

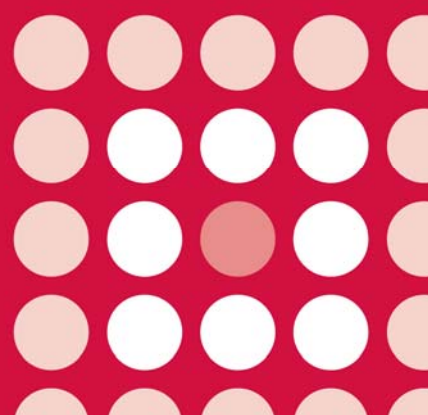


All Wales Therapeutics  
and Toxicology Centre  
Canolfan Therapiwteg a  
Thocsicoleg Cymru Gyfan

## **NATIONAL PRESCRIBING INDICATORS 2012–2013**

### **ANALYSIS OF PRESCRIBING DATA: MARCH 2013**

**July 2013**



This report has been prepared by the Welsh Analytical Prescribing Support Unit (WAPSU), part of the All Wales Therapeutics and Toxicology Centre (AWTTC).

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## INTRODUCTION

The All Wales Medicines Strategy Group (AWMSG) endorses the national prescribing indicators (NPIs) as a means of promoting safe and cost-effective prescribing. For each national prescribing indicator, the threshold is set at the 25<sup>th</sup> percentile (i.e. reducing or increasing prescribing rates in line with the best performing 25% of practices). All practices within health boards are encouraged to reach or move towards these thresholds. This report summarises the progress made by health boards during the financial year 2012–2013.

### 1. LIPID-MODIFYING DRUGS

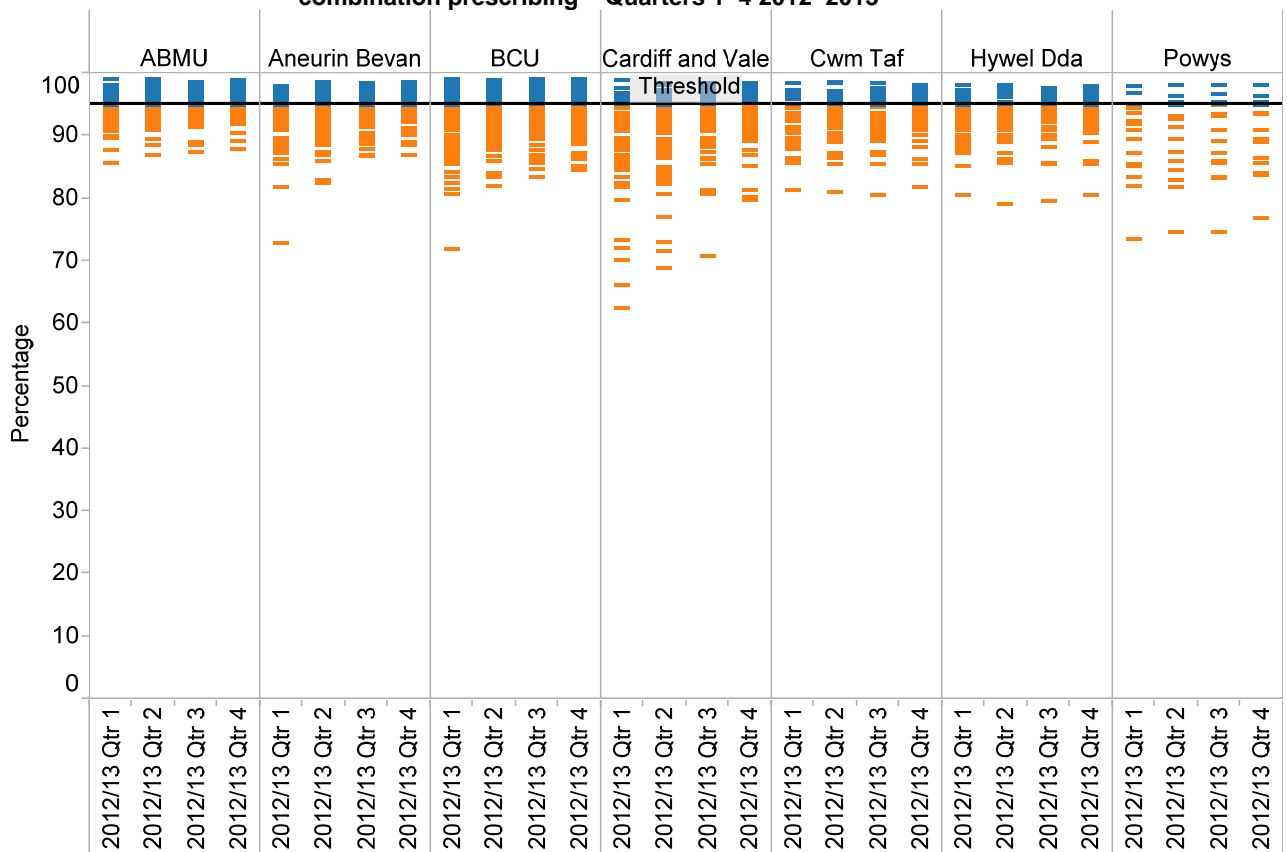
*Unit of measurement:*

Items of low acquisition cost (LAC) statins (simvastatin, atorvastatin, pravastatin) as a percentage of all statin, ezetimibe and simvastatin/ezetimibe combination prescribing.

Figure 1 shows the performance of individual practices within health boards with respect to prescribing of LAC statins.

During 2012–2013, outlying practices using lower percentages of LAC statins in Aneurin Bevan, Betsi Cadwaladr and Cardiff and Vale health boards have moved towards the threshold. However, one outlying practice with virtually unchanged proportional usage remains in each of Cwm Taf, Hywel Dda and Powys health boards. Practices in Abertawe Bro Morgannwg University Health Board showed a smaller variation in prescribing and moved towards the threshold during the year.

**Figure 1. Items of LAC statins as a percentage of all statin, ezetimibe and simvastatin/ezetimibe combination prescribing – Quarters 1–4 2012–2013**



**Comment**

- Threshold Achieved
- Threshold Not Achieved

## 2. DOSULEPIN

*Unit of measurement:*

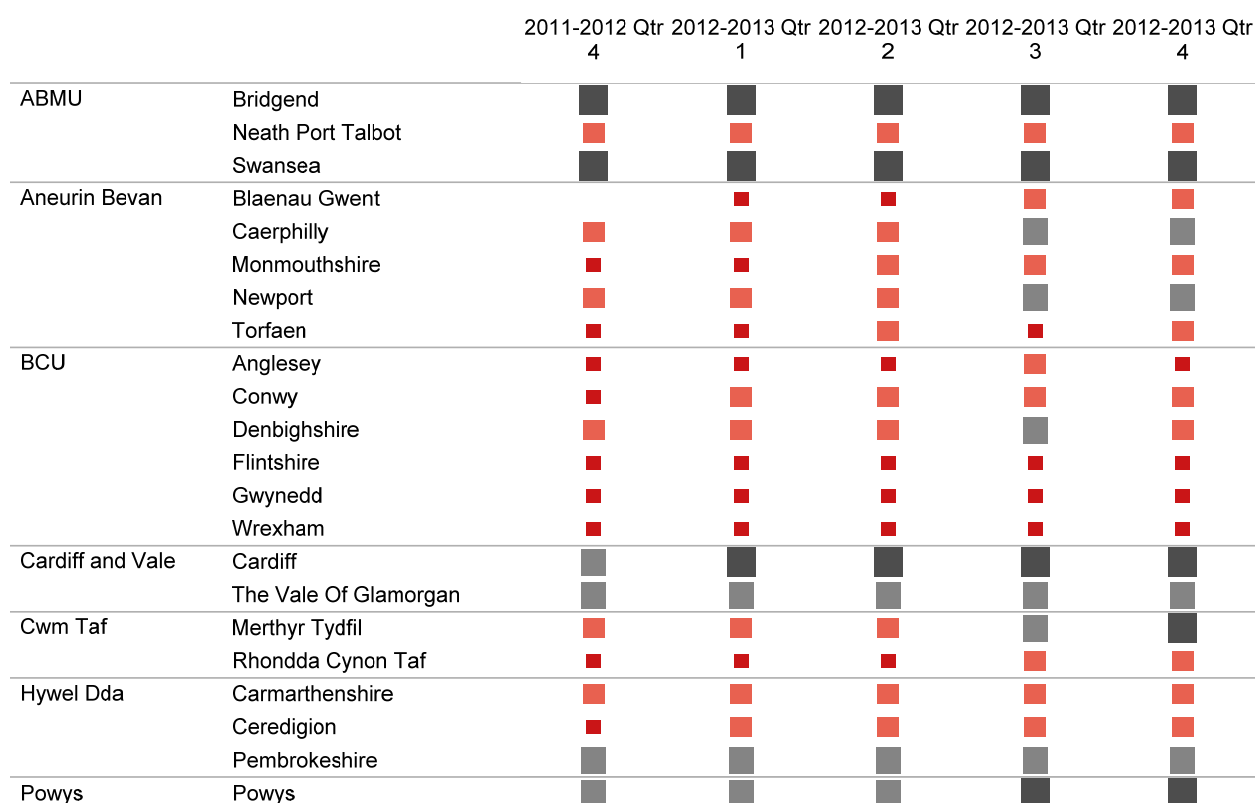
Dosulepin defined daily dosages (DDD) per 1,000 prescribing units (PUs).

The prescribing of dosulepin continues to be measured due to the associated increased risk of cardiovascular toxicity compared with other tricyclic antidepressants.

There has been a 23% reduction in dosulepin prescribing throughout Wales during the financial year 2012–2013 (71.8 DDDs per 1,000 PUs in the quarter to March 2013, down from 93.3 DDDs per 1,000 PUs in the quarter to March 2012). The largest reductions were seen in Cardiff and Vale University Health Board (32%), Cwm Taf Health Board (29%) and Powys Teaching Health Board (27%).

The number of practices reaching the NPI threshold has increased to the quintile above in 11 of the 22 localities and is shown in Figure 2.

**Figure 2. Practices achieving dosulepin usage threshold – Quarter ending March 2012 to quarter ending March 2013**



### Percentage of practices reaching threshold

- 1 - 20
- 21 - 40
- 41 - 60
- 61 - 80
- 81 - 100

### Explanation of Figure 2:

Each square represents the percentage of GP practices which reached or exceeded the threshold within each locality. The larger the square, the greater the percentage of practices reaching or exceeding the threshold. If there is no square for a particular quarter, no practices have reached the threshold in this period.

### 3. HYPNOTICS AND ANXIOLYTICS

*Unit of measurement:*

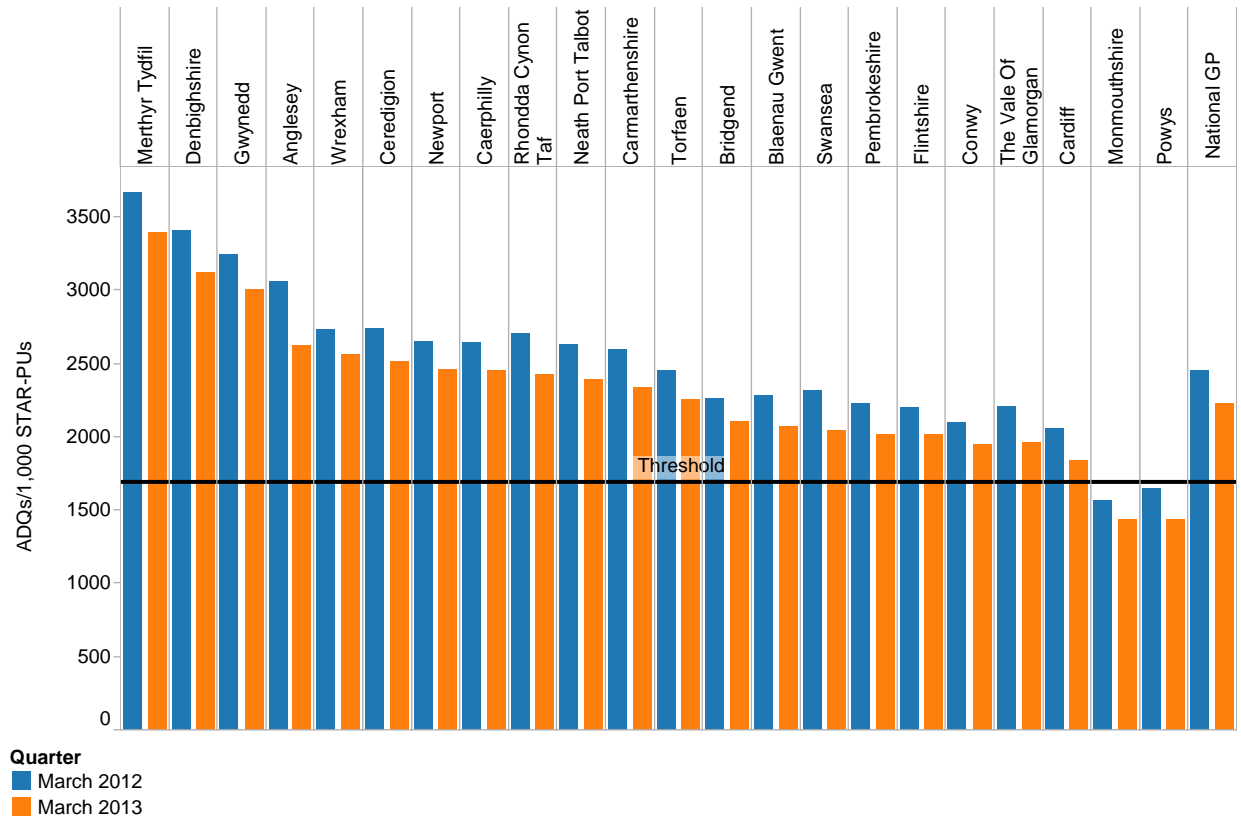
Hypnotics and anxiolytics average daily quantities (ADQs) per 1,000 specific therapeutic group age-sex related prescribing units (STAR-PU).s).

The indicator has a user-defined drug basket encompassing the benzodiazepines typically used as hypnotics and anxiolytics, together with the “Z drugs”.

Figure 3 shows the change in hypnotic and anxiolytic prescribing across the localities in Wales from the quarter ending March 2012 to the quarter ending March 2013. There has been a 9% reduction in usage nationally, with lower prescribing in all localities in March 2013 compared with March 2012.

Localities with the largest percentage reduction from March 2012 to March 2013 were Anglesey (14%), Powys (13%) and Swansea (12%).

**Figure 3. Hypnotics and anxiolytics (user-defined group) usage – Quarter ending March 2012 versus quarter ending March 2013**



#### 4. NON-STEROIDAL ANTI-INFLAMMATORY DRUGS (NSAIDS)

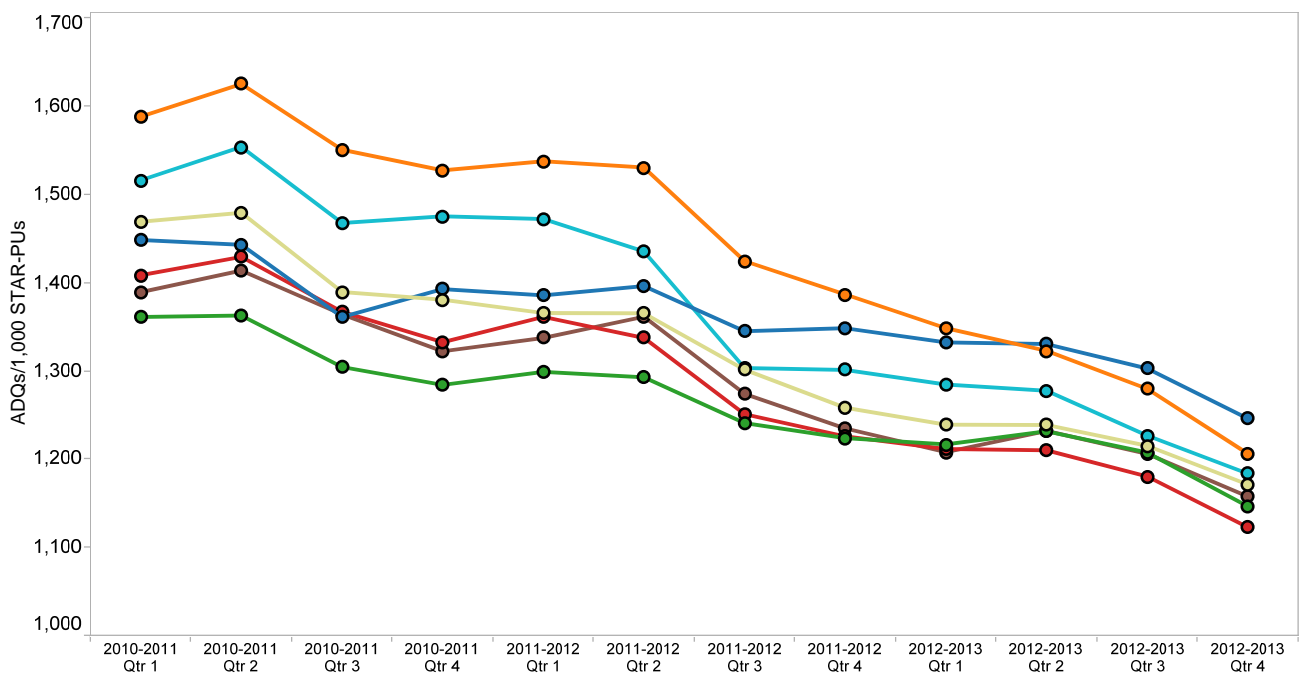
*Units of measurement:*

There were two NSAID prescribing indicators for 2012–2013:

1. Total NSAID ADQs per 1,000 STAR-PU.
2. Ibuprofen and naproxen as a percentage of total NSAID items.

There has been an 8% reduction in total NSAID usage in Wales, when comparing the quarter to March 2013 with the same quarter in the previous year. The largest decreases were seen in Abertawe Bro Morgannwg University Health Board (13%) and Cwm Taf Health Board (9%). The graph below shows the reduction in usage over time across individual health boards.

Figure 4. Trend in total NSAID usage over time



- Health Board**
- ABMU
  - Aneurin Bevan
  - BCU
  - Cardiff and Vale
  - Cwm Taf
  - Hywel Dda
  - Powys

The second NPI encourages first-line use of NSAIDs with improved cardiovascular safety, i.e. ibuprofen and naproxen.

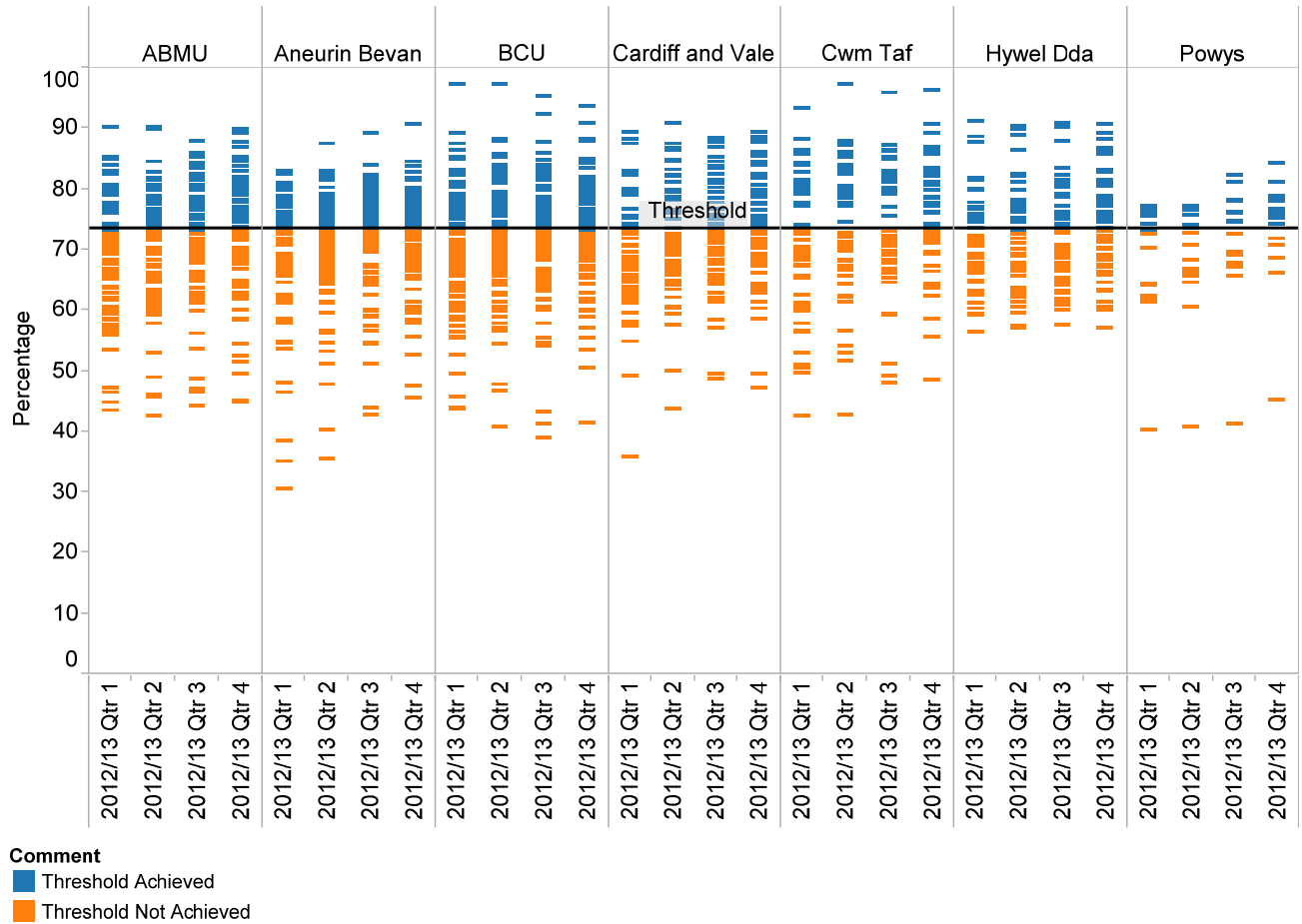
Figure 5 shows each practice within the health board as a horizontal line and identifies the practices reaching (blue) or not reaching (orange) the NPI threshold during the current financial year.

Practices prescribing a lower percentage of ibuprofen and naproxen during the first quarter of 2012–2013 in Aneurin Bevan Health Board, Cardiff and Vale University Health Board, Cwm Taf Health Board and Powys Teaching Health Board have moved

towards the threshold, although an outlying practice with lower usage remains in Powys Teaching Health Board.

The variation in ibuprofen and naproxen prescribing amongst practices in Hywel Dda Health Board has remained relatively stable; however, the health board has a narrower range of usage compared to the other health boards in Wales.

Figure 5. Practice level ibuprofen and naproxen usage as a percentage of total NSAID usage – Quarters 1–4 2012–2013



## 5. ANTIBIOTICS

### Units of measurement:

There were five antibacterial prescribing indicators for 2012–2013:

1. Total antibacterial items per 1,000 STAR-PU's;
2. Top nine antibacterials (penicillin V, flucloxacillin, amoxicillin, oxytetracycline, doxycycline, erythromycin, clarithromycin, trimethoprim and nitrofurantoin) as a percentage of total antibacterial items;
3. Cephalosporins as a percentage of total antibacterial items;
4. Quinolones as a percentage of total antibacterial items;
5. Co-amoxiclav as a percentage of total antibacterial items.

The total number of items, percentage of top nine antibacterials, and percentage of quinolone antibacterials are carried over from 2011–2012, whilst the proportions of cephalosporin and co-amoxiclav usage are new indicators for 2012–2013. The antibiotic prescribing indicators were introduced to support and promote the prudent use of antimicrobials.

**Figure 6. Trend in antibiotic usage for summer (April–September) and winter (October–March) quarters\***

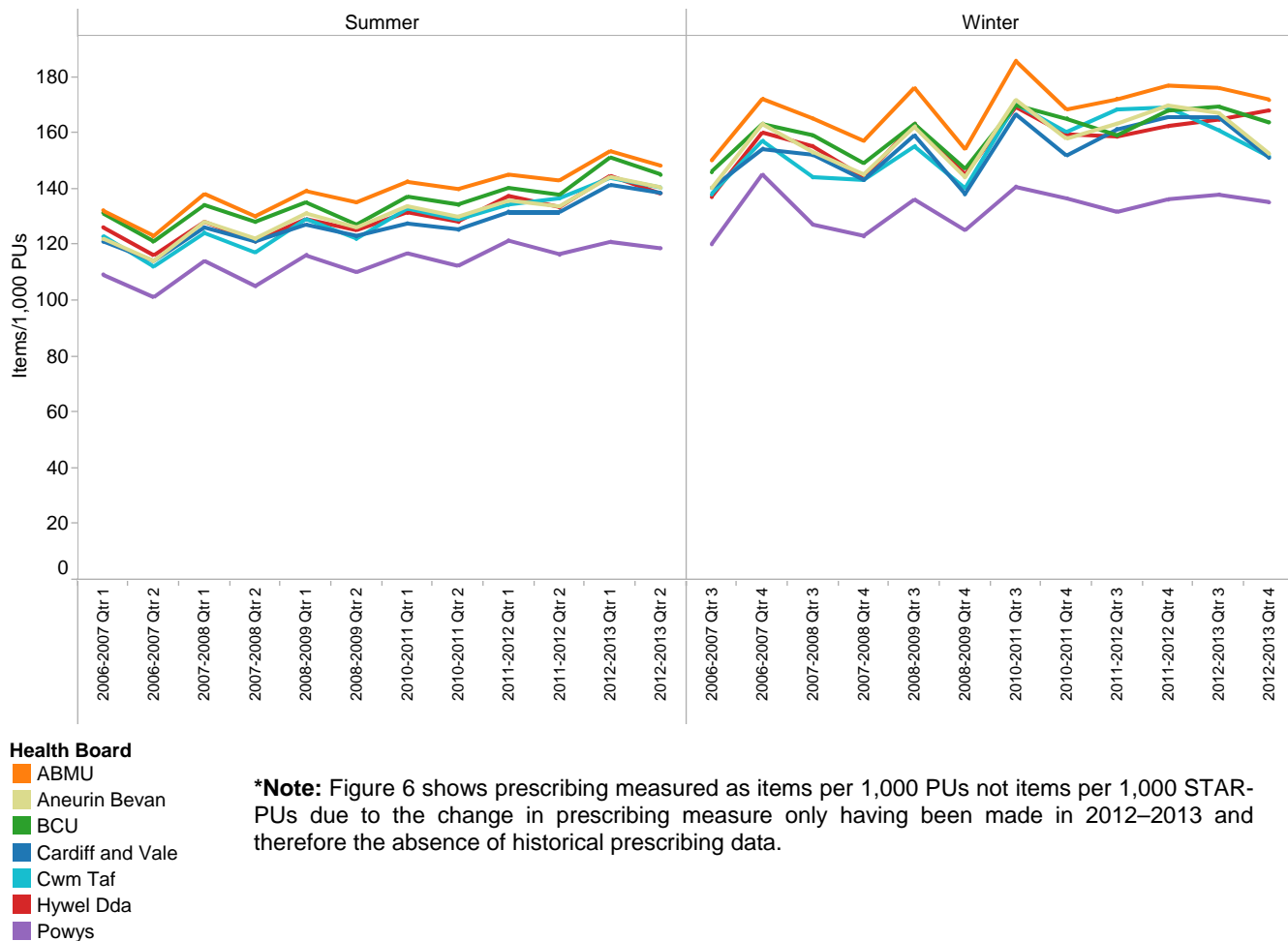


Figure 6 shows a 13% increase in total antibacterial usage across Wales for the summer quarters 2006–2007 to 2011–2012 and an 8% increase for the winter quarters 2006–2007 to 2011–2012 (measured as items per 1,000 PUs).



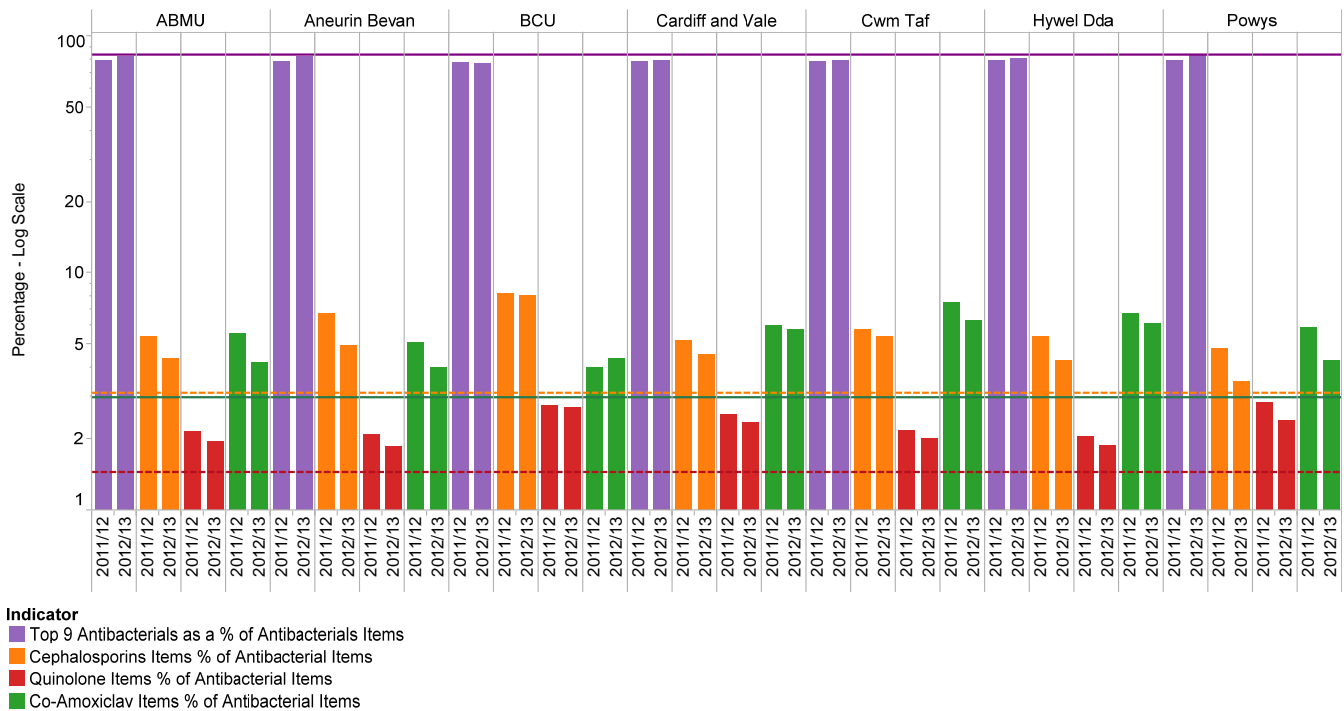
There is some evidence to suggest that this upward trend is beginning to change, with a 1% reduction in prescribing during the winter quarters in 2012–2013 compared with the previous year. The largest reductions were seen in Cwm Taf Health Board (7%), Aneurin Bevan Health Board (4%) and Cardiff and Vale University Health Board (3%). However, total antibacterial prescribing for the summer quarters continued to rise at a steady rate. Abertawe Bro Morgannwg University Health Board is consistently the highest prescriber of antibacterial items.

Prescribing data for indicators 2–5 are summarised for the financial years 2011–2012 and 2012–2013 in Figure 7. The horizontal lines represent the threshold upper quartile value (indicator 2) and threshold lower quartile values (indicators 3–5).

Indicators 2, 3, 4, and 5 were introduced to encourage the use of the preferred “top nine” antibacterials and reduce the use of cephalosporins, quinolones and co-amoxiclav, which have all been associated with *C. difficile*-associated diarrhoea.

There has been movement towards increasing the use of the “top nine” antibacterials along with the associated reduction in the use of cephalosporin and quinolone antibacterials, and a reduction in the use of co-amoxiclav in all the health boards with the exception of Betsi Cadwaladr University Health Board.

Figure 7. Antibacterial prescribing indicators 2–5, 2011–2012 and 2012–2013



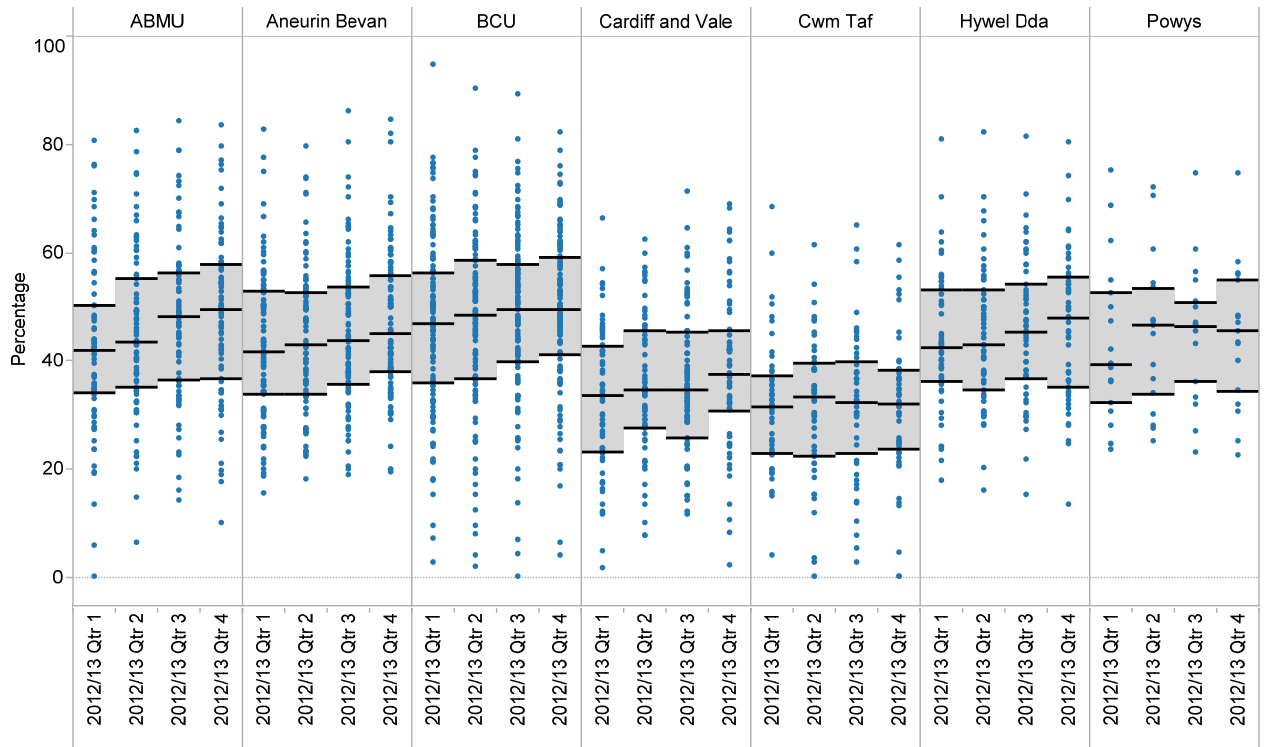
## 6. OPIOID PRESCRIBING

*Unit of measurement:*

Morphine items as a percentage of all strong opioid items.

This was introduced as a new NPI for 2012–2013 in an effort to encourage the use of morphine as the first-line strong opioid of choice. Figure 8 plots each practice within the health board as a blue spot, with the middle 50% of practices in the grey box. There is a large variation in primary care prescribing of morphine across the practices and health boards in Wales.

**Figure 8. Morphine items as a percentage of all strong opioid prescribing**



## 7. INSULIN

*Unit of measurement:*

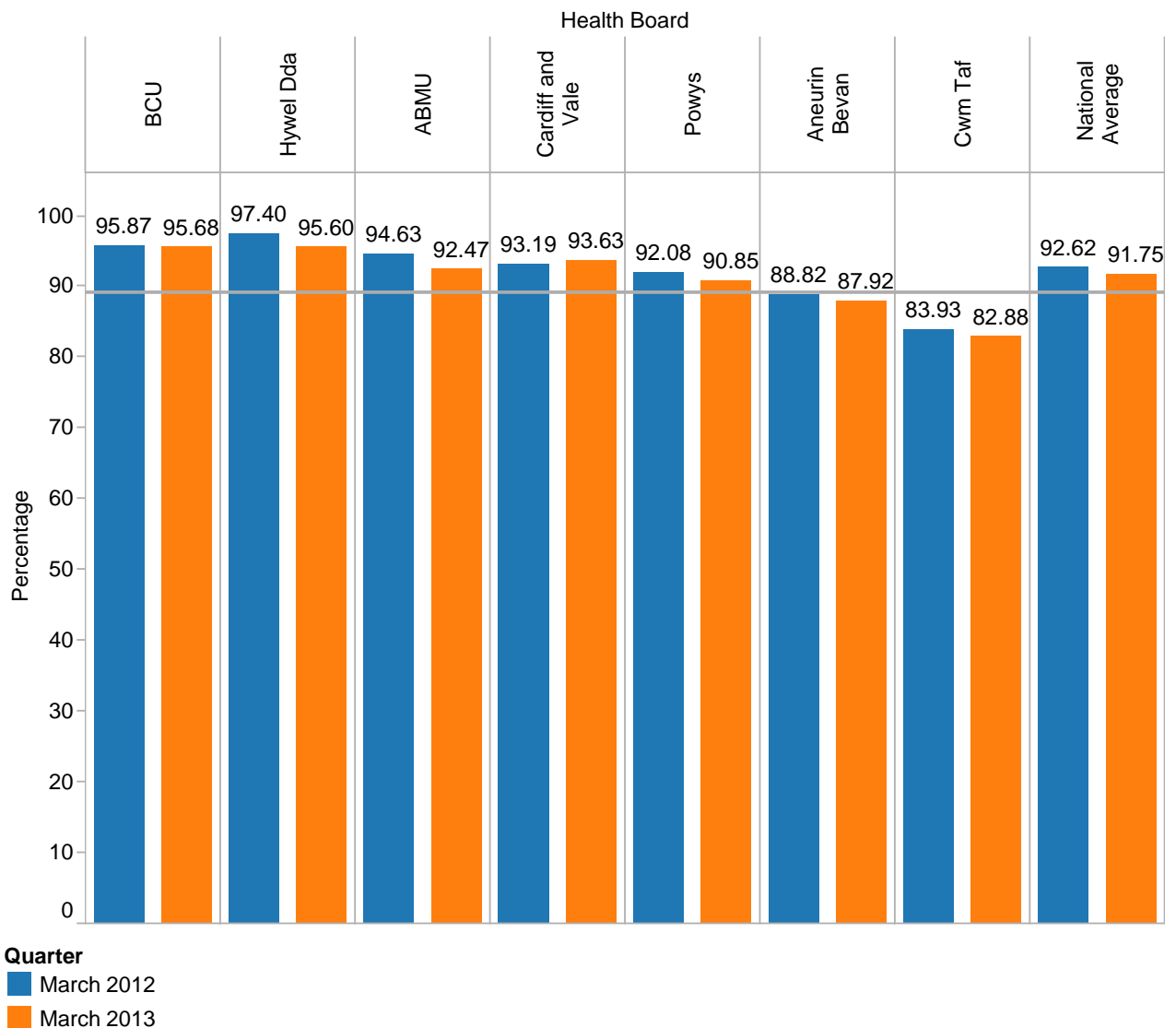
Long-acting insulin analogue items as a percentage of total long- and intermediate-acting insulin items (excluding biphasics).

This was a new indicator for 2012–2013 and aims to promote the appropriate use of the newer long-acting insulin analogues.

Figures 9 and 10 show performance against this NPI for the quarters to March 2012 and March 2013 in primary and secondary care respectively.

In primary care, all the health boards except Cardiff and Vale University Health Board have made a slight reduction in the use of long-acting insulin analogues, although only Aneurin Bevan and Cwm Taf health boards have reached the threshold. In secondary care, Betsi Cadwaladr, Hywel Dda, Cardiff and Vale, Aneurin Bevan and Cwm Taf health boards are all achieving the threshold, although there has been a slight increase in usage in both Cardiff and Vale University Health Board and Aneurin Bevan Health Board.

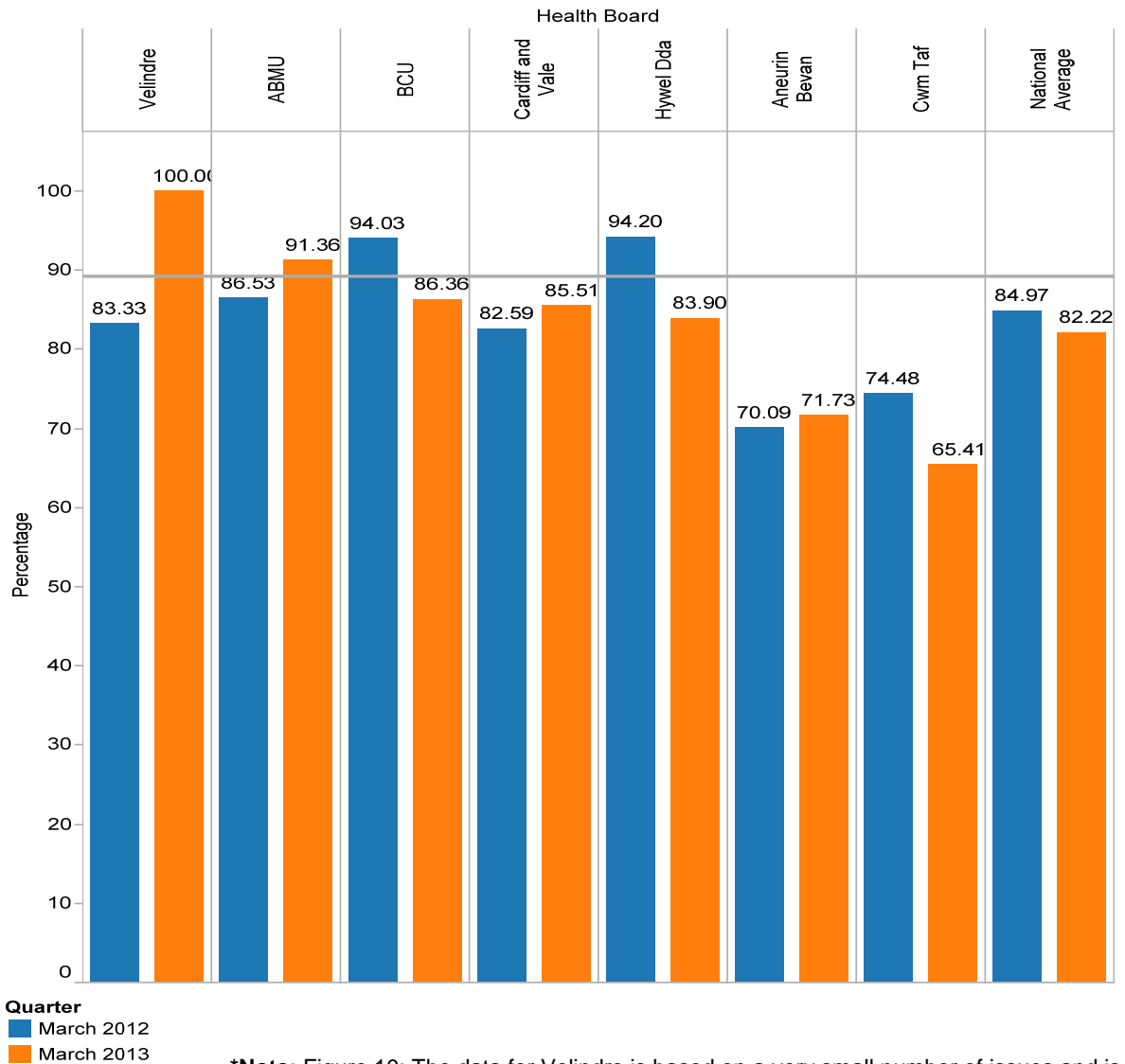
**Figure 9. Long-acting analogue insulin items as a percentage of all long- and intermediate-acting insulin items (excluding biphasics) in *primary* care – Quarter ending March 2012 versus quarter ending March 2013**



Welsh Analytical Prescribing Support Unit

Figure 10 shows secondary care insulin usage based on hospital issues. A small number of analogue insulin items (n=72) were issued across Wales on WP10HP prescriptions during the quarter to March 2013. The only health board using more than 10 items was Aneurin Bevan, and the proportion of analogue items as a percentage of all long and intermediate acting insulins was comparable to that shown in figure 10 (approximately 75%).

**Figure 10. Long-acting analogue insulin items as a percentage of all long- and intermediate-acting insulin items (excluding biphasics) in secondary care – Quarter ending March 2012 versus quarter ending March 2013\***



**\*Note:** Figure 10: The data for Velindre is based on a very small number of issues and is therefore unlikely to be representative of prescribing practice in the trust. Abertawe Bro Morgannwg University Health Board data exclude issues at Morriston Hospital as this data was unavailable at the time of preparation of this document.

## GLOSSARY

**ADQ** – The average daily quantity (ADQ) is a measure of prescribing volume based upon prescribing behaviour in England. It represents the assumed average maintenance dose per day for a medicine used for its main indication in adults. The ADQ is not a recommended dose but an analytical unit to compare prescribing activity.

**DDD** – The defined daily dosage (DDD), developed by the World Health Organisation, is a unit of measurement whereby each medicine is assigned a value within its recognised dosage range. The value is the assumed average maintenance dose per day for a medicine when used for its main indication in adults. A medicine can have different DDVs depending on the route of administration.

**PU** – Prescribing units (PUs) were adopted to take account of the greater need of elderly patients for medication in reporting prescribing performance at both the practice and primary care organisational level.

**STAR-PU** – Specific therapeutic group age-sex related prescribing units (STAR-PUs) are designed to measure prescribing weighted for age and sex of patients. There are differences in the age and sex of patients for whom medicines in specific therapeutic groups are usually prescribed. To make such comparisons, STAR-PUs have been developed based on costs of prescribing of items within therapeutic groups.