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Wales Observatory

NHS Expenditure & Health Tool



Respiratory system Cancers and tumours Healthy individuals
Musculoskeletal disorders Mental health Circulatory system

An interactive spreadsheet displaying the data in this report in an alternative manner is available at www.publichealthwalesobservatory.org/NEHT

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1 Introduction

If current trends persist, the NHS in Wales faces a future of continually increasing demand during a period of significant financial constraint. Within this context, it is critical to ensure NHS expenditure results in the best possible health outcomes, both clinically and at the population level.

*Together for Health*¹ called for a "...relentless quest for value for money and a hunger to improve outcomes..." (p12) , and urged that "...the NHS must use every penny even more carefully than now...". It is therefore timely to develop tools which explore NHS expenditure, NHS services and measures of health.

In England, a Spend and Outcome Tool (SPOT) was commissioned by the Department of Health from the Association of Public Health Observatories. The purpose of SPOT was stated as to help "...commissioners to link health outcomes and expenditure"². The English SPOT uses programme budgeting data adjusted for measures of need and market forces derived from the funding formula. It brings this together with a variety of related population health and care measures, though is heavily reliant on mortality data.

Whilst the population health indicators in the English SPOT are termed 'outcome measures', they are in most cases only indirectly related to the expenditure of the NHS; they may reflect need for healthcare as much as, or more than, the outcome of healthcare. The English SPOT uses a Z-score (or normal score) approach to the presentation of the spend and outcome data which is not meaningfully adaptable to the very small number of health boards in Wales.

This report is the product of an alternative approach which was piloted by the Public Health Wales Observatory in 2012. That pilot met with broad support from the Financial Information and Costing Group and public health colleagues. Taking a broader approach than the English SPOT; here NHS expenditure data are presented alongside a variety of measures including those pertaining to the determinants of health, preventative measures, prevalence, primary care management, secondary care and measures of health status, mortality and outcome.

The purpose of this product is to provide some public health context to the expenditure data. Whilst this may help explain some aspects of the variations in expenditure between health boards, it will not provide definitive solutions to NHS financial pressures. Nevertheless, it is hoped that this information can help start useful discussions and further exploration of how NHS money is spent within health boards.

1 Welsh Government (2011). *Together for Health: A 5-year vision for the NHS in Wales*. Available at: <http://wales.gov.uk/docs/dhss/publications/111101togetheren.pdf>

2 Public Health England (2013) PCT CCG Spend and Outcome Factsheets and Tool (SPOT). Available at: <http://www.yhpho.org.uk/default.aspx?RID=49488>

Reading the tables

On the following pages are tables of expenditure and other measures for six programme budget lines, the five largest in terms of total expenditure and one other that is pertinent to the work of Public Health Wales (Healthy Individuals).

Health Boards are ordered from the **lowest to the highest** based on crude per capita for each programme budget category.

English data are shown below the Wales data wherever possible.

Financial data rankings from low to high are shown below the actual values.

Health Board	Mental Health disorders				Determinants		Prevalence	Primary / com care
	Expenditure (rank: low to high)				Out of work benefit claimants, % working age adults	QOF mental health register, % of list size	Prescribing of antidepressants (includes English PCTs)	
	£ per capita	Per cent		on Primary Care				
	crude	age adjusted	of all spend					
Aneurin Bevan	192 (1)	195 (3)	11.1 (2)	13.8 (7)	18.2 16.6	0.82	2,281	
Betsi Cadwaladr University	197 (2)	192 (2)	11.1 (2)	12.3 (4)	13.6 12.7	0.78	1,652	
Hywel Dda	199 (3)	191 (1)	11.0 (1)	12.6 (5)	14.2 13.0	0.84	1,633	
WALES	210	210	11.9	12.7	16.0 14.7	0.84	n/a	
England	212	n/a	12.1	n/a	12.3 11.6	0.82	n/a	
Powys Teaching	211 (4)	198 (4)	11.5 (4)	12.3 (3)	10.7 10.0	0.86	1,464	
Abertawe Bro Morgannwg University	214 (5)	214 (5)	12.1 (5)	13.0 (6)	18.2 16.3	0.95	2,245	
Cardiff & Vale University	217 (6)	229 (6)	13.5 (6)	12.2 (2)	13.7 13.1	0.81	1,967	
Cwm Taf	267 (7)	274 (7)	14.0 (7)	12.1 (1)	21.8 19.9	0.85	2,442	
Period	2011/12				2009	2012	2011/12	2012/13
y-axis scale					0 to 28		0.7 to 1.1	0 to 2,500

Graphics with health boards in blue are highlighted if the health board rate is statistically significantly worse than the Wales rate.

Graphics with health boards in grey do not have any significance test performed upon them.

Further information on the measures is available here.

Some graphics are highlighted to indicate statistically significantly "worse" than Wales, or for vaccinations, below the target. Highlighting should be considered with the following in mind:

- Statistical significance does not necessarily mean clinical or practical significance.
- For some measures, especially those relating to QOF registers, a higher ("worse") level of recorded disease could be due to greater detection rates and in fact reflect better case identification and/or recording.
- The attribution of "worse" to trends has been based on the most recent period in the trend as that is the timeliest aspect of the trend. In most cases the trends presented here do not fluctuate around the Wales trend and those that are highlighted have been constantly above the Wales rate or have risen steadily to a point above the Wales trend by the final period.
- Health board values that are not significantly worse than Wales may still be of concern as the position of Wales itself may be of concern in an international context.
- Most of the measures presented are not adjusted for age or any other factors.

Where the health board rate is not statistically different to, or is "better" than, the Wales rate then no highlighting is applied.

2 NHS Expenditure and Health Tool

Expenditure data

Whilst the tables are ordered on the basis of actual expenditure per head of population, three additional financial data items are included in the tables. Brief explanations for each of the expenditure data items are given below.

Crude

This represents actual £'s per head of population spent on services within this programme budget and was taken directly from the published programme budgeting data.^{3,4} It is likely that some degree of local variation in coding practices exists within Wales, which could influence the figures as presented. At the national scale, and whilst the principles of programme budgeting are similar for Wales and England, the costing guidance is nation specific which may affect the comparability of the national level financial data.

Age adjusted

As the age of the health board's population will be an important factor in its expenditure, this is an experimental age adjusted spend per head of population. This adjustment uses age weightings from the English capitation formula⁵ and does not represent an official measure of age weighted expenditure but provides a starting point for future consideration.

Of all spend

The percentage of the health board's total expenditure on all programme budget categories that was spent on this programme budget category.

On primary care

The percentage of the health board's expenditure on this programme budget category that was spent within primary care.

Public Health measures

Details of the public health measures are given in section 3, following the tables in section 2.

3 Health Statistics and Analysis Unit, Welsh Government (2013). NHS expenditure by budget category and year. Available at: <https://stats.wales.gov.uk/Catalogue/Health-and-Social-Care/Health-Finance/NHS-Programme-Budget/NHSExpenditure-by-BudgetCategory-Year>

4 NHS Networks (2013). 2011-12 programme budgeting data for England. Available at: <http://www.networks.nhs.uk/nhs-networks/health-investment-network/news/2011-12-programme-budgeting-data-now-available>

5 Department of Health (2011). Resource Allocation: Weighted Capitation Formula Seventh Edition. Available at: <https://www.gov.uk/government/publications/resource-allocation-weighted-capitation-formula>

2.1 Mental health problems

2.1 Mental health problems					Determinants		Primary / community care			Secondary care		Health Status	
Health Board	Expenditure (rank: low to high)				Out of work benefit claimants, % working age adults	QOF mental health register, % of list size	Prescribing of antidepressants (includes English PCTs)	People with Dementia, % on QOF register	Emergency hospital admissions, any mention of self harm	In secondary care with care and treatment plan	% adults free from common mental health problems	% adults currently being treated for any mental illness	
	£ per capita		Per cent										
	crude	age adjusted	of all spend	on Primary Care									
Aneurin Bevan	192 (1)	195 (3)	11.1 (2)	13.8 (7)	18.2 16.6	0.82	2,281	40.9	260 254	579.1	71.5	11.8	
Betsi Cadwaladr University	197 (2)	192 (2)	11.1 (2)	12.3 (4)	13.6 12.7	0.78	1,652	34.2	254 179	624.8	77.8	9.4	
Hywel Dda	199 (3)	191 (1)	11.0 (1)	12.6 (5)	14.2 13.0	0.84	1,633	34.4	170 128	424.2	75.8	9.0	
WALES	210	210	11.9	12.7	16.0 14.7	0.84	n/a	38.5	217 188	562.6	74.5	10.7	
England	212	n/a	12.1	n/a	12.3 11.6	0.82	n/a	44.2	n/a n/a	n/a	n/a	n/a	
Powys Teaching	211 (4)	198 (4)	11.5 (4)	12.3 (3)	10.7 10.0	0.86	1,464	38.1	144 106	n/a	79.8	7.7	
Abertawe Bro Morgannwg University	214 (5)	214 (5)	12.1 (5)	13.0 (6)	18.2 16.3	0.95	2,245	42.8	218 160	662.1	73.6	11.8	
Cardiff & Vale University	217 (6)	229 (6)	13.5 (6)	12.2 (2)	13.7 13.1	0.81	1,967	44.4	203 262	607.7	74.6	10.4	
Cwm Taf	267 (7)	274 (7)	14.0 (7)	12.1 (1)	21.8 19.9	0.85	2,442	38.8	154 122	569.0	70.0	13.5	

Period 2011/12

y-axis scale

2009 2012

0 to 28

2011/12

0.7 to 1.1

2012/13

0 to 2,500

2011-12

25 to 55

2001/03 2009/11

0 to 340

2012/13

400 to 800

2009/10

65 to 90

2010/11

5 to 18

2.2 Circulation problems

Health Board	Expenditure <small>(rank: low to high)</small>				Life-style	Prevention	Prevalence	Primary care	Secondary care	Outcome
	£ per capita		Per cent		Current smoker status, adults	% of smokers treated by Stop Smoking Wales	QOF CHD register, % of list size	Prescribing of low cost lipid modifying drugs (includes English PCTs)	Elective hospital admissions, any mention of revascularisation	Mortality from circulatory disease, under 75
	crude	age adjusted	of all spend	on Primary Care						
Cardiff & Vale University	104 <small>(1)</small>	110 <small>(1)</small>	6.5 <small>(1)</small>	35.1 <small>(7)</small>	21.2	0.6	3.0	92.8	46.6 30.6	118 67
Aneurin Bevan	135 <small>(2)</small>	137 <small>(2)</small>	7.8 <small>(2)</small>	33.9 <small>(6)</small>	23.8	1.1	4.1	94.7	48.3 40.0	159 97
WALES	148	148	8.4	30.6	22.8	1.3	4.0	n/a	64.3 48.9	148 94
England	131	n/a	7.5	n/a	n/a	n/a	3.4	n/a	n/a n/a	119 75
Abertawe Bro Morgannwg University	151 <small>(3)</small>	151 <small>(4)</small>	8.6 <small>(4)</small>	31.0 <small>(3)</small>	23.3	2.3	4.2	94.8	61.0 51.0	151 102
Cwm Taf	155 <small>(4)</small>	159 <small>(5)</small>	8.1 <small>(3)</small>	32.3 <small>(4)</small>	26.3	1.1	4.1	93.6	69.0 39.9	176 111
Hywel Dda	158 <small>(5)</small>	151 <small>(3)</small>	8.7 <small>(5)</small>	32.9 <small>(5)</small>	22.1	1.5	4.3	93.7	58.4 50.0	153 98
Betsi Cadwaladr University	172 <small>(6)</small>	168 <small>(6)</small>	9.7 <small>(6)</small>	25.0 <small>(1)</small>	22.4	1.1	4.2	94.1	94.9 64.2	140 98
Powys Teaching	183 <small>(7)</small>	172 <small>(7)</small>	10.0 <small>(7)</small>	29.0 <small>(2)</small>	19.9	1.3	4.2	90.3	52.9 73.9	146 82

Period 2011/12

y-axis scale

2010-11

2011/12

2011/12

2012/13

2001-11

2001-11

15 to 35

0 to 3

3 to 5

0 to 100

0 to 150

0 to 250

2.3 Cancers & tumours

Health Board	Expenditure <small>(rank: low to high)</small>				Lifestyle	Prevention	Incidence	Secondary care	Outcomes	Health Status	
	£ per capita		Per cent		Current smoker status, adults	Adults meeting healthy eating guidelines	HPV vaccination uptake (target 90%)	Cancer incidence, all malignancies excl NMSC	% of new diagnoses via urgent suspected cancer route starting treatment within 62 days	Survival rates, all persons, all malignancies excl NMSC	Mortality rates, all persons, all malignancies excl NMSC
	crude	age adjusted	of all spend	on Primary Care							
Cardiff & Vale University	86 <small>(1)</small>	91 <small>(1)</small>	5.4 <small>(1)</small>	13.5 <small>(7)</small>	21.2	33.6	83.5	449 496	90.1 90.0	60.4 70.1	251 240
Aneurin Bevan	103 <small>(2)</small>	105 <small>(2)</small>	6.0 <small>(2)</small>	9.0 <small>(3)</small>	23.8	30.6	86.3	467 567	97.2 93.2	57.7 67.6	276 273
WALES	116	116	6.6	9.5	22.8	33.9	86.6	513 580	91.9 85.7	59.5 68.6	288 284
England	105	n/a	6.0	n/a	n/a	n/a	n/a	439 485	n/a 86.2	n/a n/a	n/a 248
Abertawe Bro Morgannwg University	122 <small>(3)</small>	122 <small>(3)</small>	6.9 <small>(4)</small>	7.7 <small>(1)</small>	23.3	32.6	88.2	542 578	95.2 76.0	60.8 67.6	295 286
Cwm Taf	124 <small>(4)</small>	127 <small>(6)</small>	6.5 <small>(3)</small>	9.5 <small>(4)</small>	26.3	30.1	92.0	496 559	78.5 86.5	54.9 65.5	295 287
Hywel Dda	130 <small>(5)</small>	125 <small>(5)</small>	7.2 <small>(5)</small>	10.2 <small>(5)</small>	22.1	38.5	85.5	555 602	95.8 81.0	61.8 69.0	300 298
Betsi Cadwaladr University	131 <small>(6)</small>	127 <small>(7)</small>	7.3 <small>(7)</small>	8.4 <small>(2)</small>	22.4	35.7	87.7	551 635	91.6 88.6	59.4 69.8	307 310
Powys Teaching	131 <small>(7)</small>	123 <small>(4)</small>	7.2 <small>(5)</small>	11.8 <small>(6)</small>	19.9	39.9	82.4	538 635	n/a	61.5 72.0	290 291

Period 2011/12 2010-11 2010-11 2011-12 1995-99 to 2005-09 2009-12 1995-99 to 2005-09 1995-99 to 2005-09

y-axis scale 15 to 35 25 to 50 75 to 100 0 to 900 0 to 100 0 to 100 0 to 450

----- Wales target

2.4 Musculoskeletal (excl. Trauma)					Life-style	Preven-tion	Preval-ence	Primary care	Secondary care							
Health Board	Expenditure (rank: low to high)				% of adults who are overweight or obese	% of adults meeting physical activity guidelines	% of adults currently treated for arthritis	Prescribing of NSAIDs (includes English PCTs)	Elective hospital admissions per 100,000, hip replacement		Elective hospital admissions per 100,000, knee replacement		Elective hospital admissions per 100,000, hip replacement revision		Elective hospital admissions per 100,000, knee replacement revision	
	£ per capita		Per cent													
	crude	age adjusted	of all spend	on Primary Care												
Cardiff & Vale University	97 (1)	103 (2)	6.1 (3)	10.6 (5)	51.8	27.1	10.5	1,246	66.7	71.7	82.9	130.6	3.9	10.3	2.4	9.6
Cwm Taf	103 (2)	106 (3)	5.4 (1)	15.1 (7)	63.3	27.0	16.7	1,183	59.9	82.7	70.7	120.4	4.7	6.8	2.5	6.8
Powys Teaching	109 (3)	102 (1)	6.0 (2)	14.0 (6)	56.1	37.1	11.3	1,157	125.4	172.2	91.1	184.7	11.0	10.5	3.9	6.5
Aneurin Bevan	113 (4)	115 (4)	6.5 (4)	10.2 (4)	60.1	28.6	14.1	1,171	65.8	85.4	74.9	129.0	4.7	8.9	3.4	8.6
WALES	116	116	6.6	10.4	57.3	29.6	12.9	n/a	82.4	99.2	80.8	144.2	6.5	9.1	3.6	8.6
England	98	n/a	5.6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Abertawe Bro Morgannwg University	122 (5)	123 (6)	7.0 (5)	9.8 (3)	58.9	28.1	13.5	1,206	89.0	66.0	95.2	152.0	7.6	6.2	3.2	7.8
Betsi Cadwaladr University	125 (6)	121 (5)	7.0 (5)	9.3 (2)	55.5	31.5	11.9	1,146	92.3	118.2	72.2	145.3	6.8	8.5	3.9	6.7
Hywel Dda	132 (7)	126 (7)	7.3 (7)	9.0 (1)	56.8	31.8	12.4	1,122	101.7	144.0	87.7	166.6	10.1	13.6	6.0	12.9

Period 2011/12
 y-axis scale 2010-11 2010-11 2010-11 2012/13 2001-11 2001-11 2001-11 2001-11
 45 to 75 10 to 50 5 to 25 0 to 2000 0 to 300 0 to 300 0 to 30 0 to 20

2.5 Respiratory problems

Health Board	Expenditure (rank: low to high)				Life-style	Prevention	Prevalence	Prim'ry care	Secondary care	Outcome	Health Status
	£ per capita		Per cent								
	crude	age adjusted	of all spend	on Primary Care							
Cardiff & Vale University	98 (1)	104 (2)	6.1 (2)	37.2 (6)	21.2	0.6	1.5	93.2	201 204	16.5 15.5	13.5
Hywel Dda	106 (2)	102 (1)	5.9 (1)	36.1 (5)	22.1	1.5	2.0	93.2	239 210	19.7 17.8	14.1
Aneurin Bevan	115 (3)	116 (5)	6.6 (5)	36.0 (4)	23.8	1.1	2.1	93.4	356 330	22.3 18.6	14.2
Abertawe Bro Morgannwg University	115 (4)	115 (4)	6.5 (4)	34.8 (3)	23.3	2.3	2.1	92.0	319 268	19.0 18.7	14.0
WALES	116	116	6.6	34.0	22.8	1.3	2.1	93.2	314 276	20.1 18.2	13.8
England	84	n/a	4.8	n/a	n/a	n/a	1.7	93.1	n/a n/a	16.3 14.0	n/a
Powys Teaching	117 (5)	110 (3)	6.4 (3)	31.8 (2)	19.9	1.3	2.1	93.7	290 192	17.7 14.0	14.3
Betsi Cadwaladr University	125 (6)	122 (6)	7.0 (6)	28.2 (1)	22.4	1.1	2.4	93.1	323 300	18.9 19.1	13.1
Cwm Taf	139 (7)	143 (7)	7.3 (7)	37.3 (7)	26.3	1.1	2.6	94.4	474 365	27.7 21.7	14.7

Period 2011/12 2010-11 2011/12 2011/12 2011/12 2011/12 2001-11 2001-11 2010-11
y-axis scale 15 to 35 0 to 3 1 to 3.5 90 to 98 0 to 650 0 to 50 10 to 20

2.6 Healthy individuals

Health Board	Expenditure <small>(rank: low to high)</small>				Determinants Population in most deprived fifth (%)	Prevention <small>(----- Wales target)</small>				Prevalence Adults reporting general health as fair or poor	Screening Bowel cancer screening uptake (% eligible pop.)	Outcomes				
	£ per capita		Per cent			Sched. vaccs. uptake at age 4 (Target 95%)	Influenza vaccination uptake, aged 65+ (Target 75%)		Influenza vaccination uptake, aged under 65 at risk (Target 75%)			Healthy life expectancy		Disability-free life expectancy		
	crude	age adjusted	of all spend	on Primary Care			M	F	M			F				
Betsi Cadwaladr University	36 (1)	35 (1)	2.0 (1)	12.0 (4)	11.9	85.1	66.0	70.0	26.9	52.1	17.9	54.1	65.7	67.9	60.9	63.0
Abertawe Bro Morgannwg University	43 (2)	43 (2)	2.4 (2)	14.2 (6)	26.6	82.6	59.1	65.4	22.5	45.2	21.0	57.0	61.7	64.5	57.6	59.5
Cardiff & Vale University	45 (3)	47 (3)	2.8 (5)	14.8 (7)	22.1	79.2	65.1	69.3	24.3	51.5	18.7	51.3	64.2	66.3	60.1	62.5
Aneurin Bevan	47 (4)	48 (5)	2.7 (3)	14.0 (5)	22.9	80.9	61.9	68.1	26.8	50.2	22.3	54.8	62.0	63.4	57.9	60.1
WALES	48	48	2.7	12.6	19.2	82.4	62.8	67.7	25.4	49.7	20.4	55.2	63.5	65.3	59.1	61.2
England	38	n/a	2.2	n/a	n/a	n/a	71.4	73.4	39.9	51.3	n/a	n/a	n/a	n/a	n/a	n/a
Hywel Dda	50 (5)	47 (4)	2.7 (3)	9.8 (2)	7.9	80.8	62.9	65.4	24.6	48.0	20.2	57.0	64.0	65.7	59.5	61.2
Powys Teaching	65 (6)	61 (6)	3.6 (6)	9.3 (1)	0.9	84.7	60.8	67.7	28.4	49.3	19.8	56.9	67.7	67.5	62.5	63.3
Cwm Taf	80 (7)	82 (7)	4.2 (7)	11.5 (3)	34.2	85.0	59.8	65.9	26.9	51.0	24.5	56.6	60.0	60.6	56.1	58.5

Period 2011/12

y-axis scale

2010

2012-13

2004-13

2004-13

2010-11

2008-10

2005-09

2005-09

0 to 50

0 to 100

0 to 100

0 to 100

10 to 35

50 to 60

55 to 75

55 to 70

3 Technical guide

3.1 Mental health problems

Indicator	3.1.1 Out of work benefit claimants, % working age adults
How is this indicator defined?	Percentage of population who are out of work and who are claiming one or more key Department for Work and Pensions (DWP) benefits.
Where do the data come from?	Benefit claimant count, Wales: Work and Pensions Longitudinal Study (WPLS) (Department for Work and Pensions) available via StatsWales Benefit claimant count, England: as for Wales Resident population of working age, England and Wales: ONS mid-year population estimates
Who does it measure?	Residents aged 16 to 64
When does it measure it?	2009-2012 (trend)
Chart information	The y-axis scale goes from 0 to 28 To ascertain significance compared to Wales, confidence intervals were calculated using the method proposed by Wilson (1927). Confidence intervals are not displayed on the chart. The denominator for 2012 is based on 2011 mid-year population estimates.
Further information	Further information is available at: https://statswales.wales.gov.uk/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Key-Benefit-Claimants
References	Wilson, E.B. (1927) Probable inference, the law of succession, and statistical inference. <i>J Am Stat Assoc</i> , 22:209-212. Cited in Altman D.G. et al (2000) <i>Statistics with Confidence (2nd edn)</i> BMJ Books: UK (page 46)

Indicator	3.1.2 QOF mental health register, % of list size
How is this indicator defined?	QOF MH8 register: People on the mental health register (schizophrenia, bipolar disorder and other psychoses).
Where does the data come from?	Wales: CM Web, via StatsWales England: Health and Social Care Information Centre
Who does it measure?	Patients registered with general practices within each health board, irrespective of health board of residence.
When does it measure it?	2011-2012
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	QOF achievement data for 2011-12 is presented for 474 general practices in Wales. QOF condition registers may be influenced by varying levels of ascertainment as well as varying underlying levels of conditions.
Chart information	The y-axis scale is truncated to 6 to 12 Confidence intervals were calculated using the method proposed by Wilson (1927).
Further information	Further information about the General Medical Services Quality and Outcomes Framework Statistics for Wales is available at: https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/GMS-Contract English QOF data are available at: http://www.hscic.gov.uk/catalogue/PUB08661
References	Wilson, E.B. (1927) Probable inference, the law of succession, and statistical inference. <i>J Am Stat Assoc</i> , 22:209-212. Cited in Altman D.G. et al (2000) <i>Statistics with Confidence (2nd edn)</i> BMJ Books: UK (page 46)

Indicator	3.1.3 Prescribing of antidepressants
How is this indicator defined?	Average daily quantity of antidepressants prescribed per 1,000 specific therapeutic group age-sex related prescribing units (ADQ / 1,000 STAR-PU).
Where does the data come from?	Wales (LHBs): All Wales Medicines Strategy Group (AWMSG) England (PCTs): as for Wales
Who does it measure?	Prescribing in LHBs & PCTs
When does it measure it?	2012-2013
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	There are differences in the age and sex of patients for whom medicines in specific therapeutic groups are usually prescribed. To make such comparisons, STAR-PU's have been developed based on costs of prescribing items within therapeutic groups.
Chart information	All English PCTs and Welsh HB's shown, ranked from lowest to highest. The y-axis scale goes from 0 to 2,500
Further information	Further information on the AWMSG prescribing indicators can be found at: http://www.awmsg.org/docs/awmsg/medman/National%20Prescribing%20Indicators%202013-2014.pdf

Indicator	3.1.4 People with dementia, % on QOF register
How is this indicator defined?	The proportion of the estimated number of people with dementia who have been diagnosed and are on the QOF dementia register.
Where does the data come from?	Wales: Alzheimer's Society, Mapping the Dementia Gap England: as for Wales
Who does it measure?	Residents aged 30+
When does it measure it?	2012
How is it calculated?	The age specific prevalence rates reported in <i>Dementia UK: A report into the prevalence and cost of dementia</i> (2007) have been applied to the 2008 population projections to obtain expected counts for 2012. The observed counts were taken from QOF DEM1 for 2011.
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	These estimates were based on population projections which have since been superseded by mid-year estimates based on the 2011 census. The QOF numerator is based on the registered population whilst the denominator is based on resident population.
Chart information	The y-axis scale goes from 25 to 55. To ascertain significance compared to Wales, confidence intervals were calculated using the method proposed by Wilson (1927).
Further information	Further information on the dementia gap estimates can be found at: http://www.alzheimers.org.uk/site/scripts/download_info.php?fileID=1348
References	<i>Mapping the Dementia Gap A report into the prevalence and cost of dementia</i> prepared by the Personal Social Services Research Unit (PSSRU) at the London School of Economics and the Institute of Psychiatry at King's College London, for the Alzheimer's Society, 2007. Wilson, E.B. (1927) Probable inference, the law of succession, and statistical inference. <i>J Am Stat Assoc</i> , 22:209-212. Cited in Altman D.G. et al (2000) <i>Statistics with Confidence (2nd edn)</i> BMJ Books: UK (page 46)

Indicator	3.1.5 Emergency hospital admissions, any mention of self harm
How is this indicator defined?	Crude rate of emergency hospital admissions per 100,000 persons, where there was any mention of self harm within the spell. The analysis is admissions based i.e. a patient being admitted multiple times will have each admission counted. However, an admission will only be counted once, regardless of how many times self harm is mentioned within the diagnoses codes of the spell.
Where does the data come from?	Patient Episode Database Wales (NHS Wales Informatics Service) Mid-year population estimates, Office for National Statistics England: n/a
Who does it measure?	All residents
When does it measure it?	2001/03 - 2009/11 (3-year rolling trend)
Chart information	The y-axis scale goes from 0 to 340 To ascertain significance compared to Wales, confidence intervals were calculated using the method proposed by Altman D.G. et al (2000): Where $n > 100$: 95% confidence intervals are calculated using a normal approximation to the Poisson distribution Where $n \leq 100$: 95% confidence intervals are calculated using the Poisson distribution Confidence intervals are not displayed on the chart.
References	Altman D.G. et al (2000) Statistics with confidence. BMJ books: UK

Indicator	3.1.6 In secondary care with care and treatment plan
How is this indicator defined?	The rate of people in receipt of secondary care and who have a valid care and treatment plan [as specified by the Mental Health (Wales) Measure 2010] per 100,000 population.
Where does the data come from?	Wales: Welsh Government England: n/a
Who does it measure?	Resident population
When does it measure it?	2012-13
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	Data quality is improving month on month since the introduction of the Mental Health Measure in June 2012 but some caution still required as this is a relatively new data collection. Equivalent data are not currently available for Powys residents.
Chart information	The y-axis scale is truncated and goes from 400 to 800 To ascertain significance compared to Wales, confidence intervals were calculated using the method proposed by Altman D.G. et al (2000): Where $n > 100$: 95% confidence intervals are calculated using a normal approximation to the Poisson distribution Where $n \leq 100$: 95% confidence intervals are calculated using the Poisson distribution
References	Altman D.G. et al (2000) Statistics with confidence. BMJ books: UK

Indicator	3.1.7 % adults free from a common mental health disorder
How is this indicator defined?	The age-standardised percentage of adults free from a common mental disorder (as measured by a Mental Health Inventory 5 score > 60).
Where does the data come from?	Wales: Welsh Health Survey (Welsh Government) England: n/a
Who does it measure?	Adults aged 16+
When does it measure it?	2009 and 2010
How is it calculated?	The Mental Health Inventory 5 (MHI-5) scale is derived from five questions in the SF-36 questionnaire in the Welsh Health Survey. Answers are combined and transformed to produce a score on a scale of 0-100, with higher scores indicating better mental health.
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	This is a proxy measure, based on responses to questions which make up the mental well being scale; it is not a direct measure of mental health problems. A limitation of the use of the MHI-5 is that a valid cutpoint was not provided with its design to define a case of a common mental disorder. A cut point of 60 has since been described by Kelly et al (2008) to identify cases within a given locality.
Chart information	The y-axis scale is truncated and goes from 65 to 90
Further information	Further information on the Welsh Health Survey can be found at: http://wales.gov.uk/topics/statistics/headlines/health2011/1109131/?lang=en
References	Kelly MJ, Dunstan FD, Lloyd K, Fone DL. Evaluating cutpoints for the MHI-5 and MCS using the GHQ-12: a comparison of five different methods. <i>BMC Psychiatry</i> . 2008, 8:10.

Indicator	3.1.8 % adults currently being treated for any mental illness
How is this indicator defined?	The observed percentage of adults who reported that they are currently being treated for depression, anxiety, or 'another mental illness'.
Where does the data come from?	Wales: Welsh Health Survey (Welsh Government) England: n/a
Who does it measure?	Adults aged 16+
When does it measure it?	2010 and 2011
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	The information is self-reported. While the Welsh Health Survey is designed to be representative of adults in Wales, adults living in all institutional settings are excluded.
Chart information	The y-axis scale is truncated and goes from 5 to 18.
Further information	Further information about the Welsh Health Survey can be found at: http://wales.gov.uk/topics/statistics/theme/health/health-survey/results/?lang=en

3.2 Circulation problems

Indicator	3.2.1 Current smoker status, adults
How is this indicator defined?	The percentage of adults who reported smoking daily or occasionally.
Where does the data come from?	Welsh Health Survey (Welsh Government) England: n/a
Who does it measure?	Adults aged 16+
When does it measure it?	2010 and 2011
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	The information is self-reported, therefore some over or under-estimation of the individuals' smoking habits may occur. While the Welsh Health Survey is designed to be representative of adults in Wales, adults living in all institutional settings are excluded. This is the observed, not the age standardised percentage.
Chart information	The y-axis scale is set to 15 to 35.
Further information	Further information about the Welsh Health Survey can be found at: http://wales.gov.uk/topics/statistics/theme/health/health-survey/results/?lang=en

Indicator	3.2.2 % of smokers treated by Stop Smoking Wales
How is this indicator defined?	The percentage of smokers treated by the Stop Smoking Wales programme. A treated smoker is defined as a smoker who undergoes at least one treatment session. Smokers who attend an initial information session but fail to attend thereafter are not counted.
Where does the data come from?	Stop Smoking Wales, Mid-year population estimates (Office for National Statistics), Welsh Health Survey (Welsh Government) England: n/a
Who does it measure?	Wales residents, adults
When does it measure it?	2011/2012
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	These data relate to Stop Smoking Wales only, other smoking cessation services, including those provided by pharmacies or within house by general practices are not included. Varying levels of alternative services may at least in part explain the variations in uptake of Stop Smoking Wales services.
Chart information	The y-axis scale is set to 0 to 3. Confidence intervals have been calculated using the method proposed by Altman D.G. et al (2000): Where $n > 100$: 95% confidence intervals are calculated using a normal approximation to the Poisson distribution Where $n \leq 100$: 95% confidence intervals are calculated using the Poisson distribution
Further information	Further information about the data can be found in the Stop Smoking Wales Annual Report 2011-2012 .
References	Altman D.G. et al (2000) Statistics with confidence. BMJ books: UK

Indicator	3.2.3 QOF CHD register, % of list size
How is this indicator defined?	Crude percentage of patients registered with Welsh general practices on the coronary heart disease (CHD) register.
Where does the data come from?	Wales: CM Web, via StatsWales England: Health and Social Care Information Centre
Who does it measure?	Patients registered with general practices within each health board, irrespective of health board of residence.
When does it measure it?	2011-2012
Chart information	The y-axis scale is set to 3 to 5. Confidence intervals were calculated using the method proposed by Wilson (1927).
Further information	Further information about the General Medical Services Quality and Outcomes Framework Statistics for Wales is available at: https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/GMS-Contract English QOF data are available at: http://www.hscic.gov.uk/catalogue/PUB08661
References	Wilson, E.B. (1927) Probable inference, the law of succession, and statistical inference. <i>J Am Stat Assoc</i> , 22:209-212. Cited in Altman D.G. et al (2000) <i>Statistics with Confidence (2nd edn)</i> BMJ Books: UK (page 46)

Indicator	3.2.4 Prescribing of 'ck 'tghlipid modifying drugs
How is this indicator defined?	Items of LAC (low acquisition cost) statins as a percentage of all statin, ezetimibe and simvastatin/ezetimibe combination prescribing.
Where does the data come from?	All Wales Medicines Strategy Group (AWMSG) England: n/a
Who does it measure?	Prescribing in primary care
When does it measure it?	2012-2013
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	The basket of LAC statins includes simvastatin, pravastatin and atorvastatin.
Chart information	All English PCTs and Welsh HB's shown, ranked from lowest to highest. The y-axis scale is set to 0 to 100.

Indicator	3.2.5 Elective hospital admissions, any mention of revascularisation
How is this indicator defined?	Crude rate of elective hospital admissions per 100,000 persons, where there was any mention of revascularisation. The analysis is admissions based i.e. a patient being admitted multiple times will have each admission counted, however, an admission will only be counted once, regardless of how many procedures meeting the criteria were undertaken within the spell.
Where does the data come from?	Patient Episode Database Wales (NHS Wales Informatics Service) Mid-year population estimates, Office for National Statistics England: n/a
Who does it measure?	All residents
When does it measure it?	2001/03 – 2009/11 (3-year rolling trend)
Chart information	The y-axis scale is set to 0 to 150.

Indicator	3.2.6 Mortality from circulatory disease, under 75
How is this indicator defined?	Crude rate of mortality per 100,000 persons where the underlying cause of death was circulatory disease.
Where does the data come from?	Annual District Death Extract and Mid-year population estimates (Office for National Statistics) England: Mortality statistics and Mid-year population estimates (Office for National Statistics)
Who does it measure?	Residents under 75 years
When does it measure it?	2001/03 – 2009/11 (3-year rolling trend)
Chart information	The y-axis scale is set to 0 to 250. To ascertain significance compared to Wales, confidence intervals were calculated using the method proposed by Altman D.G. et al (2000): Where $n > 100$: 95% confidence intervals are calculated using a normal approximation to the Poisson distribution Where $n \leq 100$: 95% confidence intervals are calculated using the Poisson distribution Confidence intervals are not displayed on the chart.
References	Altman D.G. et al (2000) Statistics with confidence. BMJ books: UK

3.3 Cancers & tumours

Indicator	3.3.1 Current smoker status, adults (see section 3.2.1)
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Indicator	3.3.2 Adults meeting healthy eating guidelines
How is this indicator defined?	The percentage of adults who reported that they consumed five or more portions of fruit, vegetables and pulses on the previous day. The analysis was based on a portion being 80g.
Where does the data come from?	Welsh Health Survey (Welsh Government) England: n/a
Who does it measure?	Adults aged 16+
When does it measure it?	2010 and 2011
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	The information is self-reported, therefore some over or under-estimation of the amount of fruit and vegetables consumed by the individual may occur. While the Welsh Health Survey is designed to be representative of adults in Wales, adults living in all institutional settings are excluded.
Chart information	The y-axis scale is truncated to 25 to 50.
Further information	Further information about the Welsh Health Survey can be found at: http://wales.gov.uk/topics/statistics/theme/health/health-survey/results/?lang=en

Indicator	3.3.3 HPV vaccination uptake
How is this indicator defined?	Percentage of HPV (Human Papilloma Virus) Vaccine uptake (complete three doses) in girls reaching their 14 th birthday between 01/09/2012 and 31/08/2013 and resident on 01/05/2013.
Where does the data come from?	Communicable Disease Surveillance Centre and Vaccine Preventable Disease Programme (Public Health Wales) England: n/a
Who does it measure?	Female residents aged 14
When does it measure it?	Vaccines received during school Year 8, 2011-12 and measured in those reaching their 14 th birthday between 01/09/2012 and 31/08/2013.
Chart information	The y-axis scale is truncated to 75 to 100. Confidence intervals were calculated using the method proposed by Wilson (1927).
Further information	Further information is available from the Vaccine Uptake in Children in Wales COVER Annual report 2013 which is available to download at: http://www.wales.nhs.uk/sites3/page.cfm?orgid=457&pid=54144
References	Wilson, E.B. (1927) Probable inference, the law of succession, and statistical inference. <i>J Am Stat Assoc</i> , 22:209-212. Cited in Altman D.G. et al (2000) <i>Statistics with Confidence (2nd edn)</i> BMJ Books: UK (page 46).

Indicator	3.3.4 Cancer incidence, all malignancies excl NMSC
How is this indicator defined?	The incidence of all malignancies (excluding Non-melanoma skin cancer), crude rate per 100,000 persons.
Where does the data come from?	Cancer in Wales, 1995-2009: A Comprehensive Report (Welsh Cancer Intelligence and Surveillance Unit) and Mid-year population estimates (Office for National Statistics) England: Cancer statistics registrations and Mid-year population estimates (Office for National Statistics)
Who does it measure?	All residents
When does it measure it?	Trend: 1995-1999; 2000-2004; 2005-2009
Chart information	The y-axis scale is set to 0 to 900. To ascertain significance compared to Wales, confidence intervals were calculated using the method proposed by Altman D.G. et al (2000): Where $n > 100$: 95% confidence intervals are calculated using a normal approximation to the Poisson distribution Where $n \leq 100$: 95% confidence intervals are calculated using the Poisson distribution Confidence intervals are not displayed on the chart.
Further information	Further information is available in the Cancer in Wales report available at: http://www.wales.nhs.uk/sites3/Documents/242/11%20AllCancers.pdf
References	Altman D.G. et al (2000) Statistics with confidence. BMJ books: UK

Indicator	3.3.5 % of new diagnoses via urgent suspected cancer route starting treatment within 62 days
How is this indicator defined?	The percentage of patients newly diagnosed via the urgent suspected cancer route starting treatment within 62 days.
Where does the data come from?	Health Statistics and Analysis (StatsWales) England: Waiting Times for Suspected and Diagnosed Cancer Patients 2012-13 Annual Report (NHS England)
Who does it measure?	All residents
When does it measure it?	Quarter 3 2009/10 to quarter 3 2012/13 (data unavailable for England in Quarter 3 2009/10)
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	The national target for patients treated via the urgent route is: Patients referred by their GP with urgent suspected cancer and subsequently diagnosed as such by a cancer specialist will start definitive treatment within 62 days of receipt of referral. This measure is hospital not resident population based and hence there is no figure for Powys.
Chart information	The y-axis scale is set to 0 to 150.
Further information	Further information is available at StatsWales: https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/NHS-Hospital-Waiting-Times/Cancer-Waiting-Times English data is available at: http://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2013/07/Cancer-Waiting-Times-Annual-Report-2012-13-amended.pdf

Indicator	3.3.6 Survival rates, persons, all malignancies excl NMSC
How is this indicator defined?	One year relative survival of all malignancies (excluding Non-melanoma skin cancer).
Where does the data come from?	Cancer in Wales, 1995-2009: A Comprehensive Report (Welsh Cancer Intelligence and Surveillance Unit) England: n/a
Who does it measure?	Adults
When does it measure it?	Trend: 1995-1999; 2000-2004; 2005-2009
Chart information	The y-axis scale is set to 0 to 100.
Further information	Further information is available in the Cancer in Wales report available at: http://www.wales.nhs.uk/sites3/Documents/242/11%20AllCancers.pdf

Indicator	3.3.7 Mortality rates, persons, all malignancies excl NMSC
How is this indicator defined?	All malignancies (excluding non-melanoma skin cancer) mortality crude rate per 100,000 persons.
Where does the data come from?	Cancer in Wales, 1995-2009: A Comprehensive Report (Welsh Cancer Intelligence and Surveillance Unit) and Mid-year population estimates (Office for National Statistics) England: Mortality statistics and Mid-year population estimates (Office for National Statistics)
Who does it measure?	All residents
When does it measure it?	Trend: 1995-1999; 2000-2004; 2005-2009 (England trend only for 2000-2004 and 2005-2009)
Chart information	The y-axis scale is set to 0 to 450. To ascertain significance compared to Wales, confidence intervals were calculated using the method proposed by Altman D.G. et al (2000): Where $n > 100$: 95% confidence intervals are calculated using a normal approximation to the Poisson distribution Where $n \leq 100$: 95% confidence intervals are calculated using the Poisson distribution Confidence intervals are not displayed on the chart.
Further information	Further information is available in the Cancer in Wales report available at: http://www.wales.nhs.uk/sites3/Documents/242/11%20AllCancers.pdf
References	Altman D.G. et al (2000) Statistics with confidence. BMJ books: UK

3.4 Musculoskeletal system problems (excluding Trauma)

Indicator	3.4.1 % of adults who are overweight or obese
How is this indicator defined?	The observed percentage of adults who are overweight or obese (BMI 25+). Individuals self reported their height and weight which was then used to calculate their BMI.
Where does the data come from?	Wales: Welsh Health Survey (Welsh Government) England: n/a
Who does it measure?	Adults aged 16+
When does it measure it?	2010 and 2011
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	The information is self-reported, therefore some over or under-estimation of height and weight by the individual may occur. While the Welsh Health Survey is designed to be representative of adults in Wales, adults living in all institutional settings are excluded.
Chart information	The y-axis scale is truncated and goes from 45 to 75.
Further information	Further information about the Welsh Health Survey can be found at: http://wales.gov.uk/topics/statistics/theme/health/health-survey/results/?lang=en

Indicator	3.4.2 % of adults meeting physical activity guidelines
How is this indicator defined?	The observed percentage of adults who self-reported that they did at least 30 minutes of light, moderate, and vigorous exercise or physical activity on five or more days in the past week. Blocks of activity which lasted more than 10 minutes were accepted to comprise the full 30 minutes, if carried out on the same day.
Where does the data come from?	Wales: Welsh Health Survey (Welsh Government) England: n/a
Who does it measure?	Adults aged 16+
When does it measure it?	2010 and 2011
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	The information is self-reported, therefore some over or under-estimation of the amount of physical activity undertaken by the individual may occur. Additionally, some misclassification may occur when estimating the level of activity undertaken i.e. light, moderate or vigorous activity. While the Welsh Health Survey is designed to be representative of adults in Wales, adults living in all institutional settings are excluded.
Chart information	The y-axis scale is truncated and goes from 10 to 50.
Further information	Further information about the Welsh Health Survey can be found at: http://wales.gov.uk/topics/statistics/theme/health/health-survey/results/?lang=en

Indicator	3.4.3 % of adults currently being treated for arthritis
How is this indicator defined?	The observed percentage of adults who self-reported that they were being treated for arthritis.
Where does the data come from?	Wales: Welsh Health Survey (Welsh Government) England: n/a
Who does it measure?	Adults aged 16+
When does it measure it?	2010 and 2011
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	The information is self-reported. While the Welsh Health Survey is designed to be representative of adults in Wales, adults living in all institutional settings are excluded.
Chart information	The y-axis scale is truncated and goes from 5 to 25.
Further information	Further information about the Welsh Health Survey can be found at: http://wales.gov.uk/topics/statistics/theme/health/health-survey/results/?lang=en

Indicator	3.4.4 Prescribing of NSAIDs
How is this indicator defined?	Average daily quantity of non-steroidal anti-inflammatory drugs (NSAIDs) prescribed per 1,000 specific therapeutic group age-sex related prescribing units (ADQ / 1,000 STAR-PU).
Where does the data come from?	Wales (LHBs): All Wales Medicines Strategy Group (AWMSG) England (PCTs): as for Wales
Who does it measure?	Prescribing in primary care
When does it measure it?	2012-2013
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	There are differences in the age and sex of patients for whom medicines in specific therapeutic groups are usually prescribed. To make such comparisons, STAR-PU have been developed based on costs of prescribing items within therapeutic groups.
Chart information	All English PCTs and Welsh HB's shown, ranked from lowest to highest. The y-axis scale goes from 0 to 2000.
Further information	Further information on the AWMSG prescribing indicators can be found at: http://www.awmsg.org/docs/awmsg/medman/National%20Prescribing%20Indicators%202013-2014.pdf

Indicator	3.4.5 Elective hospital admissions per 100,000 population, hip replacement
How is this indicator defined?	Crude rate of elective hospital admissions per 100,000 persons, where a primary hip replacement procedure took place in any episode within the spell. The analysis is admissions based i.e. a patient being admitted multiple times will have each admission counted, however, an admission will only be counted once, regardless of how many procedures meeting the criteria were undertaken within the spell.
Where does the data come from?	Wales: Patient Episode Database Wales (NHS Wales Informatics Service) Mid-year population estimates, Office for National Statistics England: n/a
Who does it measure?	All residents
When does it measure it?	2001/03 – 2009/11 (3-year rolling trend)
Chart information	The y-axis scale goes from 0 to 300.

Indicator	3.4.6 Elective hospital admissions per 100,000 population, knee replacement
How is this indicator defined?	Crude rate of elective hospital admissions per 100,000 persons, where a primary knee replacement procedure took place in any episode within the spell. The analysis is admissions based i.e. a patient being admitted multiple times will have each admission counted, however, an admission will only be counted once, regardless of how many procedures meeting the criteria were undertaken within the spell.
Where does the data come from?	Wales: Patient Episode Database Wales (NHS Wales Informatics Service) Mid-year population estimates, Office for National Statistics England: n/a
Who does it measure?	All residents
When does it measure it?	2001/03 – 2009/11 (3-year rolling trend)
Chart information	The y-axis scale goes from 0 to 300.

Indicator	3.4.7 Elective hospital admissions per 100,000 population, hip replacement revision
How is this indicator defined?	Crude rate of elective hospital admissions per 100,000 persons, where a hip replacement revision procedure took place in any episode within the spell. The analysis is admissions based i.e. a patient being admitted multiple times will have each admission counted, however, an admission will only be counted once, regardless of how many procedures meeting the criteria were undertaken within the spell.
Where does the data come from?	Wales: Patient Episode Database Wales (NHS Wales Informatics Service) Mid-year population estimates, Office for National Statistics England: n/a
Who does it measure?	All residents
When does it measure it?	2001/03 – 2009/11 (3-year rolling trend)
Chart information	The y-axis scale goes from 0 to 30.

Indicator	3.4.8 Elective hospital admissions per 100,000 population, knee replacement revision
How is this indicator defined?	Crude rate of elective hospital admissions per 100,000 persons, where a knee replacement revision procedure took place in any episode within the spell. The analysis is admissions based i.e. a patient being admitted multiple times will have each admission counted, however, an admission will only be counted once, regardless of how many procedures meeting the criteria were undertaken within the spell.
Where does the data come from?	Wales: Patient Episode Database Wales (NHS Wales Informatics Service) Mid-year population estimates, Office for National Statistics England: n/a
Who does it measure?	All residents
When does it measure it?	2001/03 – 2009/11 (3-year rolling trend)
Chart information	The y-axis scale goes from 0 to 20

3.5 Respiratory problems

Indicator	3.5.1 Current smoker status, adults (see section 3.2.1)
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Indicator	3.5.2 % of smokers treated by Stop Smoking Wales (see section 3.2.2)
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Indicator	3.5.3 QOF COPD register, % of list size
How is this indicator defined?	Crude percentage of patients registered with Welsh general practices and on the chronic obstructive pulmonary disease (COPD) register.
Where does the data come from?	Wales: CM Web, via StatsWales England: Health and Social Care Information Centre
Who does it measure?	Patients registered with general practices within each health board, irrespective of health board of residence.
When does it measure it?	2011-2012
Chart information	The y-axis scale is truncated to 1 to 3.5. Confidence intervals were calculated using the method proposed by Wilson (1927).
Further information	Further information about the General Medical Services Quality and Outcomes Framework Statistics for Wales is available at: https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/GMS-Contract English QOF data are available at: http://www.hscic.gov.uk/catalogue/PUB08661
References	Wilson, E.B. (1927) Probable inference, the law of succession, and statistical inference. <i>J Am Stat Assoc</i> , 22:209-212. Cited in Altman D.G. et al (2000) <i>Statistics with Confidence (2nd edn)</i> BMJ Books: UK (page 46)

Indicator	3.5.4 QOF COPD register: Patients having influenza immunisation
How is this indicator defined?	QOF COPD8: The percentage of patients on the COPD register who have had influenza immunisation in the preceding 1 September to 31 March
Where does the data come from?	CM web, via StatsWales England: Health and Social Care Information Centre
Who does it measure?	Patients registered with general practices within each health board, irrespective of health board of residence.
When does it measure it?	2011-2012
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	QOF achievement data for 2011-12 is presented for 474 general practices in Wales.
Chart information	The y-axis scale is truncated to 90 to 98. Confidence intervals were calculated using the method proposed by Wilson (1927).
Further information	Further information about the General Medical Services Quality and Outcomes Framework Statistics for Wales is available at: https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/GMS-Contract English QOF data are available at: http://www.hscic.gov.uk/catalogue/PUB08661
References	Wilson, E.B. (1927) Probable inference, the law of succession, and statistical inference. <i>J Am Stat Assoc</i> , 22:209-212. Cited in Altman D.G. et al (2000) <i>Statistics with Confidence (2nd edn)</i> BMJ Books: UK (page 46)

Indicator	3.5.5 Emergency hospital admissions, primary diagnosis bronchitis, emphysema or COPD
How is this indicator defined?	Crude rate of emergency hospital admissions per 100,000 persons, where the primary diagnosis of the admitting episode was bronchitis, emphysema or COPD. The analysis is admissions based i.e. a patient being admitted multiple times will have each admission counted.
Where does the data come from?	Patient Episode Database Wales, NHS Wales Informatics Service Mid-year population estimates, Office for National Statistics England: n/a
Who does it measure?	All residents
When does it measure it?	2001/03 – 2009/11 (3-year rolling trend)
Chart information	The y-axis scale is set to 0 to 650. To ascertain significance compared to Wales, confidence intervals were calculated using the method proposed by Altman D.G. et al (2000): Where $n > 100$: 95% confidence intervals are calculated using a normal approximation to the Poisson distribution Where $n \leq 100$: 95% confidence intervals are calculated using the Poisson distribution Confidence intervals are not displayed on the chart.
References	Altman D.G. et al (2000) <i>Statistics with confidence</i> . BMJ books: UK

Indicator	3.5.6 Mortality from bronchitis, emphysema or COPD, under 75
How is this indicator defined?	Crude rate of mortality per 100,000 persons where the underlying cause of death was bronchitis, emphysema or COPD.
Where does the data come from?	Annual District Death Extract and Mid-year population estimates (Office for National Statistics) England: Mortality statistics and Mid-year population estimates (Office for National Statistics)
Who does it measure?	Residents under 75 years
When does it measure it?	2001/03 – 2009/11 (3-year rolling trend)
Chart information	The y-axis scale is truncated to 0 to 50. To ascertain significance compared to Wales, confidence intervals were calculated using the method proposed by Altman D.G. et al (2000): Where $n > 100$: 95% confidence intervals are calculated using a normal approximation to the Poisson distribution Where $n \leq 100$: 95% confidence intervals are calculated using the Poisson distribution Confidence intervals are not displayed on the chart.
References	Altman D.G. et al (2000) Statistics with confidence. BMJ books: UK

Indicator	3.5.7 Adults being treated for any respiratory illness
How is this indicator defined?	The observed percentage of adults who reported that they are currently being treated for asthma, pleurisy, bronchitis, or 'another respiratory illness'.
Where does the data come from?	Welsh Health Survey (Welsh Government) England: n/a
Who does it measure?	Adults aged 16+
When does it measure it?	2010 and 2011
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	The information is self-reported. While the Welsh Health Survey is designed to be representative of adults in Wales, adults living in all institutional settings are excluded.
Chart information	The y-axis scale is set to 10 to 20.
Further information	Further information about the Welsh Health Survey can be found at: http://wales.gov.uk/topics/statistics/theme/health/health-survey/results/?lang=en

3.6 Healthy individuals

Indicator	3.6.1 Percentage of population in most deprived fifth
How is this indicator defined?	All Lower Super Output Areas (LSOAs) in Wales were grouped into fifths according to their published rank of the Welsh Index of Multiple Deprivation 2011. The indicator is defined as the percentage of the health board's population who are resident in LSOAs classified as the most deprived fifth of the LSOAs in Wales.
Where does the data come from?	Welsh Index of Multiple Deprivation 2011 (Welsh Government), 2010 Mid-year population estimates (Office for National Statistics) England: n/a
Who does it measure?	All Wales residents, all ages
When does it measure it?	2010
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	The 2011 Welsh Index of Multiple Deprivation measures deprivation for small areas in Wales. It is based on lower super output areas (LSOAs) provided by the ONS for the 2001 Census. Following the 2011 Census, changes were made to the existing LSOA boundaries. While the mid-year population estimates for 2011 reflect these changes, this indicator uses the 2010 population estimates based on the 2001 Census data in order to enable matching on LSOA. Caution should be taken with the interpretation of this indicator as there are known to be differences between the population estimates based on the 2001 and 2011 Censuses.
Chart information	The y-axis scale is set to 0 to 50. Confidence intervals were calculated using the method proposed by Wilson (1927).
Further information	Further information about the Welsh Index of Multiple Deprivation can be found at: http://wales.gov.uk/topics/statistics/theme/wimd/wimd2011/?lang=en
References	Wilson, E.B. (1927) Probable inference, the law of succession, and statistical inference. <i>J Am Stat Assoc</i> , 22:209-212. Cited in Altman D.G. et al (2000) <i>Statistics with Confidence (2nd edn)</i> BMJ Books: UK (page 46)

Indicator	3.6.2 Uptake of scheduled vaccinations at age 4
How is this indicator defined?	Percentage of Health Board resident children (as at 01/05/13) reaching their 4th birthday between 01/04/12 and 31/03/13 who are up to date with their routine schedule of immunisations.
Where does the data come from?	Data for monitoring immunisation uptake in children is provided to the Public Health Wales Communicable Disease Surveillance Centre (CDSC) by Health Board Child Health Administration Offices, via the National Community Child Health Database (NCCHD). England: n/a
Who does it measure?	Children at age 4, resident in Wales
When does it measure it?	2012/2013
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	Immunisations given by private healthcare providers would not be recorded in the NCCHD, unless the provider had returned a completed unscheduled immunisation form to the Health Board Child Health Administration Office. The Welsh Government has set a target of 95% for this measure.
Chart information	The y-axis scale is set to 75 to 90.
Further information	Public Health Wales Communicable Disease Surveillance Centre, <i>COVER, Annual Report, 2013</i> . Cardiff, CDSC, 2013. Available at: http://nww2.nphs.wales.nhs.uk:8080/VaccinationsImmunisationProgsDocs.nsf/(\$All)/5BEB94EE63907A9880257B950037FC4E/\$File/COVER20122013.pdf?OpenElement

Indicators (2)	3.6.3 Uptake of Influenza vaccination
How is this indicator defined?	Percentage of uptake of the seasonal influenza vaccination.
Where does the data come from?	Public Health Wales Vaccine Preventable Disease Programme, data from Audit + England: Influenza Immunisation Uptake Monitoring Programme, Health Protection Agency, commissioned by the Department of Health.
Who does it measure?	<ol style="list-style-type: none"> 1. Residents registered with Welsh general practices aged 65+ 2. Residents registered with Welsh general practices aged between 6 months and 65 years who are at clinical risk.
When does it measure it?	2004/05-2012/2013
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	A small number of practices did not submit data within each period (at worst, 85% practices submitting data in 2007/08), however, this has improved in more recent years to being close to complete (99.8% submitting in 2012/13 with only Abertawe Bro Morgannwg having any practices that did not submit data). The Welsh Government has set a target of 75% for these measures.
Chart information	Data were unavailable for the 2006-2007 period. The y-axis scales are set to 0 to 100.
Further information	Public Health Wales Communicable Disease Surveillance Centre, <i>COVER, Annual Report, 2013</i> . Cardiff, CDSC, 2013. Available at: http://howis.wales.nhs.uk/sites3/page.cfm?orgid=474&pid=44152

Indicator	3.6.4 Adults reporting general health status as fair or poor
How is this indicator defined?	The percentage of adults reporting that their general health status was fair or poor.
Where does the data come from?	Welsh Health Survey (Welsh Government) England: n/a
Who does it measure?	Adults aged 16+
When does it measure it?	2010 and 2011
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	The information is self-reported, therefore some over or under-estimation of the individuals' health status may occur. While the Welsh Health Survey is designed to be representative of adults in Wales, adults living in all institutional settings are excluded.
Chart information	The y-axis scale is set to 10 to 35.
Further information	Further information about the Welsh Health Survey can be found at: http://wales.gov.uk/topics/statistics/theme/health/health-survey/results/?lang=en

Indicator	3.6.5 Bowel cancer screening
How is this indicator defined?	The uptake of overall round 1 bowel cancer screening, percentage of eligible persons.
Where does the data come from?	Bowel Screening Wales, Public Health Wales England: n/a
Who does it measure?	Eligible residents, aged 60-69
When does it measure it?	October 2008 – November 2010.
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	Further information and definitions can be found in the Bowel Screening Wales First Round Report at: http://www.wales.nhs.uk/sites3/docopen.cfm?orgid=747&id=182730
Chart information	The y-axis scale is set to 50 to 60. Confidence intervals were calculated using the method proposed by Wilson (1927).
Further information	The Bowel Screening Wales website is available at: http://www.wales.nhs.uk/sites3/home.cfm?orgid=747
References	Wilson, E.B. (1927) Probable inference, the law of succession, and statistical inference. <i>J Am Stat Assoc</i> , 22:209-212. Cited in Altman D.G. et al (2000) <i>Statistics with Confidence (2nd edn)</i> BMJ Books: UK (page 46)

Indicator	3.6.6 Healthy life expectancy
How is this indicator defined?	Healthy life expectancy is an estimate of the average number of years that newborn babies could expect to live in good health, if the current mortality rates and prevalence of good health applied throughout their lives.
Where does the data come from?	Annual District Deaths Extract and Mid-year population estimates (Office for National Statistics), Welsh Health Survey (Welsh Government) England: n/a
Who does it measure?	Males and females, at birth
When does it measure it?	2005-2009
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	Healthy life expectancy is a comparable measure of mortality and good health between population groups, rather than an exact prediction of healthy life expectancy.
Chart information	The y-axis scale is set to 55 to 75.
Further information	Further information about healthy life expectancy can be found in the Measuring Inequalities profiles available at: http://www.wales.nhs.uk/sitesplus/922/page/58379

Indicator	3.6.7 Disability-free life expectancy
How is this indicator defined?	Disability-free life expectancy is an estimate of the average number of years that newborn babies could expect to live free from a limiting long-term illness and disability, if the current mortality rates and prevalence of limiting long-term illness and disability applied throughout their lives.
Where does the data come from?	Annual District Deaths Extract and Mid-year population estimates (Office for National Statistics) Welsh Health Survey (Welsh Government) England: n/a
Who does it measure?	Males and females, at birth
When does it measure it?	2005-2009
Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	Disability-free life expectancy is a comparable measure of mortality and limiting long-term illness and disability between population groups, rather than an exact prediction of disability-free life expectancy.
Chart information	The y-axis scale is set to 55 to 70.
Further information	Further information about healthy life expectancy can be found in the Measuring Inequalities profiles available at: http://www.wales.nhs.uk/sitesplus/922/page/58379