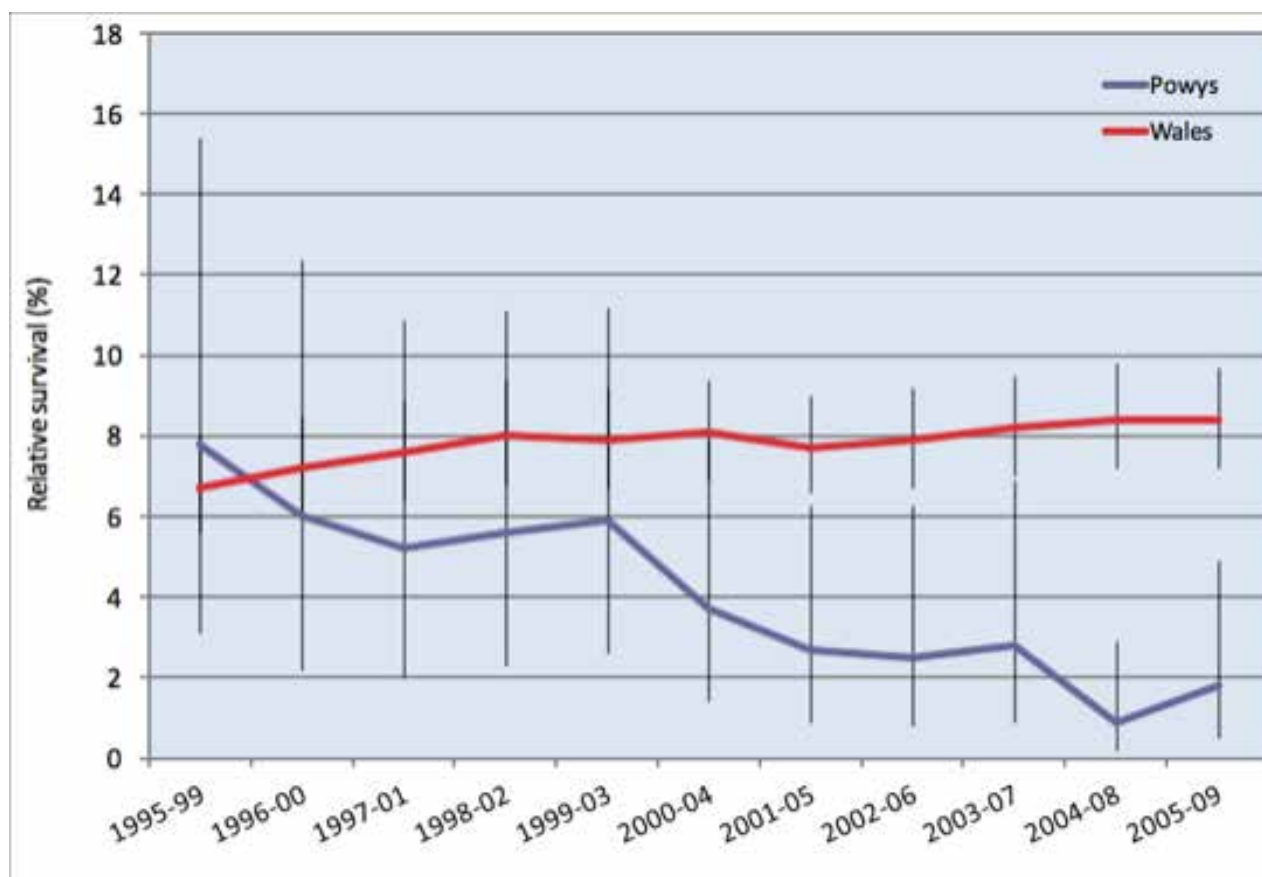


Data sourced from the Welsh Cancer Intelligence and Surveillance Unit

* = statistically significant

4.20 Caution is needed when interpreting the findings for pancreatic and oesophageal cancer due to the small numbers involved. This is especially the case with oesophageal cancer where survival appears lower in PTHB. Looking in more detail at the trend data for oesophageal cancer, it is apparent that five year survival only began to differ significantly from Wales amongst the Powys population from 2001-05 onwards (Figure 4.9). Prior to that, there was no significant difference between PTHB and Wales rates.

Figure 4.9: Oesophageal cancer five year survival 1995-99 to 2005-09, PTHB and Wales



Data sourced from the Welsh Cancer Intelligence and Surveillance Unit

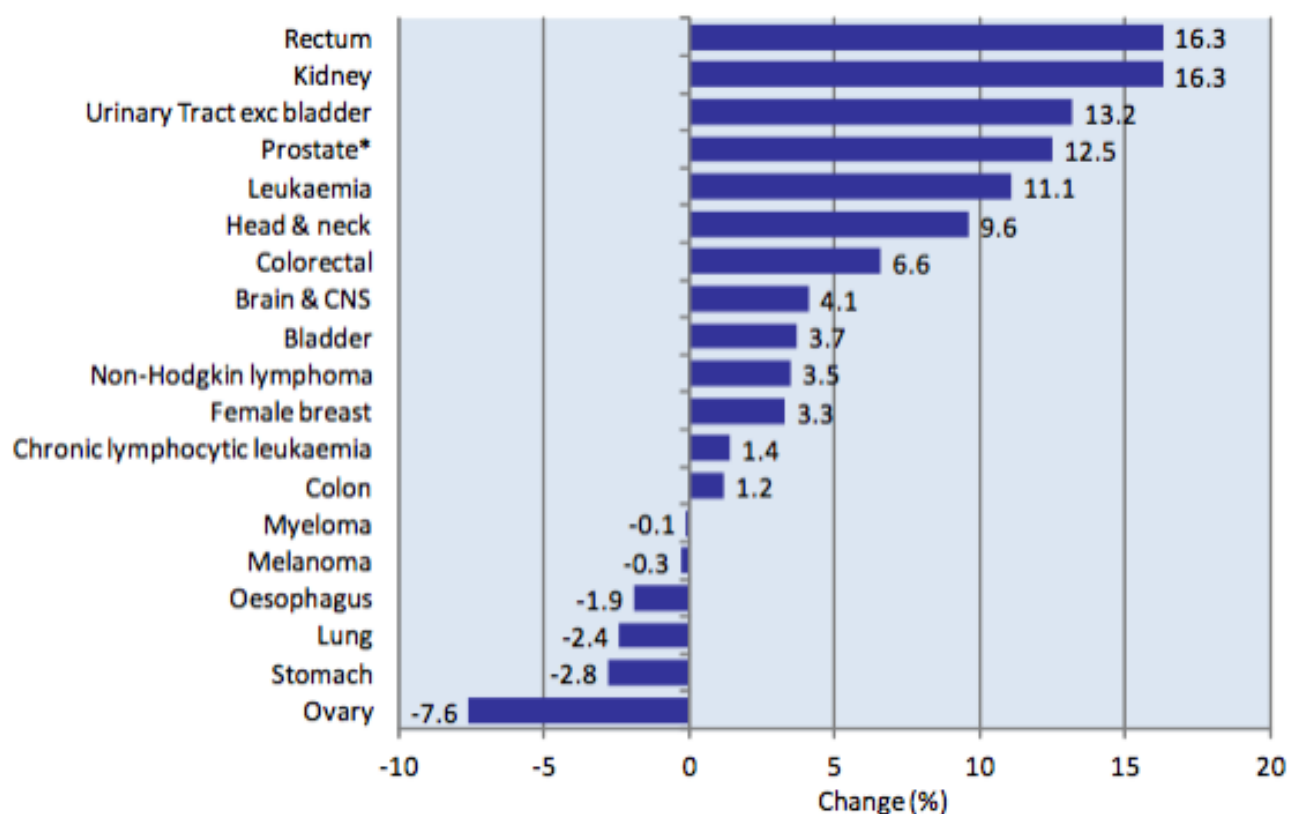
4.21 In considering the trend in PTHB, the Wales Cancer Intelligence and Surveillance Unit has made the point that the 2005 cohort in Powys is based on a relatively low number of incident (new) cases of oesophageal cancer, which also subsequently experienced a relatively high mortality. The likely effect of this is summarised in Figure 4.9, where there is a significant difference between PTHB and Wales survival rates for each interval which includes the 2005 cohort. In effect, the (unusual) 2005 cohort has had an enduring effect on the PTHB rate up to and including the most recent analysis. The next edition of the WCISU report will be published in Spring 2017 and will include 2006-10 data; this will be the first period where the 2005 cohort is not included in the analysis. The WCISU position is that this should align the PTHB and Wales rates.

Recommendation 5

The trend in five year survival for oesophageal cancer in Powys should be re-assessed by the PTHB Cancer Partnership Group as soon as the intelligence for the 2006-2010 cohort becomes available; further action should be agreed at that point.

4.22 Figure 4.10 summarises the trend in five year survival for a range of cancers, for PTHB patients diagnosed during 2000-2004, compared to patients diagnosed during 2005-2009.

Figure 4.10: Percentage change in five year survival for cancer 2000-04 to 2005-09, PTHB



Data sourced from the Welsh Cancer Intelligence and Surveillance Unit

** = statistically significant*

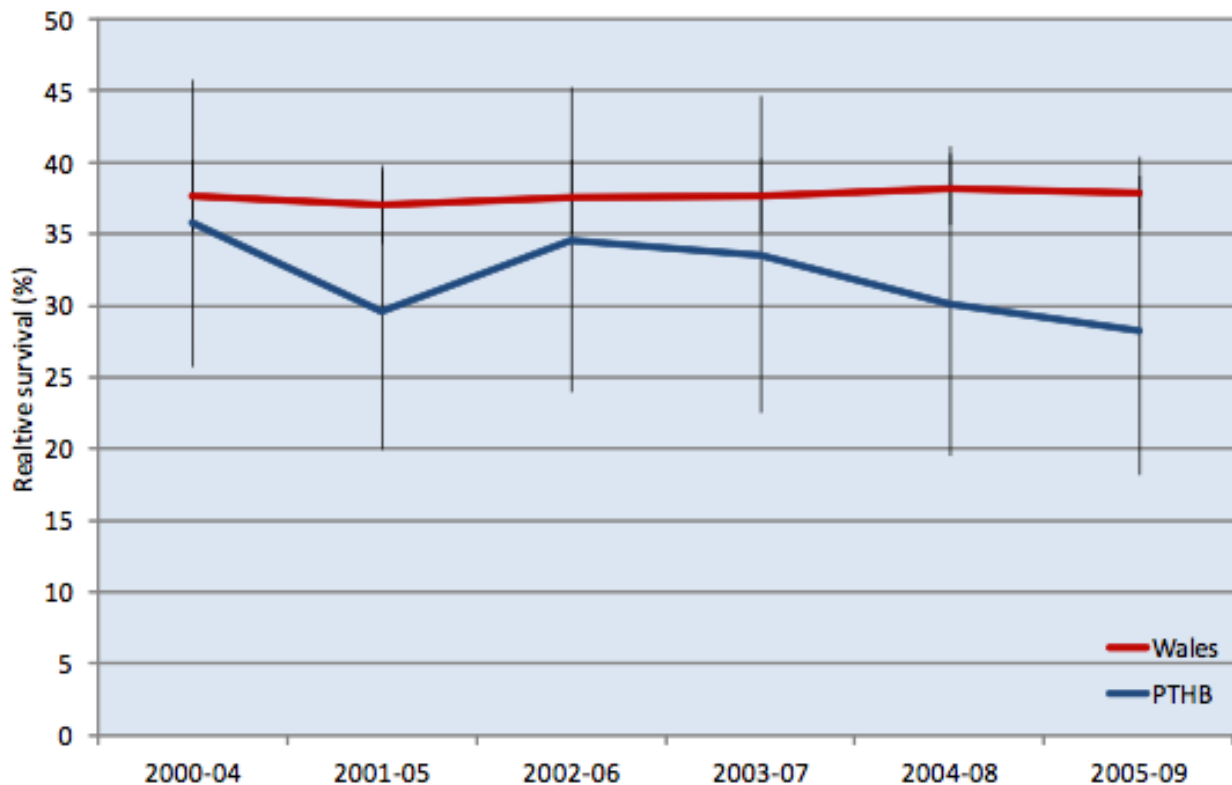
4.23 Five year survival improved for 13 cancers but deteriorated for six cancers.

However, prostate cancer was the only cancer where the change - an improvement - was statistically significant. For the other cancers considered in this analysis, the changes observed were not statistically significant. For ovarian cancer, further rolling average analysis (Figure 4.11) demonstrates that while five year survival in PTHB has not been significantly different to Wales, it has been deteriorating during the period in question, relative to a more stable national picture.

Recommendation 6

While recognising the impact of relatively low numbers on the analyses in this report, the PTHB Cancer Partnership Group should agree whether there is a case to complete a wider review of ovarian cancer pathways and outcomes in the local population.

Figure 4.11: Ovarian cancer five year survival 2000-04 to 2005-09, PTHB and Wales

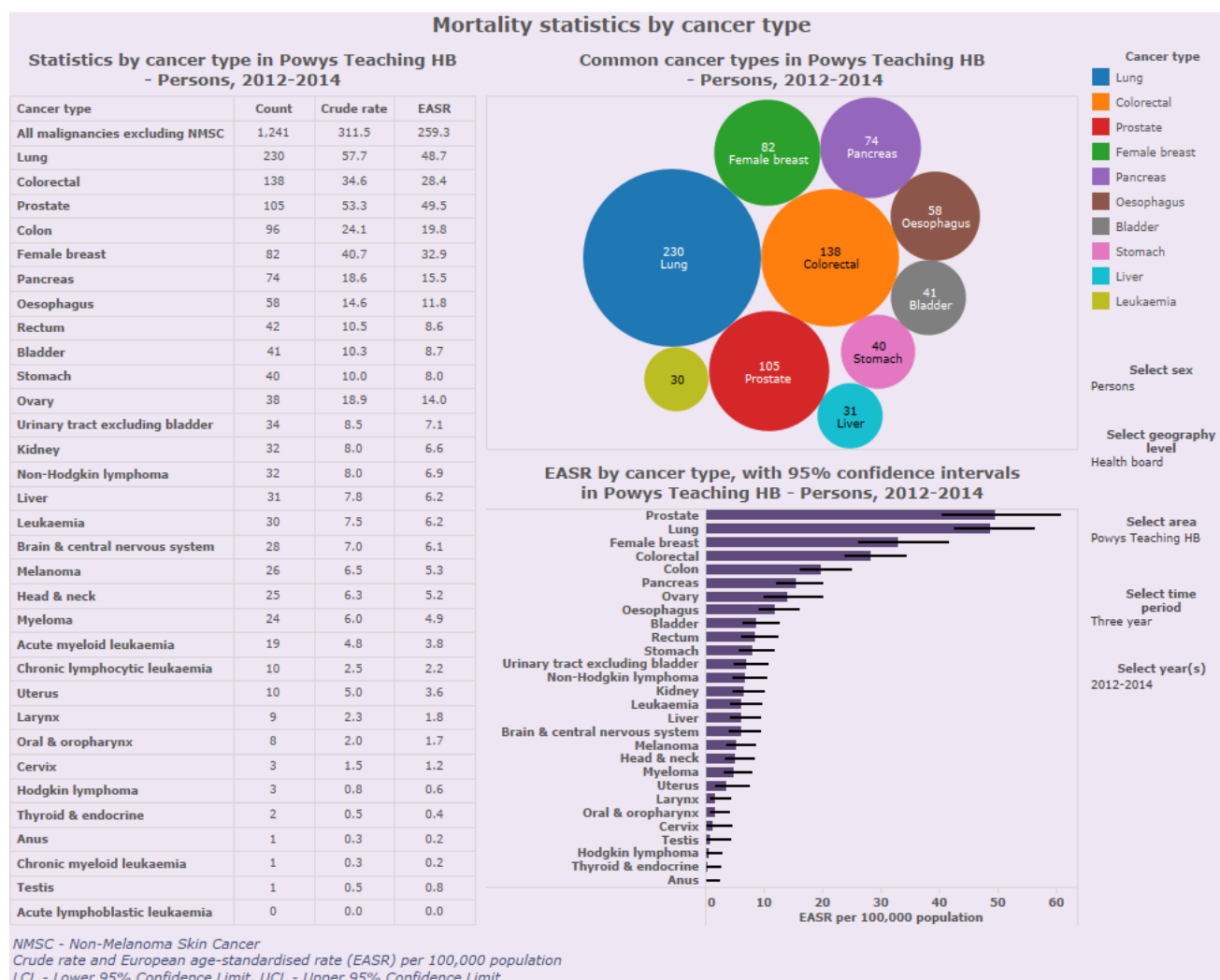


Data sourced from the Welsh Cancer Intelligence and Surveillance Unit

Cancer Mortality

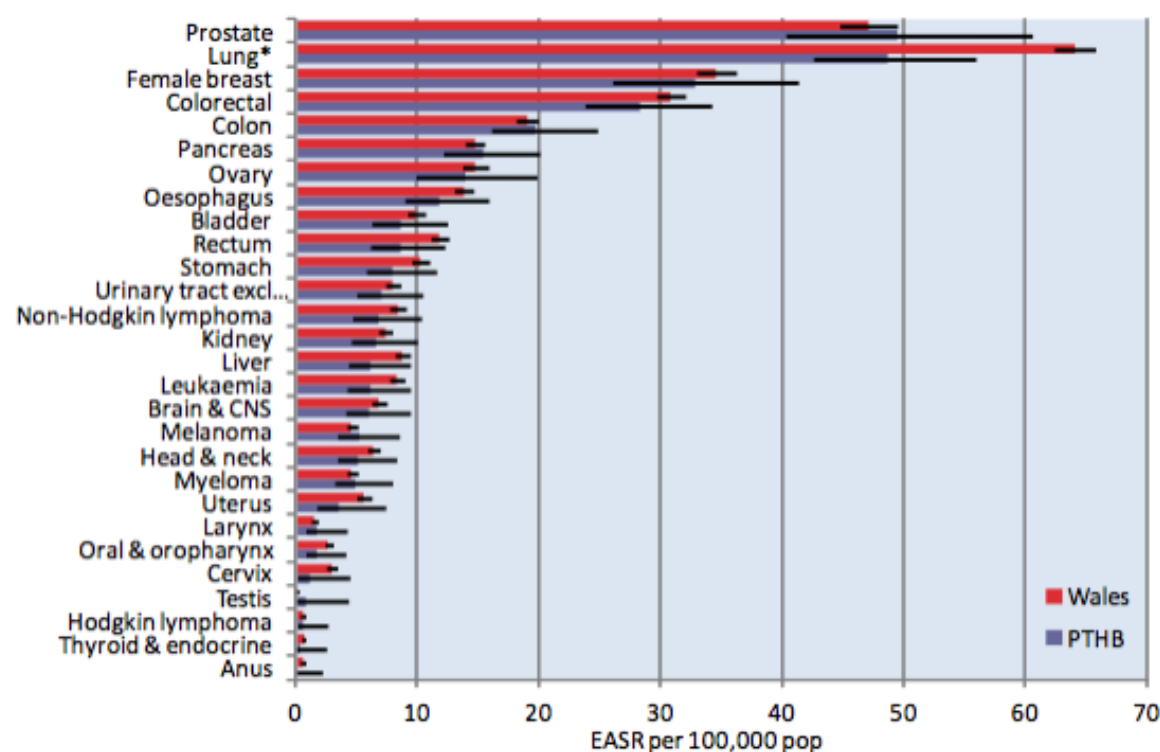
- 4.24 Figure 4.12 summarises the number of deaths and mortality rates from a range of cancers during the period 2012-14. The approach used for this analysis did not investigate premature mortality from cancer (that is, deaths under 75 years of age).
- 4.25 Figure 4.13 compares mortality rates in PTHB and Wales during 2012-2014. Mortality rates in PTHB and Wales are not statistically significantly different for any cancer, apart from lung cancer where the mortality rate in PTHB is significantly lower (better) than Wales. Excluding lung cancer, the overall pattern of cancer mortality in PTHB is similar to the pattern across Wales.
- 4.26 Considering trends over time in the PTHB population (2002-2014), there has not been any statistically significant change in the number of deaths for any cancer (Figure 4.14).

Figure 4.12: Cancer mortality 2012-14, PTHB



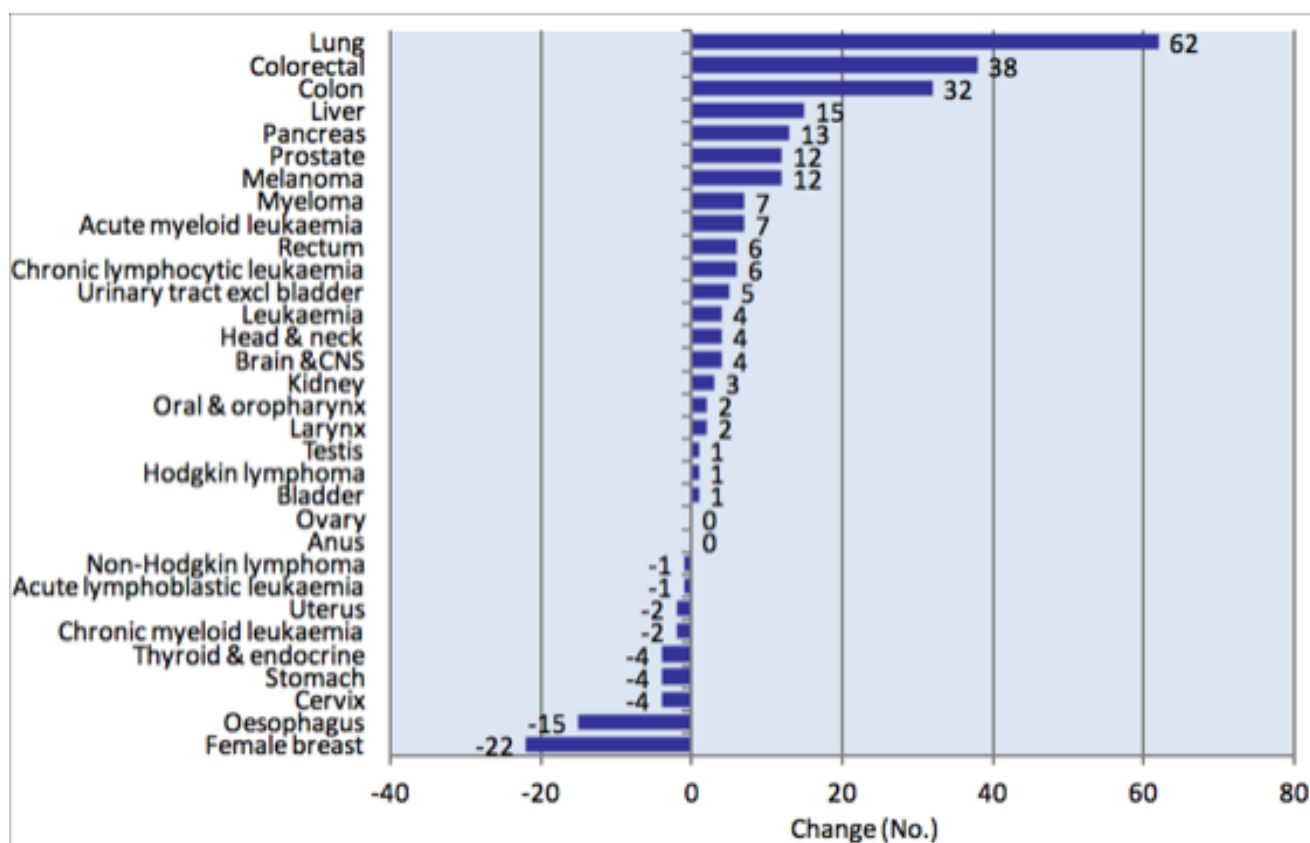
Source: Welsh Cancer Intelligence and Surveillance Unit

Figure 4.13: Cancer mortality 2012-14, PTHB and Wales



Data sourced from the Welsh Cancer Intelligence and Surveillance Unit

Figure 4.14: Change in number of deaths from cancer 2002-04 to 2012-14, PTHB



Data sourced from the Welsh Cancer Intelligence and Surveillance Unit

Further Information

Welsh Cancer Intelligence and Surveillance Unit

www.wcisu.wales.nhs.uk

Bowel Screening Wales

www.bowelscreening.wales.nhs.uk

Breast Test Wales

www.breasttestwales.wales.nhs.uk

4. Cancer Incidence, Mortality and Survival



Bronllys Hospital

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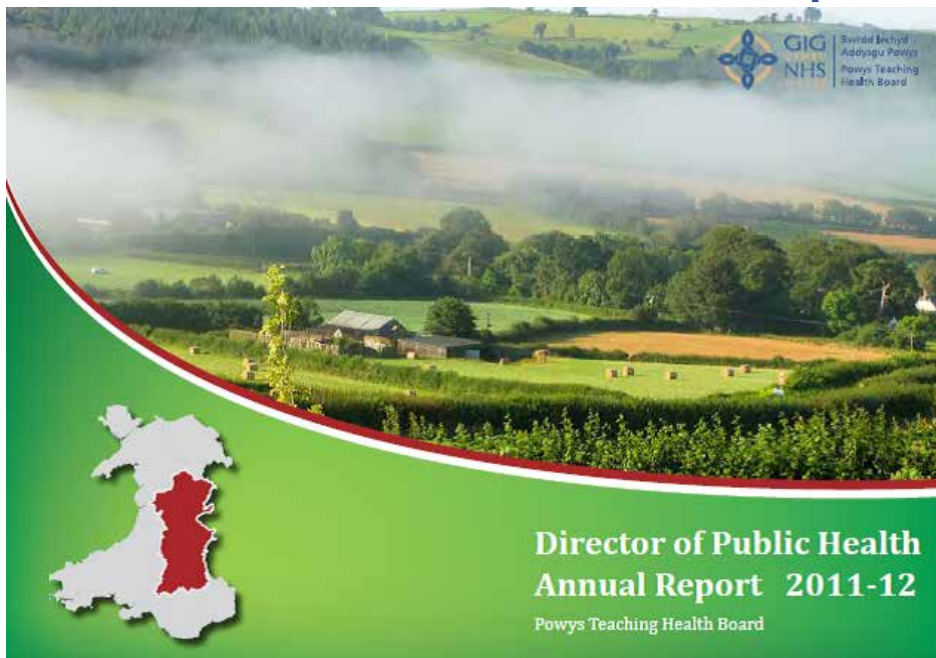
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Welshpool Hospital



Appendix - Index of past contents

Director of Public Health Annual Report 2011-12



Chapter 1: Ffion's story – Take One

Ffion's story - Take Two

Chapter 2: What affects our health?

Chapter 3: Specific health issues in Powys

Chapter 4: What affects Ffion's health as she journeys through life?

Part A: Supporting a healthy pregnancy

Part B: Preschool years – giving young children the best start

Part C: Primary school children – the foundation years

Part D: Secondary school children – freedom to grow, learn and enjoy a healthy life

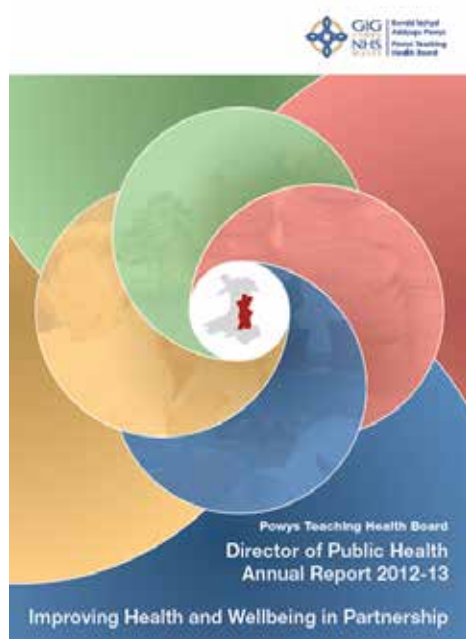
Part E: Working age adults – live healthy, happy, prosperous lives

Part F: Healthy and active ageing – the age of opportunity

Part G: The golden age – remaining happily independent

Chapter 5: Ffion's story retold: Can you change my life?

Director of Public Health Annual Report 2012-13



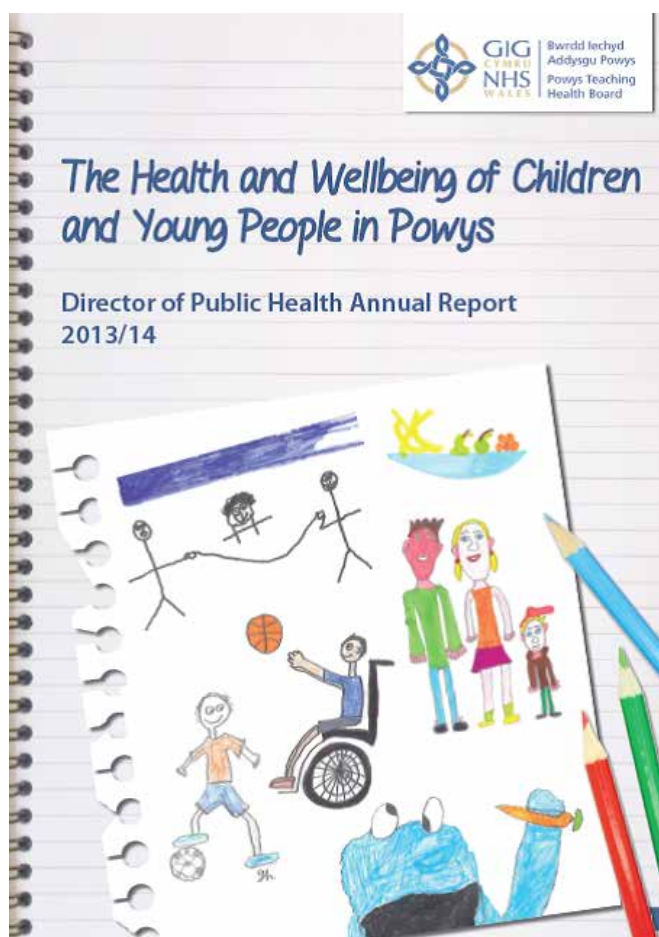
1. Health and wellbeing of individuals

- 1.1 Reducing the number of smokers in Powys
- 1.2 Promoting healthy weight through physical activity and healthy eating
- 1.3 Increasing vaccination rates to protect against infectious diseases
- 1.4 Reducing levels of harmful alcohol consumption
- 1.5 Improving mental health and emotional wellbeing
- 1.6 Improving sexual health
- 1.7 Reducing accident and injury rates
- 1.8 Long term conditions
- 1.9 Vulnerable children
- 1.10 Older people and the ageing population
- 1.11 Carers
- 1.12 Physical and sensory disabilities
- 1.13 Homelessness
- 2. Health and wellbeing of communities
- 2.1 Community cohesion
- 2.2 Social participation
- 2.3 Housing need, housing affordability and housing quality
- 2.4 Community safety
- 3. Economic wellbeing

3.1 Poverty and deprivation

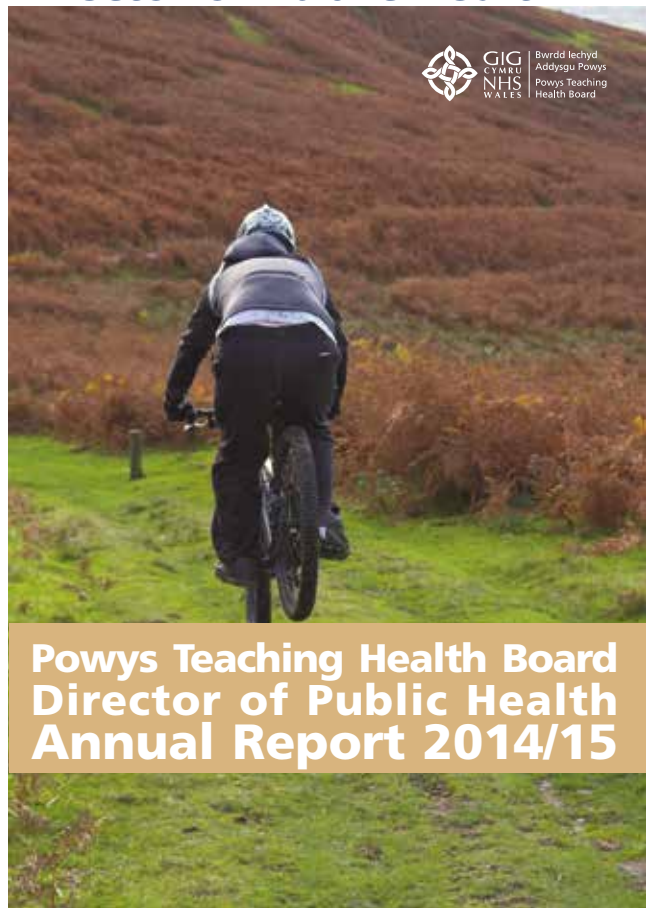
- 3.2 Educational attainment and pupil support
- 3.3 Employment and earnings
- 3.4 Transport
- 3.5 Internet and communications
- 4. Environmental wellbeing
- 4.1 Pollution
- 4.2 Energy consumptions and carbon emissions

Director of Public Health Annual Report 2013-14



1. Introduction
2. The Powys Context
3. Maternal and Infant Health
4. The Early Years
5. School Years
6. Young People (16 to 24 years)
7. Protecting Children from Harm
8. Listening to Children

Director of Public Health Annual Report 2014-15



Foreword

Acknowledgements

Recommendations

1. Introduction

2. Health in Powys

3. The Early Months

4. Disease Prevalence: Cardiovascular Disease

5. Secondary Care Activity

References

Appendix: Index of past contents

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Website: www.powysthb.wales.nhs.uk

Facebook: www.facebook.com/PTHB

Twitter: [@PTHBhealth](https://twitter.com/PTHBhealth)

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We welcome all comments and are happy to provide further information on request.

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