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Llywodraeth Cynulliad Cymru

Working in partnership with  
Welsh Assembly Government



**Welsh Medicines Partnership**  
Partneriaeth Meddyginiaethau Cymru

## The nature and scope of benzodiazepine and “z” drug prescribing in Wales

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# The nature and scope of benzodiazepine and “z” drug prescribing in Wales

## 1. Executive summary

- Benzodiazepines are widely used to induce sleep at night (i.e. hypnotics) and as sedatives for daytime use (as anxiolytics). Use for long periods may produce dependence. In the elderly, long-term use of these agents has also been associated with diminished functional status, memory impairment and increased risk of falls (and possibly increased risk of hip fracture).
- Benzodiazepines should therefore be used to treat insomnia only when it is severe, disabling, or causing the patient extreme distress. They are also indicated only for the short-term relief (two to four weeks only) of anxiety that is severe, disabling, or causing the patient unacceptable distress, occurring alone or in association with insomnia or short-term psychosomatic, organic, or psychotic illness.
- It is widely recognised that benzodiazepines are often used more frequently than appropriate, and this can lead to a significant burden of adverse effects for patients and significant associated costs for the NHS.
- The so-called “z” drugs (zaleplon, zolpidem and zopiclone) are non-benzodiazepine hypnotics, although they act at the benzodiazepine receptor. They are not licensed for long-term use and dependence has been reported in a small number of patients.
- Between the years 04/05 and 08/09, benzodiazepine prescribing did not increase in any of the Local Health Boards (LHBs) and decreased in many. The decrease ranged from -46% (Blaenau Gwent) to -3% (Pembrokeshire).
- Between the years 04/05 and 08/09, “z” drug prescribing increased in eight of the LHBs. The increase ranged from 20% (Monmouthshire) to 1% (Torfaen). The biggest increases (10% or more) in zopiclone prescribing occurred in Monmouthshire (20%), Vale of Glamorgan (14%), Gwynedd (13%) and Powys (10%). These LHBs were ranked in the bottom five in terms of multiple deprivation. However it should be noted that Monmouthshire is one of the LHBs that has hypnotic prescribing rates in the lowest range.
- Prescribing of hypnotics (benzodiazepine and “z” drugs combined) between the years 04/05 and 08/09 did not generally increase. The exception was Gwynedd where an increase of 4% was observed.
- There was no causal relationship between hypnotic prescribing rate and multiple deprivation ranking of the 22 LHBs (*Spearman’s Rho* = 0.0780,  $p > 0.05$ ).
- The hypnotic prescribing rate of 178.93 per 1000 patients in 08/09 for England was lower than in all of the LHBs within NHS Wales. Cardiff LHB at 195.86 items per 1000 patients was the nearest to this rate.
- Between the years 04/05 and 08/09, anxiolytic prescribing increased in 13 of the LHBs, (deprivation ranking in brackets): Bridgend (7), Carmarthenshire (12), Neath/Port Talbot (4), Caerphilly (6), Torfaen (9), Monmouthshire (17), Gwynedd

(15), Conwy (12), Flintshire (13), Wrexham (11), Ynys Mon (13), Vale of Glamorgan (14) and Pembrokeshire (14). The increase in prescribing was variable ranging between 0.4% (in Carmarthenshire) to 19% (In Pembrokeshire).

- There was no causal relationship between anxiolytic prescribing rate and multiple deprivation ranking of the 22 LHBs (*Spearman's Rho* = - 0.2228,  $p > 0.05$ ).
- The anxiolytic prescribing rate of 106.40 items per 1000 patients in 08/09 for England was lower than in 21 of the LHBs in Wales and comparable only with Monmouthshire (106.74 items per 1000 patients)
- Hypnotics and anxiolytics are prescribed more frequently in Wales than in England, even in comparison with the North-East of England which is most similar to Wales demographically.
- Reasons given for GP practices not meeting the All Wales prescribing indicator for hypnotics and anxiolytics included high unemployment (and the recession), high levels of nursing home patients and elderly patients, polypharmacy, historical prescribing from retired prescribers, high levels of transient population, high prevalence of patients with mental health problems, the influence of secondary care, increased patient demand, poor prescribing practices/review of medications, social deprivation, substance misuse patients and poor access to withdrawal clinics.
- The majority (15/20 or 75%) of respondents from LHBs thought that hypnotic and anxiolytic prescribing should be included in the Quality Outcomes Framework (QoF) and 13 of the 20 respondents (65%) thought that the indicator should not be changed.
- Those who suggested changes to the indicator mentioned that it should not group anxiolytics and hypnotics together and that the indicator needed to take deprivation into account.

## **RECOMMENDATIONS**

- All Health Boards (HBs) in Wales should address the over-prescribing of hypnotics and anxiolytics, which are prescribed more frequently in Wales than in England.
- The All Wales Medicines Strategy Group (AWMSG) should approve an All Wales resource/ educational package to encourage appropriate hypnotic and anxiolytic prescribing. This should include a GP practice guide, patient information leaflets, audit pack, secondary care hypnotic and anxiolytic prescribing policy, and policy/guidelines for initiating and withdrawing patients on hypnotics/anxiolytics.

## 2. Prescribing Information Tables Index

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### 3. BACKGROUND

There has been concern for many years with regard to the high volume of anxiolytic and hypnotic prescribing within NHS Wales. It is of concern that some prescribing might be inappropriate and contribute to the problem of physical and psychological dependence and/or may be responsible for masking underlying depression. The Welsh Medicines Partnership (WMP) was commissioned by the Welsh Assembly Government (WAG) in December 2009 to investigate the prescribing of these drugs within NHS Wales.

In 1999 the Mental Health National Service Framework (NSF) <sup>(1)</sup> reinforced the then Committee on Safety of Medicines (CSM) advice and recommended that benzodiazepines should be used for no more than two to four weeks for severe and disabling anxiety. It stated that by 2001 all health authorities should have systems in place to monitor and review prescribing rates of benzodiazepines within the local clinical audit programme. Key action point 33 in the revised Adult Mental Health National Service Framework (NSF) for Wales <sup>(2)</sup> states that “healthcare organisations are to ensure that patients and service users are provided with effective treatment and care that conforms to the National Institute of Clinical Excellence (NICE) technology appraisals and interventional procedures and the recommendations of the All Wales Medicines Strategy Group (AWMSG) and is also based on nationally agreed best practice guidelines as defined in NSFs, NICE clinical guidelines, national plans and agreed national guidance on service delivery.” The performance target set was that by March 2007 LHBs/NHS Trusts should have undertaken a systematic review of NICE guidelines and technology appraisals and developed a local incremental implementation plan.

The new substance misuse strategy of the Welsh Assembly Government (2008) “Working Together to Reduce Harm” calls for the reduction of inappropriately prescribed benzodiazepines <sup>(3)</sup>.

The prescribing volumes of hypnotics and anxiolytics in Wales have been declining over recent years. In the financial year 07/08, 395,589 hypnotic and anxiolytic prescription items were dispensed (total quantity 11,895,770) with basic price costs of £860,448 as a result of GP prescribing in Wales. In 08/09 this had fallen to 388,351 items (total quantity 11,395,932), at a total increased cost of £1,208,439. Although the volumes have been declining, the percentage of hypnotic and anxiolytic prescribing as a percentage of the total has increased from 3.325% to 3.4%

There is still a large variation in prescribing rates of these drugs amongst the 22 Local Health Boards (LHBs) and also variation between GP practices within certain LHBs. This research, as well as analysing prescribing trends throughout Wales, examines reasons for the variation in prescribing patterns in an effort to identify good prescribing practice.

#### Hypnotics

Hypnotics are drugs which are prescribed to treat insomnia and include benzodiazepines and non-benzodiazepines (“z” drugs). Although hypnotics can provide relief from the symptoms of insomnia, they do not treat any of the underlying causes. Appropriate management of existing co-morbidities may relieve the symptoms. The provision of advice on appropriate routines to encourage good sleep is fundamental to the overall management strategy; for example, avoiding stimulants and maintaining regular sleeping hours with a suitable environment for sleep. Other non-pharmacological interventions (for example, cognitive behavioural therapies) have also been shown to be effective in the management of persistent insomnia.

**Benzodiazepines** prescribed as hypnotics include:-

Flurazepam  
Loprazolam  
Lormetazepam  
Nitrazepam  
Temazepam

The Committee on Safety of Medicines advised that benzodiazepines should be used to treat insomnia only when it is severe, disabling, or subjecting the individual to extreme distress and only for short term relief (two to four weeks)<sup>(4)</sup>.

**Non benzodiazepine** hypnotics (“z” drugs) include:-

Zaleplon

The Summary of Product Characteristics (SPC) specifies that treatment should be as short as possible with a maximum duration of two weeks<sup>(5)</sup>.

Zolpidem

The SPC states that the duration of treatment should usually vary from a few days to two weeks with a maximum of four weeks, including tapering off where appropriate<sup>(6)</sup>.

Zopiclone

The SPC states that long-term continuous use is not recommended, that a course of treatment should employ the lowest effective dose, and a single period of treatment should not exceed four weeks including any tapering off. The SPC also states that the duration of treatment should be two to five days for transient insomnia and two to three weeks for short-term insomnia<sup>(7)</sup>.

The Z-drugs were developed with the aim of overcoming some of the disadvantages of benzodiazepines – for example, next-day sedation, dependence and withdrawal. The SPCs for all three “z” drugs however carry warnings about their potential to cause tolerance, dependence and withdrawal symptoms. NICE also concluded that there was a lack of compelling evidence to distinguish between zaleplon, zolpidem, zopiclone and the shorter-acting benzodiazepine hypnotics<sup>(8)</sup>.

***NICE guidance on the use of zaleplon, zolpidem and zopiclone for the short-term management of insomnia.***<sup>(8)</sup>

1. When, after due consideration of the use of non-pharmacological measures, hypnotic drug therapy is considered appropriate for the management of severe insomnia interfering with normal daily life, it is recommended that hypnotics should be prescribed for short periods of time only, in strict accordance with their licensed indications.
2. It is recommended that, because of the lack of compelling evidence to distinguish between zaleplon, zolpidem, zopiclone and the shorter-acting benzodiazepine hypnotics, the drug with the lowest purchase cost (taking into account daily required dose and product price per dose) should be prescribed.
3. It is recommended that switching from one of these hypnotics to another should only occur if a patient experiences adverse effects considered to be directly related to a specific agent. These are the only circumstances in which the drugs with the higher acquisition costs are recommended.

4. Patients who have not responded to one of these hypnotic drugs should not be prescribed any of the others.

### **Anxiolytics**

Anxiolytics are prescribed to alleviate symptoms of anxiety. Their use should be confined to the lowest possible dose and for the shortest possible period of time. Dependence is particularly likely in patients with a history of alcohol or drug abuse and in patients with marked personality disorders.

**Benzodiazepines** used for the short term relief of anxiety are:-

Chlordiazepoxide hydrochloride  
Diazepam  
Lorazepam  
Oxazepam

The Committee on Safety of Medicines advised that <sup>(4)</sup>

1. Benzodiazepines are only indicated for the short term relief (two to four weeks only) of anxiety that is severe, disabling or subjecting the individual to unacceptable distress, occurring alone or in association with insomnia or short-term psychosomatic, organic, or psychotic illness.
2. The use of benzodiazepines to treat short-term 'mild' anxiety is inappropriate and unsuitable.

*The National Institute of Clinical Excellence (NICE) Clinical Guideline 22 on the management of anxiety recommends the following <sup>(9)</sup>:*

### **Panic disorder**

1. Benzodiazepines are associated with a less good outcome in the long term and should not be prescribed for the treatment of individuals with panic disorder.
2. Any of the following types of intervention should be offered and the preference of the person should be taken into account. The interventions that have evidence for the longest duration of effect, in descending order, are:

(a) *psychological therapy* (cognitive behavioural therapy [CBT])

(b) *pharmacological therapy* (a selective serotonin reuptake inhibitor [SSRI] licensed for panic disorder; or if an SSRI is unsuitable or there is no improvement, imipramine or clomipramine may be considered)

(c) *self-help* (bibliotherapy – the use of written material to help people understand their psychological problems and learn ways to overcome them by changing their behaviour – based on CBT principles).

### **Generalised anxiety disorder**

1. Benzodiazepines should not usually be used beyond two to four weeks.
2. In the longer-term care of individuals with generalised anxiety disorder, any of the following types of intervention should be offered and the preference of the person with generalised anxiety disorder should be taken into account. The interventions that have evidence for the longest duration of effect, in descending order, are:
  - (a) *psychological therapy* (cognitive behavioural therapy [CBT])



- (b) *pharmacological therapy* (an SSRI licensed for generalised anxiety disorder)
- (c) *self-help* (bibliotherapy based on CBT principles)

### **Adverse effects**

Despite recommendations that benzodiazepines should be used only in the short-term, many clinicians maintain patients on these drugs for prolonged periods.

A withdrawal syndrome can occur following cessation of benzodiazepine therapy, particularly if the length of treatment is longer term. This syndrome may be prolonged and may develop at any time up to three weeks after cessation of a long acting benzodiazepine, or a few hours after cessation of a short-acting one. The syndrome includes anxiety, depression, nausea and perceptual changes. 'Rebound insomnia' also occurs and is characterised by a worsening of the original insomnia symptoms. There are also problems of abuse with benzodiazepines as they enhance and often prolong the 'high' obtained from other drugs and alleviate their withdrawal effects<sup>(8)</sup>.

Individualised withdrawal programmes; either tapering down the drug or converting to an equivalent dose of diazepam (a long-acting benzodiazepine), and then tapering this, are effective for withdrawal in the community setting.

Health professionals working in the Substance Misuse field report that the withdrawal symptoms associated with benzodiazepines and "z" drugs are much worse than those associated with opioid withdrawal because of the psychological as well as physical dependence.

### **4. AIM**

To identify the nature and scope of benzodiazepine and zaleplon, zolpidem and zopiclone ("z" drugs) prescribing in Wales

### **5. OBJECTIVES**

- Analyse the prescribing of benzodiazepines and "z" drugs across NHS Wales and encourage and promote their safe and effective use.
- Analyse comparative prescribing data to illustrate:-
  - Baseline prescribing cost data
  - Baseline prescribing volume data
  - Historical prescribing trends over the last 3-5years
  - Geographical variation of use
  - Duration/length of prescribing per consultation
- Benchmark the prescribing of these drugs in Wales with England and North East England Strategic Health Authority (SHA) (the latter is similar to Wales in terms of health and socio-economic factors).
- Promote the safe and effective use of benzodiazepines and "z" drugs by identifying and sharing good practice and highlighting variations in prescribing.
- Identify reasons for GP practices not meeting the All Wales prescribing indicator for hypnotics and anxiolytics. This is measured as the Defined Daily Dosage (DDD) per 1,000 patients (see Appendix 4). Health Boards (HBs) and GP Practices should

maintain anxiolytic and hypnotic prescribing performance levels within the lower quartile or show a reduction towards the quartile below.

- Make recommendations as to how the improved prescribing of these drugs can be achieved in line with national guidance.

## 6. METHODOLOGY

### 6.1 Phase 1. WMP liaison with Health Solutions Wales (HSW) to obtain raw prescribing data in relation to benzodiazepines and “z” drugs

- WMP liaised with Health Solutions Wales (HSW) to obtain the raw prescribing data in relation to benzodiazepines and other drugs as mentioned above.
- The following drug baskets were agreed

#### **Benzodiazepine hypnotics**

flurazepam  
loprazolam  
lormetazepam  
nitrazepam  
temazepam

#### **Non-benzodiazepine hypnotics (“z” drugs)**

zaleplon  
zolpidem  
zopiclone

#### **Anxiolytics**

chlordiazepoxide  
diazepam  
lorazepam  
oxazepam

- It is sometimes difficult to differentiate the indications for which benzodiazepines are used, and some of these conditions may be appropriate for long term prescribing: For the purpose of this research project and development of the drug “baskets” for analysis, it was decided to not include midazolam (used for anaesthesia) or clobazam and clonazepam (used for epilepsy). Diazepam may also be used orally for muscle spasm and via rectal or intravenous route for seizures. The decision was taken not to further breakdown diazepam to preparation level as the items for parenteral or rectal use, compared to items for diazepam tablets, would be very small. It was also agreed not to include chloral hydrate and triclofos sodium in the prescribing analysis as the current usage of these products is minimal.
- The prescription analysis was undertaken for the 22 former LHBs which existed prior to the NHS reorganisation in Wales in 2009.
- The following graphs were agreed:-

22 graphs (one for each LHB) based on volume data, items per 1000 patients (and also on cost per 1000 patients) for each of the financial years 04/05 to 08/09 using the specified hypnotic basket so giving three bar charts for each financial year for

total hypnotics (benzodiazepines and “z” drugs), “z” drugs, benzodiazepine hypnotics. (See Appendix 3)

22 graphs (one for each LHB) based on volume data, items per 1000 patients (and also cost per 1000 patients) for each of the financial years 04/05 to 08/09 for the specified anxiolytic basket. (See Appendix 3)

Two graphs for the 22 LHBs looking at the Welsh indicator target for hypnotics and anxiolytics for the financial year ending March 2009; one graph using items per 1000 patients, the other using defined daily doses (DDDs) per 1000 patients. (See Appendix 3)

- The 5 year time period ending with financial year 2008/09 was chosen because if calendar years had been chosen the prescribing information for December 2009 would not have been available until March 2010. This would have interfered with the delivery date of the project.
- It was decided to include separate trend graphs for anxiolytics and hypnotics in order to audit any future interventions and be able to identify whether a patient is receiving a hypnotic or an anxiolytic.
- The prescribing measure of items per 1000 patients was chosen for two reasons:-

For ease of benchmarking with England, since the volume comparators in England (which allow comparison of drug utilisation within a therapeutic area on a weighted population basis) are different to those used in Wales.

The long term use of hypnotics and anxiolytics should generally be avoided across all age groups so using items per prescribing unit (PU) (to take account of age) is not required. (See Appendix 4)

- The Welsh Medicines Partnership (WMP) analysed the prescribing data for frequency, trend, variation and cost. WMP also considered data in conjunction with the Welsh Index Multiple Deprivation 2008 (WIMD) ranking for each of the 22 LHBs and the seven Health Boards (HBs) (See Appendix 5).
- The prescribing data was divided into quartiles which were colour coded so that the different LHB hypnotic and anxiolytic prescribing ranges could be presented more clearly.
- The number of items of hypnotics per 1000 patients was sub-divided into the following ranges: - 425->500 (red), 350-424 (blue), 275-349 (green) <200-274 (yellow).
- The number of items of anxiolytics per 1000 patients was sub-divided into the following ranges: - 276-330 (red), 221-275 (blue), 166-220 (green), <110-165 (yellow).

## **6.2 Phase 2. Analysis of prescribing data and benchmarking of data against England and similar socio-economic area (North East England SHA)**

- WMP benchmarked Welsh hypnotic and anxiolytic prescribing data against England and North East of England SHA hypnotic and anxiolytic prescribing data. The North

- Prescribing information for hypnotics and anxiolytics, for England and the North East of England SHA respectively, in the same graph format, using the same drug baskets as the Welsh prescribing data and over the same time period, was provided by the Regional Drug and Therapeutics Centre, Newcastle upon Tyne.
- In England the Prescribing Support Unit uses average daily quantities (ADQ) as the volume measure. In Wales, defined daily doses (DDDs) are used. The AWMSG national prescribing indicator for hypnotics and anxiolytics is DDD per 1000 patients. In England, for example, the prescribing measure for benzodiazepines is ADQs per STAR-PU. (See Appendix 4 for definitions of these prescribing measures)
- Due to differences in refined measure, the basic measure of items per 1000 patients was used for this analysis.

### **6.3 Phase 3. Identification of Welsh geographical areas of good prescribing practice**

Informed views were sought from the Heads of Pharmacy and Medicines Management (HoPMMs) of each of the 22 LHBs (as existed prior to the October 2009 re-organisation) on the reasons for the variability of prescribing of hypnotics and anxiolytics between GP practices and for the total level of prescribing of hypnotics and anxiolytics in each of their localities.

A questionnaire was drafted and piloted with four senior prescribing advisors. It was then emailed to the HoPMMs (or relevant deputies). It also asked for details of any initiatives, support material or campaigns, withdrawal clinics or measures that were in place to stop long term prescribing for new users within the locality. There was the option to either complete and return, or complete via telephone after a three week time period of receipt.

### **6.4 Phase 4. Analysis of demographic data**

For the purpose of this analysis the Welsh Index of Multiple Deprivation 2008 was used (see Appendix 5 for explanation of the WIMD 2008). It was not feasible to compare WIMD 2008 with an English index – a joint index would be required.

There are no official local authority deprivation scores. Local authority scores can be calculated, but there are several ways to calculate the value, each giving a different answer.

For this analysis WMP used the percentage of Lower Super Output Areas (LSOAs) in each HB/LHB which are in the most deprived fifth in Wales (see Appendix 5). In Wales the majority of the deprived areas are found in the South Wales valleys, some parts of the North Wales coast and parts of Cardiff and Swansea. However, within less deprived areas there are often small pockets of deprivation.

## **7. FINDINGS**

### **7.1 Information from prescribing trend graphs.**

Table 1 (overleaf) shows the rate of prescribing of hypnotics and anxiolytics in 2008/09 and the percentage of LSOAs, in the most deprived fifth of Wales, which are in each of the seven new Health Boards and in the 22 LHBs according to the Welsh Index of Multiple Deprivation 2008.

**Table 1. Prescribing of hypnotics and anxiolytics in 2008/09 with multiple deprivation ranking of LHB**

Health board	% LSOAs in most deprived fifth in Wales	LHB	LHB Ranking (1 = most deprived)	Items of hypnotics per 1000 patients in 08/09	LHB Hypnotic Ranking (1 = highest)	Items of anxiolytics per 1000 patients in 08/09	Anxiolytic Ranking (1 = highest)
Abertawe Bro Morgannwg UHB	27%	Swansea	9	288.48	13	249.08	8
		Bridgend	8	234.85	20	188.86	15
		Neath/Port Talbot	4	333.91	8	291.64	4
Aneurin Bevan HB	24%	Caerphilly	6	321.13	11	255.7	7
		Blaenau Gwent	2	284.53	15	141.68	20
		Torfaen	10	327.25	10	181.78	16
		Monmouthshire	22	206.21	21	106.74	22
		Newport	5	269.34	17	192.4	14
Betsi Cadwaladr UHB	12%	Gwynedd	19	391.29	4	215.84	11
		Conwy	13	350.00	7	217.87	10
		Denbighshire	11	500.73	1	233.68	9
		Flintshire	15	281.27	16	145.20	19
		Wrexham	12	356.35	6	176.37	18
		Ynys Mon	15	406.12	3	208.88	12
Cardiff & Vale UHB	21%	Cardiff	6	195.86	22	180.44	17
		Vale of Glamorgan	17	249.39	19	198.72	13
Cwm Taf HB	39%	Merthyr Tydfil	1	331.53	9	285.2	5
		RCT	3	287.65	14	319.93	2
Hywel Dda HB	10%	Carmarthenshire	13	414.5	2	328.34	1
		Ceredigion	20	367.98	5	305.74	3
		Pembrokeshire	17	302.79	12	277.04	6
Powys Teaching HB	4%	Powys	20	259.56	18	134.18	21

Hypnotics

Anxiolytics

■ 425->500 items per 1000 pts	■ 276-330 items per 1000 pts
■ 350-424 items per 1000 pts	■ 221-275 items per 1000 pts
■ 275-349 items per 1000 pts	■ 166-220 items per 1000 pts
■ < 200-274 items per 1000 pts	■ <110-165 items per 1000 pts

**Table 2. Percentage change in hypnotic and anxiolytic prescribing 04/05 to 08/09 with multiple deprivation ranking of LHB**

LHB Ranking (1= most deprived)	Items of hypnotics per 1000 patients in 08/09	% change 04/05 to 08/09	Items of anxiolytics per 1000 patients in 08/09	% change 04/05 to 08/09		
9	Swansea	288.48	-15%	Swansea	249.08	-3%
8	Bridgend	234.85	-8%	Bridgend	188.86	+ 7%
4	Neath/ Port Talbot	333.91	-20%	Neath/ Port Talbot	291.64	+ 2%
6	Caerphilly	321.13	-9%	Caerphilly	255.7	+6%
2	Blaenau Gwent	284.53	-26%	Blaenau Gwent	141.68	-3%
10	Torfaen	327.25	-3%	Torfaen	181.78	+18%
22	Monmouthshire	206.21	-2%	Monmouthshire	106.74	+16%
5	Newport	269.34	-7%	Newport	192.4	-0.7%
19	Gwynedd	391.29	+4%	Gwynedd	215.84	+14%
13	Conwy	350.00	-11%	Conwy	217.87	+7%
11	Denbighshire	500.73	-14%	Denbighshire	233.68	-6%
15	Flintshire	281.27	-15%	Flintshire	145.2	+7%
12	Wrexham	356.35	-12%	Wrexham	176.37	+3%
15	Ynys Mon	406.12	-9%	Ynys Mon	208.88	+15%
6	Cardiff	195.86	-18%	Cardiff	180.44	-5%
17	Vale of Glamorgan	249.39	-2%	Vale of Glamorgan	198.72	+11%
1	Merthyr Tydfil	331.53	-35%	Merthyr Tydfil	285.2	-15%
3	RCT	287.65	-25%	RCT	319.93	-8%
13	Carmarthenshire	414.5	-21%	Carmarthenshire	328.34	+ 0.4%
20	Ceredigion	367.98	-14%	Ceredigion	305.74	- 8%
17	Pembrokeshire	302.79	-6%	Pembrokeshire	277.04	+19%
20	Powys	259.56	-8%	Powys	134.18	-4%

Hypnotics

Anxiolytics

<span style="background-color: red; color: white; padding: 2px;">■</span> 425->500 items per 1000 pts	<span style="background-color: red; color: white; padding: 2px;">■</span> 276-330 items per 1000 pts
<span style="background-color: cyan; color: white; padding: 2px;">■</span> 350-424 items per 1000 pts	<span style="background-color: cyan; color: white; padding: 2px;">■</span> 221-275 items per 1000 pts
<span style="background-color: green; color: white; padding: 2px;">■</span> 275-349 items per 1000 pts	<span style="background-color: green; color: white; padding: 2px;">■</span> 166-220 items per 1000 pts
<span style="background-color: yellow; color: black; padding: 2px;">■</span> < 200-274 items per 1000 pts	<span style="background-color: yellow; color: black; padding: 2px;">■</span> <110-165 items per 1000 pts

**Table 3. Percentage change in zopiclone and benzodiazepine hypnotic prescribing 04/05 to 08/09 and multiple deprivation ranking of LHB**

Health board	Items of hypnotics per 1000 patients in 08/09		LHB Ranking (1 = most deprived)	% change in zopiclone prescribing 04/05 to 08/09	% change in benzodiazepine prescribing 04/05 to 08/09
Abertawe Bro Morgannwg UHB	Swansea	288.48	9	+4%	-23%
	Bridgend	234.85	8	+4%	-14%
	Neath/ Port Talbot	333.91	4	-15%	-22%
Aneurin Bevan HB	Caerphilly	321.13	6	-8%	-10%
	Blaenau Gwent	284.53	2	-3%	-46%
	Torfaen	327.25	10	+1%	-10%
	Monmouthshire	206.21	22	+20%	-26%
	Newport	269.34	5	+4%	-20%
Betsi Cadwaladr UHB	Gwynedd	391.29	19	+13%	-7%
	Conwy	350.00	13	-8%	-14%
	Denbighshire	500.73	11	-6%	-23%
	Flintshire	281.27	15	-14%	-15%
	Wrexham	356.35	12	-4%	-19%
	Ynys Mon	406.12	15	-2%	-22%
Cardiff & Vale UHB	Cardiff	195.86	6	-23%	-16%
	Vale of Glamorgan	249.39	17	+14%	-8%
Cwm Taf HB	Merthyr Tydfil	331.53	1	-30%	-39%
	RCT	287.65	3	-18%	-28%
Hywel Dda HB	Carmarthenshire	414.5	13	-17%	-24%
	Ceredigion	367.98	20	-14%	-14%
	Pembrokeshire	302.79	17	-9%	-3%
Powys Teaching HB	Powys	259.56	20	+10%	-23%

Hypnotics  
■ 425->500 items per 1000 pts  
■ 350-424 items per 1000 pts  
■ 275-349 items per 1000 pts  
■ < 200-274 items per 1000 pts



**Table 4 Percentage change in cost of hypnotics and anxiolytics prescribed 04/05 to 08/09**

Cost of hypnotics per 1000 patients in 08/09 *		% change in hypnotic prescribing cost 04/05 to 08/09	Cost of anxiolytics per 1000 patients in 08/09 *		% change in anxiolytic prescribing cost 04/05 to 08/09
Swansea	£868	24%	Swansea	£679	154%
Bridgend	£655	23%	Bridgend	£653	218%
Neath/Port Talbot	£1073	18%	Neath/Port Talbot	£972	203%
Caerphilly	£802	-7%	Caerphilly	£697	192%
Blaenau Gwent	£856	-14%	Blaenau Gwent	£466	171%
Torfaen	£687	-28%	Torfaen	£497	194%
Monmouthshire	£534	-8%	Monmouthshire	£456	293%
Newport	£878	7%	Newport	£473	113%
Gwynedd	£1012	-9%	Gwynedd	£686	196%
Conwy	£975	-4%	Conwy	£677	172%
Denbighshire	£1038	-29%	Denbighshire	£722	161%
Flintshire	£636	-21%	Flintshire	£451	180%
Wrexham	£785	-20%	Wrexham	£525	148%
Ynys Mon	£792	-42%	Ynys Mon	£458	139%
Cardiff	£676	34%	Cardiff	£553	188%
Vale of Glamorgan	£936	62%	Vale of Glamorgan	£645	206%
Merthyr Tydfil	£941	-19%	Merthyr Tydfil	£1029	152%
RCT	£833	-0.8%	RCT	£1320	191%
Carmarthenshire	£1074	-19%	Carmarthenshire	£870	158%
Ceredigion	£1126	17%	Ceredigion	£755	193%
Pembrokeshire	£790	14%	Pembrokeshire	£751	249%
Powys	£663	-2.5%	Powys	£592	252%

**Hypnotics**

- £981-£1130
- £831-£980
- £681-£830
- < £530-£680

**Anxiolytics**

- £1110 - £1320
- £892 - £1109
- £671 - £891
- £450 - £670

### **Summary of findings for hypnotic prescribing rates**

- Hypnotic prescribing has decreased by large percentages over 04/05 to 08/09 in a number of LHBs with high multiple deprivation ranking.
- Although LHBs with low multiple deprivation ranking, such as Powys and Monmouthshire, have hypnotic prescribing rates in the lowest range, no causal relationship has been shown between hypnotic prescribing rate and multiple deprivation ranking of the 22 LHBs (*Spearman's Rho* = 0.0780,  $p > 0.05$ ).
- Generally lower decreases in hypnotic prescribing rates were seen in those LHBs with prescribing already in the two lowest prescribing ranges.

### **Summary of findings for anxiolytic prescribing rates**

- Reductions in anxiolytic prescribing have not been of a similar magnitude to those for hypnotic prescribing.
- There is no causal relationship between anxiolytic prescribing rate and multiple deprivation ranking of the 22 LHBs (*Spearman's Rho* = - 0.2228,  $p > 0.05$ ).

### **Summary of findings for cost of hypnotics and anxiolytics**

- The LHBs' banding ranges for hypnotic prescribing were either the same as, or in the band below, the banding ranges for anxiolytic items. Three exceptions were Carmarthenshire, Ceredigion and Pembrokeshire where the costs were in the second lowest range despite items being in the highest prescribing range.

## 8. RECOMMENDATION SUMMARY

No.	Recommendation	Page no. (Appendix 2)
1	<ul style="list-style-type: none"> <li>Health Boards (HBs) in Wales should address the possible over-prescribing of hypnotics and anxiolytics.</li> </ul>	39
2	<ul style="list-style-type: none"> <li>Health Boards should include hypnotic and anxiolytic prescribing targets within the Quality and Outcomes Framework (QOF) of the GP contract</li> </ul>	41
3	<ul style="list-style-type: none"> <li>Health Boards should support the development of hypnotic and anxiolytic withdrawal clinics for high prescribing practices.</li> </ul>	43
4	<ul style="list-style-type: none"> <li>Health Boards should consider the development of Local Enhanced Services for the management of hypnotic and anxiolytic prescribing.</li> </ul>	44
5	<ul style="list-style-type: none"> <li>Procedures/guidelines should be in place within Secondary Care and/or Community Mental Health Teams (CMHTs) for communication of necessary information to the GP.</li> </ul>	46
6	<ul style="list-style-type: none"> <li>Health Boards should explore and consider implementing successful initiatives based on in-house, other HB and/or English/North East England SHA experiences.</li> </ul>	49
7	<ul style="list-style-type: none"> <li>Health Boards should consider locality-wide campaigns for targeted MURs within community Pharmacies on hypnotics and anxiolytics.</li> </ul>	49
8.	<ul style="list-style-type: none"> <li>Health Boards with high hypnotic and anxiolytic prescribing should consider inclusion of targets for lowering prescribing within local prescribing incentive schemes.</li> </ul>	50
9	<ul style="list-style-type: none"> <li>All patients should be reviewed on admission to a care home (Nursing or Personal Care). Training for care home workers with regard to hypnotic and anxiolytic treatment should be promoted.</li> </ul>	52
10	<ul style="list-style-type: none"> <li>Health Boards should explore initiatives/funding streams to address appropriate hypnotic and anxiolytic prescribing.</li> </ul>	53
11	<ul style="list-style-type: none"> <li>National policy and guidelines should be in place in every GP practice to ensure that patients are given a consistent message with regard to initiation and review of hypnotic and anxiolytic prescribing.</li> </ul>	54
12	<ul style="list-style-type: none"> <li>Health Boards should identify and meet the training needs of health professionals involved in addressing the inappropriate prescribing of hypnotics and anxiolytics.</li> </ul>	56

13	<ul style="list-style-type: none"> <li>Health Boards should collate a list of voluntary organisations which is available for GPs and other health professionals to direct patients for help, according to their needs.</li> </ul>	56
14	<ul style="list-style-type: none"> <li>The All Wales Medicines Strategy Group (AWMSG) should approve an All Wales resource/ educational package to encourage appropriate hypnotic and anxiolytic prescribing. This should include a GP practice guide, patient information leaflets, audit pack, secondary care hypnotic and anxiolytic prescribing policy, and policy/guidelines for initiating and withdrawing patients on hypnotics/anxiolytics.</li> </ul>	59
15	<ul style="list-style-type: none"> <li>The Welsh Assembly Government (WAG) should provide HBs with guidance on cognitive behavioural support (CBT) and patient education/media campaigns.</li> </ul>	60
16	<ul style="list-style-type: none"> <li>The All Wales prescribing indicator for hypnotics and anxiolytics should be reviewed in the light of the findings of this report</li> </ul>	61

## 9 REFERENCES

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## 10. ACKNOWLEDGMENTS

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Professor Roger Walker, Public Health, Wales

# The nature and scope of benzodiazepine and “z” drug prescribing in Wales

## 11. APPENDICES

### CONTENTS

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Please note that Appendices are only available on request.

APPENDIX1

ENGLISH PRESCRIBING DATA.

Figure 1 English hypnotic prescribing trends 04/05 to 08/09

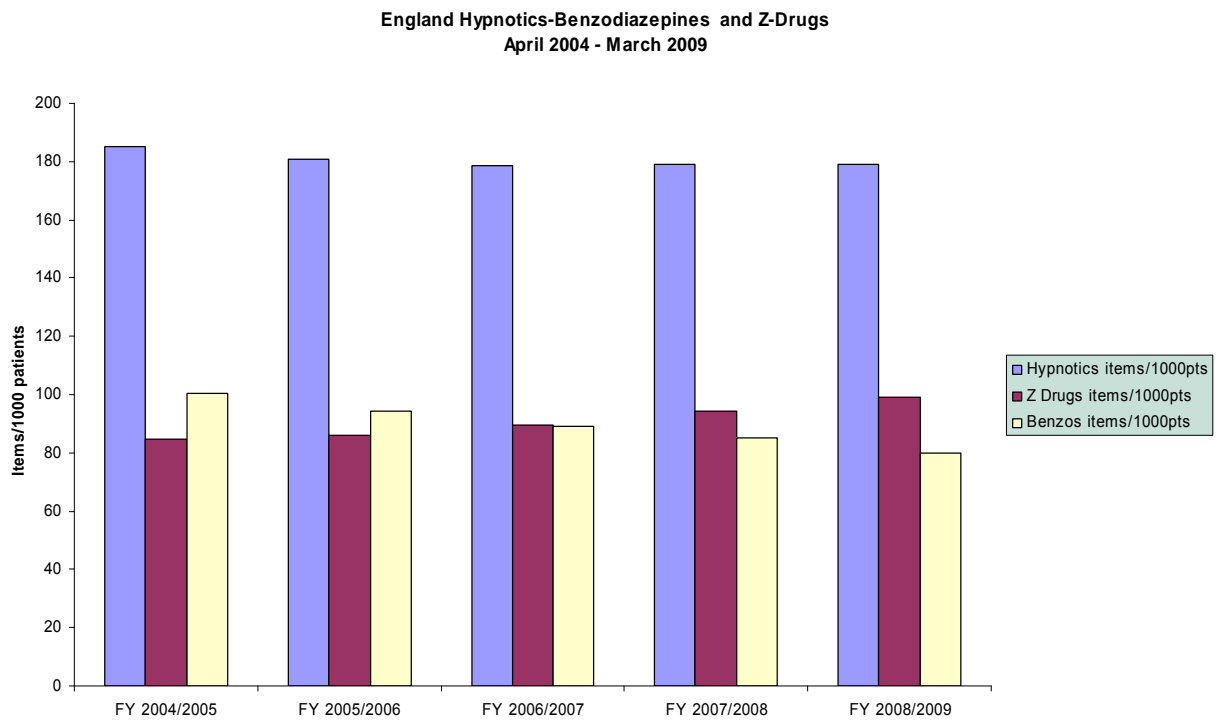
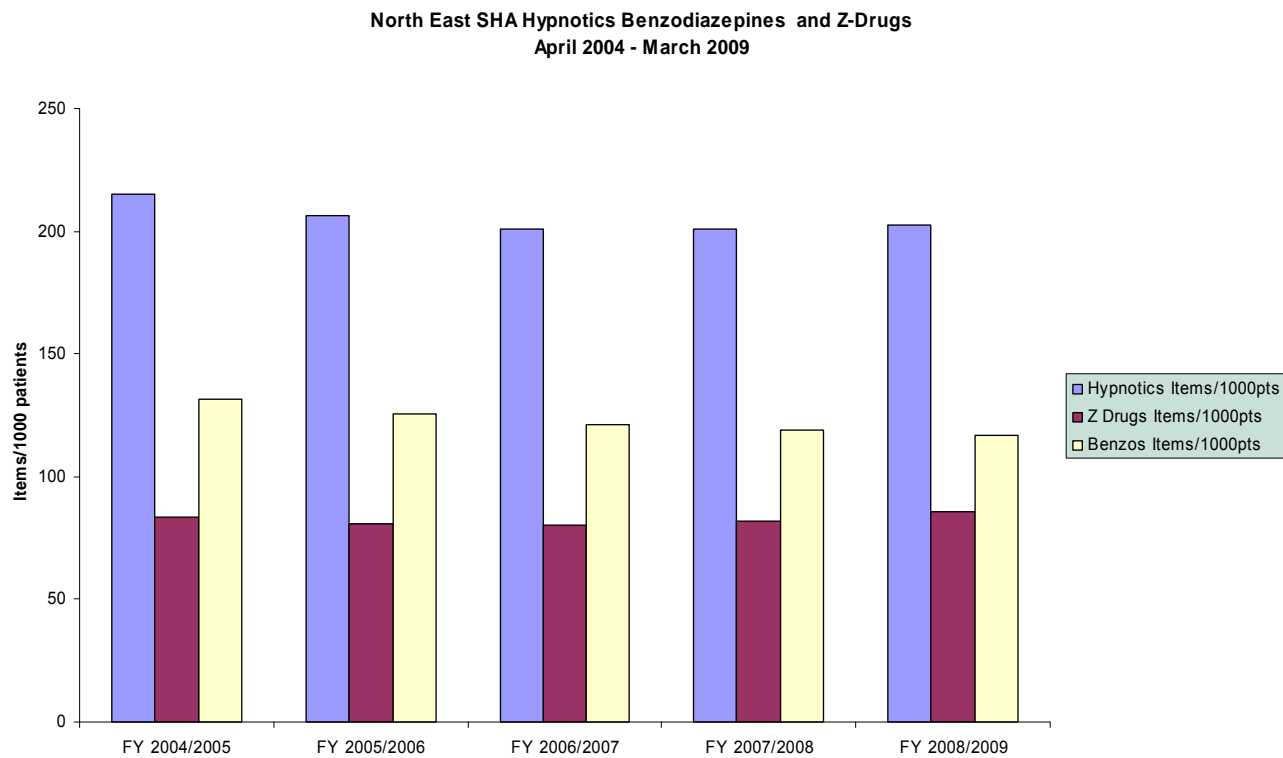


Figure 2 North East England Strategic Health Authority (SHA) hypnotic prescribing trends 04/05 to 08/09



**Table 1. Items of hypnotics per 1000 patients in England and North East England SHA in 08/09 and percentage prescribing change over 04/05 to 08/09**

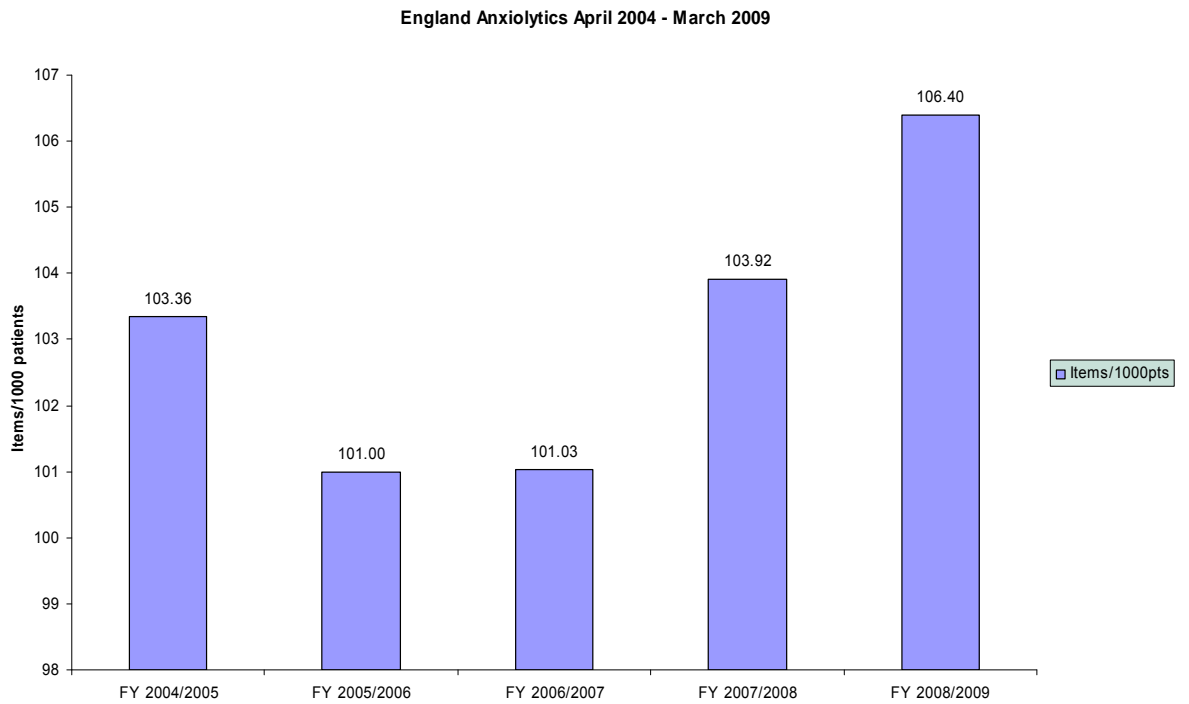
<b>Items of hypnotics per 1000 patients in 08/09</b>	<b>% change in hypnotic prescribing 04/05 to 08/09</b>
England 178.93	-3%
North East England SHA 202.33	-6%

### Summary

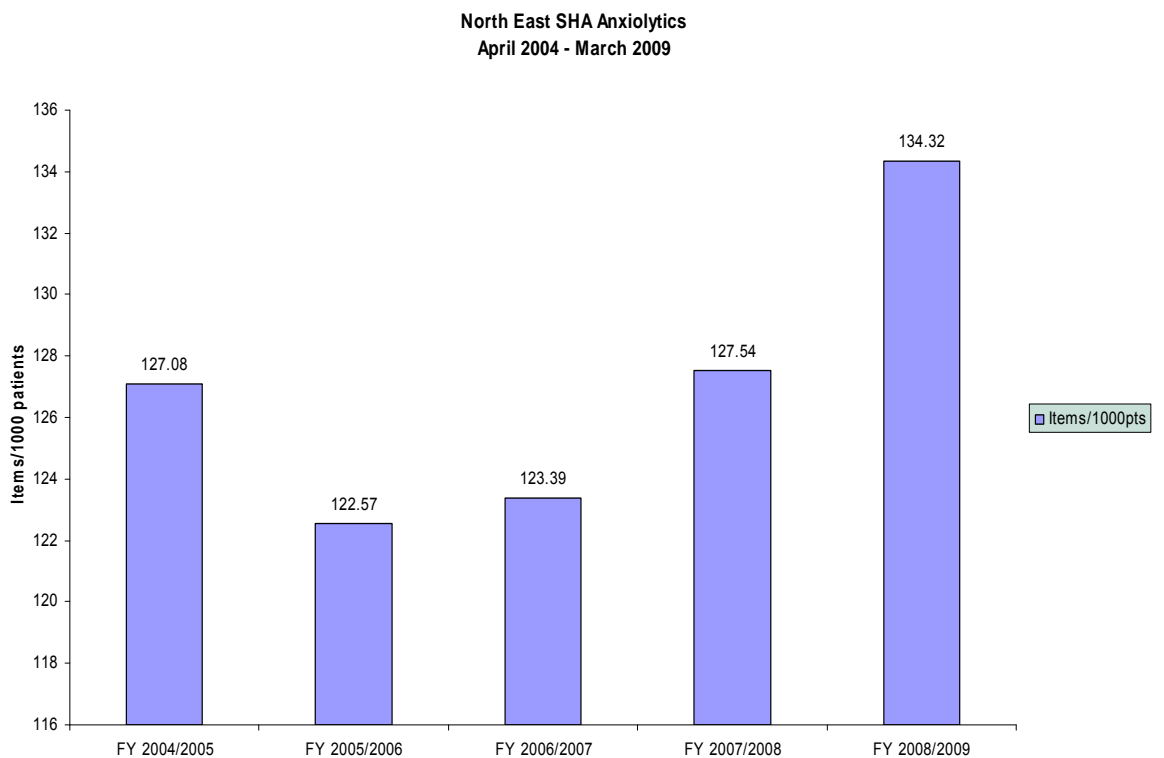
- The range of items of hypnotics prescribed per 1000 patients in Wales in 08/09 was 195.86 (Cardiff) to 500.75 (Denbighshire).
- The prescribing rate of hypnotics of 178.93 per 1000 patients in 08/09 for England is lower than that for all the LHBs in Wales. Cardiff LHB, at 195.86 items per 1000 patients, is the nearest.
- The prescribing rate of hypnotics of 202.33 per 1000 patients in 08/09 for the North East England Strategic Health Authority (SHA) is lower than 21 of the LHBs in Wales.
- The only LHB in Wales with lower hypnotic prescribing rate than the North East England SHA (for 08/09) is Cardiff.
- Only five LHBs (Powys, Cardiff, Vale of Glamorgan, Monmouthshire, Newport) were in the lowest prescribing range (<200-274).
- For the time period 04/05 to 08/09, the number of items of hypnotics decreased by -3% and -6% in England and the North East SHA respectively.
- For the time period 04/05 to 08/09 the range in percentage change in hypnotic prescribing (based on items per 1000 patients) was -2% (Monmouthshire and Vale of Glamorgan) to -35% (Merthyr Tydfil).
- Decreases in hypnotic prescribing of more than 6% occurred in all LHBs except Torfaen (-3%), Monmouthshire (-2%) and Vale of Glamorgan (-2%) and Gwynedd where prescribing of hypnotics increased by 4% over the time period 04/05 to 08/09.



**Figure 3. English anxiolytic prescribing data 04/05 to 08/09**



**Figure 4. North East England SHA anxiolytic prescribing data 04/05 to 08/09**



**Table 2. Items of anxiolytics per 1000 patients in England and North East England SHA in 08/09 and percentage prescribing increase over 04/05 to 08/09**

Items of anxiolytics per 1000 patients in 08/09	% change in anxiolytic prescribing 04/05 to 08/09
England 106.40	+3%
North East England SHA 134.32	+6%

### Summary

- The range of items of anxiolytics prescribed per 1000 patients in Wales in 08/09 was 106.74 (Monmouthshire) to 328.34 (Carmarthenshire).
- The prescribing rate of anxiolytics of 106.40 items per 1000 patients in 08/09 for England is lower than in 21 of the LHBs in Wales.
- Monmouthshire is the only LHB in Wales with comparable anxiolytic prescribing rates which may be due to cross-boundary effect of prescribing messages.
- The prescribing rate of anxiolytics of 134.32 per 1000 patients in 08/09 for North East England SHA is lower than for 20 of the LHBs in Wales, being comparable with Powys and higher than only Monmouthshire.
- For the time period 04/05 to 08/09, anxiolytic prescribing increased by 3% and 6% in England and the North East England SHA respectively.
- For the time period 04/05 to 08/09 the range in percentage increase in anxiolytic prescribing (based on items per 1000 patients) was 0.4% (Carmarthenshire) to 19% (Pembrokeshire).
- Increases in anxiolytic prescribing of 6% or more occurred in Bridgend, Torfaen, Monmouthshire, Gwynedd, Conwy, Flintshire, Ynys Mon, Vale of Glamorgan and Pembrokeshire.
- The North East of England has similar socio-economic and health factors to Wales and so the question needs to be asked and addressed as to why prescribing rates of hypnotics and anxiolytics are so much lower in this region than in Wales.

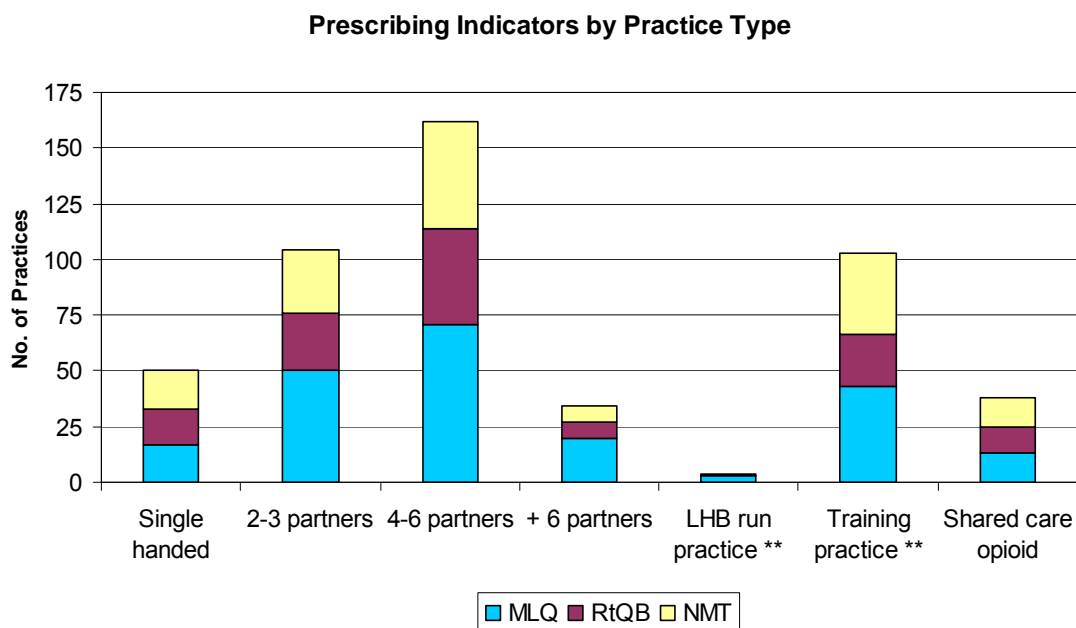
## APPENDIX 2

### NHS WALES QUESTIONNAIRE RESULTS

Informed views were sought from the Heads of Pharmacy and Medicines Management (HoPMMs) of each of the 22 LHBs via a questionnaire; the feedback of which is summarised within this Appendix.

#### 1.1 Question 1. Breakdown of type of GP practice meeting the All Wales prescribing indicator for anxiolytics and hypnotics

Figure 1. GP practices meeting All Wales prescribing indicator for anxiolytics and hypnotics by practice type



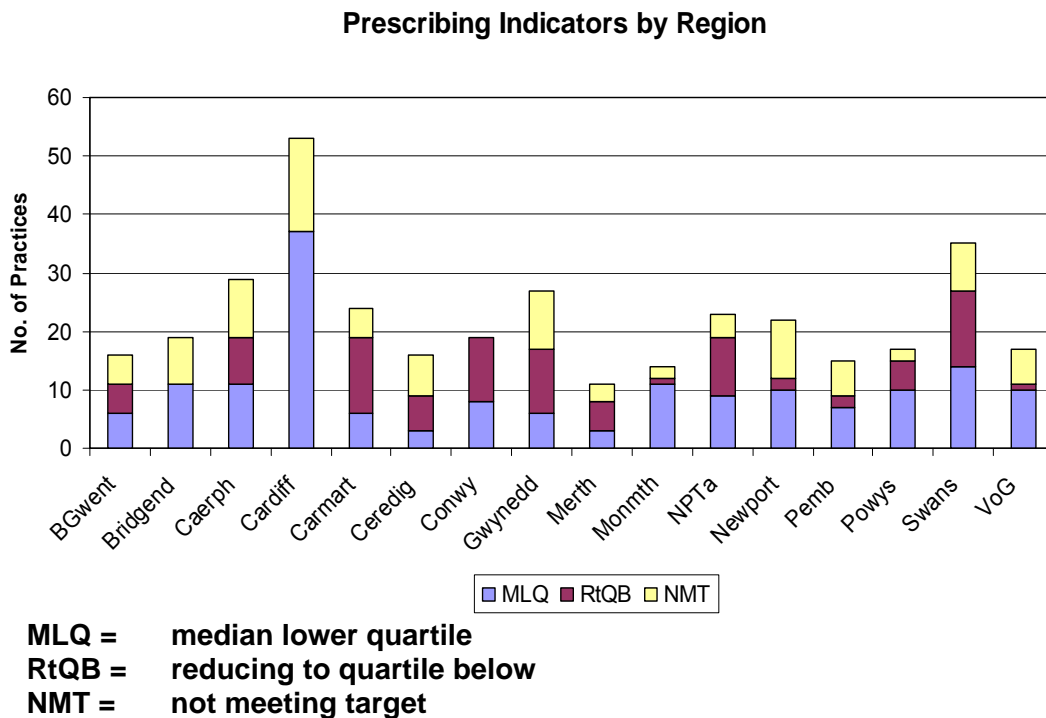
**MLQ = median lower quartile**  
**RtQB = reducing to quartile below**  
**NMT = not meeting target**

#### Summary

- It has not been possible, from the limited information received, to establish a correlation between meeting the All Wales prescribing indicator for hypnotics and anxiolytics and the type of GP practice. This is measured as the Defined Daily Dosage (DDD) per 1,000 patients (see Appendix 4). Health Boards (HBs) and GP Practices should maintain anxiolytic and hypnotic prescribing performance levels within the lower quartile or show a reduction towards the quartile below.

- Some prescribing advisors thought that practices with a higher number of partners may be higher prescribers as it may be more difficult to get consensus agreement on prescribing of hypnotics and anxiolytics and hence give a consistent message to patients. Some small single handed practices can operate a tight control on prescribing of these drugs. Where there is tight control of prescribing of hypnotics and anxiolytics, patients have also been known to de-list and enrol in other GP practices.
- “Shared care opioid” GP practices are those with GPs with an interest in Substance Misuse who prescribe opioid replacement for substance misusers with support from hospital Specialists within the field where necessary.

**Figure 2. GP practices meeting All Wales prescribing indicator for anxiolytics and hypnotics by region**



**Summary**

- The region with the highest proportion of their practices maintaining performance in the lowest quartile was Monmouth (79%)
- The region with the lowest proportion of their practices maintaining performance in the lowest quartile was Ceredigion (19%)

## 1.2 Question 2. Breakdown of type of GP practice with QoF mental health and depression indicators >98%.

### Summary

- A study by Tsimtsiou Z et al indicated that social deprivation was the major determinant of prescribing volume of anxiolytic and hypnotic prescribing in England with higher prescribing levels in more deprived areas. However certain GP practice attributes were also associated with lower levels of prescribing such as scoring more highly on chronic Clinical care, organisational QoF domains or being a training practice. However 80% of variation in prescribing remained unexplained by the study<sup>(1)</sup>.
- It has not been possible from the available information to establish a correlation between practices meeting the All Wales prescribing indicator for anxiolytics and hypnotics and high QoF scores for mental health and depression indicators.
- To aid peer review and to target resources, it would be useful for GP practices to compare their prescribing practice with similar GP practices. The following could perhaps be utilised:
- QoF information such as prevalence data
- Mental health register/depression registers (or more specific sub-sets if available)

together with for example:

- social deprivation index
- list size
- number of GP partners
- number of nursing homes etc

This may aid in obtaining more meaningful comparative information and would hopefully have a positive influence on the prescribing practice of those with higher prescribing rates. It should be easier to identify less justified prescribing outliers and improve targeting and planning of resources.

### 1.3 Question 3.

#### Reasons why GP practices are achieving the All Wales prescribing indicator for hypnotics and anxiolytics

**Table 1. Reasons for GP practices achieving the All Wales prescribing indicator**

<b>LHB</b>	<b>Reasons</b>
Blaenau Gwent	Previous good practice - "well informed" patients, single handed, well motivated.
Bridgend	Many practices have introduced policies for prescribing of hypnotics and anxiolytics. Some of the practices have undertaken withdrawal programmes.
Caerphilly	The very low prescribing practices rarely initiate new patients and have historically been low prescribers. Those moving towards the target have either worked with the LHB prescribing support team running benzodiazepine withdrawal clinics or taken positive actions themselves to reduce existing patients.
Cardiff	Unknown
Carmarthenshire	LHB support for all practices - very intensive support for all high prescribers - enforced step down for some patients with support.
Ceredigion	Some of the practices have undertaken review of their current prescribing of hypnotics and anxiolytics. The single handed practices appear to be less likely to prescribe. Two large practices demonstrated good reduction in usage over the previous two years by all partners having a consistent approach and ensuring no repeats were re-authorised without a face to face review with the patient.
Conwy	In 2007, the LHB developed and funded a nurse-led project to support Conwy practices to reduce hypnotic prescribing.
Denbighshire	Not known, but the use of hypnotics has been part of the prescribing incentive scheme for a number of years and this has produced a steady but modest reduction in their use.
Flintshire	No information available
Gwynedd	The practices have reviewed their prescribing over several years and tried to reduce the level of their prescribing.
Merthyr Tydfil	All practices still monitoring use of hypnotics since prescribing incentive scheme and hypnotic reduction work in 2004-6. Practices now aware of long term issues so reluctant to start new patients. Most new patients are initiated in primary care.

Monmouthshire	Historical lower prescribing compared to national average, low deprivation link and possible cross boundary prescribing influence.
Neath/Port Talbot	Some of the practices which achieve the national indicator have historically been low prescribers. Others have actively reduced prescribing in line with national guidance, some with the support of the medicines management team via structured reduction regimes where appropriate.
Newport	Low historical usage, good practice in prescribing with consistent message to patients.
Pembrokeshire	Practice policy for hypnotics/anxiolytics. New patients only accepted if they agree to reduction.
Powys	To date, no work has been undertaken as to whether all practices currently have practice prescribing guidelines/protocols or policies, although a number of initiatives are in the planning process e.g. audit, withdrawal clinics.
RCT	Practices have actively looked at the issues and have undertaken the work themselves or have been supported by the LHB to undertake the reviews necessary to reduce the number of issues.
Swansea	Practice policy for hypnotics and anxiolytics. New patients only accepted if they agree to reduction.
Torfaen	No information available.
Vale of Glamorgan	Out of the 10 practices achieving the indicator; one practice has actively run a reduction programme, one practice has low historic use of hypnotics and benzodiazepines, and one practice has two GPs with Shared Care experience.
Wrexham	The volume of use of hypnotics and anxiolytics has been a key part of Wrexham LHB Prescribing incentive scheme for five years. It is always highlighted in annual visits. Some practices have always been historically low users; others have worked on this with the LHB Prescribing team.
Ynys Mon	The GPs in these practices are low prescribers of any drugs.

**1.4 Question 4.**

**Please describe the overall trend for “z” drug prescribing in your locality over the last five years and detail reasons for the trend**

**Table 2 Trend for “z” drug prescribing by locality over the last five years and reasons for trend**

<b>LHB</b>	<b>Reasons</b>
Blaenau Gwent	<p>“z” drug prescribing stayed the same</p> <ul style="list-style-type: none"> <li>• more concerned with overall use rather than type of drug used</li> </ul>
Bridgend	<p>“z” drug prescribing decreasing</p> <ul style="list-style-type: none"> <li>• Practice prescribing policies implemented</li> <li>• Historical prescribing messages</li> </ul>
Caerphilly	<p>“z” drug prescribing decreasing</p> <ul style="list-style-type: none"> <li>• The LHB has pharmacist-run withdrawal clinics</li> <li>• Practices are also supported in sending out good sleep guides to practices and letters</li> <li>• The LHB shares prescribing data of hypnotic prescribing at GP prescribing leads and presents good practice initiatives and successful practice based work amongst GP practices</li> </ul>
Cardiff	<p>“z” drug prescribing decreasing</p> <p>Implementation of Medicine Management Strategy:-</p> <ul style="list-style-type: none"> <li>• Since 2004/05 LHB has included hypnotics as an action point for practices to look at as part of a medicine management action in the GMS contract framework</li> <li>• This has been included in different forms year on year to encourage practices to review issues</li> <li>• Facilitated a session with a GP with an interest in this area for the GP prescribing leads across Cardiff.</li> <li>• Practices monitored on a quarterly basis on their hypnotic prescribing and given feedback on performance. Issues discussed with individual prescribing advisor</li> <li>• Independent prescribers employed by the UHB have been utilised to run clinics in some practices</li> </ul>
Carmarthenshire	<p>“z” drug prescribing decreasing</p> <ul style="list-style-type: none"> <li>• Increasing LHB priority - education and support for practices</li> </ul>
Ceredigion	<p>“z” drug prescribing stayed the same</p> <ul style="list-style-type: none"> <li>• Followed NICE guidance on “z” drugs; however difficulties in nursing/residential homes as temazepam is classed as a controlled drug (CD), therefore created additional documentation and process and resistance. Hospitals all use z drugs first line therefore, though patients were not discharged on hypnotics (unless they came in on them) this also meant patients requested the 'same as in hospital' when seeing GP after discharge if</li> </ul>



	<p>still having difficulties sleeping. Recent increase to former levels as the cost of temazepam has increased therefore the need to promote its use first line has reduced. Looking for overall reduction in hypnotics</p>
Conwy	<p>“z” drug prescribing increasing</p> <ul style="list-style-type: none"> <li>• Hospital preference for use of “z” drugs over benzodiazepines - discussed with hospital pharmacy.</li> <li>• Low cost of “z” drugs in primary care.</li> <li>• Community pharmacy campaign – “Slips trips and falls” - leaflets available to raise awareness with public and health care professionals</li> </ul>
Denbighshire	<p>“z” drug prescribing decreasing</p> <ul style="list-style-type: none"> <li>• Emphasis through incentive scheme. No direct interventions. Practices have been encouraged to initiate hypnotics more "responsibly"</li> </ul>
Flintshire	No information available
Gwynedd	<p>“z” drug prescribing stayed the same - no trend</p> <ul style="list-style-type: none"> <li>• Status quo has been maintained. The z drugs have not been favoured within the LHB practices.</li> </ul>
Merthyr Tydfil	<p>“z” drug prescribing decreasing</p> <ul style="list-style-type: none"> <li>• Hypnotic reduction clinics run by prescribing advisor at LHB in targeted practices to help with reduction in use.</li> <li>• Ongoing information on indicators provided via visits and newsletters to all practices.</li> <li>• Annual visits - Some practices encouraged to choose this indicator as an action point to focus work and ask for support from LHB</li> </ul>
Monmouthshire	<p>“z” drug prescribing increasing-reason unknown</p> <ul style="list-style-type: none"> <li>• Highlight trends through "usual" prescribing support mechanisms and comparison with others</li> </ul>
Neath/Port Talbot	<p>“z” drug prescribing decreasing</p> <ul style="list-style-type: none"> <li>• In 2004, the LHB organised a prescribing leads session and accompanying newsletter, and funded patient information leaflets and posters with information including ‘Good sleep and good relaxation guides’ and the disadvantages of long term use. These were distributed to practices and community pharmacies to be used as a resource for educating patients</li> </ul>
Newport	<p>“z” drug prescribing stayed the same</p> <ul style="list-style-type: none"> <li>• Containment messages in Incentive Scheme, educational events, peer comparison of hypnotic/anxiolytic prescribing rates, highlighting practice outliers and providing information to practices "Hypnotics and Anxiolytics - RCT Practice Guide"</li> </ul>

Pembrokeshire	<p>“z” drug prescribing decreasing</p> <ul style="list-style-type: none"> <li>Continued monitoring</li> </ul>
Powys	<p>“z” drug prescribing stayed the same</p> <ul style="list-style-type: none"> <li>Initiatives are in development e.g. withdrawal clinics, practice audit.</li> </ul>
RCT	<p>“z” drug prescribing decreasing</p> <ul style="list-style-type: none"> <li>Active reduction programmes</li> <li>Production of practice guide to help practices undertake reduction with methodology to follow</li> <li>Incentive scheme. Monetary reward for active reduction.</li> <li>The secondary care prescribing policy for the prescribing of hypnotics and anxiolytics is in discussion</li> </ul>
Swansea	<p>“z” drug prescribing stayed the same</p> <ul style="list-style-type: none"> <li>2010/11 plan to implement review and reduction of 'z' drug prescribing</li> </ul>
Torfaen	No information available.
Vale of Glamorgan	<p>“z” drug prescribing increasing</p> <ul style="list-style-type: none"> <li>NICE advice - use cheapest; zopiclone use increased with decrease in price</li> <li>Prescribing messages repeatedly include reminder of length of licensed use for hypnotics</li> <li>Secondary care influence on “z” drug prescribing</li> </ul>
Wrexham	<p>“z” drug prescribing stayed the same</p> <ul style="list-style-type: none"> <li>Even though this has been highlighted within the prescribing incentive scheme and practice visits there is a perception of “z” drugs being less addictive and safer</li> </ul>
Ynys Mon	<p>“z” drug prescribing increasing-“z” drugs have replaced benzodiazepines e.g. temazepam &amp; nitrazepam</p> <ul style="list-style-type: none"> <li>“z” drug prescribing practices have been audited</li> </ul>

**1.5 Question 5.**

**Please describe the overall trend for benzodiazepine prescribing in your locality over the last five years and give reasons for the trend**

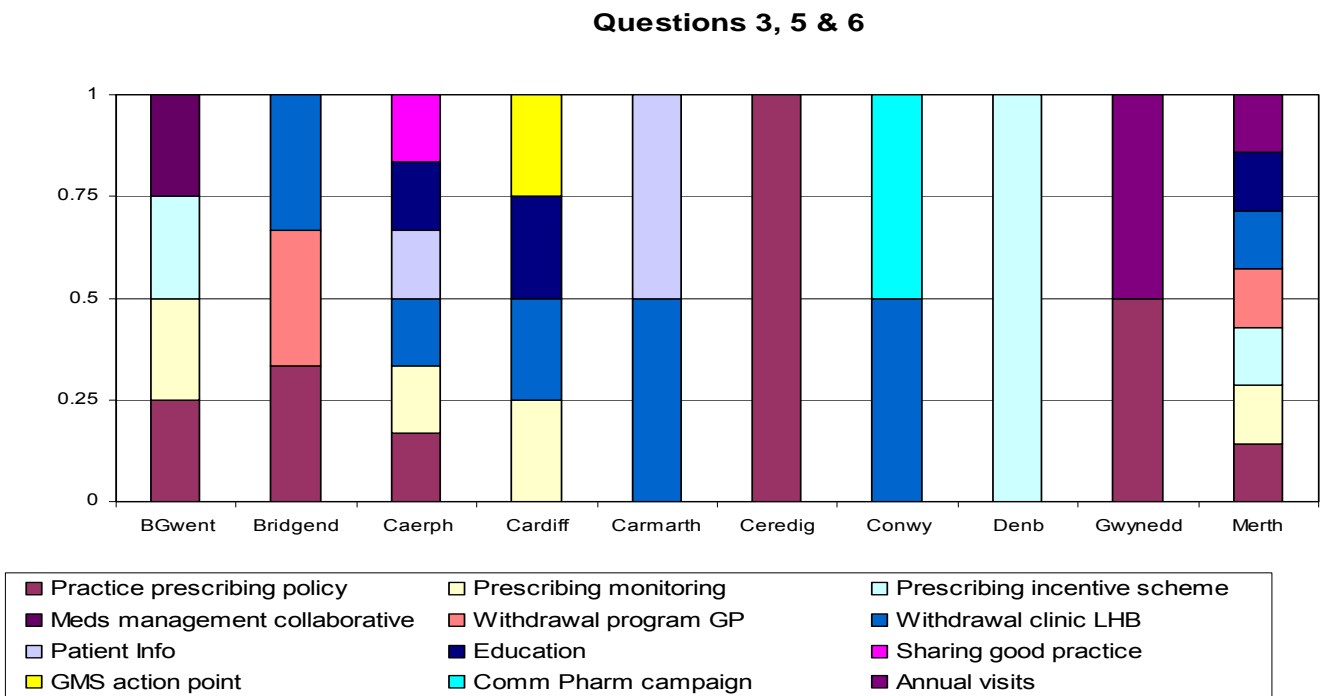
**Table 3. Trend for benzodiazepine prescribing by locality over the last five years and reasons for trend**

<b>LHB</b>	<b>Reasons</b>
Blaenau Gwent	<p>Benzodiazepine prescribing decreasing</p> <ul style="list-style-type: none"> <li>• increased awareness</li> <li>• sharing named prescribing data - peer comparisons</li> <li>• Prescribing Incentive Scheme</li> <li>• Medicines management collaborative had some funding for hypnotic clinics, but this was very limited</li> <li>• Overall - awareness raising, higher LHB priority</li> </ul>
Bridgend	<p>Benzodiazepine prescribing increasing</p>
Caerphilly	<p>Benzodiazepine prescribing decreasing</p> <ul style="list-style-type: none"> <li>• The LHB has pharmacist-led withdrawal clinics</li> <li>• Practices are also supported in sending out good sleep guides to practices and letters</li> <li>• The LHB shares prescribing data and good practice initiatives of hypnotic prescribing at GP prescribing leads meetings</li> </ul>
Cardiff	<p>Benzodiazepine prescribing decreasing</p> <p>Implementation of Medicine Management Strategy:-</p> <ul style="list-style-type: none"> <li>• Initiatives as for “z” drug prescribing</li> </ul>
Carmarthenshire	<p>Benzodiazepine prescribing decreasing</p> <ul style="list-style-type: none"> <li>• Increasing LHB priority - education and support for practices</li> </ul>
Ceredigion	<p>Benzodiazepine prescribing stayed the same</p>
Conwy	<p>Benzodiazepine prescribing decreasing</p> <ul style="list-style-type: none"> <li>• GP awareness and training -NICE guidance promoted by prescribing team.</li> <li>• Project targets high prescribing practices.</li> <li>• Falls strategy - includes the need for medication review</li> </ul>
Denbighshire	<p>Benzodiazepine prescribing decreasing</p> <ul style="list-style-type: none"> <li>• Emphasis through incentive scheme</li> </ul>
Flintshire	<p>Information not available</p>

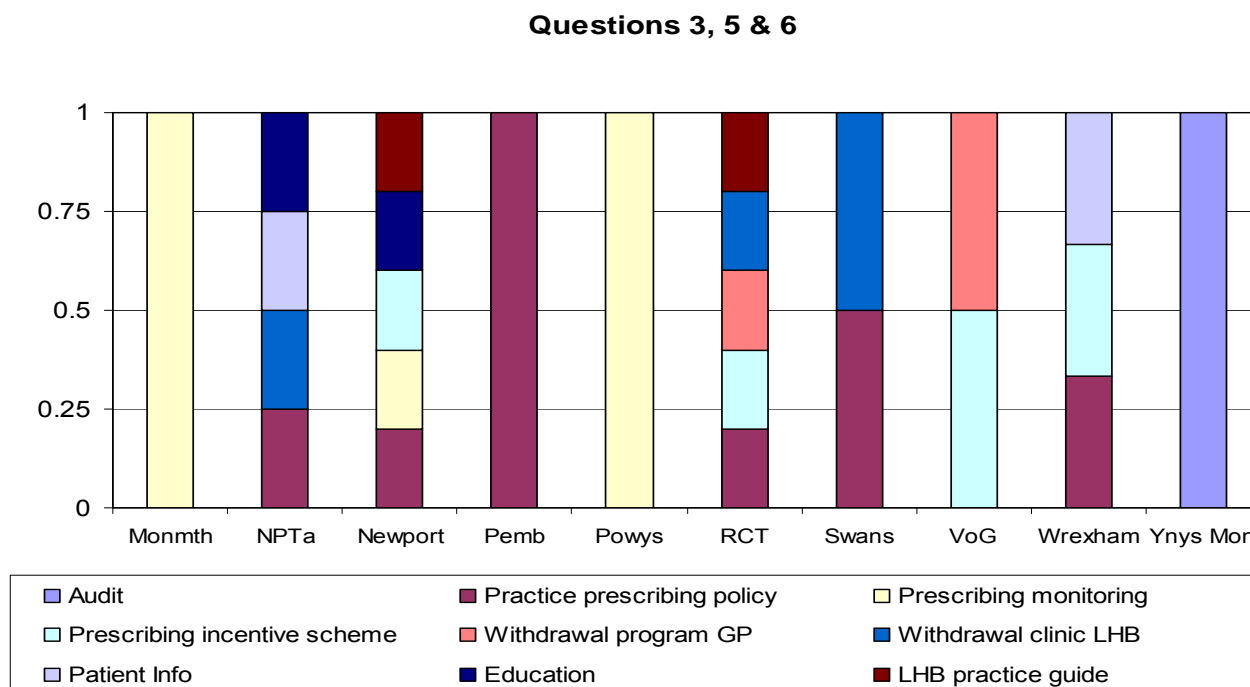
Gwynedd	Benzodiazepine prescribing stayed the same
Merthyr Tydfil	<p>Benzodiazepine prescribing decreasing</p> <ul style="list-style-type: none"> <li>• Hypnotic incentive scheme</li> <li>• Hypnotic reduction clinics run by prescribing advisor as Supplementary Prescriber-led clinic</li> <li>• Annual visits encouraged to choose hypnotics as action point</li> </ul>
Monmouthshire	Benzodiazepine prescribing decreasing
Neath/Port Talbot	<p>Benzodiazepine prescribing decreasing</p> <ul style="list-style-type: none"> <li>• In 2004, the LHB organised a prescribing leads session and accompanying Newsletter, and funded Patient information leaflets &amp; posters with information including 'Good sleep and good relaxation guides' and the disadvantages of long term use. These were distributed to practices and community pharmacies to be used as a resource for educating patients</li> <li>• .Prescribing Leads presentation about pharmacist led reduction clinics and developing and implementing reduction regimes 2008</li> <li>• 2007 onwards, targeted work in practices with high prescribing rates</li> </ul>
Newport	<p>Benzodiazepine prescribing stayed the same</p> <ul style="list-style-type: none"> <li>• Containment by Indicators in Prescribing Incentive Scheme, direct peer comparisons at prescribing leads and quarterly performance reports</li> </ul>
Pembrokeshire	Benzodiazepine prescribing decreasing
Powys	<p>Benzodiazepine prescribing decreasing</p> <ul style="list-style-type: none"> <li>• Initiatives in development e.g. audit, withdrawal clinics</li> </ul>
RCT	<p>Benzodiazepine prescribing decreasing</p> <ul style="list-style-type: none"> <li>• Reasons as for "z" drug prescribing</li> </ul>
Swansea	<p>Benzodiazepine prescribing decreasing</p> <ul style="list-style-type: none"> <li>• diazepam reduction clinics to be continued and extended to other practices</li> <li>• targeting of high prescribing practices to be continued and additional support to practices to be provided</li> </ul>
Torfaen	Information not available
Vale of Glamorgan	<p>Number of items has increased.</p> <ul style="list-style-type: none"> <li>• Partly due to CD regulations (no more than 30 days supply recommended).</li> <li>• Shared care prescribing of substance misuse items</li> <li>• More responsible prescribing - smaller quantities given to specific patients.</li> </ul>

Wrexham	Benzodiazepine prescribing decreasing <ul style="list-style-type: none"> <li>The LHB Medicines team has highlighted this with all GP practices and has offered support accordingly e.g. patient letters</li> </ul>
Ynys Mon	Benzodiazepine prescribing increasing <ul style="list-style-type: none"> <li>GPs say it's due to the increased unemployment in this area - more anxiety with economic crisis</li> </ul>

**Figure 3**  
**Initiatives by each LHB to meet the All Wales prescribing indicator for anxiolytics and hypnotics**



**Figure 4. Initiatives by each LHB to meet the All Wales prescribing indicator for anxiolytics and hypnotics**



### Summary

- Respondents were invited to give reasons why GP practices were meeting the All Wales Hypnotic and anxiolytic prescribing indicator (Q3). For questions 3, 5 and 6, reasons for a decrease in zopiclone and benzodiazepine prescribing were also taken and themed.
- The biggest decreases in both hypnotic and anxiolytic prescribing were seen in Merthyr Tydfil and RCT over the time period 04/05 to 08/09, -35% and -15% and -25% and -8% respectively.
- The biggest decreases in hypnotic prescribing (15% or more) over the time period 04/05 to 08/09 occurred in Swansea, Neath/Port Talbot, Blaenau Gwent, Flintshire, Cardiff, Merthyr Tydfil, RCT and Carmarthenshire. Of these withdrawal clinics were listed as an influencing initiative in Swansea, Neath/Port Talbot, Cardiff, Merthyr Tydfil, RCT and Carmarthenshire.
- According to the questionnaire breakdown (Q3, 5 and 6) withdrawal clinics were also listed as an influencing initiative in Bridgend, Caerphilly, Conwy, Cardiff and the Vale of Glamorgan (GP-led) LHBs.
- The LHBs with hypnotic and/or anxiolytic prescribing in the top two prescribing ranges and where fewer than three initiatives (to address hypnotic and anxiolytic prescribing) were applicable to that LHB, were

Swansea, Ceredigion, Carmarthenshire, Pembrokeshire, Conwy, Gwynedd, Denbighshire, and Ynys Mon.

- In 08/09 the LHBs with anxiolytic prescribing in the highest range (number of items of anxiolytics per 1000 patients) were Neath/Port Talbot, Merthyr Tydfil, RCT, Carmarthenshire, Ceredigion and Pembrokeshire. Numbers of initiatives listed were 4, 7, 5, 2, 1 and 1 respectively.
- LHB prescribing incentive schemes (where LHBs look at national and local prescribing indicators and agree locally what will be included in the scheme) on their own are not adequate to achieve the desired prescribing decrease in this prescribing field. This is because practices can still achieve target levels, and perhaps not include both hypnotics and anxiolytics as an issue, (even if both are included in the incentive scheme)

#### **Recommendation 1**

- Health Boards (HBs) in Wales should address the possible over-prescribing of hypnotics and anxiolytics.

#### **1.6 Question 6.**

##### **Reasons why GP practices are not achieving the All Wales prescribing indicator for hypnotics and anxiolytics**

**Summary of reasons given for practices not meeting targets** (for decrease in use of anxiolytics and benzodiazepines)

- Areas of high unemployment (recession)
- Areas with high levels of nursing home patients and elderly patients
- Prescribing influence of mental health teams
- Polypharmacy
- Historical prescribing from retired prescribers
- High level of transient population
- High level of prevalence of patients with mental health problems
- Influence of secondary care
- Increasing patient demand
- Poor prescribing practice
- Lack of medication review
- Social deprivation
- Substance misuse
- Poor access to withdrawal clinics

It can be seen by the findings that large decreases in prescribing of these drugs can be achieved in LHBs with high social deprivation with an array of interventions and LHB support and that high levels of prescribing are not always associated with LHBs with high deprivation.

**Factors influencing prescribing: - following discussions with prescribing advisors during the project.**

- GPs/ Prescribing leads for the practice with a special interest in mental health
- Training practices or practices with a strong prescribing focus who work particularly closely with the Medicines Management team
- High prescribing within socially deprived areas; often prescribing of other drugs such as dihydrocodeine is also high – i.e. socio-economic reasons
- High number of elderly care homes
- Historical prescribing
- GP perception
- Good QoF medication review scores may be associated with lower prescribing, but not always
- Substance misusers can have an impact on the prescribing measures.
- Culture of the practice - e.g. repeat prescribing policy
- Training of GPs - those who have experienced rotations in Mental Health may be more wary of commencing patients on hypnotics and anxiolytics
- Formulary/GP software e.g. temazepam preferred to nitrazepam prescribing messages added to screen can be useful.
- Therapeutic study sessions
- Secondary care influence and discharge policy
- GPs with a special interest in substance misuse
- Availability of counselling support services, drug withdrawal support service

**1.7 Question 7. Should one or more of the Quality and Outcome Framework (QoF) mental health indicators be targeted on anxiolytic/hypnotic prescribing?**

- The QoF is a system of financial incentives and is about rewarding contractors for good practice (and its associated workload). Achievement is measured against a range of clinical indicators and a range of indicators relating to practice organisation and management, against which practices score points and receive financial rewards, according to how well they perform.
- Currently hypnotic and anxiolytic prescribing are not included in the QoF mental health indicators.
- From April 2009, NICE has overseen a new independent process for developing and reviewing the clinical and health improvement indicators in the QoF. NICE is responsible for producing an annual menu of new, evidence-based clinical and cost-effective indicators where there is a strong case for encouraging uptake of good practice.
- The NICE website has an online facility which allows the submission of suggestions for new indicators based on NICE guidance or other NHS evidence accredited sources. Health professionals, patients, community groups and voluntary organisations can all contribute.



## Summary

- 15 out of 20 respondents (75%) thought that hypnotic and anxiolytic prescribing should be included in the QoF  
Suggestions included:-
  - The QoF should include a national target of DDDs per 1000 patients.
  - Practices to send annual letters to patients to encourage reduction.
  - Practices to have a percentage of patients on repeat medication.
  - Falls prevention for elderly - medication review and slow reduction (up to 6-18 months) to withdraw treatment.
  - Patients on hypnotics/anxiolytics > 4 weeks.
  - Patients with anxiety or depression on hypnotics/anxiolytics.
  - Register of patients on repeat prescribing, or who have received four or more prescriptions in the last twelve months.
  - Number of people on repeat prescriptions for hypnotics who have been offered a face to face consultation to include discussion of reduction in use of hypnotics.

### Recommendation 2

- HBs should include hypnotic and anxiolytic prescribing targets within the Quality and Outcomes Framework (QOF) of the GP contract

### 1.8 Question 8. Have you seen the report on “an inquiry into physical dependence and addiction to prescription and over-the-counter medication: the Welsh perspective”... and has the LHB formally considered the paper?

- In January 2009 the All-Party Parliamentary Drugs Misuse Group published a report on physical dependence and addiction to prescription and over-the-counter medication. <sup>(2)</sup> The report focussed on the prescription of benzodiazepines, “z” drugs, antidepressants, selective serotonin reuptake inhibitors, and over-the-counter sale of codeine-containing analgesics.
- Pharmaceutical Public Health Wales examined the prescribing and over-the-counter sale of these drugs in Wales. <sup>(3)</sup> The findings were presented to the Welsh Advisory panel on Substance Misuse in June 2009 and were circulated to Health Boards, the All Wales Prescribing Advisory Group and the All Wales Medicines Strategy Group for information.
- The prescription data was analysed for the period March 2003 to December 2008 along with over-the-counter sales data for March 2005 to December 2008.
- There was marked variation across Wales in the prescribing and sale of the items monitored that could not be accounted for by demographic and socio-economic factors alone.

## Summary

- Out of 20 replies, 12 (60%) had seen the report, 40% had not.
- No LHB had formally considered the report even if the respondent had seen the report. This may be because of the current NHS re-organisation in Wales
- It was hoped that the report would be considered in due course.

### **1.9 Question 9. Who should withdraw patients from hypnotics/anxiolytics? If it is thought that this should be done by specialised services such as Community Drugs and Alcohol Teams (CDAT) Is this service currently provided (for patients dependent only on hypnotics and anxiolytics?)**

## Summary

- Respondents from Blaenau Gwent, Cardiff, Carmarthenshire, Ceredigion, Merthyr Tydfil, Neath/Port Talbot, Powys, RCT and the Vale of Glamorgan thought that any of the health professionals listed e.g. GPs, nurses, pharmacists, could successfully initiate and lead withdrawal clinics (assuming required competencies are met).
- Consultants within the CDAT service stated that very occasionally they receive referrals for complex patients who are having difficulty withdrawing from benzodiazepines. Such patients may be on a “cocktail” of medications, with physical and mental health problems. Newport LHB stated that CDAT was involved in the withdrawal of hypnotics and anxiolytics.

### ***One example of good practice***

The Prescribed Medication Support Service of Betsi Cadwaladr Health Board was set up in 1990 (in response to a report in 1989 on the misuse of prescribed drugs of dependence) and helps people dependent on prescribed medication in North Wales. The service helps those who are dependent on medication such as hypnotics and anxiolytics, pain killers and anti-depressants. It supports people across Wrexham, Flintshire, and Denbighshire. It offers support to adults of any age (18 years and above) including the elderly who are prescribed any medication that is potentially dependency forming, including over-the-counter-preparations. The service is run by nursing and counselling staff and has over 30 volunteer counsellors working for the team. The counsellors support the work of the clinical team by providing regular therapeutic sessions, often on a weekly basis, depending on the needs of the client.

The Prescribed Medication Support Service also works closely with GPs on more effective ways to identify clients who may benefit from this service. People receive support, including direct advice, counselling, and assistance with regimes to reduce medication dependency, auricular acupuncture and group support. The service has been running since 1992. Typically clients are referred to the Service through their GP, Mental Health Team or via self-

referral; a number of GP practices specifically request help to reduce their prescribing levels.

In 2006, Conwy LHB agreed to fund a pilot initiative in which the Prescribed Medication Support Service extended its operation into Conwy for an initial period of 12 months. The pilot project sought to reduce the level of prescribing by working closely with the five GP practices that had the highest levels of benzodiazepine prescribing. The Support Worker had three distinct roles; firstly to promote good prescribing practices through the education of health professionals about the current guidelines, secondly to give direct clinical support to long-term users of benzodiazepines who wanted to withdraw from their medication. The third role consisted of preventative work in which GPs could refer patients to the Support Worker prior to issuing an initial benzodiazepine prescription. Over the duration of the project the average reduction in benzodiazepine prescribing by the five GP practices taking part was nearly three times greater than the average reduction in prescribing of the GP practices not taking part in the project.

- From information received during the course of this research there is no other similar service to the Prescribed Medication Support Service in Wales

### **Recommendation 3**

- Health Boards should support the development of hypnotic and anxiolytic withdrawal clinics for high prescribing practices.

#### **1.10 Question 10. How many GP practices in your LHB have GPs with an interest in substance misuse who prescribe opioid replacement for substance misusers?**

##### **Summary**

- Information from 16 out of 20 respondents indicates that the Vale of Glamorgan LHB had the highest and Wrexham LHB the lowest percentage of GP practices with GPs having an interest in Substance Misuse who prescribe opioid replacement for substance misusers; 35% and 4% respectively.
- The information received did not allow correlation between the number of practices who have practitioners with an interest in substance misuse and the level of hypnotic and anxiolytic prescribing.

**1.11 Question 11. Does the LHB have a local enhanced service for management of anxiolytic and hypnotic prescribing (as opposed to the national enhanced service for Substance Misuse)?**

- Local Enhanced Services (LES) are those services that may be developed in response to local need, for which the terms and conditions are discussed locally between the LHB and the GP practice, with either party able to ask the Local Medical Committee (LMC) for its support in the process.
- Practices are eligible to participate in a LES service if they can show that they can demonstrate that they meet service specification and receive payment for participation.

**Summary**

- There were no LES schemes in Wales for the management of hypnotic and anxiolytic prescribing during 04/05 to 08/09.
- In Gwynedd hypnotic and anxiolytic prescribing has been included within the Prescribing LES for 2009/10 as an audit pack plus support for practices to discuss reduction with patients.
- It was thought that completion of Parts 1 and 2 of the Royal College of General Practitioners (RCGP) Substance Misuse training would suffice for accreditation and participation in such a scheme.
- 

**Recommendation 4**

- Health Boards should consider development of Local Enhanced Services for the management of hypnotic and anxiolytic prescribing.

**1.12 Question 12. Are there procedures in place at GP level (or issued by secondary care) for patients who have been discharged from hospital on anxiolytics /hypnotics who were not previously taking them?**

**Summary**

- 13 out of 20 respondents replied that there were no procedures in place in GP practices or Secondary care for patients discharged on anxiolytics and/or hypnotics who were not previously on these drugs.
- Some GPs will not put these medications on repeat prescription. They will automatically challenge the discharge recommendation or inform patients that they have a prescription for one week and no longer.

*Problems arise:-*

If a newly initiated hypnotic/anxiolytic, which is intended for short term treatment of insomnia/anxiety only, is written on the take home medication and continued after discharge for no apparent reason.

or

If a newly initiated hypnotic/anxiolytic which is intended for short term treatment of insomnia/anxiety is given regularly throughout the in-patient stay.). As it is newly initiated, the hypnotic/anxiolytic should not be continued on discharge without good reason. In some cases patients may become dependent especially if they have a protracted hospital stay.

- Secondary care discharge policies need to account for the length of inpatient stay

**Example of good practice points.** This is taken from Glan Clwyd's formulary :

- Any prescription should be for the lowest dose and shortest duration and not for more than four weeks
- On admission to hospital, establish if the patient is a regular or occasional user of benzodiazepines or zopiclone
- Regular users should not have their treatment stopped suddenly
- Patients requiring hypnotics in hospital should have them prescribed on the when required ('PRN') side of the prescription chart. They should be reviewed regularly and not be prescribed on discharge unless an explicit withdrawal regime is indicated
- Recognise that patients using benzodiazepines regularly for more than two to four weeks should not have their treatment stopped abruptly and may require a withdrawal regime to be prescribed on discharge
- An example of where it may be appropriate to discharge a patient home on an anxiolytic/hypnotic includes patients receiving palliative care
- Avoid in elderly patients due to prolonged effects and risk of falls
- Short acting benzodiazepines should not be used except for short term indications (or for patients with hepatic impairment) as they may produce a severe withdrawal syndrome

### Recommendation 5

- There should be procedures/guidelines in place (within Secondary Care and/or CMHTs) so that necessary information is provided to the GP for when the GP is expected to continue a hospital (or CMHT) initiated hypnotic or anxiolytic. The GP should receive details about why initiated, expected duration, details of any reducing regime and what information has been given to patient or carer.
- Hypnotics/anxiolytics should not be routinely added to GP repeat prescribing lists following discharge from hospital unless this information is present.
- There should be guidelines in place for junior doctors on initiating anxiolytics/hypnotics in secondary care with review through admission and also very importantly at discharge.
- Before a patient in hospital is prescribed a hypnotic there should be an accurate diagnosis and any treatable causes of insomnia should be addressed e.g. pain, urinary frequency, breathing difficulties, depression, mania, substance misuse etc.
- Review timing of regular medication i.e. sedating medication at night, alerting medication in the morning.
- If hypnotics are deemed necessary, for the majority of patients, prescribe on the 'when required' side of the medication chart (not the regular side) and specify e.g. every 2<sup>nd</sup>/3<sup>rd</sup> night if patient not asleep one hour after retiring to bed.
- Use the lowest dose possible of the preferred hypnotic.
- Nurses should not administer a hypnotic during the patient's hospital stay unless the patient has been unable to sleep for one hour after retiring to bed and is requesting it.
- Regularly review the hypnotic during the patient's hospital stay and discontinue as soon as possible.
- Patients should not be routinely discharged on a hypnotic if they were not taking one on admission to hospital. If it is necessary to discharge a patient on a hypnotic who was not previously taking one, prescribe on a 'when required' basis and specify on the discharge prescription the length of treatment required (see also first recommendation).
- Recognise that patients using benzodiazepines regularly for more than two to four weeks in hospital should not have their treatment stopped abruptly and may require a withdrawal regime to be prescribed on discharge.
- Prescribing of benzodiazepines and related sleeping medications should be reviewed against agreed standards and a clear rationale for prescribing outside / beyond these guidelines. This may also bring about cost savings. The HB pharmacy departments may wish to be involved in auditing such prescribing.

**1.13 Question 13. Details of drug withdrawal clinics held in GP practices in each LHB (according to clinic lead and employment)**

**Summary**

- LHB pharmacist-led withdrawal clinics are currently run in the following LHBs:- Bridgend, Caerphilly, Carmarthen, Neath/Port Talbot, RCT and Swansea
- The Prescribed Medication Support Service within Betsi Cadwaladr ULHB supports patients across Wrexham, Flintshire and Denbighshire. It also supports 10 GP practices in Conwy
- Clinics led by practice-based pharmacists are currently run in Caerphilly and Powys
- Clinics led by a GP are currently run in Carmarthenshire and RCT; some respondents said that they were unsure as to numbers. Some practices may not have formal clinics but will see patients requesting assistance as a result of patient letters, pharmacist-led clinics etc.
- Pharmacy technician-led clinics are currently run in Powys

**1.14 Question 14. Reasons why previously running withdrawal clinics have been stopped over last five years**

**Summary**

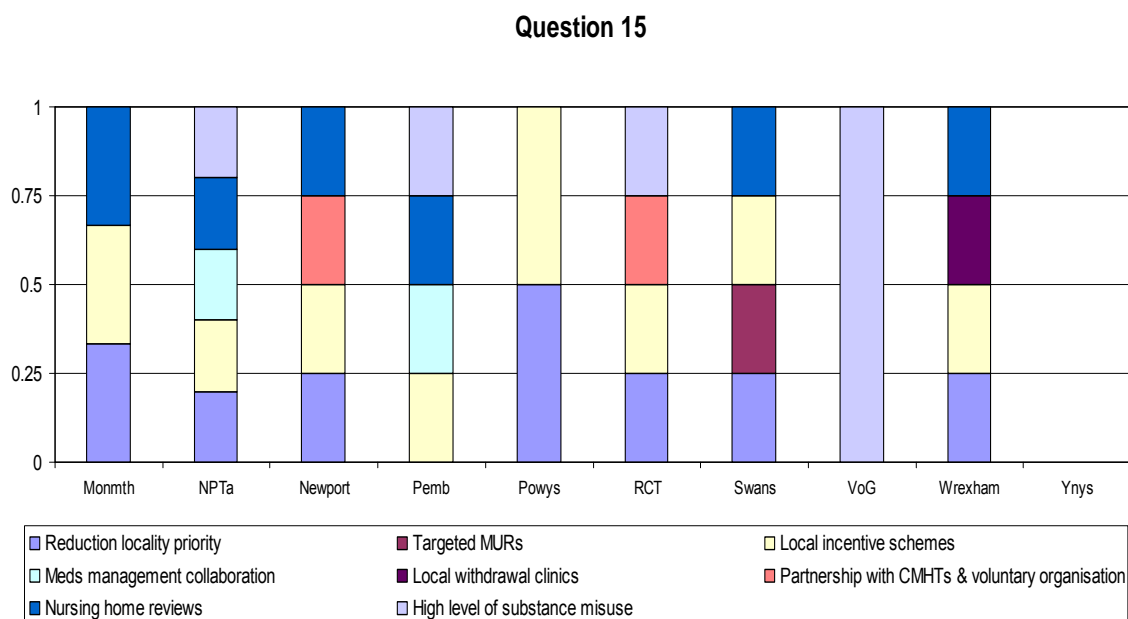
- Some withdrawal clinics are no longer continued because all the patients were identified and reviewed
- Other withdrawal clinics have been discontinued due to lack of funding, as Health Board priorities are driven towards cost reduction programmes

**1.15 Question 15. Identify initiatives supported by the LHB**

**Figure 5. Initiatives supported in each LHB**



**Figure 6. Initiatives supported in each LHB**



## Summary

### Number of responses to each initiative

Local incentive scheme (17)  
 Reduction is a locality priority (14)  
 Nursing home reviews (9)  
 Medicines management collaborative (8)  
 Substance misuse (6)  
 Community Mental Health Teams (CMHTs) (3)  
 Local withdrawal clinics (3)-see response to question13 and also to questions 3, 5 and 6  
 Targeted MURs (1)

- LHBs in the two top prescribing ranges for hypnotics and/or anxiolytics who highlighted fewer than three initiatives were Gwynedd (2), Denbighshire (1), and Ynys Mon (0).
- Powys and Vale of Glamorgan had two and one initiatives (high level of substance misuse applied to LHB) respectively and both were in the lowest hypnotic prescribing range for 08/09. Powys was in the lowest range for anxiolytics and the Vale of Glamorgan was in the second lowest range for anxiolytics.
- LHBs in the two highest prescribing ranges for hypnotics who had three or more initiatives were Conwy, Wrexham, Carmarthenshire and Ceredigion.
- LHBs in the two highest prescribing ranges for anxiolytics who had three or more initiatives were Swansea, Neath/Port Talbot, Caerphilly, Merthyr Tydfil, RCT, Carmarthenshire, Ceredigion and Pembrokeshire.



**Recommendation 6**

- Health Boards should explore and consider successful in-house, other HB and English/North East England SHA initiatives

**1.16 Medicine Usage Reviews (MURS) for hypnotics/anxiolytics**

- The Royal Pharmaceutical Society of Great Britain's submission to the All party Parliamentary Group on Drug Misuse inquiry into the misuse of prescription-only and over-the-counter medicines states that "the level of misuse of prescription only medicines in the UK is not known. However many pharmacists are aware of excessive prescribing of certain medicines, especially the benzodiazepines".
- Target MURs aimed at withdrawal of hypnotics which could include provision of sleep diaries, sleep hygiene leaflets, relaxation guides and referral to GP and/or other volunteer organisations. Patients on long term hypnotics and anxiolytics could be highlighted to their GP with an indication of the patient's willingness to consider withdrawal from therapy.
- Community pharmacists are ideally placed to reinforce the Medicines and Health Regulatory Agency (MHRA) advice to both newly initiated patients and current users on the dangers of taking long-term hypnotics and anxiolytics.

**Recommendation 7**

- Health Boards should consider locality-wide campaigns for targeted MURs within community Pharmacies on hypnotics and anxiolytics.

**1.17 An example of a local incentive scheme for the reduction of hypnotics/anxiolytics prescribing in line with the All Wales Medicines Strategy Group (AWMSG) national indicator**

In 2004 Merthyr Tydfil LHB re-directed money from their Prescribing Incentive Scheme (which had been discontinued) towards an incentive for GP practices to rationalise their prescribing of hypnotics in line with NICE guidance. The details of this hypnotic incentive scheme, which also applied in RCT, are outlined below:

### ***Patients being prescribed hypnotics for the first time***

The first element to the scheme was that a payment was made available to all practices which did not commence hypnotic therapy in any of their patients and continue for a period longer than 4 weeks. The payment was ratified if an audit of prescribing in April 2005 demonstrated that they met the criteria. New patients joining the practice already receiving hypnotic drugs, and those with advice from Secondary Care, were excluded from the audit.

### ***Overall prescribing of hypnotics & anxiolytics***

The second element of the scheme was a stepped award for reducing the hypnotics and anxiolytics high-level indicator score. The hypnotics monitored in this scheme included temazepam, nitrazepam, zaleplon, zolpidem and zopiclone..

The LHB subsequently agreed that there should be:-

- i. Supplementary prescribing clinics in more practices.
- ii. Future GMS contact action points in relation to hypnotic prescribing.

The scheme ran for one year and a significant reduction in hypnotic prescribing was shown.

#### **Recommendation 8**

- Health Boards with high hypnotic and anxiolytic prescribing should consider prescribing incentive schemes.

### **1.18 Medicines Management Collaborative (MMC) - hypnotics/anxiolytics**

This project was implemented in Wales from August 2004 to April 2006 and concentrated on ways of improving health outcomes and patients' experiences where medicines are involved. The project was developed by the National Leadership and Innovation Agency for Healthcare (NLIAH) and was led by a project facilitator in each participating LHB. It utilised collaborative methodology where ideas for change were tested on a small scale and after analysis either implemented or further refinements were highlighted to make the changes more effective. The aim was for the collaborative programme to go on to actively encourage spread and adoption to multiple settings.

- Blaenau Gwent, Bridgend, Caerphilly, Cardiff, Conwy, Merthyr Tydfil, Neath/Port Talbot and Pembrokeshire selected this initiative. Of these, all but Conwy are in the lowest and second lowest hypnotic prescribing ranges for 08/09 and Blaenau Gwent, Bridgend, Cardiff and Conwy are in the lowest or second lowest anxiolytic prescribing ranges for 08/09.

## 1.19 Nursing home reviews

### Summary

Communication from senior pharmacists working in this field indicates that regular medication reviews by GPs for patients living in care homes are very important in avoiding long term and/or overuse of hypnotics and anxiolytics. Other points include:-

- Nurses with mental health training generally give sedative drugs to patients to control behavioural symptoms less regularly.
- GPs often relied on the information given to them by care home workers.
- In England, a report funded by the Department of Health revealed a high prevalence of errors in medications received by older residents of care homes. A series of half-day snapshot inspections found that seven out of 10 residents in the 55 homes inspected were victims of some form of medication error <sup>(4)</sup>.
- The inspections took place in the mornings when two-thirds of the daily drug doses would be taken and gathered data on 256 residents. In total, mistakes were made in 178 cases with many residents being the victims of more than one error.
- Residents were usually taking a cocktail of medicines and were more susceptible to drug side-effects as a consequence of ageing. Primary Care Trusts in England have been instructed to work with their primary medical care contractors, providers of pharmaceutical services and social care partners to:
  - Determine how medication errors in care homes for older people can be reduced.
  - Review the safety of local prescribing, dispensing, administration and monitoring arrangements in the provision of medication to older people in care homes.

### **Recommendation 9**

- All patients should be reviewed on admission to the care home (Nursing or Personal Care).
- Patients may be less anxious in Care Home environment (compared to how they were feeling at home). Reduction of hypnotics and anxiolytics should be part of care plan.
- GPs should review the patient's continued need for anxiolytic/hypnotic.
- When hypnotics/anxiolytics are prescribed on a when required ("PRN") basis there should be very specific instructions tailored to that individual patient. This will help avoid patients receiving more doses of hypnotic/anxiolytic than necessary.
- Training for care home workers to ensure that hypnotics/anxiolytics are given appropriately and are not overused.
- Consideration should be given to the Care Home Use of Medicines Study (CHUMS) report and its recommendations<sup>(4)</sup>.

## **1.20 Benzodiazepine and 'z' drug prescribing policies in Welsh Prisons**

### **Summary**

- Data was received from Cardiff and Swansea prisons.
- Inmates who have been prescribed benzodiazepines long term by their GP will undergo detoxification. They are converted (using equivalent diazepam doses listed in the BNF) to no greater than 20mg diazepam twice daily, which will be decreased by approximately 5mg per week. For the first few weeks carbamazepine 200mg twice daily is also prescribed to prevent seizures.
- Inmates on long term benzodiazepines prescribed by psychiatrists are maintained on benzodiazepines.
- Hypnotics are not routinely prescribed.

## **1.21 Initiative/support to reduce to reduce hypnotic/anxiolytic prescribing**

In 2009 Carmarthenshire LHB introduced an initiative to reduce prescribing of hypnotics and anxiolytics by 10%. The initiative involved supporting each practice to the equivalent of four sessions. This allowed examination of their own prescribing practice and for appropriate action to be taken.

**Recommendation 10**

- Health Boards should explore initiatives/funding streams to address appropriate hypnotic and anxiolytic prescribing

**1.22 Question 16 Does the LHB have agreed guidelines/policy on withdrawal from hypnotics/anxiolytics?****Summary**

- 9 out of 20 (45%) respondents reported that the LHB have a locality-wide policy for the withdrawal of hypnotics and 8 out of 20 (40%) for the withdrawal of anxiolytics.
- The policies fall into two types. For those converting a patient to diazepam and then stepping down, or stepping down the patient's current hypnotic/anxiolytic.

**1.23 Question 17 Does the LHB have agreed guidelines/policy on starting hypnotics/anxiolytics?****Summary**

- 3 out of 20 (15%) respondents reported that the LHB have a locality-wide policy for initiating hypnotics or anxiolytics. Some of the respondents stated that individual GP practices may have their own prescribing policy based on national guidance/LHB advice.

### Recommendation 11

- National policy and guidelines should be in place in every GP practice to ensure that patients are given a consistent message with regard to initiation and review of hypnotic and anxiolytic prescribing.

The following points should be considered:

- Patient records should indicate whether the patient has been provided with appropriate advice about the risks of hypnotic/anxiolytic use, including the potential for dependence.
- New prescriptions for benzodiazepines or “z” drugs should only be prescribed for insomnia for a maximum of 2-4 weeks, at the lowest possible dosage and only when the insomnia is severe, debilitating or causing extreme distress.
- Hypnotics/anxiolytics should be prescribed using acute prescriptions only.

#### 1.24 Question 18. Does the locality offer LHB led or sponsored GP (or other health professionals) training for substance misuse (e.g. educational sessions, RCGP training)?

**Table 4** Locality led or sponsored GP (or other health professionals) training for substance misuse

LHB	GP training	Other health professional
Bridgend	No	No
Blaenau Gwent	No	No
Caerphilly	No	No
Cardiff	Cardiff and Vale doesn't itself provide the training but local agencies do on behalf of the UHB.	UHB doesn't itself provide the training but local agencies do on behalf of the UHB
Carmarthenshire	Yes. RCGP	Yes. WCPPE - pharmacists
Ceredigion	Yes. GPs and Pharmacists have attended the level 1 event- RCGP training Five GPs have completed Level 2	Yes. GPs and Pharmacists have attended the level 1 event of RCGP training

Conwy	No	No
Denbighshire	No	No
Gwynedd	Yes.	
Flintshire	No information available	
Merthyr Tydfil	Yes - RCGP	Yes - RCGP
Monmouthshire	No	No
Neath/Port Talbot	Yes Welsh Assembly Government funded RCGP	No
Newport	Yes. Pharmacists and GPs undertaken RCGP Certificate in Substance Abuse	Yes. Pharmacists and GPs undertaken RCGP Certificate in Substance Abuse
Pembrokeshire	Yes	
Powys		Yes. WCPPE Community pharmacy training
RCT	Yes. RCGP training to enable substance misuse prescribing in line with the National Enhanced Service (NES). Provides locum fees for Part 1, very occasionally for Part 2. Supports free training from community unit in Cardiff	Yes. RCGP training to enable substance misuse prescribing in line with the NES. Provides locum fees for Part 1, very occasionally for Part 2. Supports free training from community unit in Cardiff
Swansea	Yes. RCGP course for GPs and pharmacists	Yes. RCGP course for GPs and pharmacists
Torfaen	No information available	
Vale of Glamorgan	Yes. RCGP Parts 1 and 2 GPs, pharmacists, nurses etc Sponsored by WAG	Yes. WCPPE Joint session for pharmacists Sponsored by LHB
Wrexham	Yes. Facilitated training with Prescribed Medication Support Service.	
Ynys Mon	Yes. Education meetings by Substance Misuse Service (SMS) team.	

## Summary

- 10 LHBs reported that they had supported GP training. This was generally the RCGP Part 1 and 2 Certificate in Substance Misuse. One LHB had organised training with the lead nurse from the Prescribed Medication Support Service and one reported that there had been an educational meeting run by the Substance Misuse team.
- 9 LHBs supported training of other health professionals. This was mainly WCPPE community pharmacist training or completion of the RCGP Certificate in Substance Misuse

### Recommendation 12

- Health Boards should identify and meet the training needs of health professionals involved in addressing the inappropriate prescribing of hypnotics and anxiolytics.

### 1.25 Question 19 Are there Mental Health self help services identified in the LHB Signposting document for Community pharmacies?

- As part of their public health role and contract, pharmacists are required to “signpost” patients to other health professionals and organisations as appropriate.
- Dan 247 ([dan247.org.uk](http://dan247.org.uk)) is a useful site for patients wanting information or help on drugs and/or alcohol. It has an online database of local and regional drug and alcohol agencies.

### Recommendation 13

- Health Boards should collate a list of voluntary organisations which can be used by GPs and other health professionals to direct patients for help according to their needs.

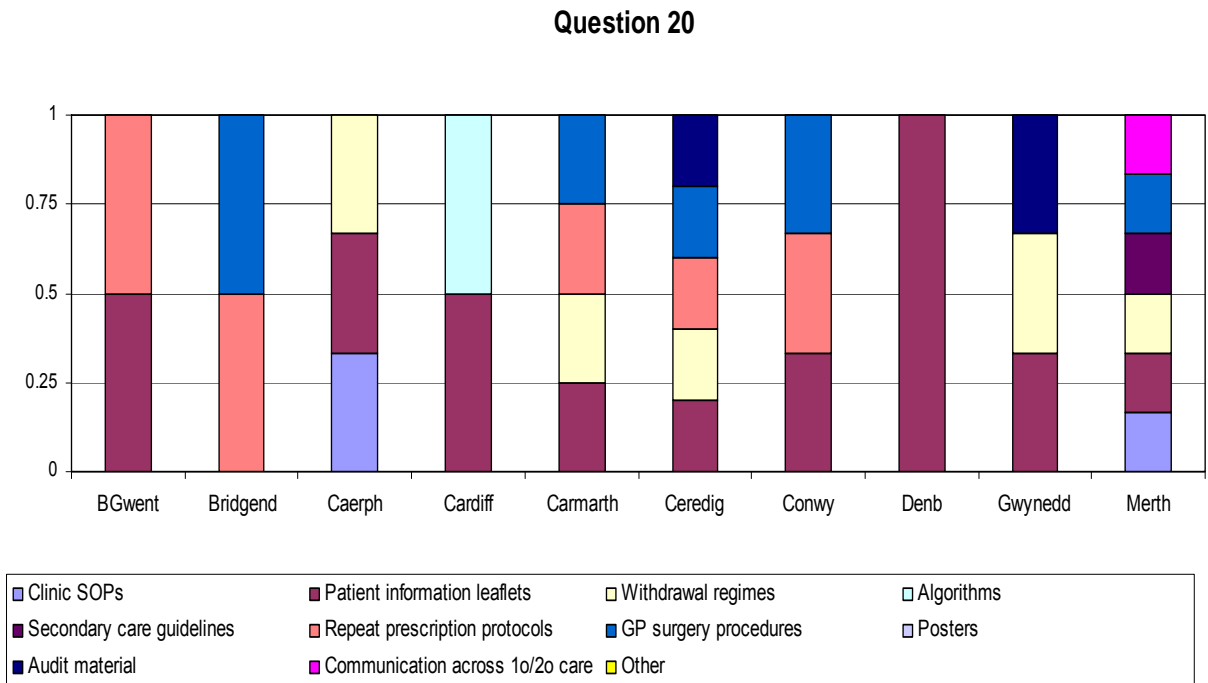


**1.26. Question 20 Is support material used in locality/GP practices/other to reduce the prescribing of hypnotics and anxiolytics?**

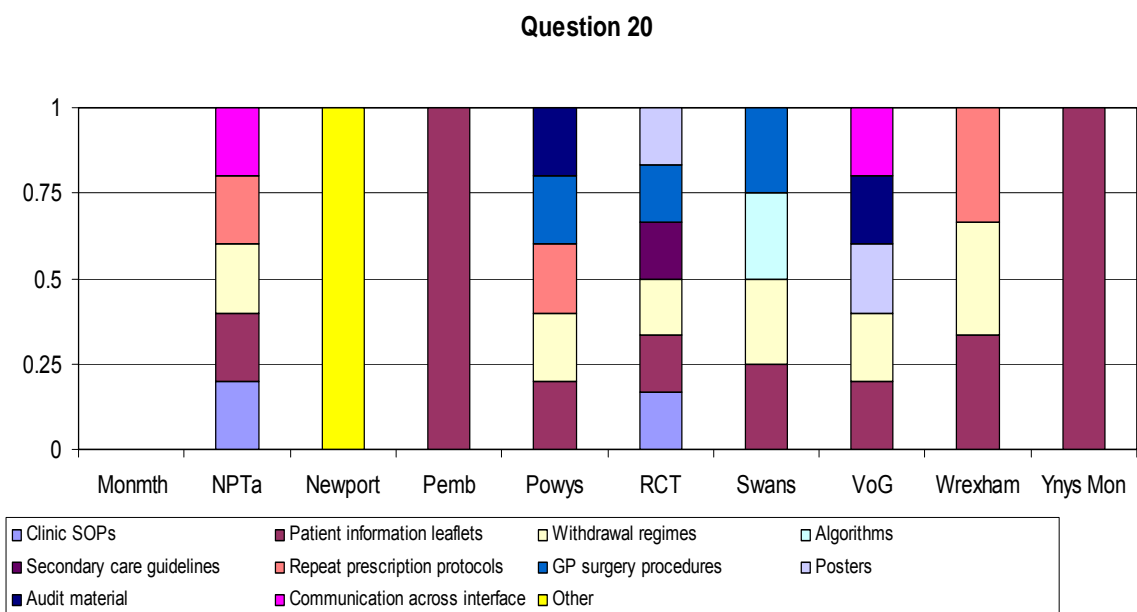
**Table 5 . Support material available by locality**

<b>Type of support material</b>	<b>LHBs support material</b>
Clinic Standard Operating Procedures (SOPs)	(4) Caerphilly, Merthyr Tydfil, Neath/Port Talbot, RCT.
Withdrawal regimens	(11) Caerphilly, Carmarthenshire, Ceredigion, Gwynedd, Merthyr Tydfil, Neath/Port Talbot, Powys, RCT, Swansea, Vale of Glamorgan, Wrexham
Secondary care guidelines	(2) Merthyr Tydfil, RCT
GP procedures for new/existing patients	(8) Bridgend, Carmarthenshire, Ceredigion, Conwy, Merthyr Tydfil, Powys, RCT, Swansea
Audit material	(4) Ceredigion, Gwynedd, Powys, Vale of Glamorgan
Patient information leaflets	(17) Blaenau Gwent, Caerphilly, Cardiff, Carmarthenshire, Ceredigion, Conwy, Denbighshire, Gwynedd, Merthyr Tydfil, Neath/Port Talbot, Pembrokeshire, Powys, RCT, Swansea, Vale of Glamorgan, Wrexham, Ynys Mon
Algorithms	(2) Cardiff, Swansea
Repeat prescription protocols	(8) Blaenau Gwent, Bridgend, Carmarthenshire, Ceredigion, Conwy, Neath/Port Talbot, Powys Wrexham
Posters	(2) RCT, Vale of Glamorgan
Communication across primary/secondary care interface	(3) Merthyr Tydfil, Neath Port/Talbot Vale of Glamorgan
Other	(1) Newport

**Figure 7. Support material LHB/GP practices/other to reduce the prescribing of hypnotics and anxiolytics**



**Figure 8. Support material used in LHB/GP practices to reduce the prescribing of hypnotics and anxiolytics.**



## **Summary**

- There is a range of support material already being used in LHBs throughout Wales

### **Recommendation 14**

- The All Wales Medicines Strategy Group (AWMSG) should approve an All Wales resource/ educational package to encourage appropriate hypnotic and anxiolytic prescribing. This should include a GP practice guide, patient information leaflets, audit pack, secondary care hypnotic and anxiolytic prescribing policy, and policy/guidelines for initiating and withdrawing patients on hypnotics/anxiolytics.

## **1.27 Question 21 What are the barriers to implementing NICE CG 22?**

NICE Clinical Guideline 22 (Anxiety) recommends that any of the following types of intervention should be offered with the preference of the patient being taken into account <sup>(5)</sup>.

- i. psychological therapy - cognitive behavioural therapy (CBT)
- ii. pharmacological therapy (note benzodiazepines should not be used in panic disorder and should generally not be used beyond 2-4 weeks)
- iii. self help (bibliotherapy based on CBT principles)

## **Summary**

- The main barrier to implementing NICE CG 22 reported were the lack of funding, lack of counsellors and limited availability of cognitive behavioural therapy (CBT) with the associated long waiting lists.
- Patient access to CBT on-line (computerised CBT) can be a problem.
- The presentation of a patient with severe anxiety/insomnia to their GP requires immediate referral if appropriate and access to CBT for this non-drug intervention to be feasible.
- One respondent stated that links with the Mental Health teams are limited in patients with mild/moderate mental health issues.
- Patient expectation of medication if they have made an appointment to see the GP.

- Parity of CBT across Wales is required with patients having equal opportunities for accessing CBT at the point when they seek help for insomnia. There is a big variation in the services which are available.
- An All Wales multi-professional group 'Improving Access to Psychological Therapies' (IAPT) is currently looking at achieving parity across Wales.

### 1.28 Question 22 . What are the barriers to implementing TA 77?

NICE Technology Appraisal (TA) 77 recommends that hypnotic drugs are used short term for the management of severe insomnia interfering with normal daily life after due consideration of non-pharmacological therapies such as sleep hygiene advice, sleep diaries and CBT<sup>(6)</sup>.

#### Summary

- Lack of availability, appropriate funding of CBT and patient expectation/demand (to receive medication) were the main reasons given for non-compliance with NICE TA 77.
- One LHB reported a high level of prescribing via the mental health teams and another reported the lack of awareness of this TA amongst prescribers.

#### Recommendation 15

- Direct guidance is required from WAG with regard to the level of psychological support that each LHB in Wales should be providing.
- Patient education/media campaigns are recommended.
- Parity of CBT across Wales is required with patients having equal opportunities for accessing CBT at the point when they seek help for anxiety and insomnia.

### 1.29 Question 23 Does the All Wales national target for anxiolytics and hypnotic prescribing need to be changed?

#### Summary

- One of the All Wales National Prescribing Indicators measures hypnotic and anxiolytic prescribing. GP practices in Wales meet this target if the prescribing is in the lowest quartile or moving towards this quartile (therefore they are in the lowest 25% of all practices in Wales for prescribing these drugs or, if not in the lowest quarter, are reducing their prescribing for these drugs). This is reported as defined daily dose (DDD) per 1000 patients.
- Of the 20 respondents, five thought that the indicator should be changed, 14 said that it should remain while one was unsure.

- Suggestions for changing it were:-
  - The indicator should separate anxiolytics and hypnotics. Separate indicators would enable each prescribing area to be tackled independently.
  - The indicator should account for deprivation.
  - The target should take into account social deprivation, substance misuse services (SMS), prescribing frequency and local issues.
- One reply suggested that localities should be compared with similar localities i.e. those with similar deprivation scores.

#### **Recommendation 16**

- Consider appropriateness of the All Wales prescribing indicator for hypnotics and anxiolytics in the light of suggestions and report findings.

## **7. CLOSING COMMENTS**

The prescribing of hypnotics and anxiolytics in Wales is much higher than that in England and North East England SHA.

It is possible that those LHBs with a number of GP practices with hypnotic and anxiolytic prescribing in the lowest quartile (or moving towards the lowest quartile), i.e. meeting the All Wales prescribing indicator for these drugs, have less incentive to improve their position. However every HB needs to recognise that the prescribing of these drugs in Wales is high when compared to England (and indeed the North East of England).

All HBs should consider prescribing trends of anxiolytics and hypnotics in conjunction with previous and continuing initiatives to address prescribing of these drugs within the HB. They should consider what initiatives have been successful and explore restarting these (if now stopped). They should also explore other initiatives which have been successful in other HBs such as, the hypnotic incentive scheme that was run in Merthyr Tydfil and RCT LHBs which resulted in a 35% and 25% decrease respectively in hypnotic prescribing.

- Although LHBs with low multiple deprivation ranking, such as Powys and Monmouthshire, have prescribing rates in the lowest range, LHBs which are in the five least deprived areas have high hypnotic prescribing rates. It must be noted that within less deprived areas there are often pockets of hidden deprivation.
- Generally lower decreases in the hypnotic prescribing rate were seen in those LHBs with prescribing already in the lowest two ranges.

Consideration should be given at the All Wales Medicines Strategy Group (AWMSG) to progressing some of the practice development recommendations that have come out of the questionnaire such as including aspect(s) of hypnotic and anxiolytic prescribing as one or more of the mental health indicators in the Quality and Outcomes Framework (QoF).

There are other factors (other than multiple deprivation) affecting the prescribing rate of hypnotics and anxiolytics. In Hywel Dda the prescribing rate of anxiolytics is in the highest prescribing range but the constituent LHBs, Carmarthenshire, Ceredigion and Pembrokeshire, are ranked 12<sup>th</sup>, 16<sup>th</sup> and 14<sup>th</sup> respectively in the deprivation ranking. Conversely, in Blaenau Gwent prescribing was in the lowest range, despite being the second most deprived LHB.

Other factors influencing prescribing include the number of initiatives the LHB supports to address the problem including withdrawal clinics/programmes and the variety of prescribing support material, evidenced for example in Merthyr Tydfil and RCT, with respect to hypnotic prescribing and in Blaenau Gwent (ranked second with regards multiple deprivation) and in the lowest anxiolytic prescribing range.

From the range in decreases in the prescribing of these drugs throughout the LHBs it can be seen that some, but not all, LHBs have made a sustained effort to address the issues of concern.

There is a lot of good prescribing support material available that is already being used within the LHBs. However GPs need to have time and/or be given support in order to identify suitable patients, set up re-call systems, agree withdrawal programmes with patients and provide adequate counselling and support.

All HBs should rise to the challenge of identifying and accepting new ways of stimulating change in prescribing practice of hypnotics and anxiolytics and to make the issues in this report a priority.

It can be seen from the findings that large decreases in prescribing of these drugs can be achieved in LHBs with high multiple deprivation with an array of interventions and LHB support and that high levels of prescribing are not always in LHBs with high multiple deprivation.

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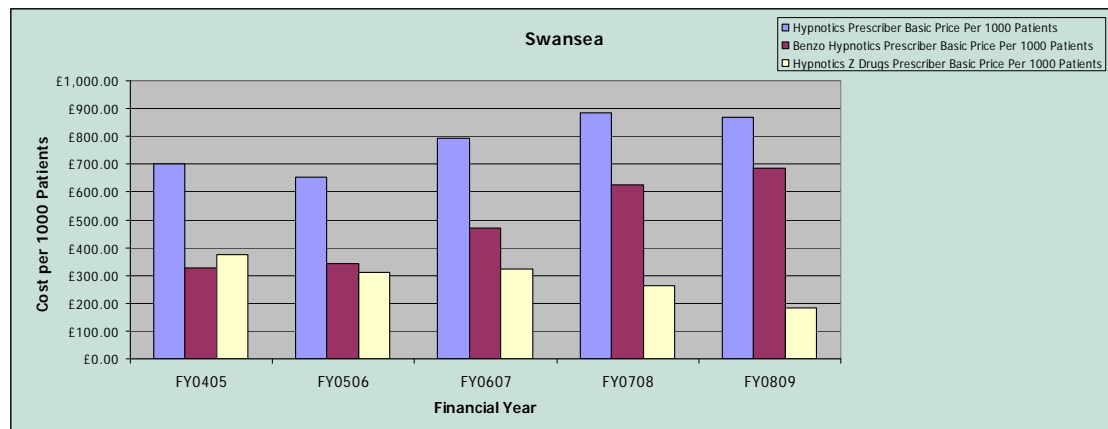
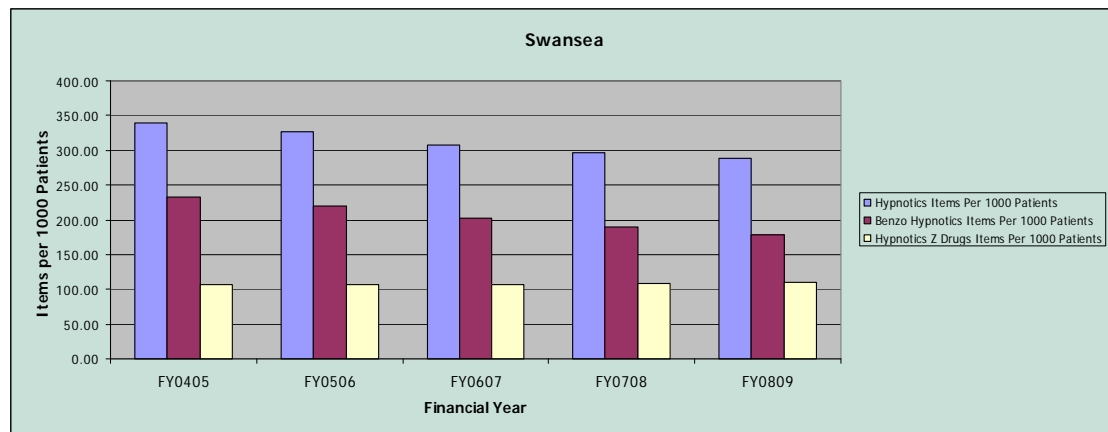
### APPENDIX 3

#### NHS WALES HYPNOTIC AND ANXIOLYTIC PRESCRIBING GRAPHS

##### Abertawe Bro Morgannwg University Health Board (UHB)

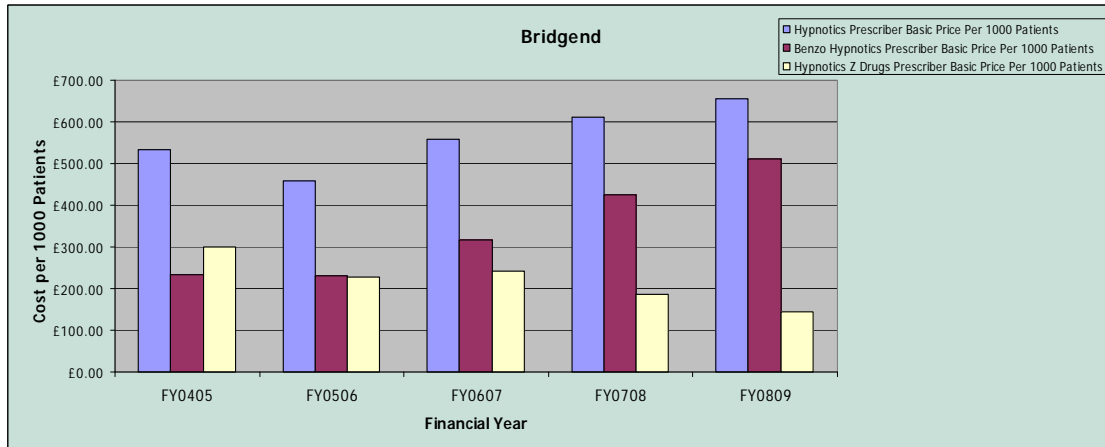
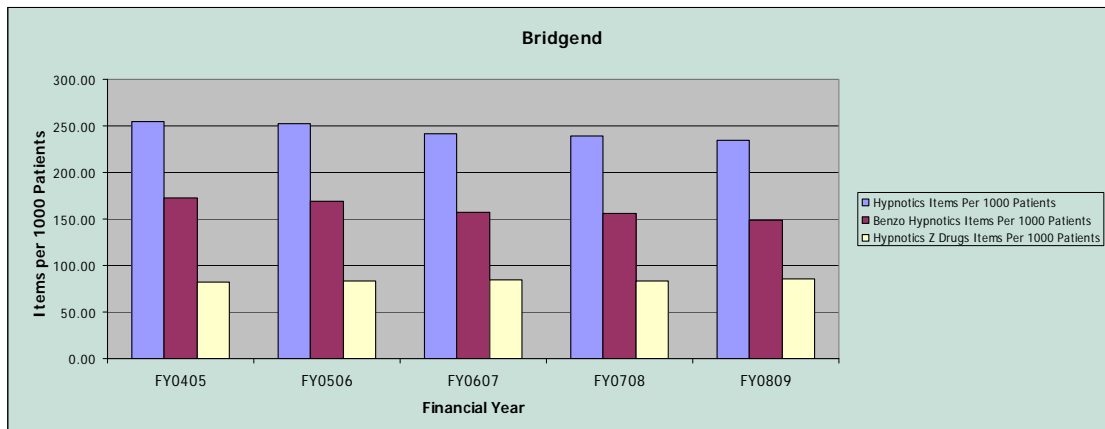
(Former Swansea, Neath Port Talbot and Bridgend Local Health Boards [LHBs])

- Within the UHB there are areas of deprivation, particularly in the urban parts of Swansea, Neath Port Talbot and the valley communities in Bridgend.
- 86 (27%) of the 323 LSOAs in the UHB are among the most deprived fifth in Wales.
- 74 (23%) are in the least deprived fifth.
- 17% of Wales' population is in this UHB. There is a total population 499,400
- Age and gender profile very similar to that of Wales as a whole. There are, however, relatively fewer in the 5-19 and 55-64 year old age groups.
- Abertawe UHB has the second highest proportion of LSOAs in the most deprived fifth in Wales



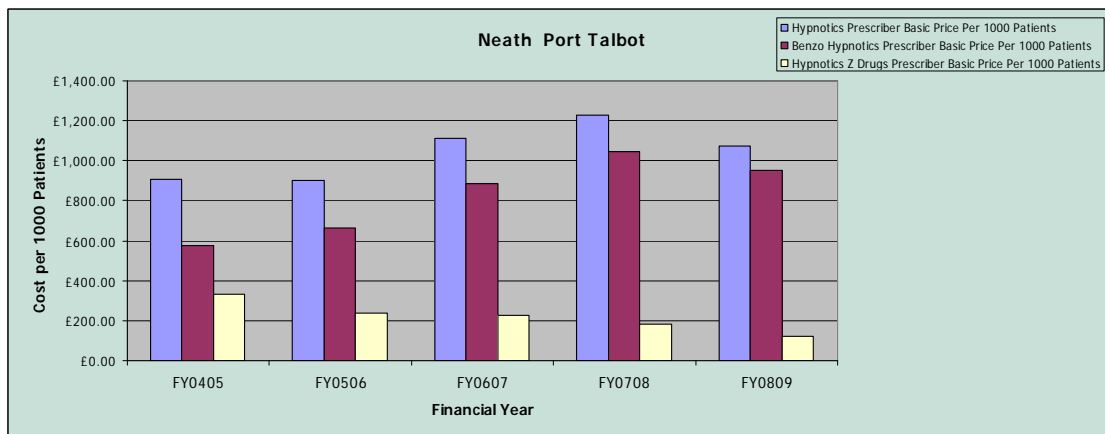
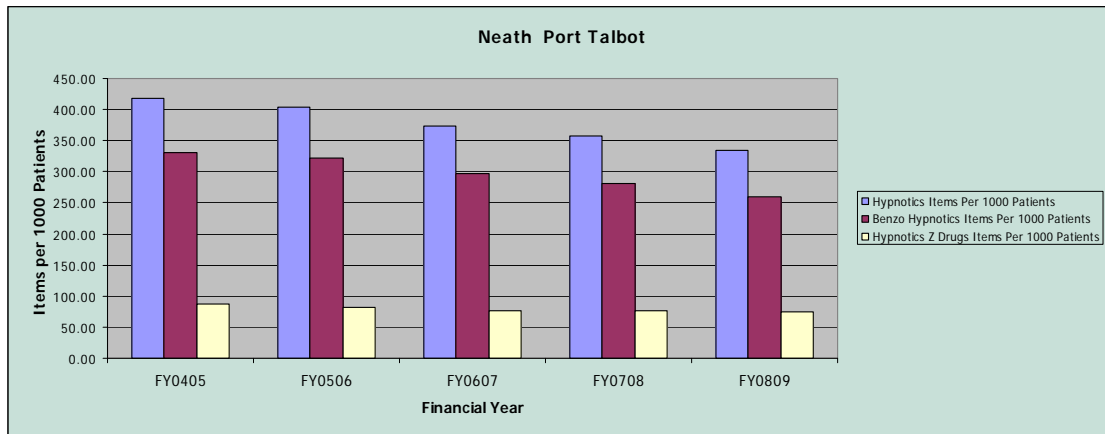


- Items of hypnotics (benzodiazepines and z drugs) decreased from 338.items per 1000 patients in 04/05 to 288.48 in 08/09, a reduction of 15%
- Items of benzodiazepines decreased from 232 items per 1000 patients in 04/05 to 178.25 in 08/09, a reduction of 23%
- Items of “z” drugs per 1000 patients increased from 106 items per 1000 patients in 04/05 to 110 in 08/09, an increase of 4%
- Costs of hypnotics increased from £701 per 1000 patients in 04/05 to £868 in 08/09, an increase of 24%
- Costs of benzodiazepines increased from £326 per 1000 patients in 04/05 to £684, an increase of 110%
- Costs of “z” drugs decreased from £375 per 1000 patients in 04/05 to £184 in 08/09 a decrease of 51%

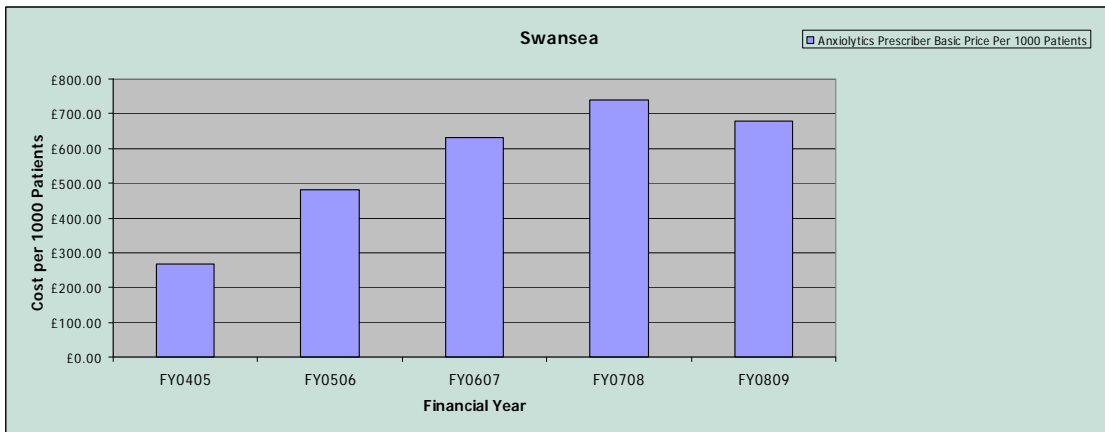
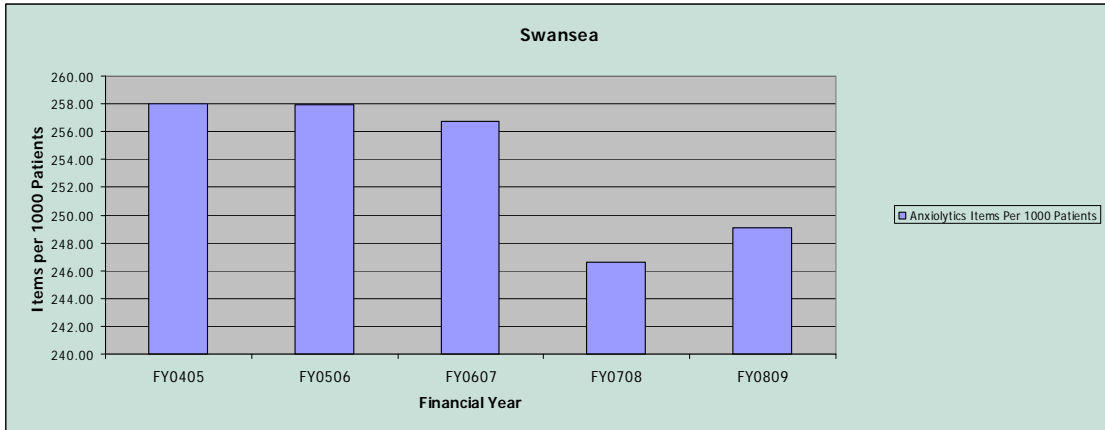


- Items of hypnotics (benzodiazepines and z drugs) decreased from 254 items per 1000 patients in 04/05 to 234.85 in 08/09, a reduction of 8%
- Items of benzodiazepines decreased from 172 items per 1000 patients in 04/05 to 149 in 08/09, a reduction of 14%
- Items of “z” drugs per 1000 patients increased from 82 items per 1000 patients in 04/05 to 86 in 08/09 an increase of 4%
- Costs of hypnotics increased from £534 per 1000 patients in 04/05 to £655 in 08/09, an increase of 23%
- Costs of benzodiazepines increased from £233 per 1000 patients in 04/05 to £510, an increase of 119%

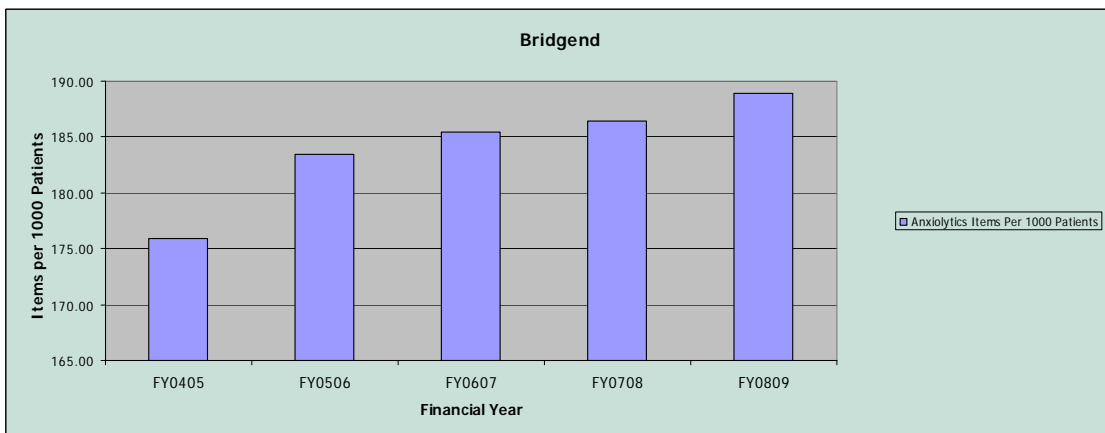
- Costs of “z” drugs decreased from £301 per 1000 patients in 04/05 to £144 in 08/09, a decrease of 52%

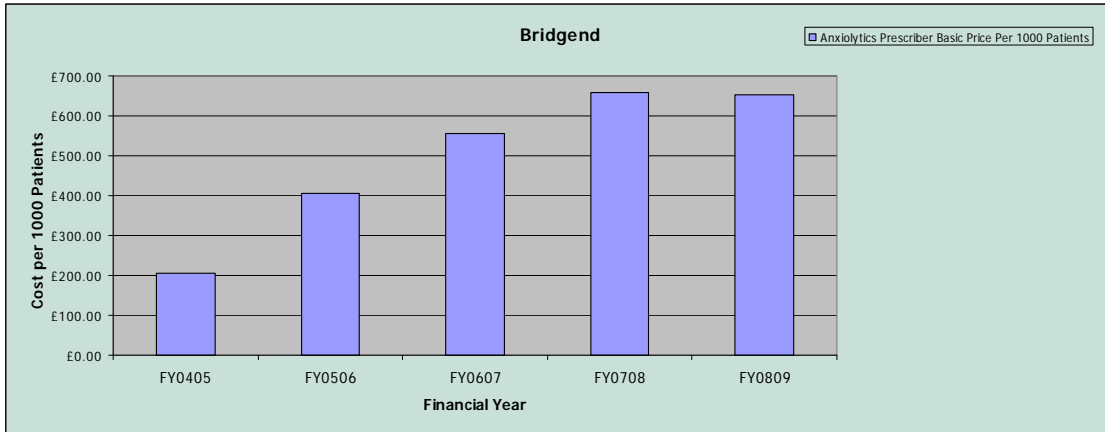


- Items of hypnotics (benzodiazepines and z drugs) decreased from 418 items per 1000 patients in 04/05 to 333.91 in 08/09, a reduction of 20%
- Items of benzodiazepines decreased from 330 items per 1000 patients in 04/05 to 259 in 08/09, a reduction of 22%
- Items of “z” drugs per 1000 patients decreased from 87 items per 1000 patients in 04/05 to 74 in 08/09 a reduction of 15%
- Costs of hypnotics increased from £907 per 1000 patients in 04/05 to £1073 in 08/09, an increase of 18%
- Costs of benzodiazepines increased from £573 per 1000 patients in 04/05 to £951, an increase of 66%
- Costs of “z” drugs decreased from £334 per 1000 patients in 04/05 to £122 in 08/09 a reduction of 64%

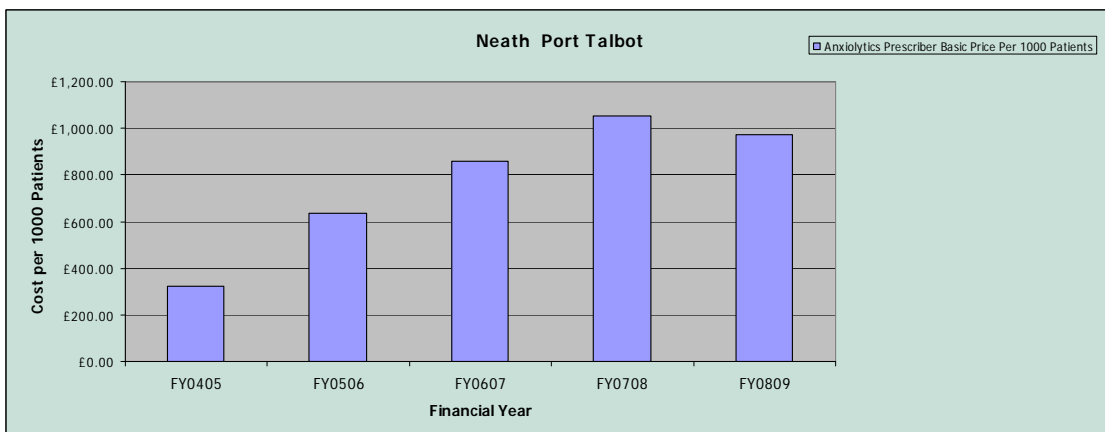
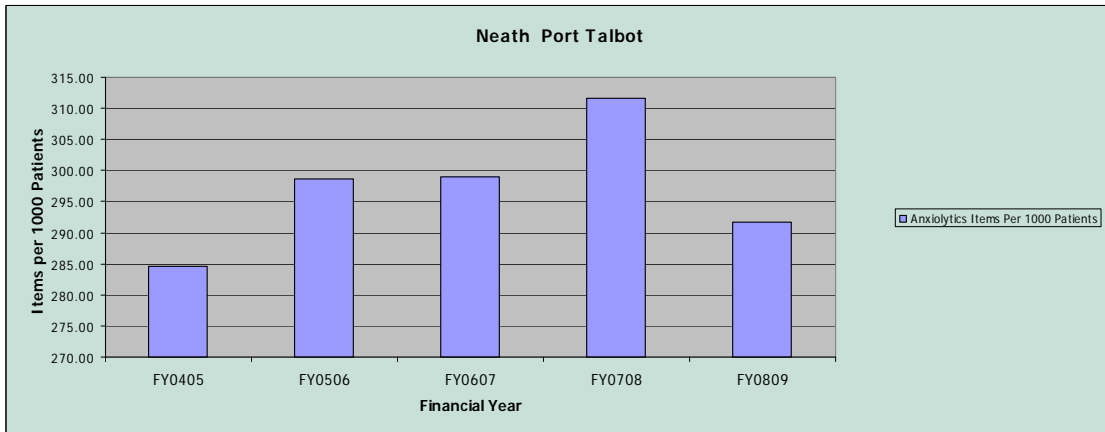


- Items of anxiolytics per 1000 patients decreased from 258 items per 1000 patients in 04/05 to 249.08 in 08/09 a reduction of 3%
- Costs of anxiolytics increased from £267 per 1000 patients in 04/05 to £679 in 08/09, an increase of 154%





- Items of anxiolytics per 1000 patients increased from 175 items per 1000 patients in 04/05 to 188 in 08/09 an increase of 7%
- Costs of anxiolytics increased from £206 per 1000 patients in 04/05 to £653 in 08/09, an increase of 218%

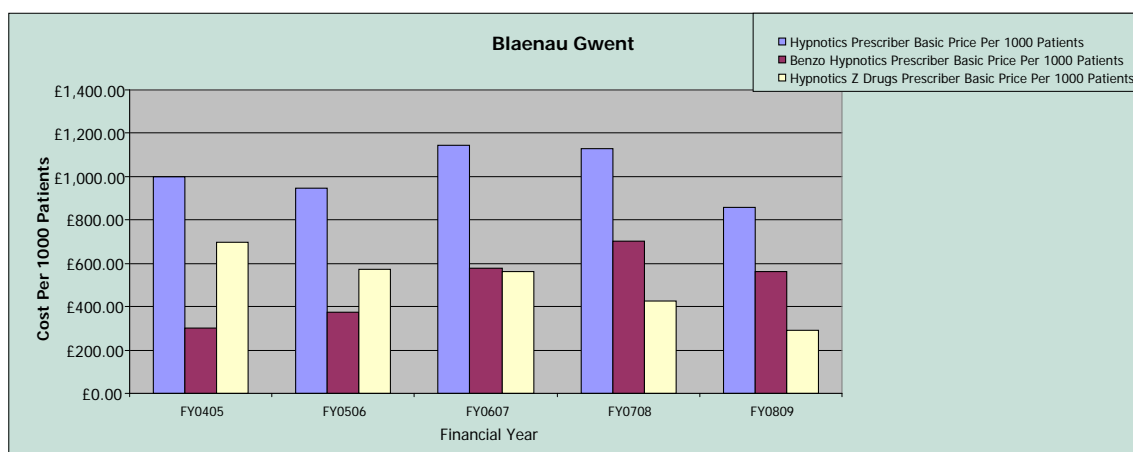
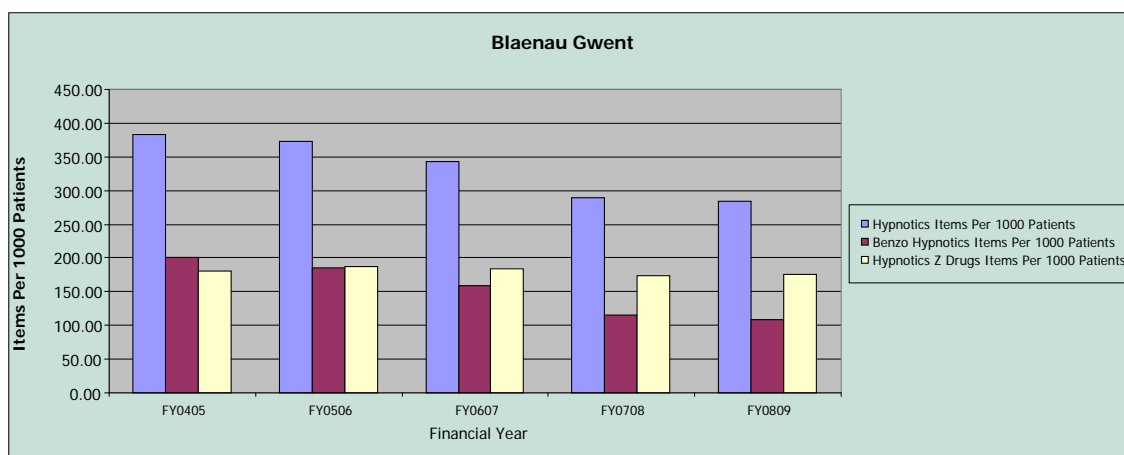


- Items of anxiolytics per 1000 patients increased from 284 items per 1000 patients in 04/05 to 291 in 08/09 an increase of 2%
- Costs of anxiolytics increased from £321 per 1000 patients in 04/05 to £972 in 08/09, an increase of 203%

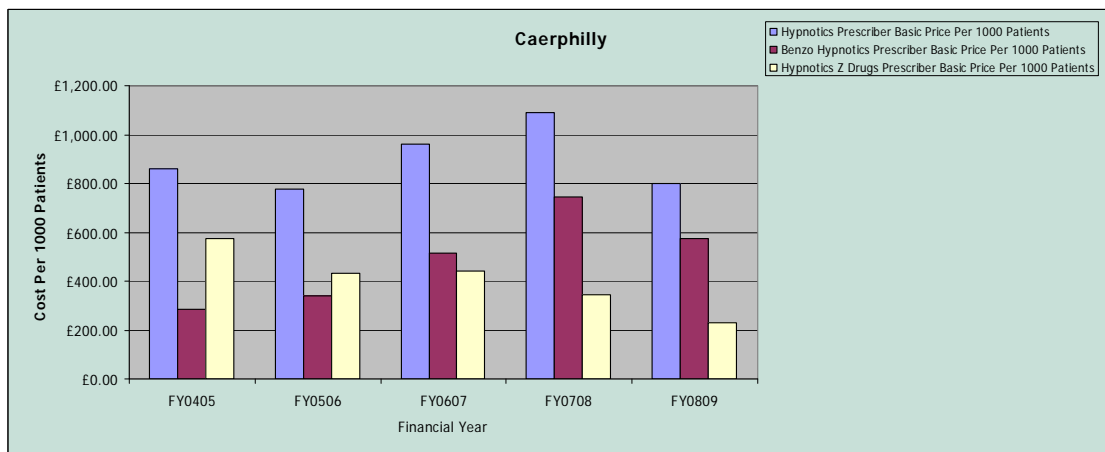
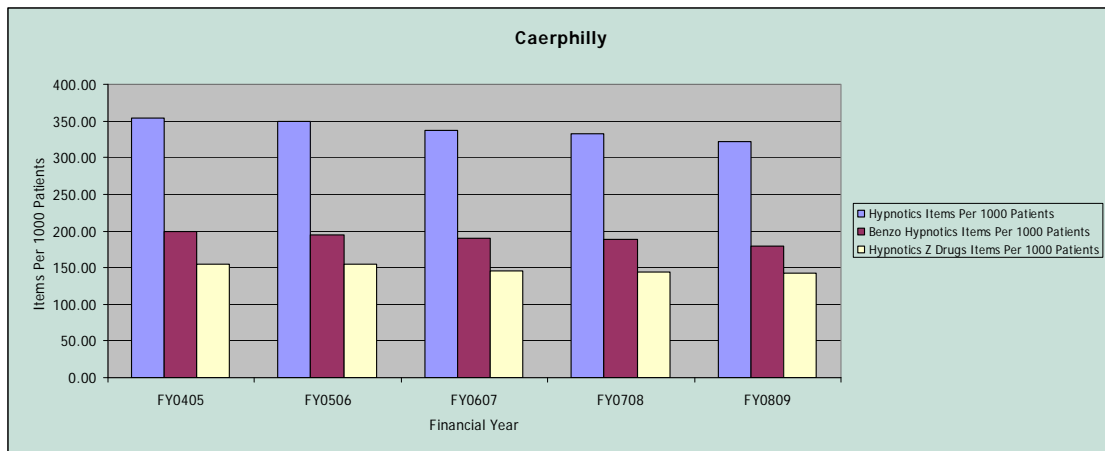
## Aneurin Bevan Health Board

(Former Caerphilly, Blaenau Gwent, Torfaen, Monmouthshire and Newport LHBs)

- Within the Health Board (HB) there are areas of deprivation, particularly in the valley areas of Caerphilly, Blaenau Gwent and Torfaen.
- 88 (24%) of the 369 LSOAs in the HB are among the most deprived fifth in Wales
- 72 (20%) are in the least deprived fifth
- Within the less deprived areas there are pockets of hidden deprivation.
- Rural Monmouthshire has relatively higher numbers of elderly people in comparison to Blaenau Gwent.
- 19% of Wales' population is in this HB. The total population is 560,500
- Aneurin Bevan LHB has the third highest proportion of LSOAs in the most deprived fifth in Wales

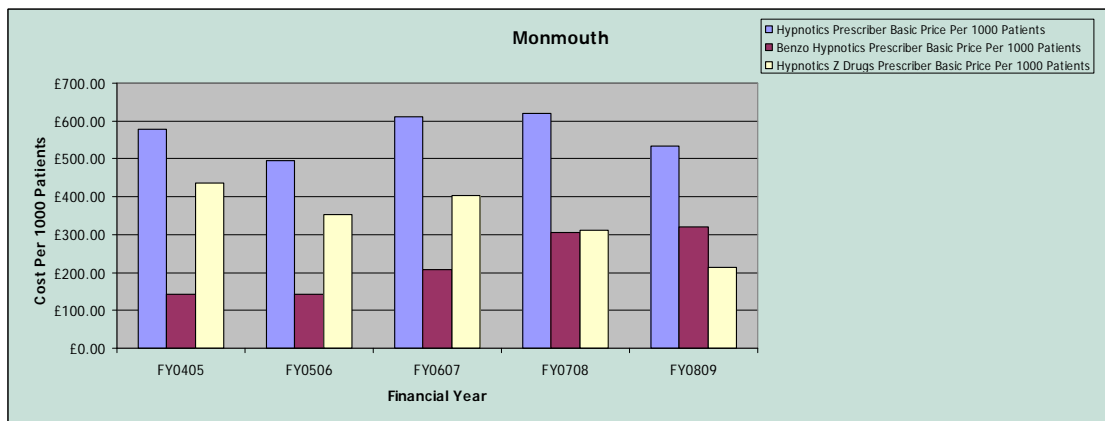
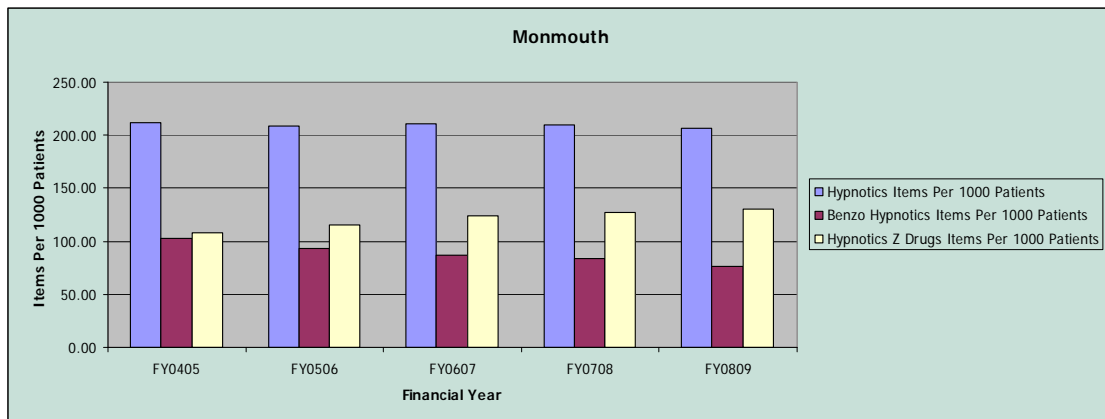


- Items of hypnotics (benzodiazepines and z drugs) decreased from 382.29 items per 1000 patients in 04/05 to 284.53 in 08/09, a reduction of 26%
- Items of benzodiazepines decreased from 201.28 items per 1000 patients in 04/05 to 109.35 in 08/09, a reduction of 46%
- Items of “z” drugs per 1000 patients decreased from 181 items per 1000 patients in 04/05 to 175.18 in 08/09, a reduction of 3%
- Costs of hypnotics decreased from £1001 per 1000 patients in 04/05 to £856 in 08/09, a reduction of 14%
- Costs of benzodiazepines increased from £302 per 1000 patients in 04/05 to £564, an increase of 87%
- Costs of “z” drugs decreased from £698 per 1000 patients in 04/05 to £292 in 08/09 a reduction of 58%

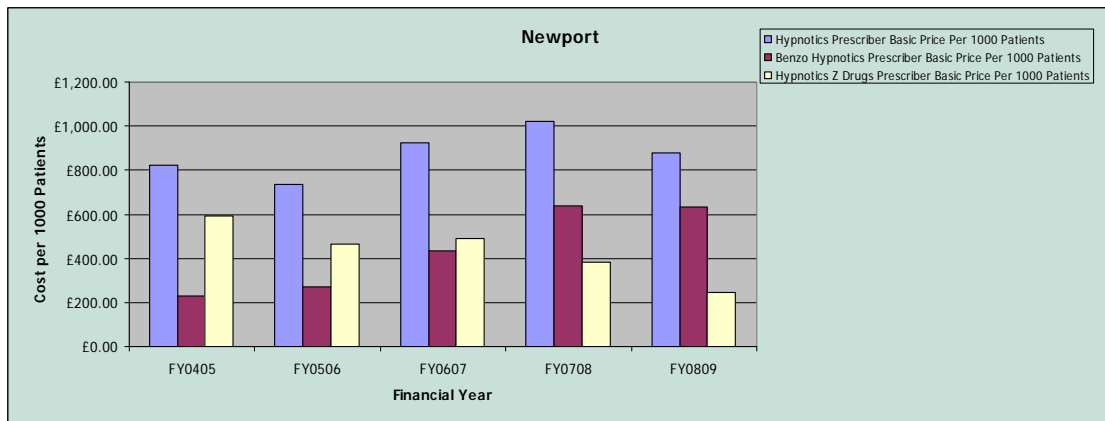
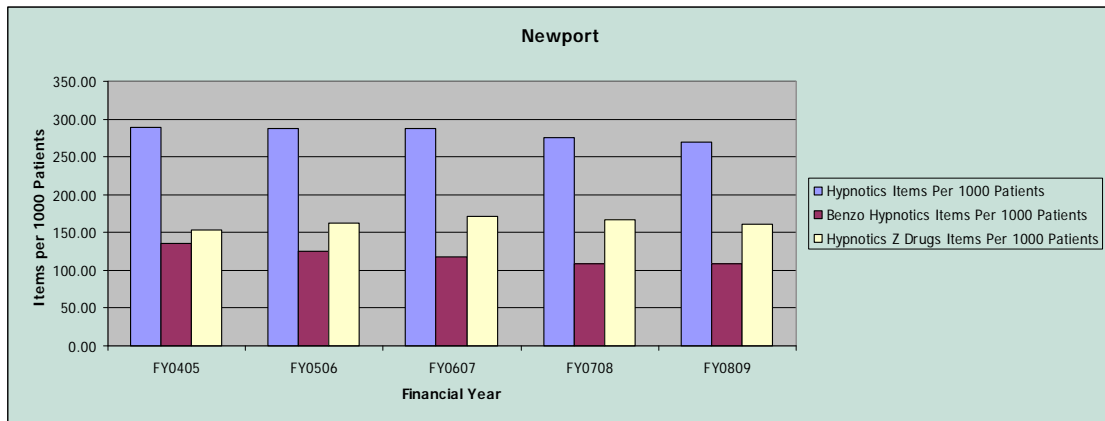


- Items of hypnotics (benzodiazepines and z drugs) decreased from 354 items per 1000 patients in 04/05 to 321.13 in 08/09, a reduction of 9%
- Items of benzodiazepines decreased from 199 items per 1000 patients in 04/05 to 179.25 in 08/09, a reduction of 10%
- Items of “z” drugs per 1000 patients decreased from 155 items per 1000 patients in 04/05 to 141.88 in 08/09, a reduction of 8%
- Costs of hypnotics decreased from £860 per 1000 patients in 04/05 to £802 in 08/09, a reduction of 7%
- Costs of benzodiazepines increased from £286 per 1000 patients in 04/05 to £564, an increase of 101%

- Costs of “z” drugs decreased from £574 per 1000 patients in 04/05 to £228 in 08/09 a reduction of 60%

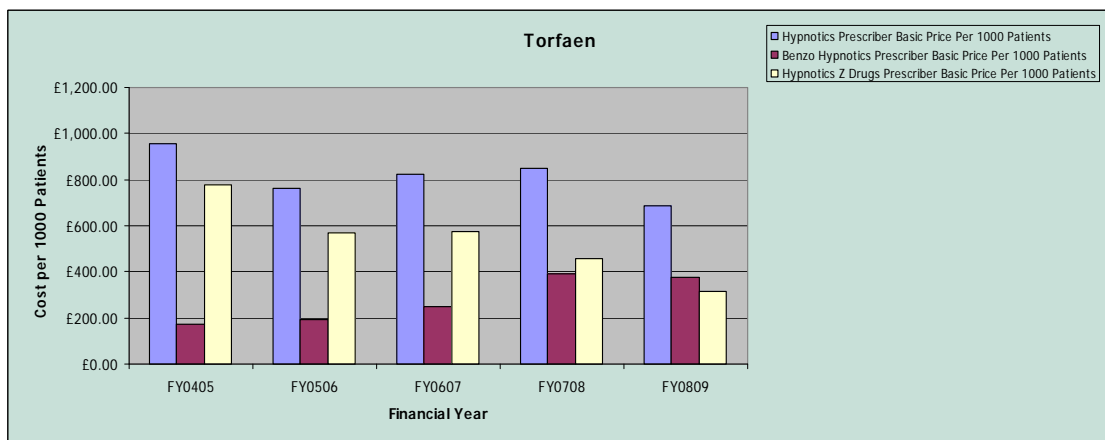
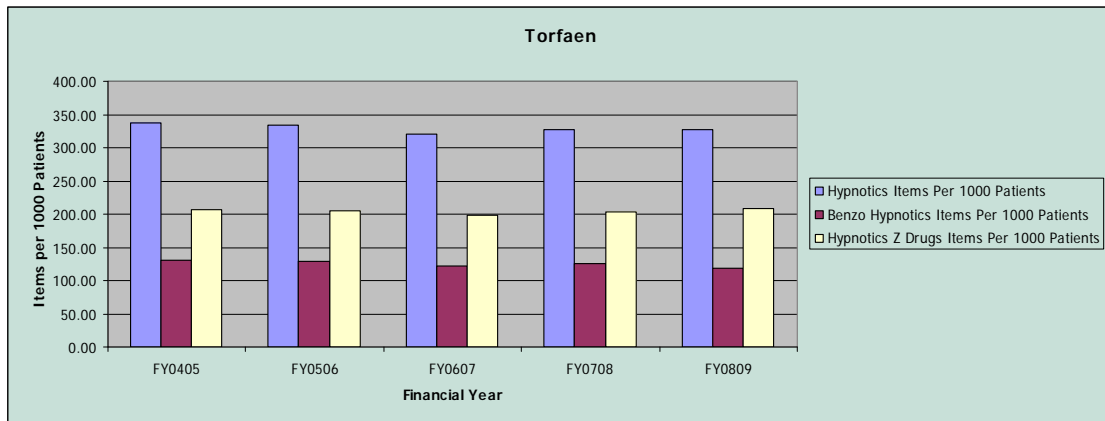


- Items of hypnotics (benzodiazepines and z drugs) decreased from 211 items per 1000 patients in 04/05 to 206.21 in 08/09, a reduction of 2%
- Items of benzodiazepines decreased from 103 items per 1000 patients in 04/05 to 76 in 08/09, a reduction of 26%
- Items of “z” drugs per 1000 patients increased from 108 items per 1000 patients in 04/05 to 130 in 08/09, an increase of 20%
- Costs of hypnotics decreased from £578 per 1000 patients in 04/05 to £534 in 08/09, a decrease of 8%
- Costs of benzodiazepines increased from £142 per 1000 patients in 04/05 to £321, an increase of 126%
- Costs of “z” drugs decreased from £436 per 1000 patients in 04/05 to £212 in 08/09 a reduction of 51%

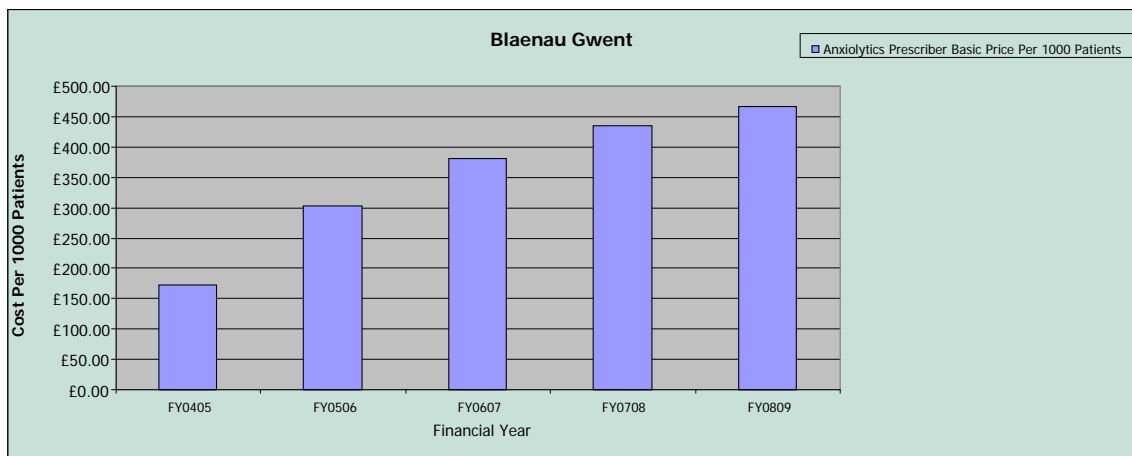
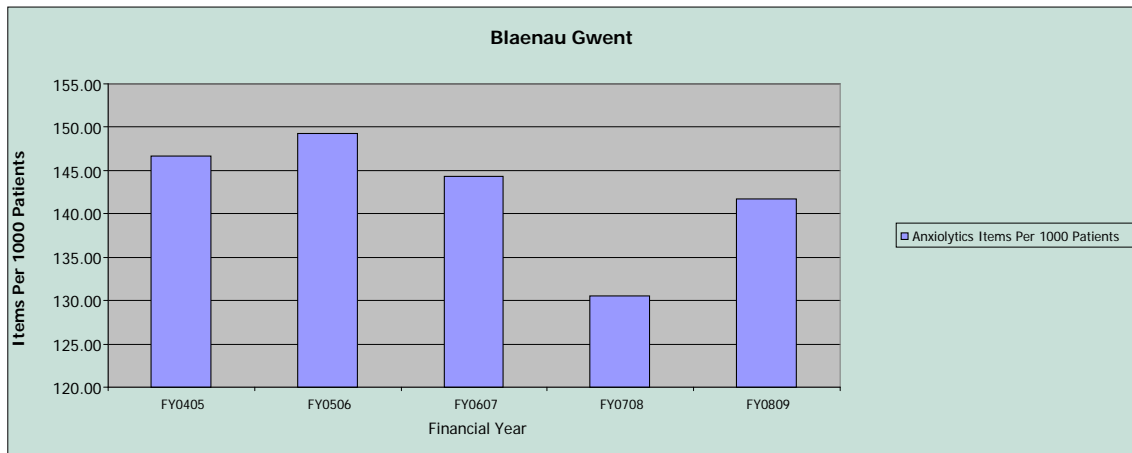


- Items of hypnotics (benzodiazepines and z drugs) decreased from 290 items per 1000 patients in 04/05 to 269.34 in 08/09, a reduction of 7%
- Items of benzodiazepines decreased from 136 items per 1000 patients in 04/05 to 109.17 in 08/09, a reduction of 20%
- Items of “z” drugs per 1000 patients increased from 153 items per 1000 patients in 04/05 to 160 in 08/09, an increase of 4%
- Costs of hypnotics increased from £820 per 1000 patients in 04/05 to £878 in 08/09, an increase of 7%
- Costs of benzodiazepines increased from £229 per 1000 patients in 04/05 to £635, an increase of 177%
- Costs of “z” drugs decreased from £591 per 1000 patients in 04/05 to £243 in 08/09, a decrease of 59%

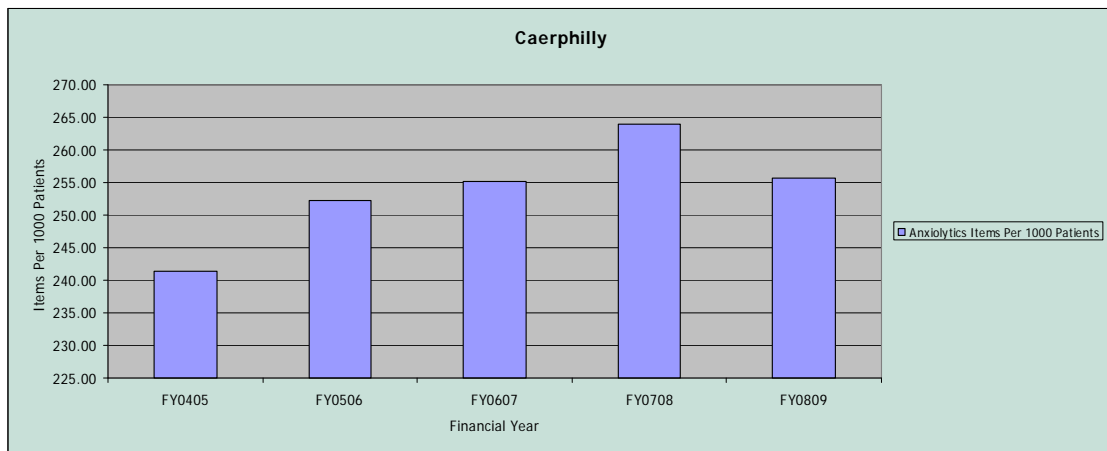


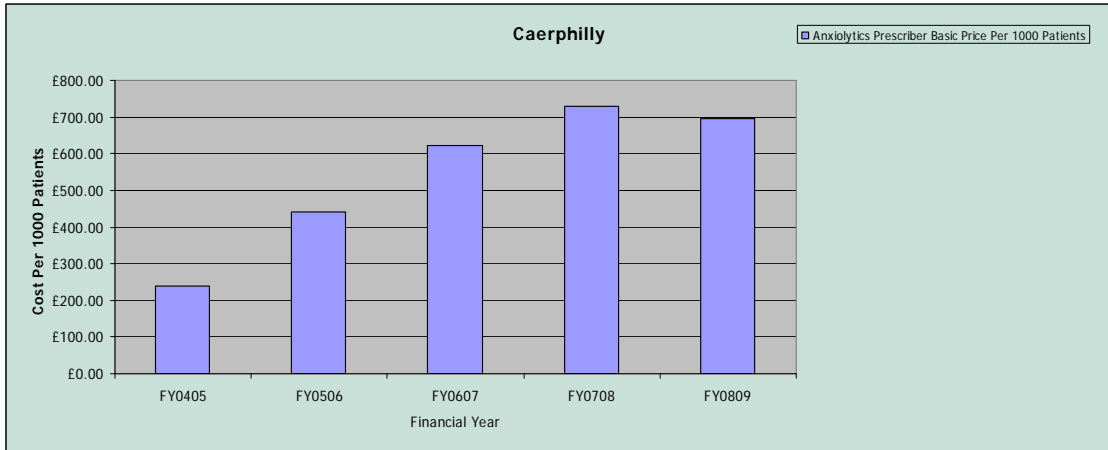


- Items of hypnotics (benzodiazepines and z drugs) decreased from 338 items per 1000 patients in 04/05 to 327 in 08/09, a reduction of 3%
- Items of benzodiazepines decreased from 131 items per 1000 patients in 04/05 to 119 in 08/09, a reduction of 10%
- Items of “z” drugs per 1000 patients increased from 207 items per 1000 patients in 04/05 to 208.73 in 08/09, an increase of 1%
- Costs of hypnotics decreased from £954 per 1000 patients in 04/05 to £687 in 08/09, a decrease of 28%
- Costs of benzodiazepines increased from £175 per 1000 patients in 04/05 to £375, an increase of 114%
- Costs of “z” drugs decreased from £779 per 1000 patients in 04/05 to £312 in 08/09 a decrease of 60%

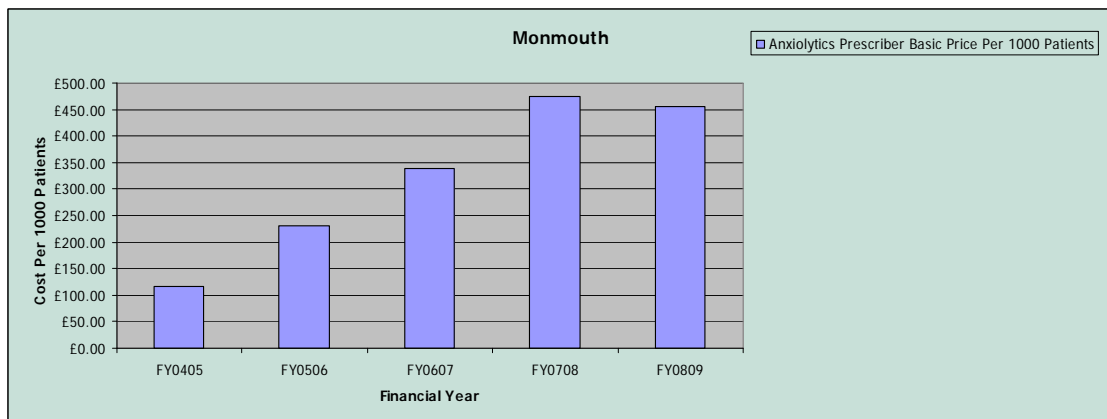
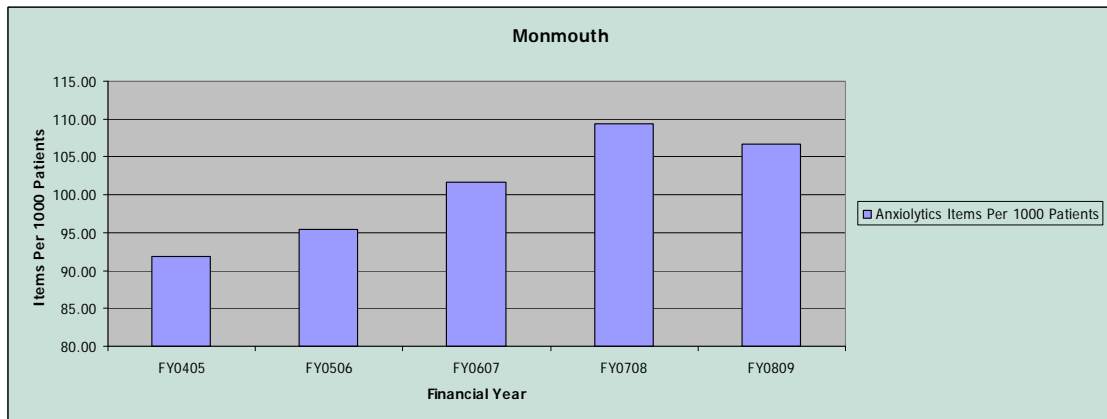


- Items of anxiolytics per 1000 patients decreased from 147 items per 1000 patients in 04/05 to 142 in 08/09, a decrease of 3%
- Costs of anxiolytics increased from £172 per 1000 patients in 04/05 to £466 in 08/09, an increase of 171%



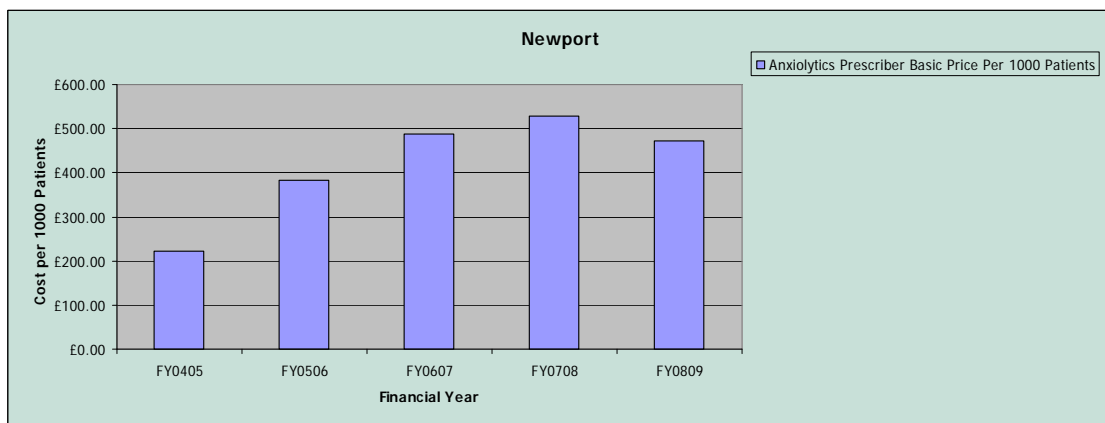
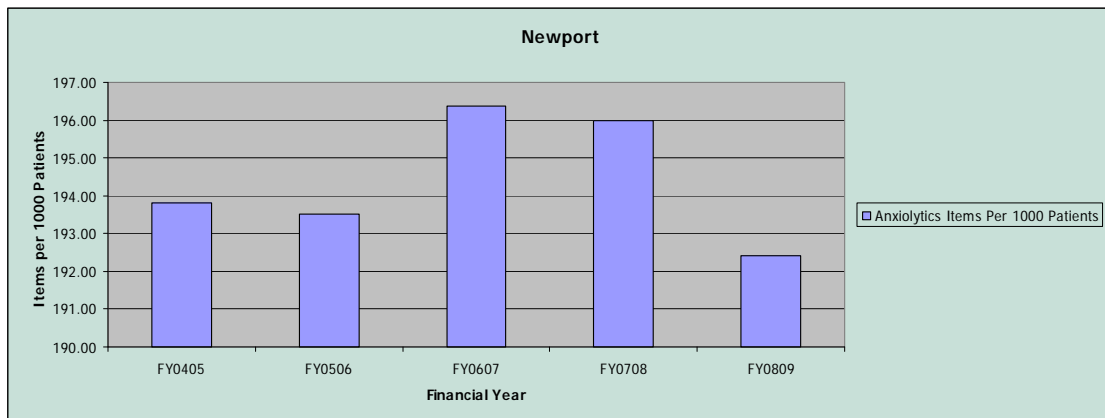


- Items of anxiolytics per 1000 patients increased from 241 items per 1000 patients in 04/05 to 256 in 08/09, an increase of 6%
- Costs of anxiolytics increased from £239 per 1000 patients in 04/05 to £697 in 08/09, an increase of 192%

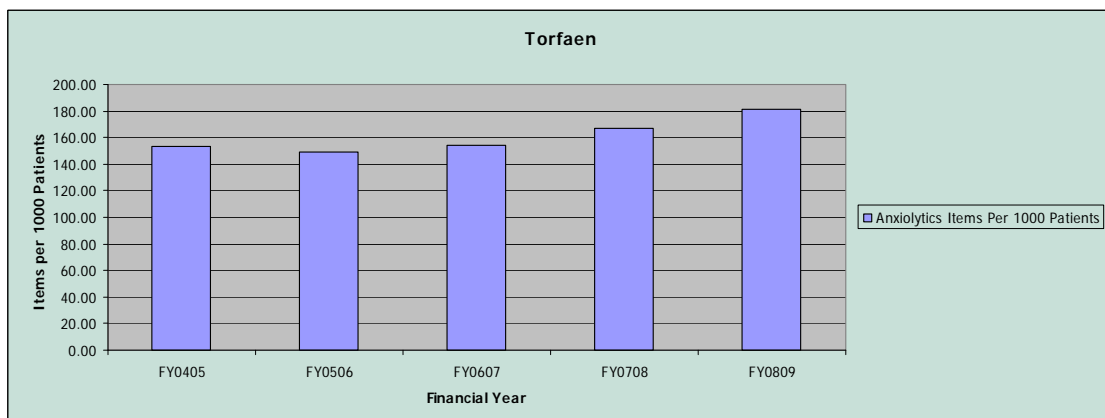


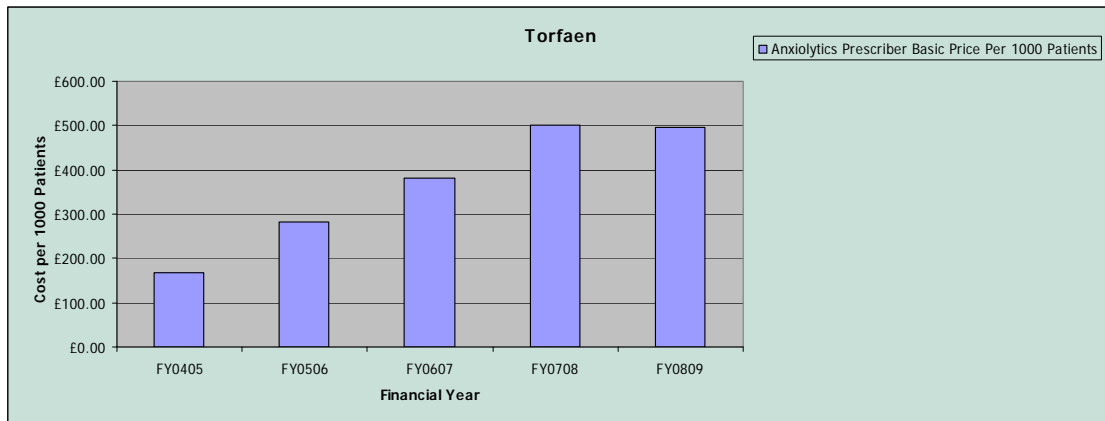
- Items of anxiolytics per 1000 patients increased from 92 items per 1000 patients in 04/05 to 107 in 08/09, an increase of 16%

- Costs of anxiolytics increased from £116 per 1000 patients in 04/05 to £456 in 08/09, an increase of 293%



- Items of anxiolytics per 1000 patients decreased from 194 items per 1000 patients in 04/05 to 192.4 in 08/09, a reduction of 0.7%
- Costs of anxiolytics increased from £223 per 1000 patients in 04/05 to £473 in 08/09, an increase of 113%



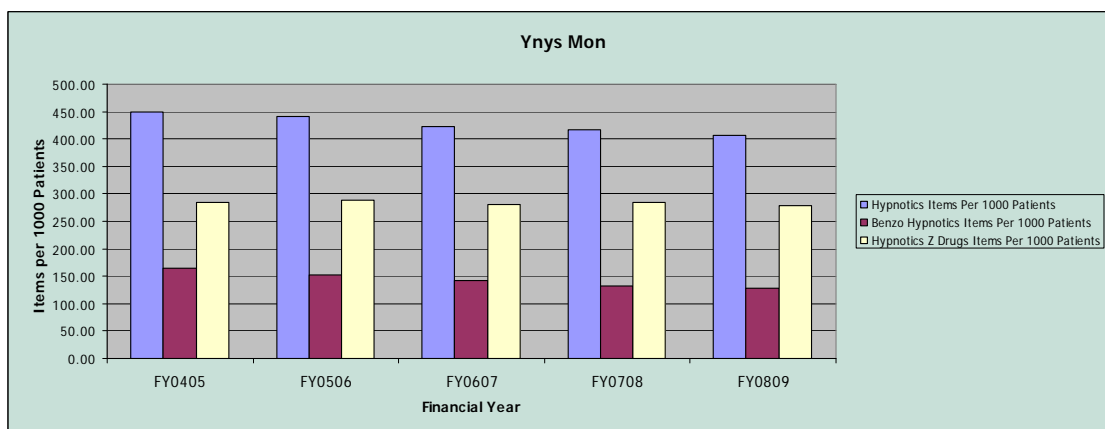


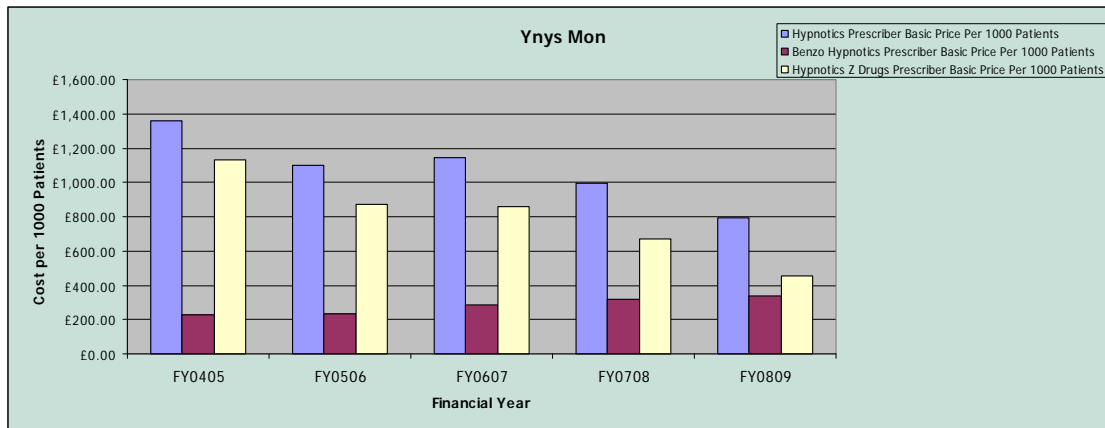
- Items of anxiolytics per 1000 patients increased from 154 items per 1000 patients in 04/05 to 182 in 08/09 an increase of 18%
- Costs of anxiolytics increased from £169 per 1000 patients in 04/05 to £497 in 08/09, an increase of 194%

### Betsi Cadwaladr University Health Board (UHB)

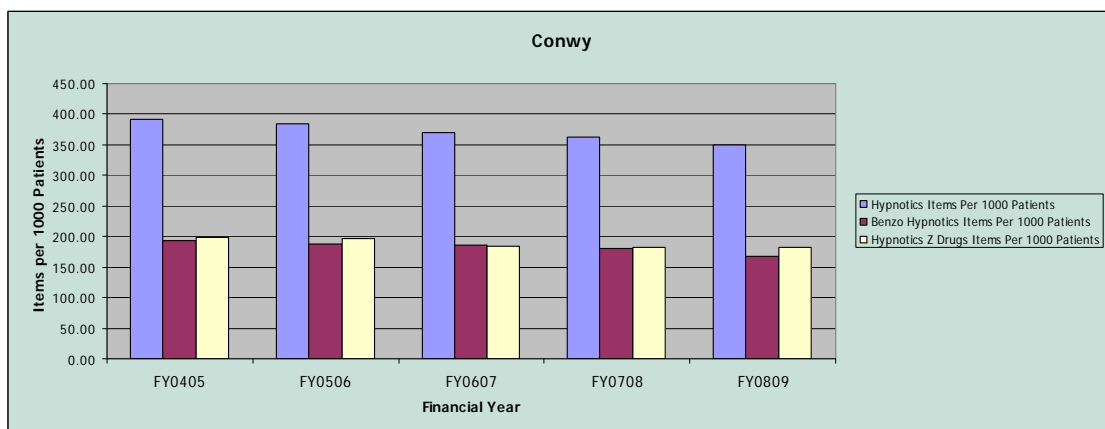
(Former Gwynedd, Conwy, Denbighshire, Flintshire, Wrexham, Ynys Mon LHBs)

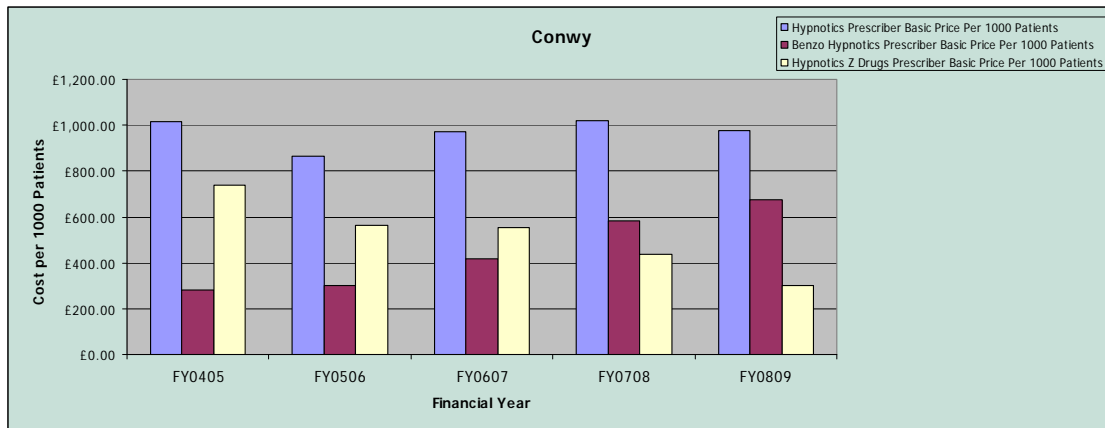
- Within the UHB there are areas of deprivation, mainly found in coastal areas such as around Rhyl and Colwyn Bay and also Wrexham.
- 49 (12%) out of the 425 lower super output areas (LSOAs) in the UHB are among the most deprived fifth in Wales
- 80 (19%) are in the least deprived fifth
- However within less deprived areas there are pockets of hidden deprivation
- 23% of Wales' population is in this HB. Total population 678,500
- This UHB is the largest in terms of geography and population.
- Betsi Cadwaladr UHB has the fifth highest proportion of LSOAs in the most deprived fifth in Wales



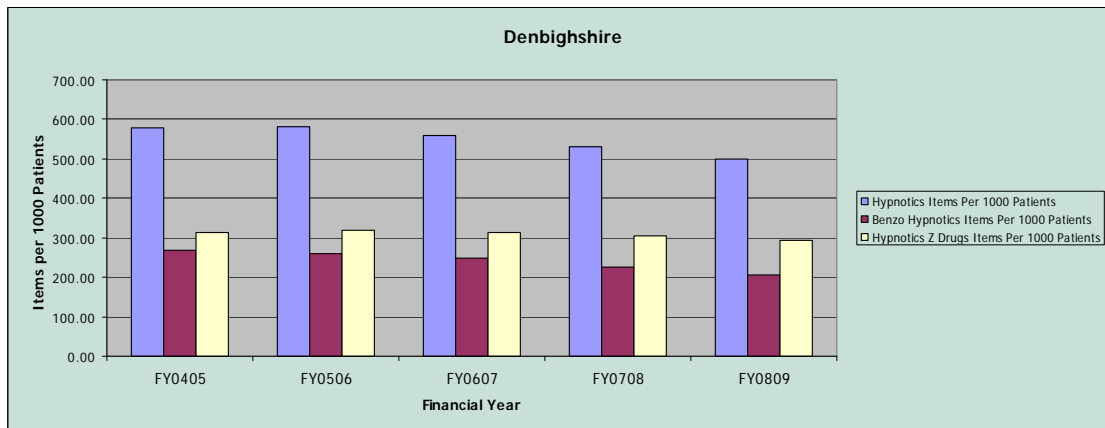


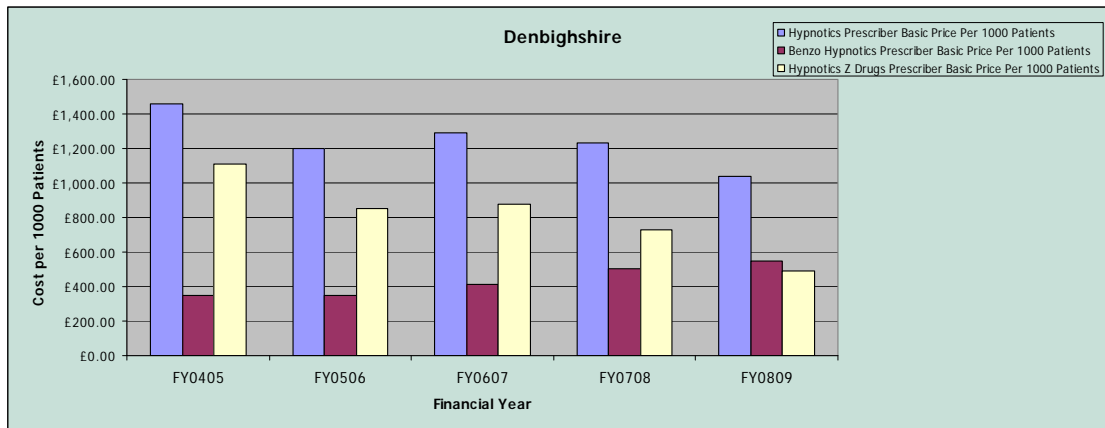
- Items of hypnotics (benzodiazepines and z drugs) decreased from 448 items per 1000 patients in 04/05 to 406 in 08/09, a reduction of 9%
- Items of benzodiazepines decreased from 164 items per 1000 patients in 04/05 to 128 in 08/09, a reduction of 22%
- Items of “z” drugs per 1000 patients decreased from 284 items per 1000 patients in 04/05 to 278 in 08/09, a reduction of 2%
- Costs of hypnotics decreased from £1360 per 1000 patients in 04/05 to £792 in 08/09, a decrease of 42%
- Costs of benzodiazepines increased from £228 per 1000 patients in 04/05 to £337, an increase of 48%
- Costs of “z” drugs decreased from £1132 per 1000 patients in 04/05 to £454 in 08/09, a decrease of 60%



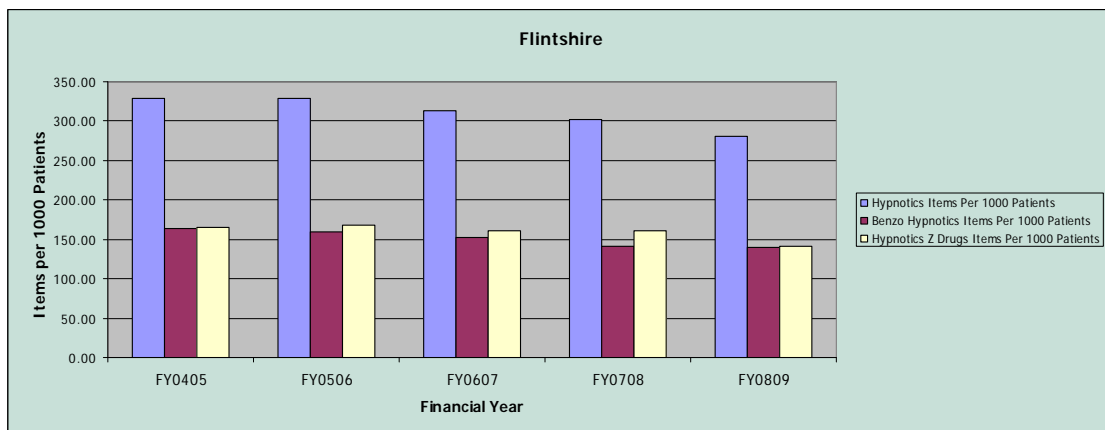


- Items of hypnotics (benzodiazepines and z drugs) decreased from 392 items per 1000 patients in 04/05 to 350 in 08/09, a reduction of 11%
- Items of benzodiazepines decreased from 193 items per 1000 patients in 04/05 to 167 in 08/09, a reduction of 14%
- Items of “z” drugs per 1000 patients decreased from 198 items per 1000 patients in 04/05 to 183 in 08/09, a reduction of 8%
- Costs of hypnotics decreased from £1017 per 1000 patients in 04/05 to £975 in 08/09, a decrease of 4%
- Costs of benzodiazepines increased from £280 per 1000 patients in 04/05 to £674, an increase of 141%
- Costs of “z” drugs decreased from £737 per 1000 patients in 04/05 to £301 in 08/09 a decrease of 59%

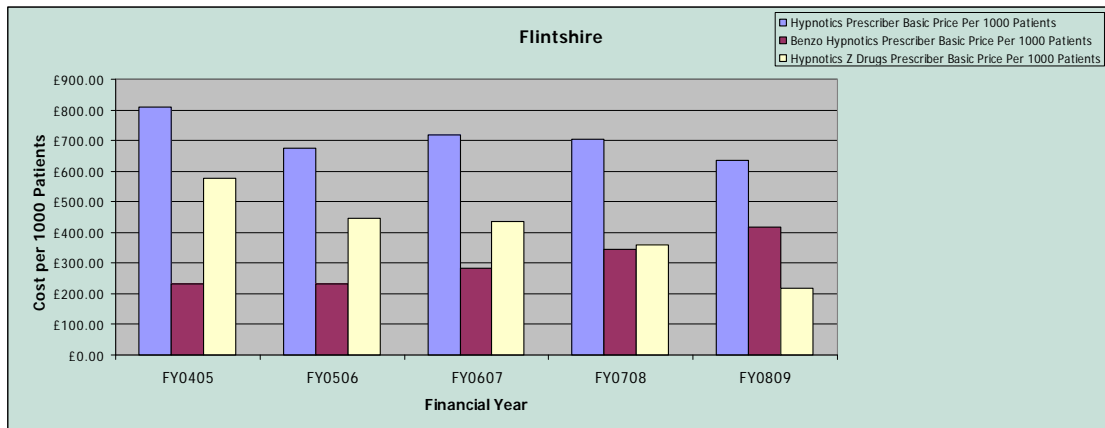




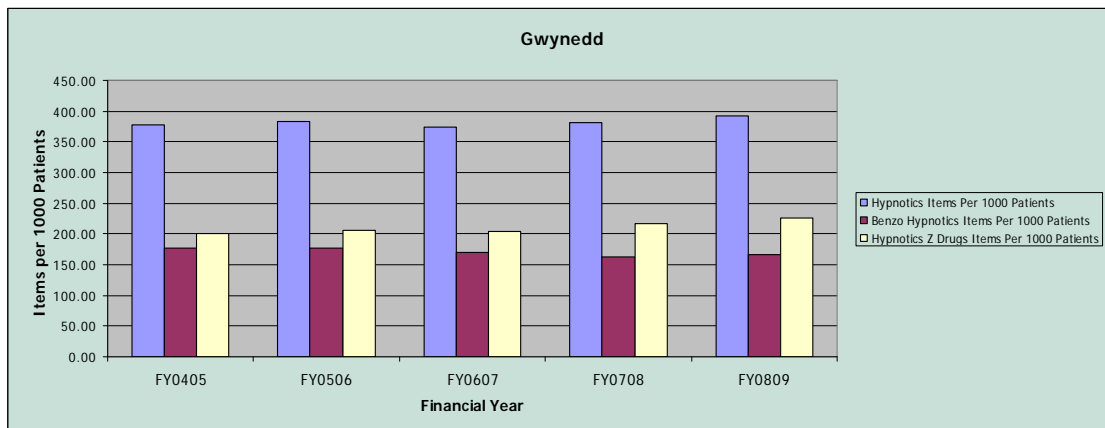
- Items of hypnotics (benzodiazepines and z drugs) decreased from 580 items per 1000 patients in 04/05 to 501 in 08/09, a reduction of 14%
- Items of benzodiazepines decreased from 267 items per 1000 patients in 04/05 to 206 in 08/09, a reduction of 23%
- Items of “z” drugs per 1000 patients decreased from 312 items per 1000 patients in 04/05 to 295 in 08/09, a reduction of 6%
- Costs of hypnotics decreased from £1461 per 1000 patients in 04/05 to £1038 in 08/09, a decrease of 29%
- Costs of benzodiazepines increased from £348 per 1000 patients in 04/05 to £550, an increase of 58%
- Costs of “z” drugs decreased from £1113 per 1000 patients in 04/05 to £488 in 08/09, a decrease of 56%

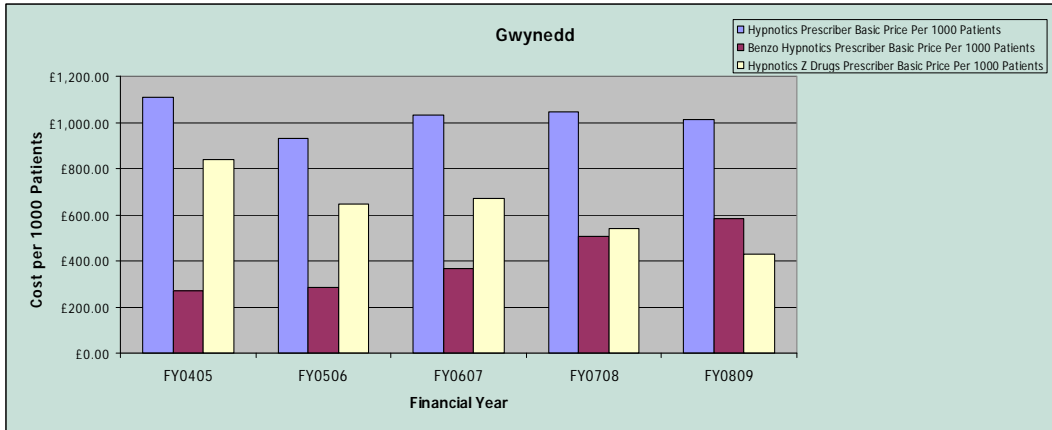




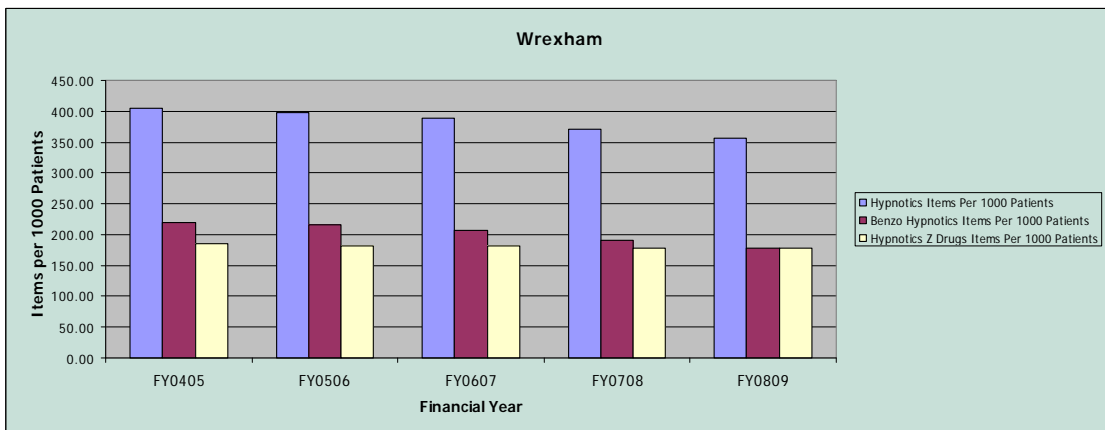


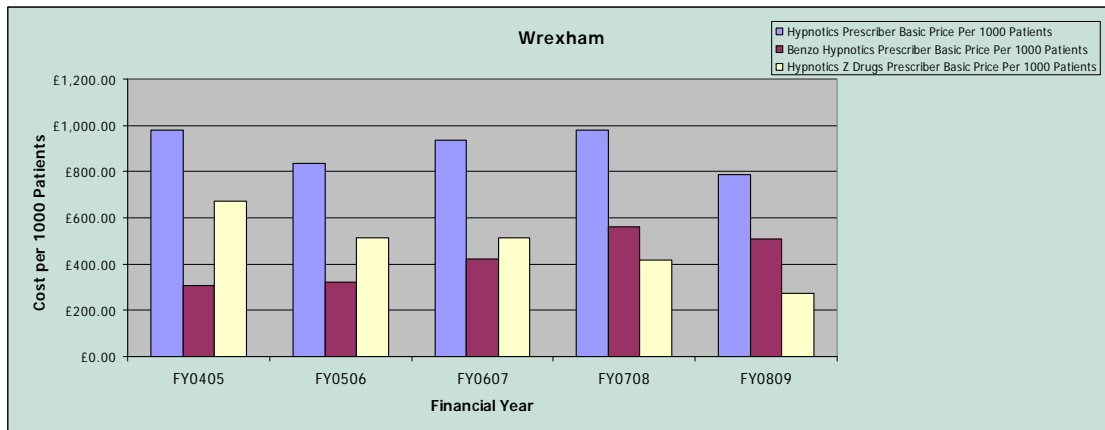
- Items of hypnotics (benzodiazepines and z drugs) decreased from 329 items per 1000 patients in 04/05 to 281 in 08/09, a reduction of 15%
- Items of benzodiazepines decreased from 164 items per 1000 patients in 04/05 to 139 in 08/09, a reduction of 15%
- Items of “z” drugs per 1000 patients decreased from 166 items per 1000 patients in 04/05 to 142 in 08/09, a reduction of 14%
- Costs of hypnotics decreased from £809 per 1000 patients in 04/05 to £636 in 08/09, a decrease of 21%
- Costs of benzodiazepines increased from £232 per 1000 patients in 04/05 to £418, an increase of 80%
- Costs of “z” drugs decreased from £578 per 1000 patients in 04/05 to £217 in 08/09, a decrease of 62%



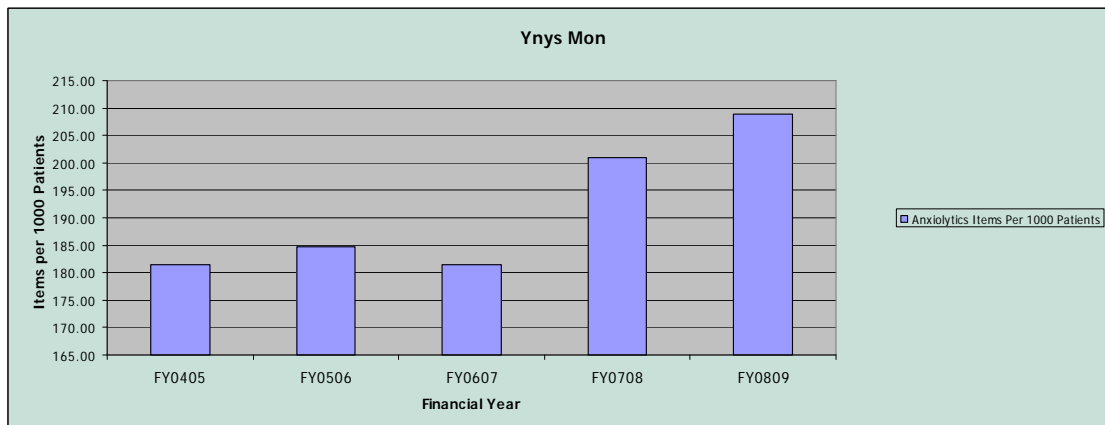


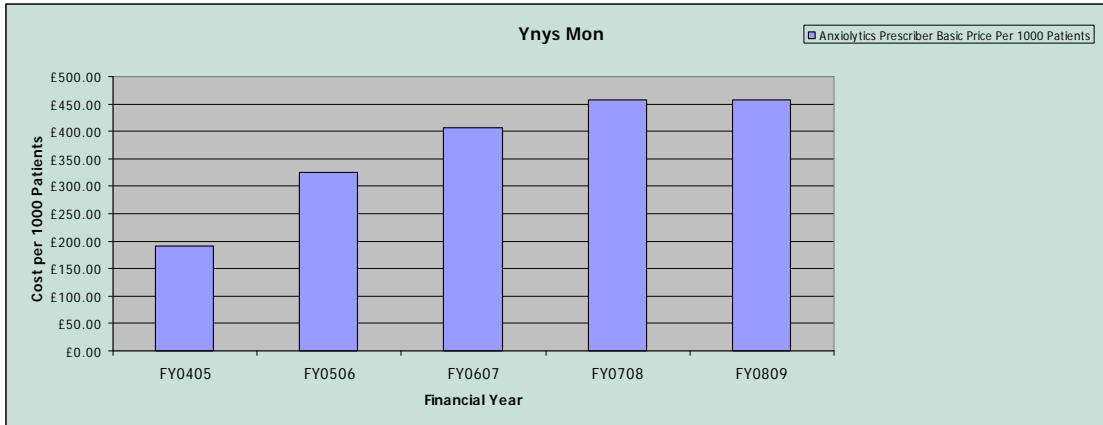
- Items of hypnotics (benzodiazepines and z drugs) increased from 377 items per 1000 patients in 04/05 to 391 in 08/09, a increase of 4%
- Items of benzodiazepines decreased from 177 items per 1000 patients in 04/05 to 166 in 08/09, a reduction of 7%
- Items of “z” drugs per 1000 patients increased from 200 items per 1000 patients in 04/05 to 226 in 08/09, an increase of 13%
- Costs of hypnotics decreased from £1109 per 1000 patients in 04/05 to £1012 in 08/09, a decrease of 9%
- Costs of benzodiazepines increased from £270 per 1000 patients in 04/05 to £581, a increase of 115%
- Costs of “z” drugs decreased from £839 per 1000 patients in 04/05 to £431 in 08/09 a decrease of 49%



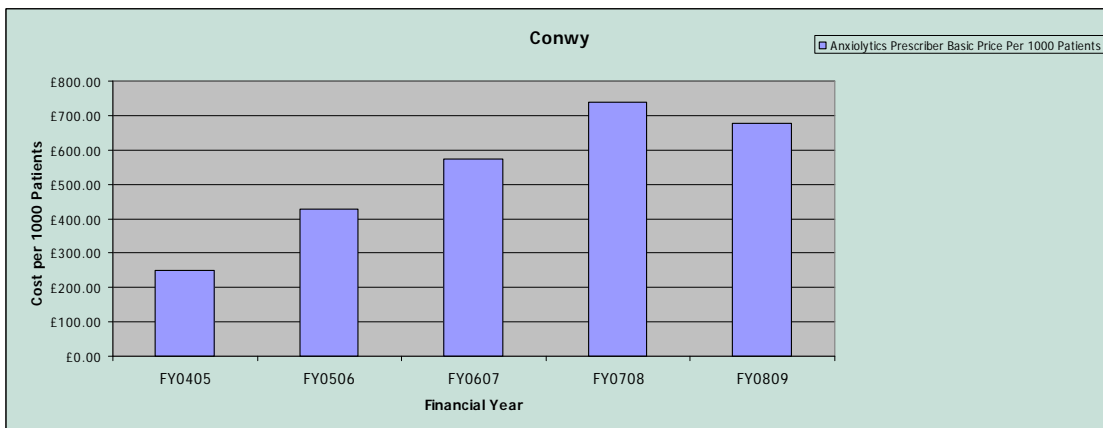
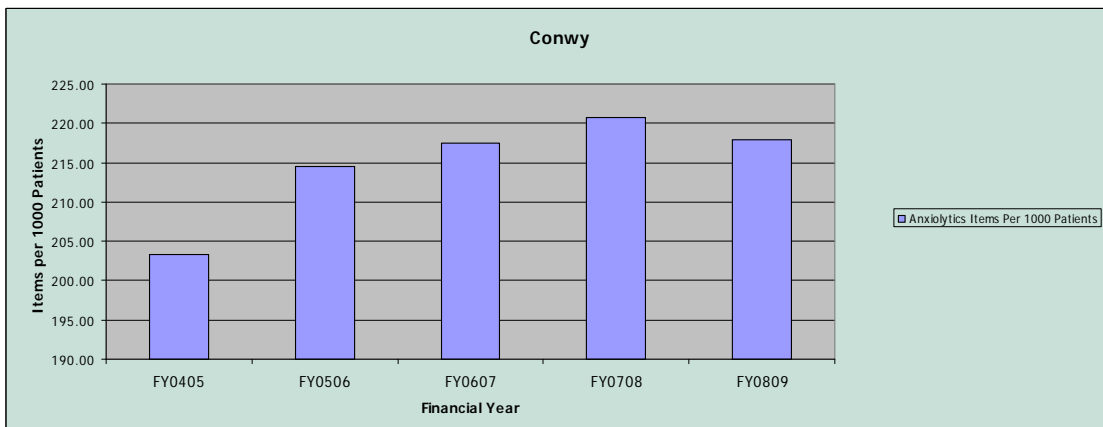


- Items of hypnotics (benzodiazepines and z drugs) decreased from 405 items per 1000 patients in 04/05 to 356 in 08/09, a reduction of 12%
- Items of benzodiazepines decreased from 220 items per 1000 patients in 04/05 to 178 in 08/09, a reduction of 19%
- Items of “z” drugs per 1000 patients decreased from 185 items per 1000 patients in 04/05 to 178 in 08/09, a reduction of 4%
- Costs of hypnotics decreased from £979 per 1000 patients in 04/05 to £785 in 08/09, a decrease of 20%
- Costs of benzodiazepines increased from £306 per 1000 patients in 04/05 to £511, an increase of
- Costs of “z” drugs decreased from £672 per 1000 patients in 04/05 to £274 in 08/09 a decrease of figure missing

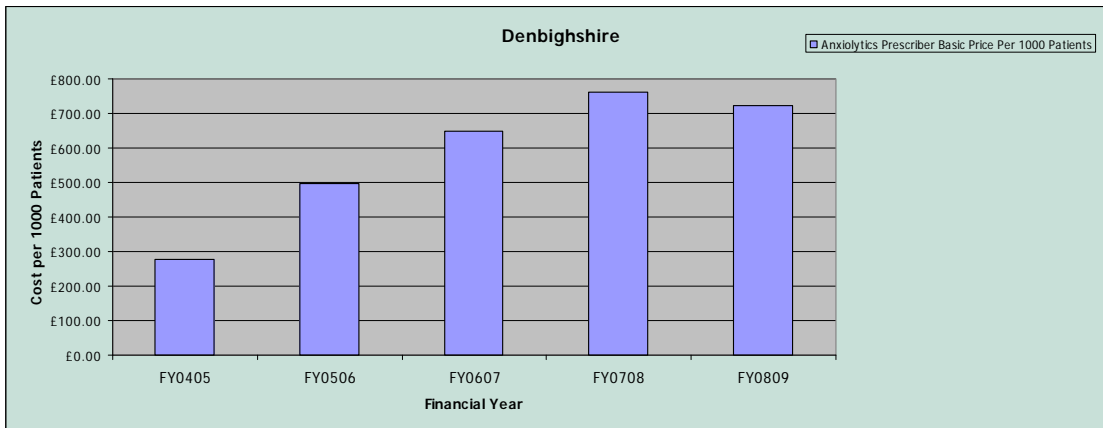




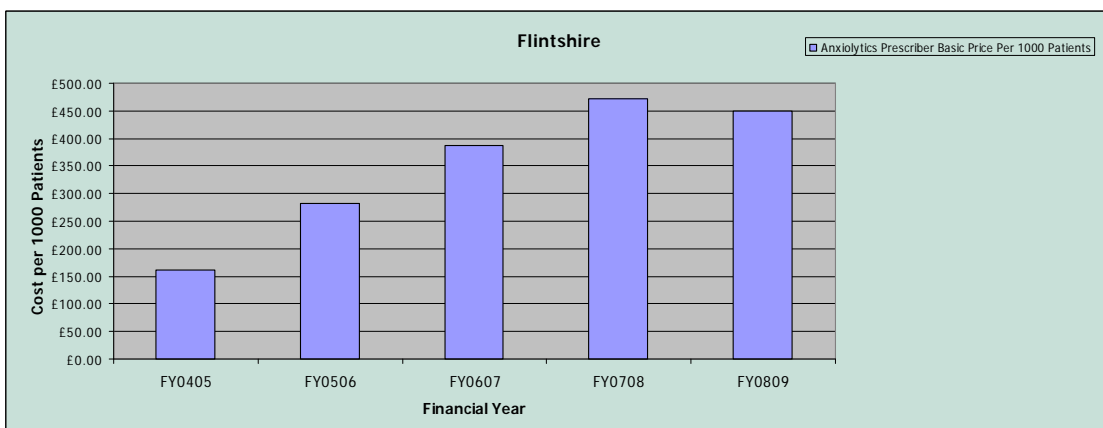
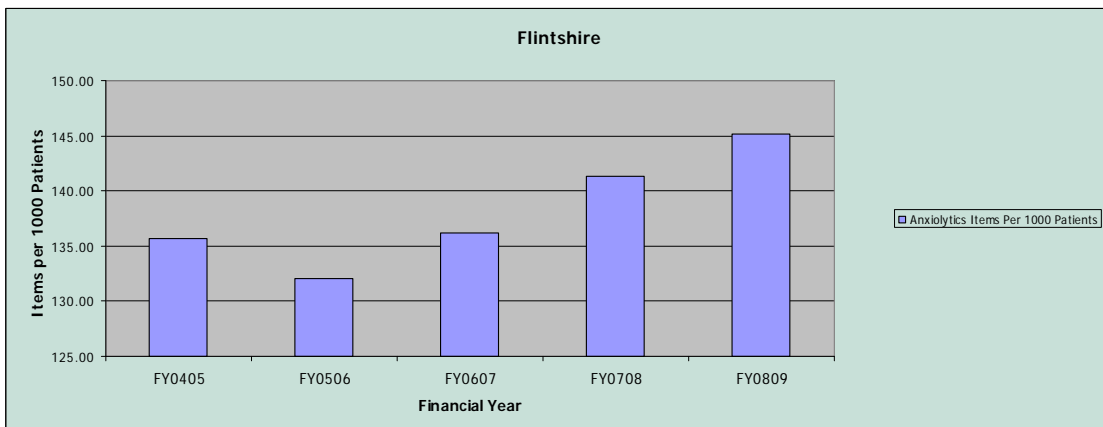
- Items of anxiolytics per 1000 patients increased from 181 items per 1000 patients in 04/05 to 209 in 08/09 an increase of 15%
- Costs of anxiolytics increased from £192 per 1000 patients in 04/05 to £458 in 08/09, an increase of 139%



- Items of anxiolytics per 1000 patients increased from 203 items per 1000 patients in 04/05 to 218 in 08/09 a percentage increase of 7%
- Costs of anxiolytics increased from £249 per 1000 patients in 04/05 to £677 in 08/09, an increase of 172%

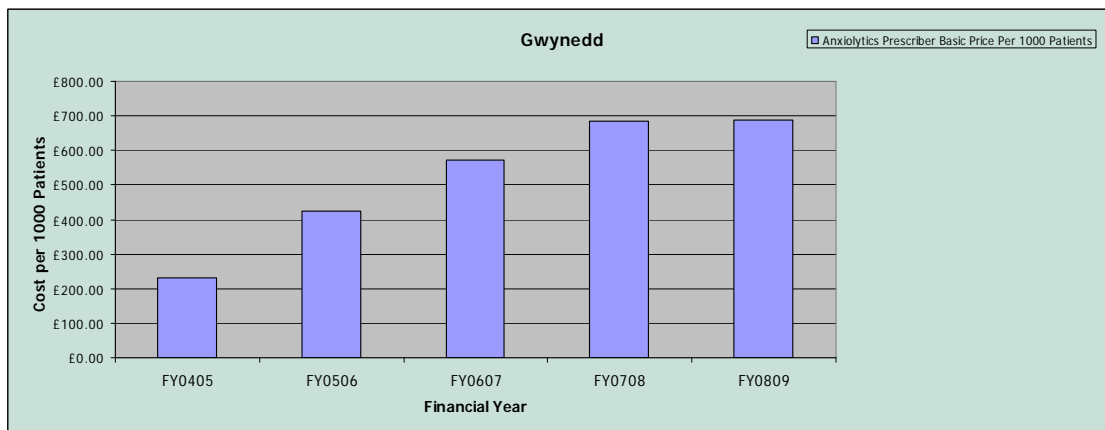
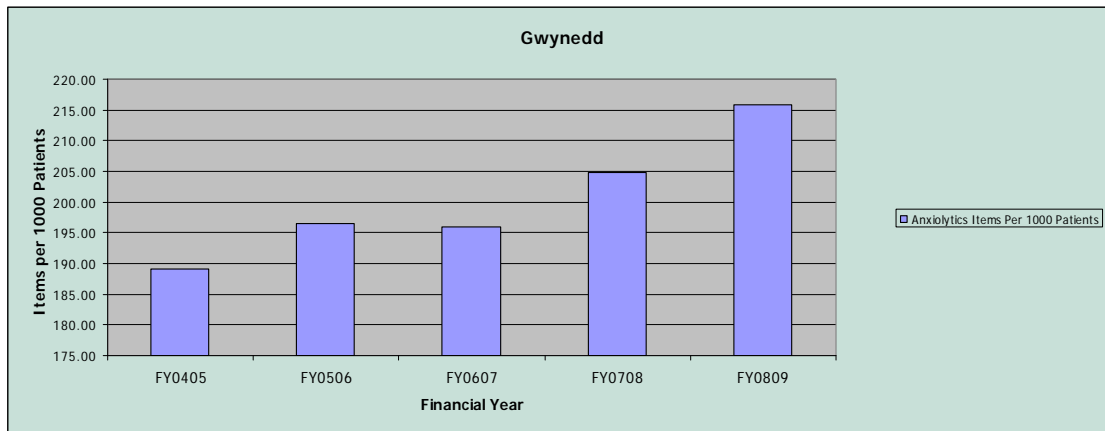


- Items of anxiolytics per 1000 patients decreased from 249 items per 1000 patients in 04/05 to 234 in 08/09 a percentage decrease of 6%
- Costs of anxiolytics increased from £276 per 1000 patients in 04/05 to £722 in 08/09, an increase of 161%

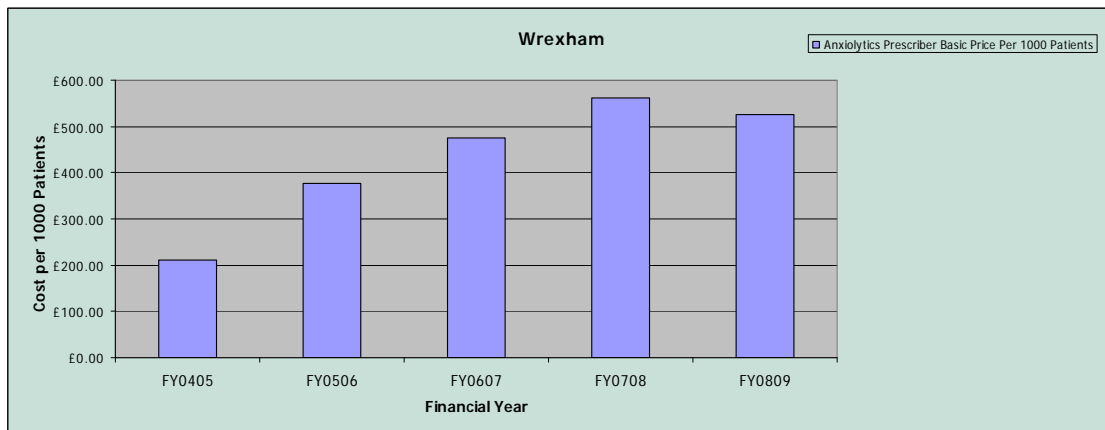
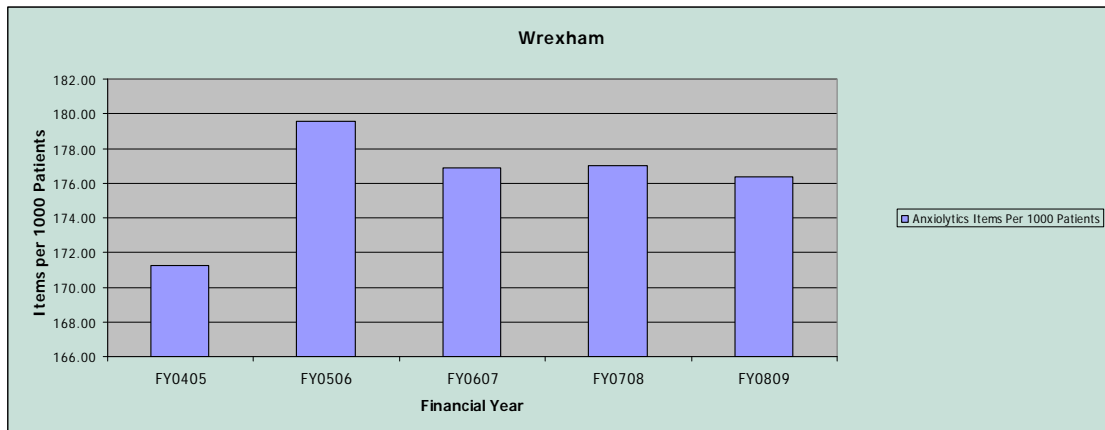


- Items of anxiolytics per 1000 patients increased from 136 items per 1000 patients in 04/05 to 145 in 08/09 a percentage increase of 7%

- Costs of anxiolytics increased from £161 per 1000 patients in 04/05 to £451 in 08/09, an increase of 180%



- Items of anxiolytics per 1000 patients increased from 189 items per 1000 patients in 04/05 to 216 in 08/09 a percentage increase of 14%
- Costs of anxiolytics increased from £232 per 1000 patients in 04/05 to £686 in 08/09, an increase of 196%

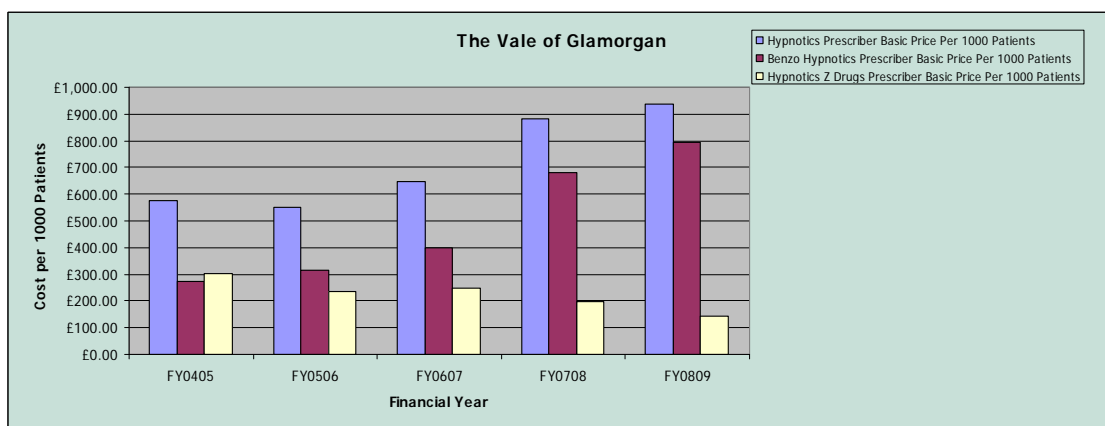
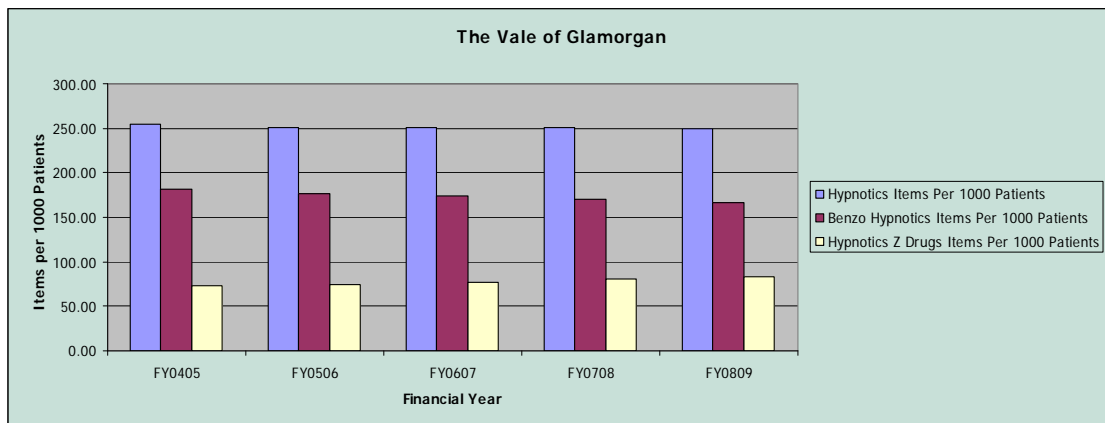


- Items of anxiolytics per 1000 patients increased from 171 items per 1000 patients in 04/05 to 176 in 08/09 a percentage increase of 3%
- Costs of anxiolytics increased from £212 per 1000 patients in 04/05 to £525 in 08/09, an increase of 148%

### Cardiff and Vale University Health Board (UHB)

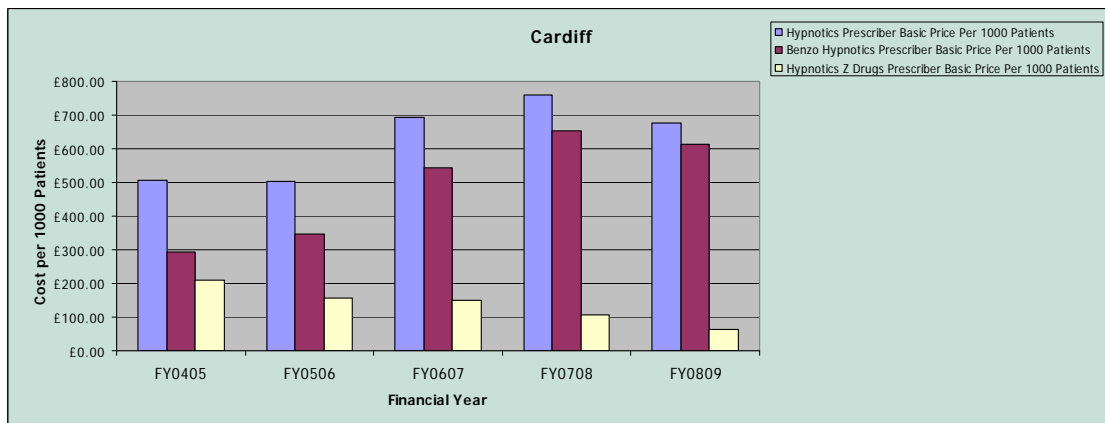
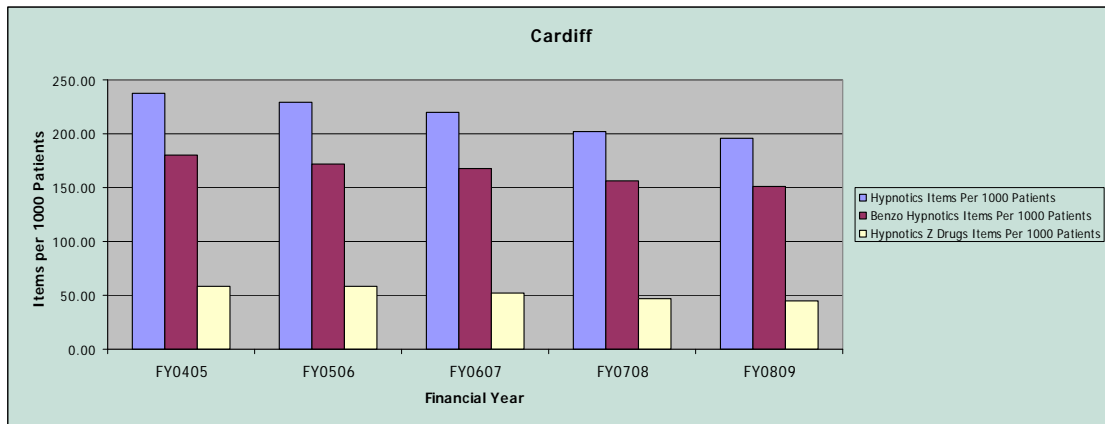
(Former Cardiff and Vale of Glamorgan LHBs)

- Cardiff & Vale ULHB has the fourth highest proportion of LSOAs in the most deprived fifth in Wales
- Within the UHB there are areas of deprivation, particularly in the southern part of Cardiff City and Barry.
- 58 (21%) of the 281 LSOAs in the UHB are among the most deprived fifth in Wales.
- 114 (40%) are in the least deprived fifth.
- This UB is the smallest and most densely populated HB area in Wales, primarily due to Wales' capital city: Cardiff.
- There is a substantial higher percentage of people in Cardiff aged 20 to 34 (students, young professionals), compared to the rest of Wales and comparatively lower percentages of people aged 50 and over.
- 14.9% of Wales' population is in this UHB. There is a total population of 445,000

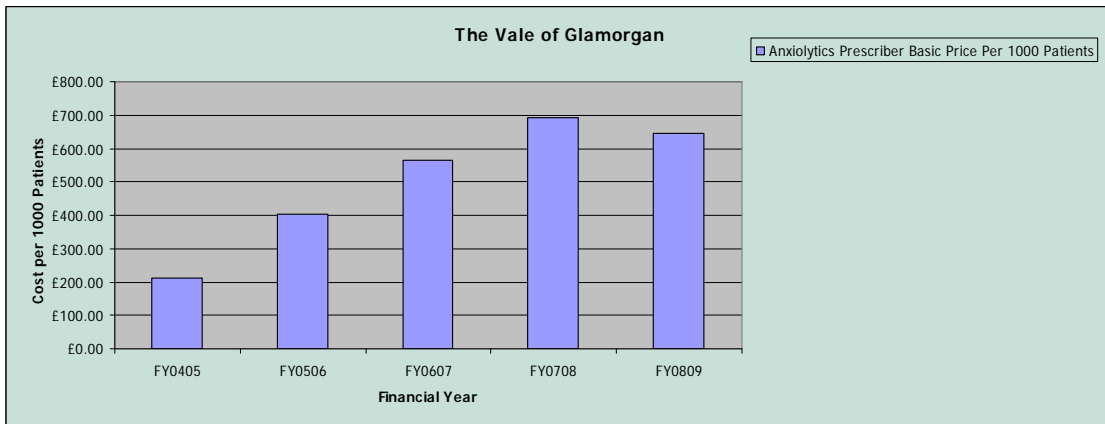
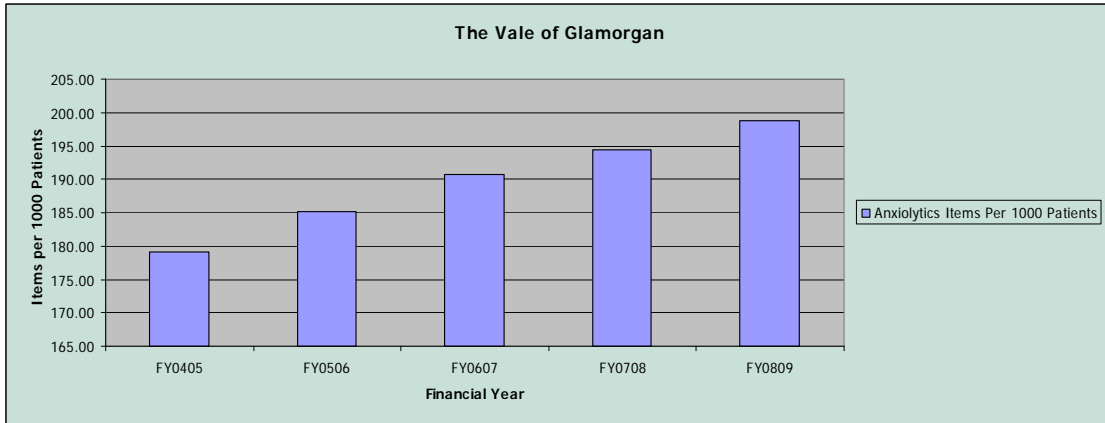


- Items of hypnotics (benzodiazepines and z drugs) decreased from 255 items per 1000 patients in 04/05 to 249 in 08/09, a percentage reduction of 2%
- Items of benzodiazepines decreased from 182 items per 1000 patients in 04/05 to 167 in 08/09 , a percentage reduction of 8%
- Items of “z” drugs per 1000 patients increased from 73 items per 1000 patients in 04/05 to 83 in 08/09, a percentage increase of 14%
- Costs of hypnotics increased from £577 per 1000 patients in 04/05 to £936 in 08/09, a percentage increase of 62%
- Costs of benzodiazepines increased from £274 per 1000 patients in 04/05 to £794, a percentage increase of 190%
- Costs of “z” drugs decreased from £303 per 1000 patients in 04/05 to £142 in 08/09 a percentage decrease of 53%

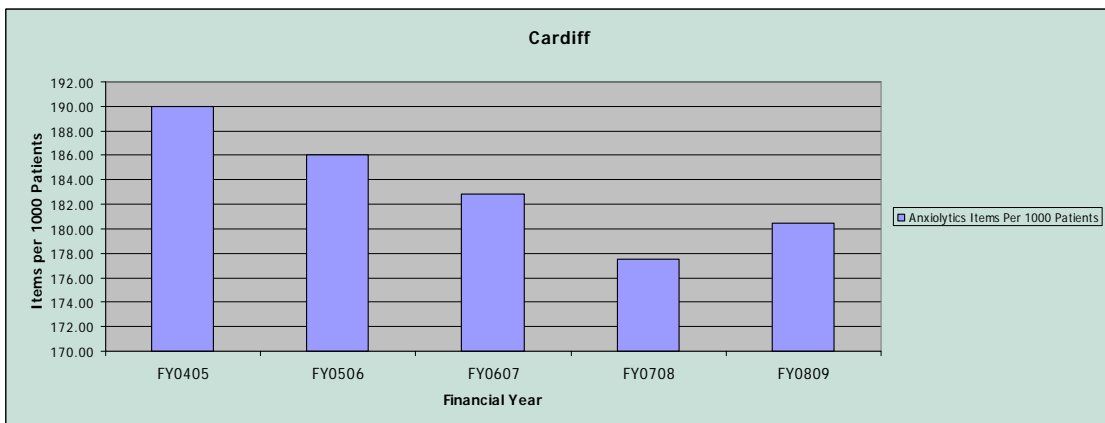


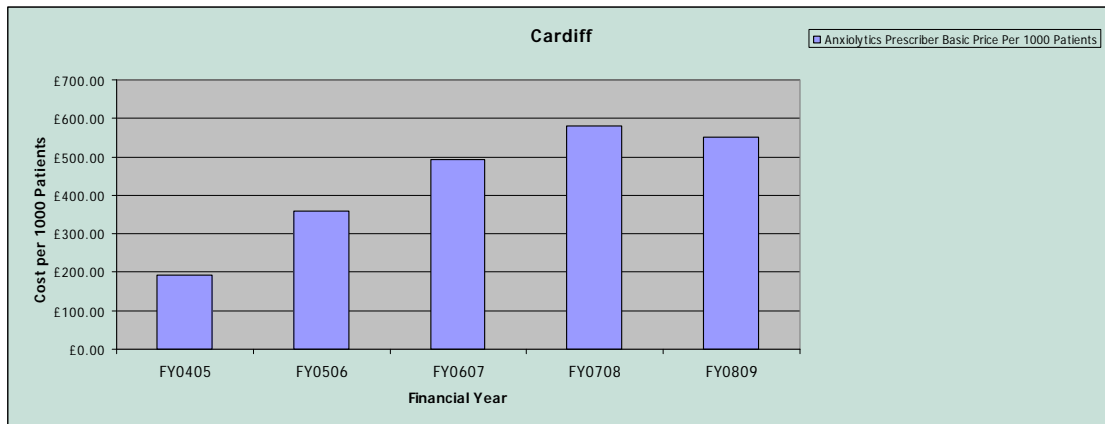


- Items of hypnotics (benzodiazepines and z drugs) decreased from 238 items per 1000 patients in 04/05 to 196 in 08/09, a percentage reduction of 18%
- Items of benzodiazepines decreased from 180 items per 1000 patients in 04/05 to 151 in 08/09, a percentage reduction of 16%
- Items of “z” drugs per 1000 patients decreased from 58 items per 1000 patients in 04/05 to 45, a percentage reduction of 23%
- Costs of hypnotics increased from £505 per 1000 patients in 04/05 to £676 in 08/09, a percentage increase of 34%
- Costs of benzodiazepines increased from £294 per 1000 patients in 04/05 to £614, a percentage increase of 109%
- Costs of “z” drugs decreased from £211 per 1000 patients in 04/05 to £63 in 08/09 a percentage decrease of 70%



- Items of anxiolytics per 1000 patients increased from 179 items per 1000 patients in 04/05 to 199 in 08/09 a percentage increase of 11%
- Costs of anxiolytics increased from £211 per 1000 patients in 04/05 to £645 in 08/09, an increase of 206%



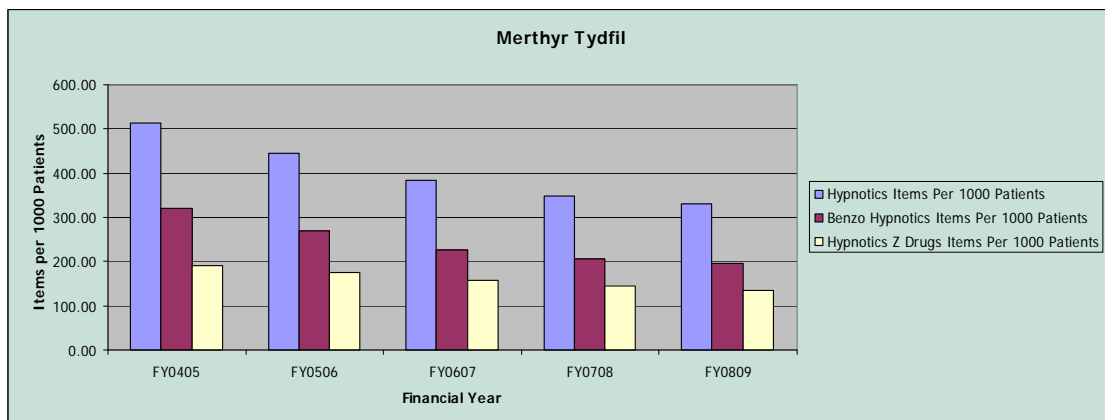


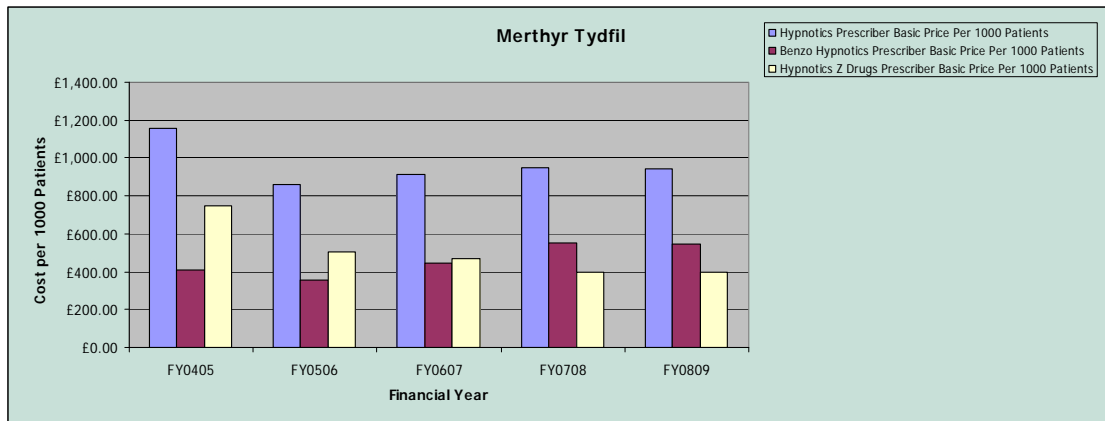
- Items of anxiolytics per 1000 patients decreased from 190 items per 1000 patients in 04/05 to 180 in 08/09 a percentage decrease of 5%
- Costs of anxiolytics increased from £192 per 1000 patients in 04/05 to £553 in 08/09, an increase of 188%

### Cwm Taf Health Board

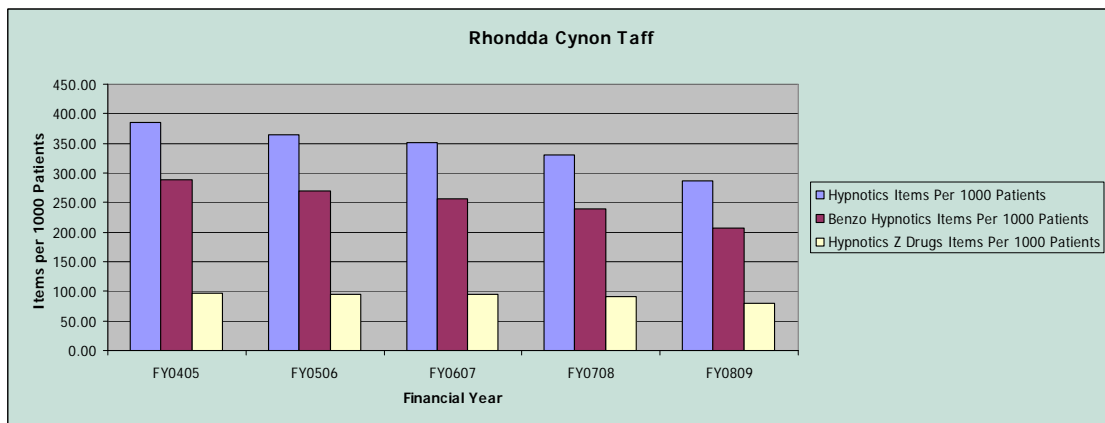
(Former Rhondda Cynon Taff (RCT) and Merthyr Tydfil LHBs)

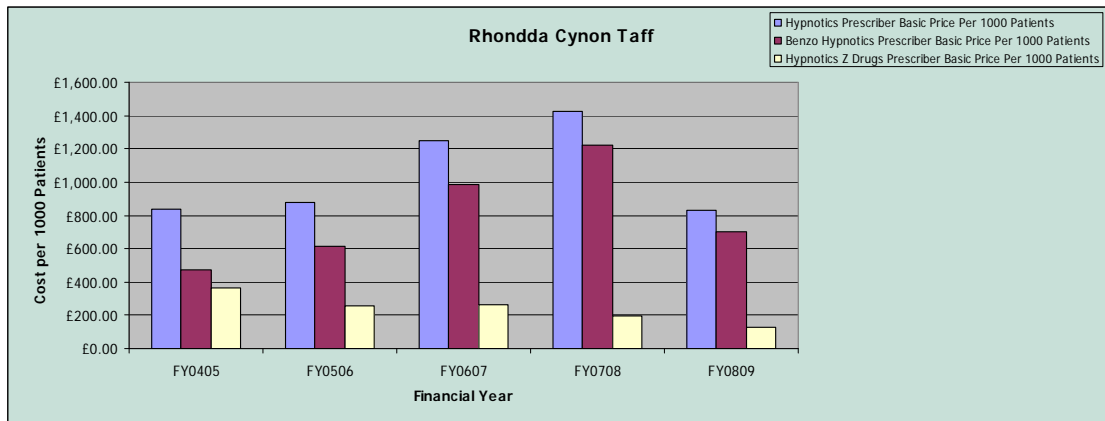
- Within the HB there are areas of deprivation, particularly in the post industrial areas such as the Rhondda and Merthyr.
- 73 (39%) of the 188 LSOAs in the HB are among the most deprived fifth.
- 17 (9%) are in the least deprived fifth.
- 10% of Wales' population is within this HB. Total population 289,400.
- There are fewer people aged 60 years and over, compared to Wales as a whole, and higher proportions of people in their twenties.
- Cwm Taf HB has the highest proportion of LSOAs in the most deprived fifth in Wales.



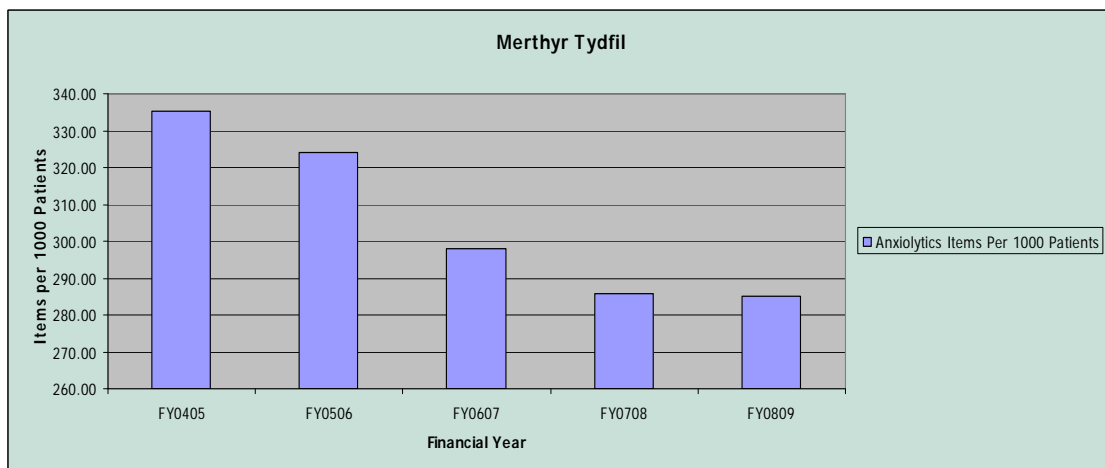


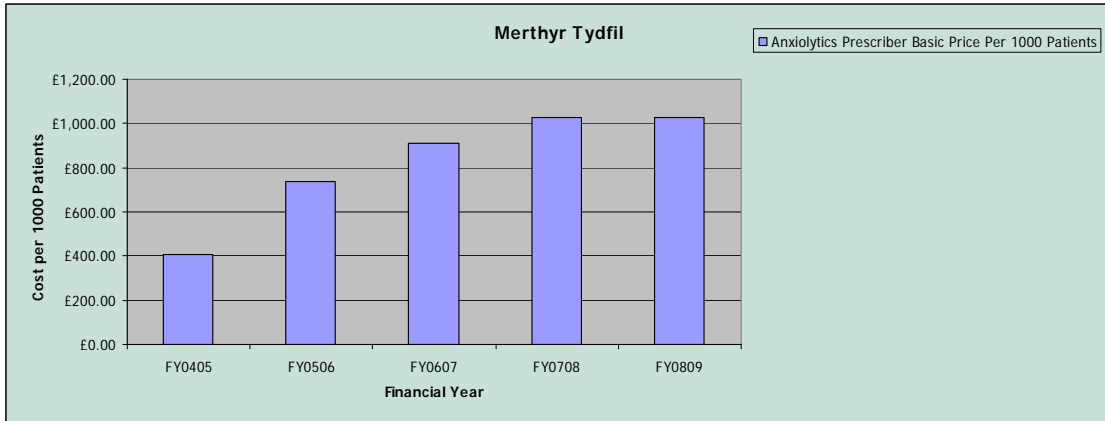
- Items of hypnotics (benzodiazepines and z drugs) decreased from 513 items per 1000 patients in 04/05 to 332 in 08/09, a percentage reduction of 35%
- Items of benzodiazepines decreased from 321 items per 1000 patients in 04/05 to 197 in 08/09, a percentage reduction of 39%
- Items of “z” drugs per 1000 patients decreased from 192 items per 1000 patients in 04/05 to 135 in 08/09, a percentage reduction of 30%
- Costs of hypnotics decreased from £1155 per 1000 patients in 04/05 to £941 in 08/09, a percentage decrease of 19%
- Costs of benzodiazepines increased from £410 per 1000 patients in 04/05 to £545, a percentage increase of 33%
- Costs of “z” drugs decreased from £746 per 1000 patients in 04/05 to £396 in 08/09 a percentage decrease of 47%



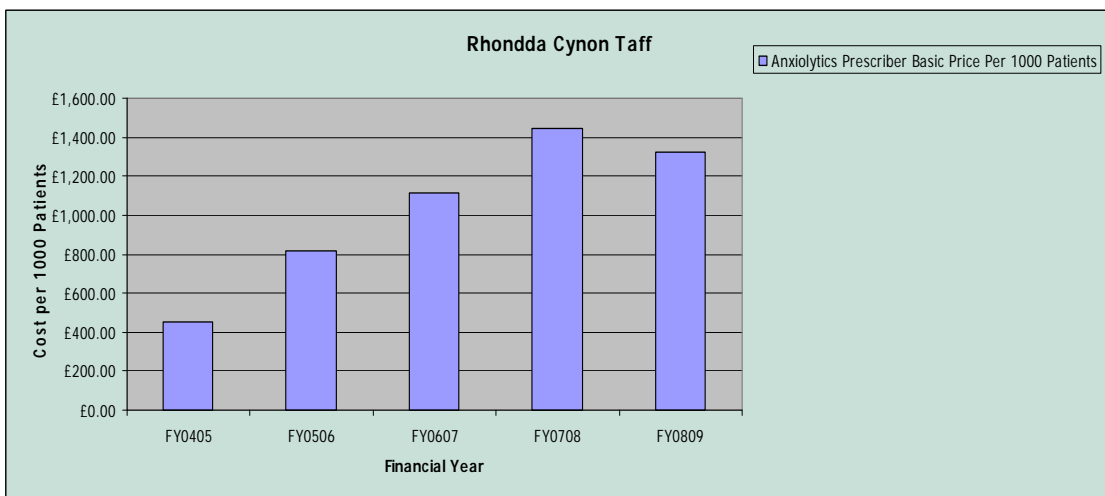
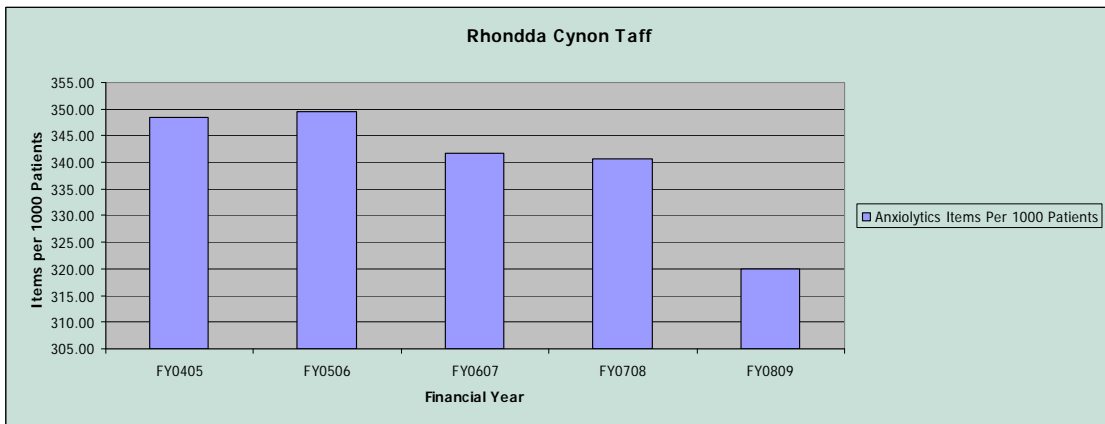


- Items of hypnotics (benzodiazepines and z drugs) decreased from 386 items per 1000 patients in 04/05 to 288 in 08/09, a percentage reduction of 25%
- Items of benzodiazepines decreased from 289 items per 1000 patients in 04/05 to 208 in 08/09, a percentage reduction of 28%
- Items of “z” drugs per 1000 patients decreased from 97 items per 1000 patients in 04/05 to 80 in 08/09, a percentage reduction of 18%
- Costs of hypnotics decreased from £840 per 1000 patients in 04/05 to £833 in 08/09, a percentage decrease of 0.8%
- Costs of benzodiazepines increased from £474 per 1000 patients in 04/05 to £701, a percentage increase of 48%
- Costs of “z” drugs decreased from £366 per 1000 patients in 04/05 to £131 in 08/09 a percentage decrease of 64%





- Items of anxiolytics per 1000 patients decreased from 335 items per 1000 patients in 04/05 to 285 in 08/09 a percentage decrease of 15%
- Costs of anxiolytics increased from £408 per 1000 patients in 04/05 to £1029 in 08/09, an increase of 152%

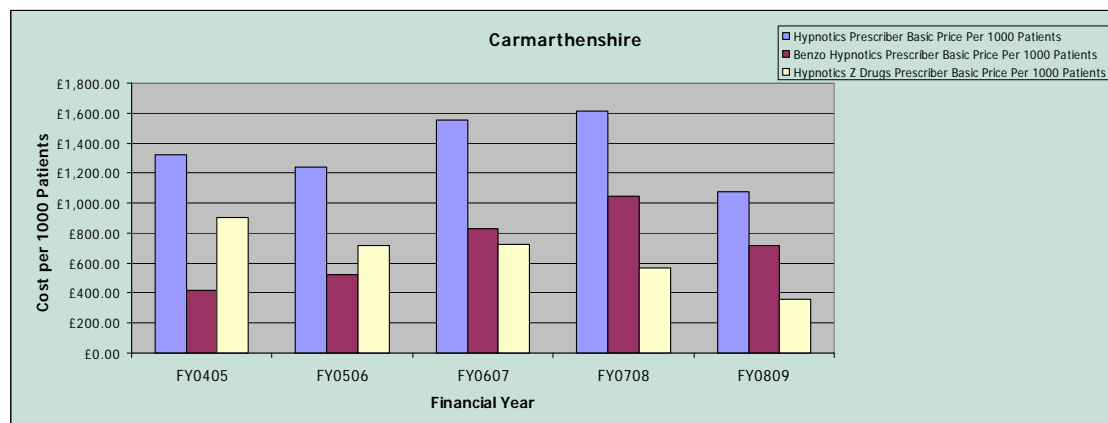
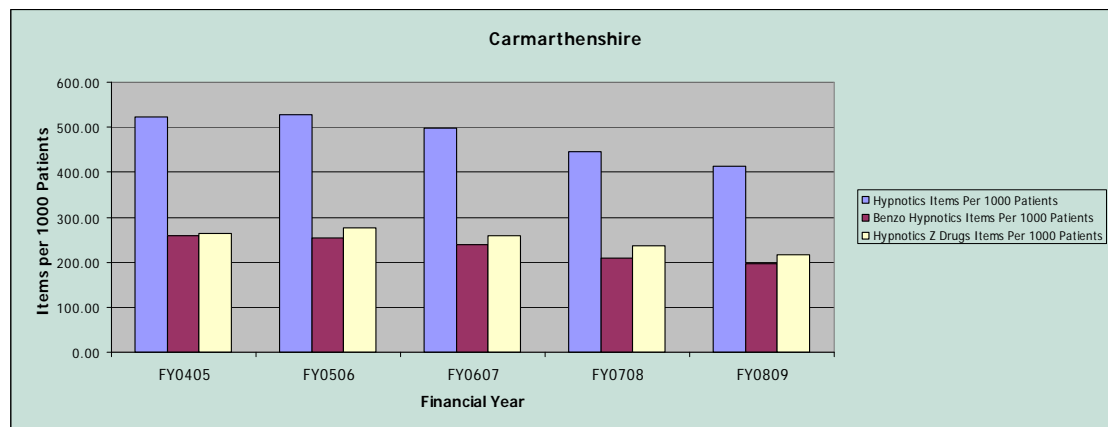


- Items of anxiolytics per 1000 patients decreased from 348 items per 1000 patients in 04/05 to 320 in 08/09 a percentage decrease of 8%
- Costs of anxiolytics increased from £453 per 1000 patients in 04/05 to £1320 in 08/09, an increase of 191%

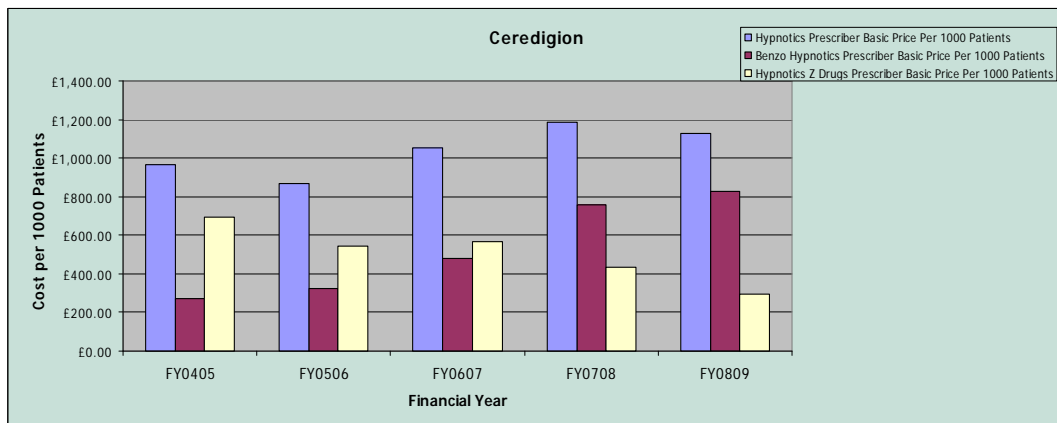
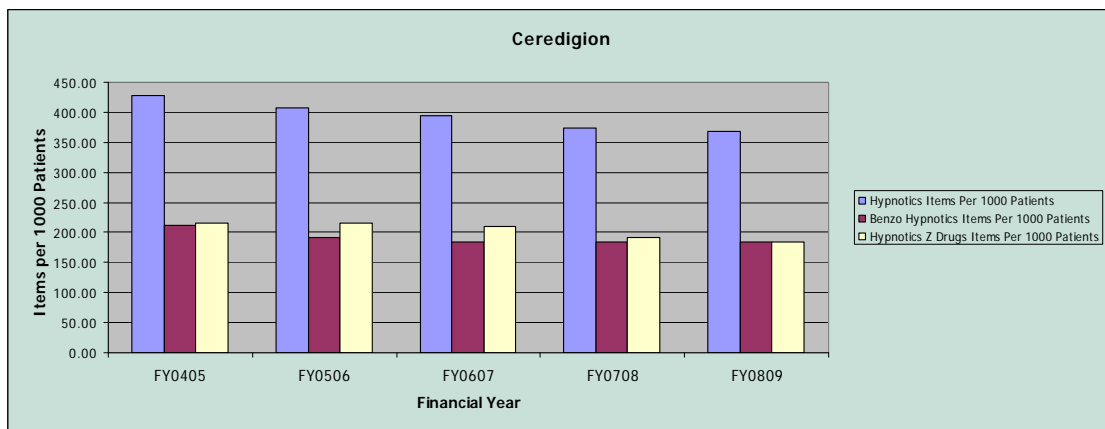
## Hywel Dda Health Board

(Former Carmarthenshire, Ceredigion and Pembrokeshire LHBs)

- In Hywel Dda there are areas of deprivation including parts of Llanelli, Pembroke Dock and Ceredigion.
- 22 (10%) of the 230 LSOAs are among the most deprived fifth in Wales.
- 11 (5%) are in the least deprived fifth.
- It is the second most sparsely populated HB area.
- 13% of Wales' population in this HB (total population figure given here in each of the other examples)
- Fewer people are aged 25-44 and more people aged 55-79 compared to the rest of Wales.
- In rural Pembrokeshire and Ceredigion there are relatively high numbers of older people.
- Hywel Dda LHB has the second lowest proportion of LSOAs in the most deprived fifth in Wales.



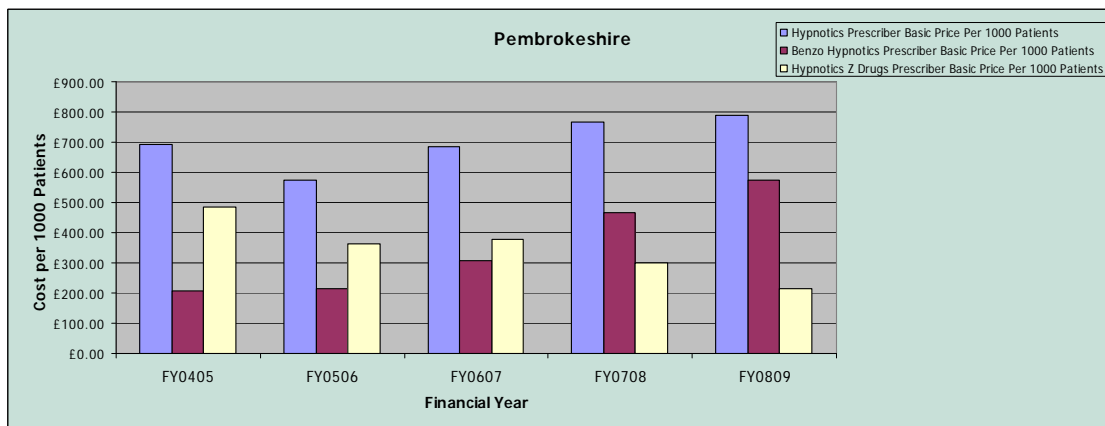
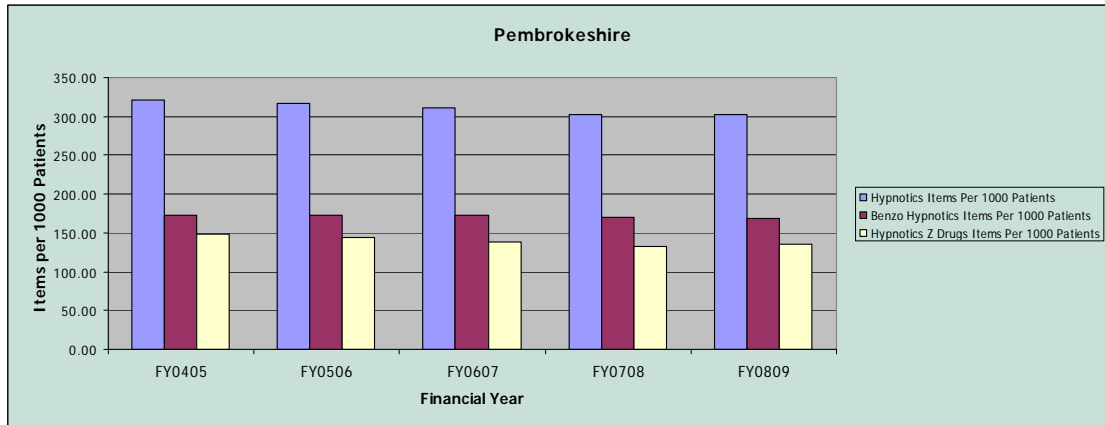
- Items of hypnotics (benzodiazepines and z drugs) decreased from 522 items per 1000 patients in 04/05 to 415 in 08/09, a reduction of 21%
- Items of benzodiazepines decreased from 258 items per 1000 patients in 04/05 to 197 in 08/09, a reduction of 24%
- Items of “z” drugs per 1000 patients decreased from 263 items per 1000 patients in 04/05 to 218, a reduction of 17%
- Costs of hypnotics decreased from £1320 per 1000 patients in 04/05 to £1074 in 08/09, a decrease of 19%
- Costs of benzodiazepines increased from £416 per 1000 patients in 04/05 to £717, an increase of 72%
- Costs of “z” drugs decreased from £904 per 1000 patients in 04/05 to £357 in 08/09 a decrease of 61%



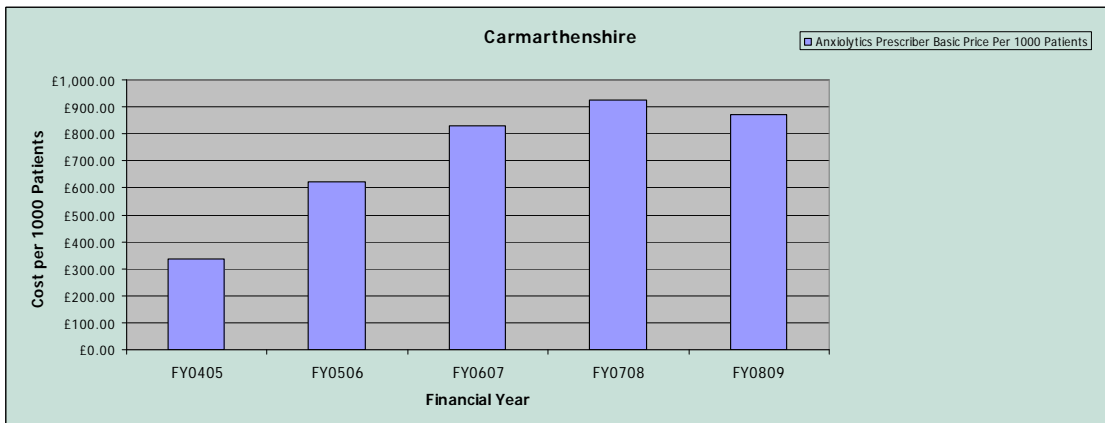
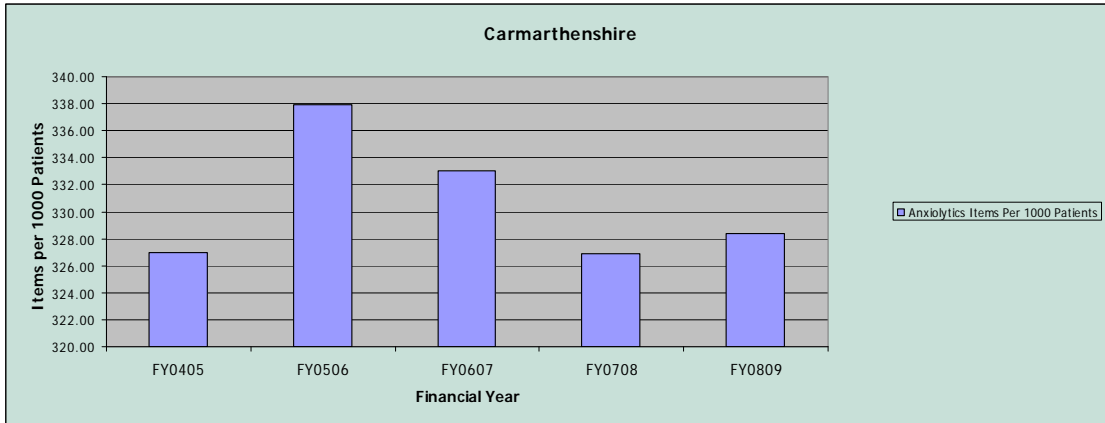
- Items of hypnotics (benzodiazepines and z drugs) decreased from 427 items per 1000 patients in 04/05 to 367.98 in 08/09, a reduction of 14%
- Items of benzodiazepines decreased from 212 items per 1000 patients in 04/05 to 183 in 08/09, a reduction of 14%
- Items of “z” drugs per 1000 patients decreased from 215 items per 1000 patients in 04/05 to 185 in 08/09, a reduction of 14%
- Costs of hypnotics increased from £966 per 1000 patients in 04/05 to £1126 in 08/09, an increase of 17%



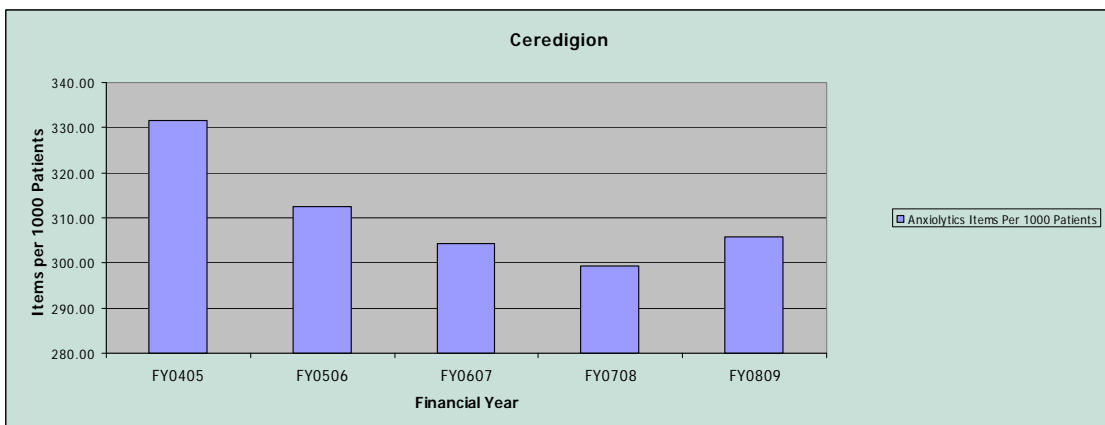
- Costs of benzodiazepines increased from £274 per 1000 patients in 04/05 to £829, an increase of 20%
- Costs of “z” drugs decreased from £691 per 1000 patients in 04/05 to £297 in 08/09 a decrease of 57%

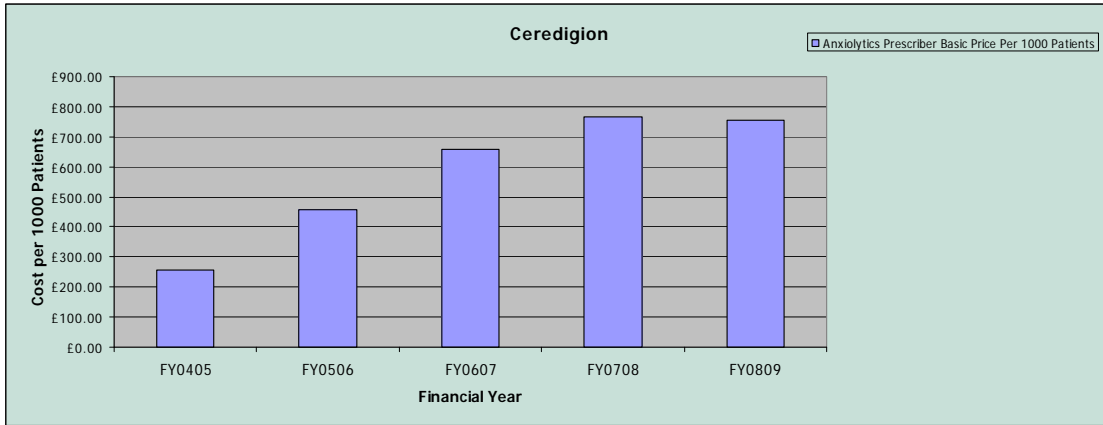


- Items of hypnotics (benzodiazepines and z drugs) decreased from 321 items per 1000 patients in 04/05 to 303 in 08/09, a reduction of 6%
- Items of benzodiazepines decreased from 173 items per 1000 patients in 04/05 to 168 in 08/09, a reduction of 3%
- Items of “z” drugs per 1000 patients decreased from 148 items per 1000 patients in 04/05 to 135 in 08/09, a reduction of 9%
- Costs of hypnotics increased from £694 per 1000 patients in 04/05 to £790 in 08/09, an increase of 14%
- Costs of benzodiazepines increased from £207 per 1000 patients in 04/05 to £576, an increase of 178%
- Costs of “z” drugs decreased from £487 per 1000 patients in 04/05 to £214 in 08/09, a decrease of 56%

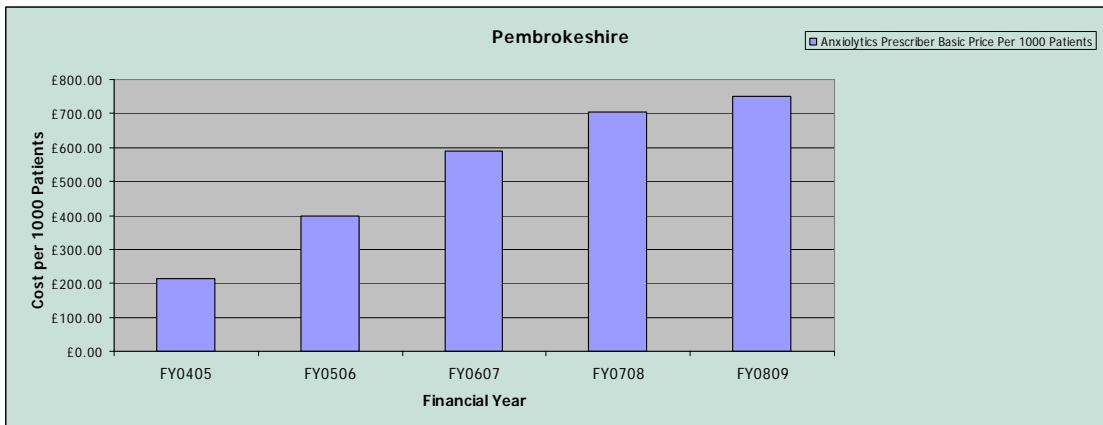
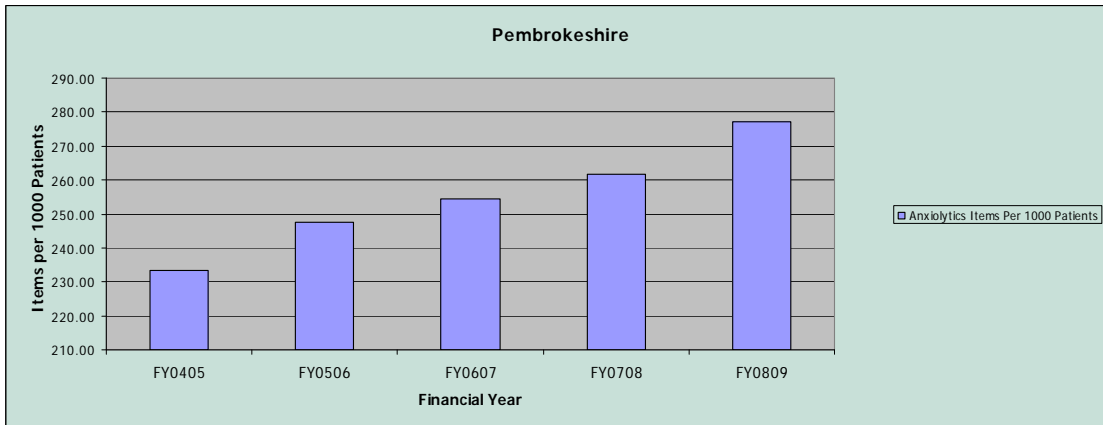


- Items of anxiolytics per 1000 patients increased from 327 items per 1000 patients in 04/05 to 328 in 08/09, an increase of 0.4%
- Costs of anxiolytics increased from £337 per 1000 patients in 04/05 to £870 in 08/09, an increase of 158%





- Items of anxiolytics per 1000 patients decreased from 332 items per 1000 patients in 04/05 to 306 in 08/09 a decrease of 8%
- Costs of anxiolytics increased from £258 per 1000 patients in 04/05 to £755 in 08/09, an increase of 193%

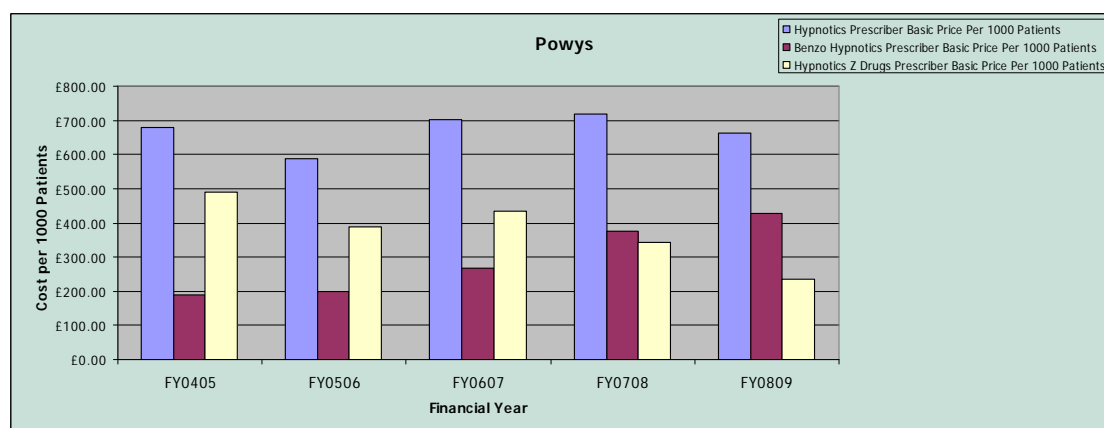
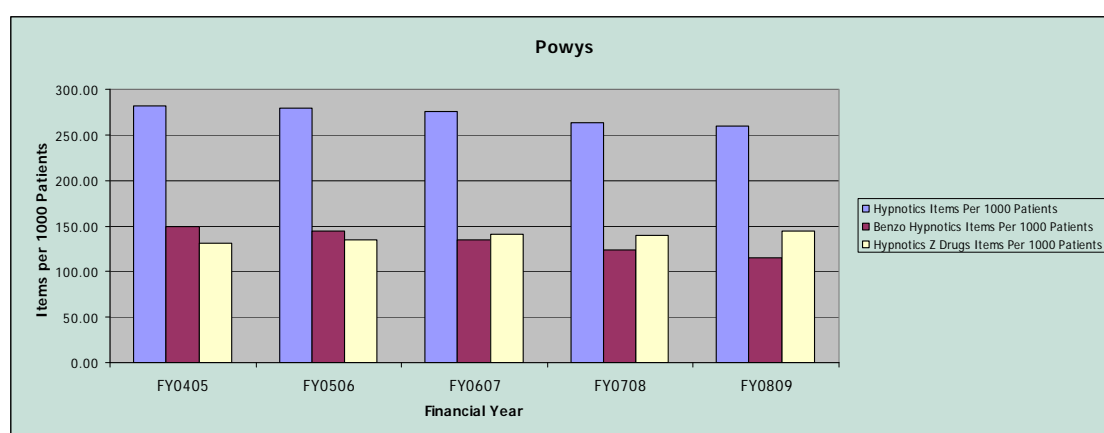


- Items of anxiolytics per 1000 patients increased from 234 items per 1000 patients in 04/05 to 277 in 08/09 an increase of 19%
- Costs of anxiolytics increased from £215 per 1000 patients in 04/05 to £751 in 08/09, an increase of 249%

## Powys Teaching Health Board

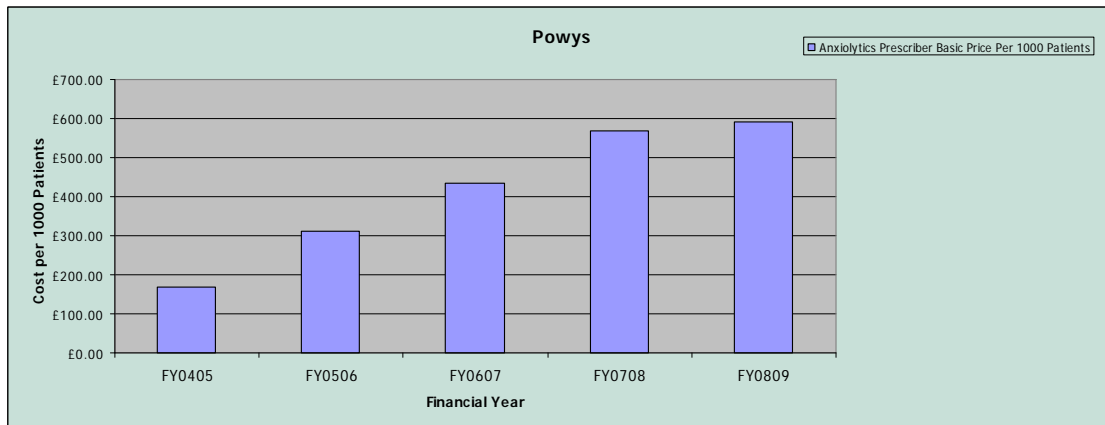
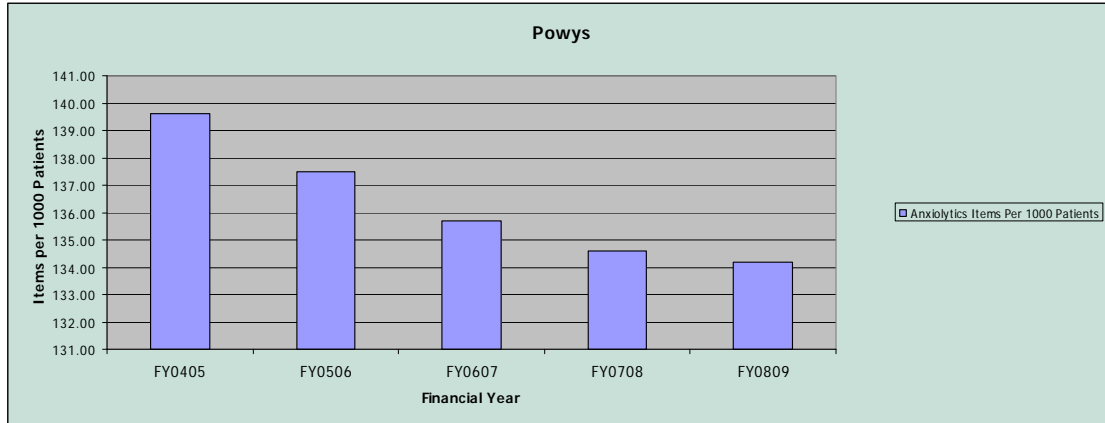
(Former Powys LHB)

- Within the Health Board (HB) there are areas of deprivation, particularly in the more urban areas of Welshpool and Newtown.
- 3 (4%) of the 80 LSOAs in the HB are among the most deprived fifth in Wales.
- 11 (14%) are in the least deprived fifth.
- The proportion of young working age people (20-39 years) is substantially lower than that of Wales, and the proportion aged 50 and over is larger
- Powys Teaching LHB has the lowest proportion of LSOAs in the most deprived fifth in Wales.



- Items of hypnotics (benzodiazepines and z drugs) decreased from 281 items per 1000 patients in 04/05 to 260 in 08/09, a reduction of 8%.
- Items of benzodiazepines decreased from 149 items per 1000 patients in 04/05 to 115 in 08/09, a reduction of 23%
- Items of “z” drugs per 1000 patients increased from 131 items per 1000 patients in 04/05 to 144 in 08/09, an increase of 10%
- Costs of hypnotics decreased from £680 per 1000 patients in 04/05 to £663 in 08/09, a decrease of 2.5%

- Costs of benzodiazepines increased from £190 per 1000 patients in 04/05 to £427 an increase of 125%
- Costs of “z” drugs decreased from £490 per 1000 patients in 04/05 to £236 in 08/09 a decrease of 52%



- Items of anxiolytics per 1000 patients decreased from 140 items per 1000 patients in 04/05 to 134 in 08/09, a decrease of 4%
- Costs of anxiolytics increased from £168 per 1000 patients in 04/05 to £592 in 08/09, an increase of 252%

## APPENDIX 4

### MEASURES OF PRESCRIBING - DEFINITIONS

Traditionally, prescribing activity has been measured by considering the number of items prescribed and the cost of these items. This allows comparison between LHBs and practices, and the monitoring of trends. Measures used include items per patient, cost per patient and cost per item.

Comparisons based on cost alone can be misleading if used solely as the basis for the evaluation of drug use. Price differences between alternative preparations in a therapeutic group and changes in the price can distort the analysis, particularly on a long-term basis and when looking at trends. Examples include changes in cost, availability of generic formulations, or shifts in choice of drug within a therapeutic group. Relatively low levels of use of high cost drugs can have a major impact on spend and the growth in costs. Clearly, cost based data is useful for tracking expenditure.

The number of items may not give a good indication of total use, as the duration of supply can vary substantially. Some preparations, such as oral contraceptives or HRT, are routinely supplied for 6 months. Patients in care homes commonly receive 7-day prescriptions, particularly if dispensed into monitored dosage systems. Practices generally have a standard supply duration for repeat prescriptions, which could be one, two or three months. The number of items is of particular value when measuring the frequency of prescribing and for assessing the use of treatments generally given as courses, e.g. antibiotics and immunisations. Numbers of items were used in this project to facilitate benchmarking Welsh prescribing with English prescribing data. WMP also looked at the average quantities of hypnotic and anxiolytic dispensed in conjunction with numbers of items.

#### Volume Measures

##### **DDDs** (Defined Daily Doses)

Defined Daily Doses are developed and maintained by the World Health Organisation (WHO) as a method of measuring drug volume for analysis and comparative purposes. Using "items" can be unreliable as an item could be for any duration and/or dose. Each drug is given a value, within the recognised dosage range, that represents the assumed average maintenance dose per day when used for the main indication in an adult. This is a unit of measurement and may not be a real dose. The DDD of one drug is assumed to be functionally equivalent to the DDD of any other drug used for a similar indication. DDDs can be used as a comparison of levels of use and can be added together. Cost per DDD is a measure of the economy of prescribing of a unit volume of drug treatment.

These DDD values are based on international prescribing habits, and include data derived from secondary care. Work done by the Prescribing Support Unit (PSU) has demonstrated that these may not accurately reflect use in primary care in England for some drugs.

**ADQs (Average Daily Quantities)**

ADQs were developed by an expert group convened by the PSU, and are intended more accurately to reflect primary care prescribing in England than DDDs. However, many ADQ values are the same as the DDD value.

As with DDDs, the value for each drug represents an average maintenance dose per day when used for the main indication in an adult. ADQs are not recommended doses, but analytical units produced to allow more accurate analysis and comparisons of prescribing in primary care.

ADQs are reviewed on a regular basis, to reflect any changes in drug utilisation and to include new drugs. The PSU website includes details of how ADQs are devised to assist those wishing to develop local values.

**Patient Denominators**

The volume and cost of prescribing is influenced by the size and nature of the population served, with older people generally receiving more medication than younger ones. As a result, patient denominators to take account of this fact have been developed.

**PUs (Prescribing Units)**

This is a weighting factor used to reflect the greater need of elderly patients for medication. Patients under 65 years of age and temporary residents count as one prescribing unit (PU). Patients aged 65 or over count as three PUs. This was not used for this analysis as hypnotics and anxiolytics should if possible be avoided in the elderly.

**ASTRO-PUs (Age Sex Temporary Resident Originated Prescribing Units)**

This is a more sophisticated system of weightings to take into account the effect of age, sex and temporary residents (where collected) within a patient population. The most commonly used ASTRO-PUs are based on cost, rather than the number of prescription items. They are an appropriate denominator when comparing the overall costs of prescribing between practices or between PCTs but should not be used when comparing costs for BNF chapters or sections.

New values have been introduced from 2009/10 and replace the ones developed in 1997. Since the number of temporary residents is no longer collected centrally the new weightings do not give a weight for temporary residents. These are used in England, but not routinely in Wales.

**STAR-PUs (Specific Therapeutic Age-sex Related Prescribing Units)**

A system of weightings devised to provide more suitable denominators for making comparisons within a therapeutic group. These are currently used in England, but not in Wales.

These more accurately reflect the influence of age and sex of patients for whom drugs in specific therapeutic groups are usually prescribed. They are similar to ASTRO-PUs (which are based on all drug costs) but are based on costs for the appropriate BNF chapters or sections.

The original STAR-PUs were developed for 8 BNF Chapters - Gastro-intestinal, Cardio-vascular, Respiratory, Central Nervous System, Infections, Endocrine, Musculoskeletal and Skin. Due to their low explanatory power and the difficulty of updating them these will not be updated. These have now been withdrawn and their use is not advised. Weightings have also been devised for some BNF sections or specific therapeutic areas at a lower level. These are all cost based, except for the STAR-PU used in the indicator for antibacterials, which is item based. Since different durations are used by different practices, particularly for repeat prescribing, and the same practice may use a different duration for different drugs, item-based STAR-PUs are of limited value. Ideally ADQ-based STAR-PUs would be produced for use in comparisons of volume.



## APPENDIX 5

### WELSH INDEX FOR MULTIPLE DEPRIVATION (WIMD)

There are seven separate indicators for WIMD 2008:-

Deprivation scores from the WIMD 2008 are for the Lower Layer Super Output Areas (LSOAs) in Wales on a local authority by local authority basis. The index can be used for giving an overall deprivation score for each of the 1,896 LSOAs in Wales and for giving scores for the separate kinds of deprivation.

Income and Employment  
Education, Skills and Training  
Health  
Access to Services  
Housing  
Physical Environment  
Community Safety

Deprivation scores for two or more of the areas can be compared, and the scores for all 1,896 LSOAs can be ranked, enabling the LSOAs to be ranked from the most deprived to the least (the same can be done for a group of LSOAs, like those in a local authority). It is possible to compare two or more local authorities (or other groups of LSOAs) by looking at the proportion of the LSOAs in the local authority in the most deprived (usually) ten per cent Wales.

It is an index of deprivation not affluence. If one LSOA is much lower down the ranked list than another then it is possible to conclude that it is less deprived but not that it is more affluent. The index is not based on the factors which mean that a place is affluent. Every area has people who are deprived and people who are affluent, but the index counts only those classed as deprived. It makes no difference whether the rest are nearly deprived but not quite, fairly well-off, or really rich.

There are no official local authority deprivation scores. Local authority scores can be calculated, but there are several ways to calculate each giving a different answer.

The following table shows the different ways of examining the 10% most deprived areas in Wales at a local authority level.

- (a) The first column shows the number of LSOAs in each local authority.
- (b) The second column shows the number of LSOAs in each local authority that are in the 10% most deprived in Wales.
- (c) The third column shows the number of LSOAs in each local authority as a percentage of the 10% most deprived. (= (b)/190)
- (d) The fourth column shows the number of LSOAs within each local authority as a percentage of the total LSOAs in Wales. (= (a)/1896)
- (e) The fifth column shows the number of LSOAs in the 10% most deprived for each local authority, as a percentage of the number of LSOAs in the local authority ( = (b)/(a) )

Local Authority	LSOAs in LA (a)	LSOAs in the 10% most deprived (b)	% of the 10% most deprived in LA (c)=(b)/190	% of all LSOAs in LA(d)=(a)/1896	% of LSOAs within LA in 10% most deprived (e)=(b)/a
Ynys Mon	44	2	1%	2%	5%
Gwynedd	75	3	2%	4%	4%
Conwy	71	4	2%	4%	6%
Denbighshire	58	6	3%	3%	10%
Flintshire	92	5	3%	5%	5%
Wrexham	85	6	3%	4%	7%
Powys	80	1	1%	4%	1%
Ceredigion	47	0	0%	2%	0%
Pembrokeshire	71	2	1%	4%	3%
Carmarthenshire	112	6	3%	6%	5%
Swansea	147	19	10%	8%	13%
Neath/Port Talbot	91	17	9%	5%	19%
Bridgend	85	4	2%	4%	5%
Vale of Glamorgan	78	2	1%	4%	3%
Cardiff	203	35	18%	11%	17%
RCT	152	28	15%	8%	18%
Merthyr Tydfil	36	11	6%	2%	31%
Caerphilly	110	13	7%	6%	12%
Blaenau Gwent	47	10	5%	2%	21%
Torfaen	60	2	1%	3%	3%
Monmouthshire	58	0	0%	3%	0%
Newport	94	14	7%	5%	15%
<b>Wales</b>	<b>1896</b>	<b>190</b>	<b>100%</b>	<b>100%</b>	<b>10%</b>

**Ranking of local authorities according to percentage of LSOA in each LA that are ranked in the top most deprived 10%, 20%, 30% and 50% LSOAs in Wales. Wales**

Local Authority Ranking according to percentage of LSOA in each LA that are ranked in the top most deprived 10% LSOAs in Wales	Local Authority Ranking according to percentage of LSOA in each LA that are ranked in the top most deprived 20% LSOAs in Wales	Local Authority Ranking according to percentage of LSOA in each LA that are ranked in the top most deprived 30% LSOAs in Wales	Local Authority Ranking according to percentage of LSOA in each LA that are ranked in the top most deprived 50% LSOAs in Wales
<b>Most deprived</b>	<b>Most deprived</b>	<b>Most deprived</b>	<b>Most deprived</b>
1 Merthyr Tydfil	1 Merthyr Tydfil	1 Blaenau Gwent	1 Blaenau Gwent
2 Blaenau Gwent	2 Blaenau Gwent	2 Merthyr Tydfil	2 Merthyr Tydfil
3 Neath/Port Talbot	3 RCT	3 RCT	3 RCT
4 RCT	4 Neath/Port Talbot	4 Neath/Port Talbot	4 Caerphilly
5 Cardiff	5 Newport	5 Caerphilly	5 Neath/Port Talbot
6 Newport	6 Cardiff	6 Newport	6 Torfaen
7 Swansea	6 Caerphilly	7 Bridgend	7 Bridgend
8 Caerphilly	7 Bridgend	8 Torfaen	8 Carmarthenshire
9 Denbighshire	8 Swansea	9 Cardiff	8 Isle of Ynys Mon
10 Wrexham	9 Torfaen	10 Swansea	9 Newport
11 Conwy	10 Denbighshire	11 Wrexham	10 Cardiff
12 Flintshire	11 Wrexham	12 Conwy	10 Wrexham
12 Carmarthenshire	12 Conwy	12 Carmarthenshire	11 Swansea
12 Bridgend	12 Carmarthenshire	13 Denbighshire	12 Denbighshire
12 Isle of Ynys Mon	13 Isle of Ynys Mon	14 Isle of Ynys Mon	13 Gwynedd
13 Gwynedd	13 Flintshire	15 Flintshire	14 Conwy
14 Vale of Glamorgan	14 Pembrokeshire	16 Vale of Glamorgan	15 Pembrokeshire
15 Pembrokeshire	14 Vale of Glamorgan	17 Pembrokeshire	16 Ceredigion
15 Torfaen	15 Gwynedd	18 Gwynedd	17 Flintshire
16 Powys	16 Powys	19 Powys	17 Vale of Glamorgan
17 Ceredigion	16 Ceredigion	19 Monmouthshire	18 Powys
17 Monmouthshire	17 Monmouthshire	20 Ceredigion	19 Monmouthshire
<b>Least deprived</b>	<b>Least deprived</b>	<b>Least deprived</b>	<b>Least deprived</b>