



All Wales Therapeutics
and Toxicology Centre

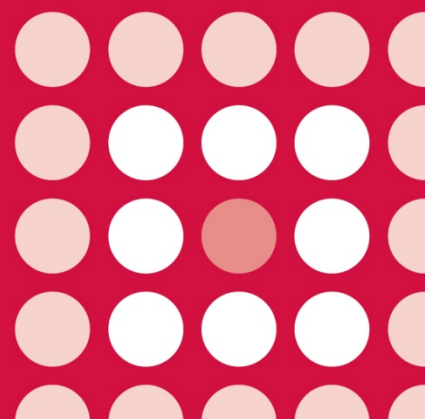
Canolfan Therapiwteg a
Thocsicoleg Cymru Gyfan

NATIONAL PRESCRIBING INDICATORS 2013–2014

ANALYSIS OF PRESCRIBING DATA TO DECEMBER 2013



June 2014



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 NPI, the threshold is set at the 75th 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 prescribing against these NPIs for the quarter ending December 2013.

1.0 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, with the aim of achieving or increasing towards the threshold of 96%.

Figure 1 shows the trend in the proportion of LAC statin prescribing in the seven health boards in Wales from quarter 1 2010–2011 to quarter 3 2013–2014. The graph clearly shows an increase in LAC statin prescribing, particularly in health boards with initially lower usage.

Figure 1. Trend in LAC statin prescribing as a percentage of all statin, ezetimibe and simvastatin/ezetimibe combination prescribing

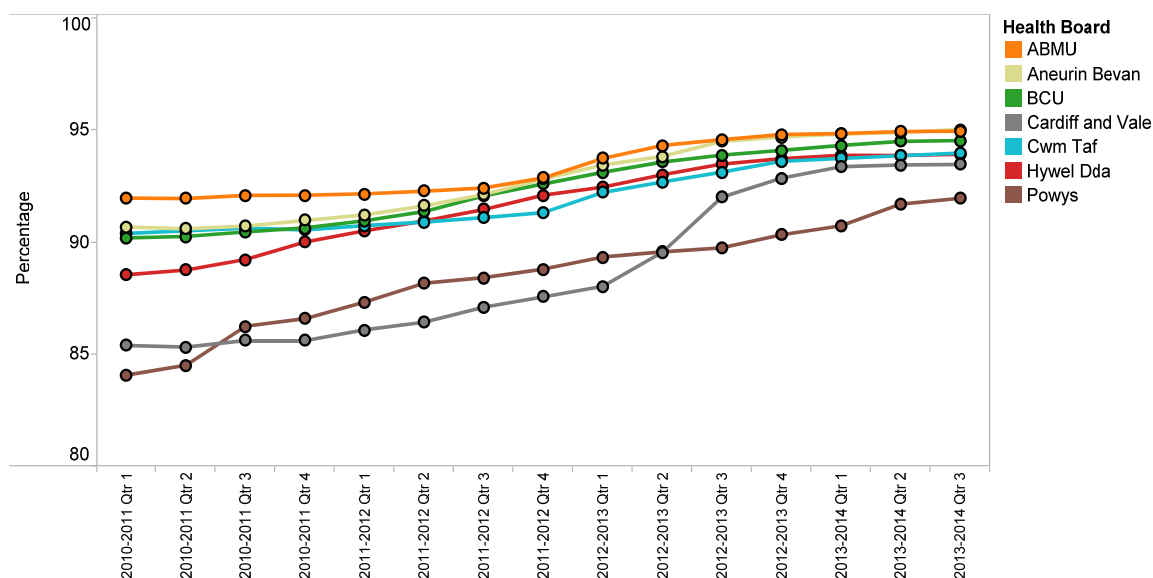
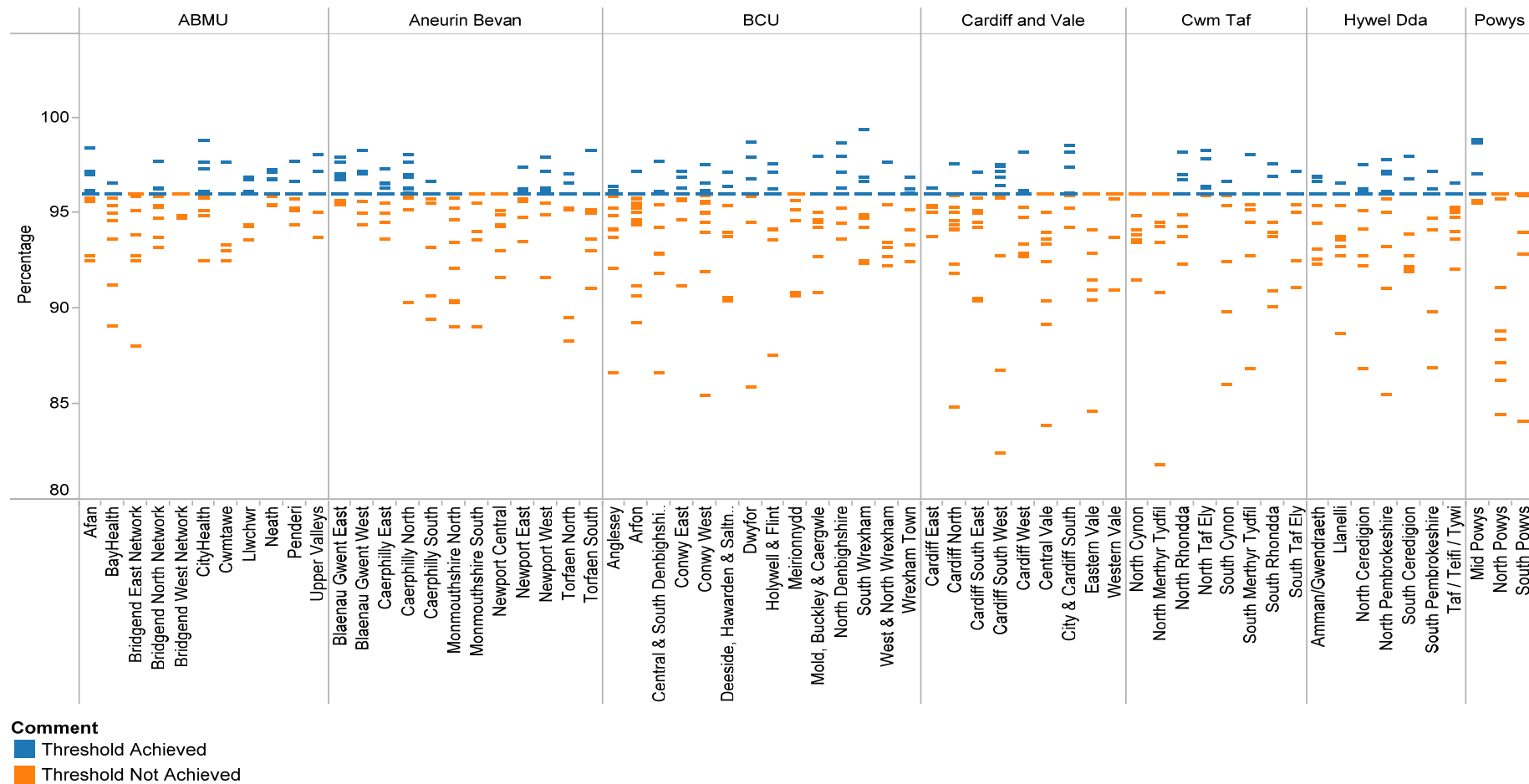


Figure 2 shows the variation in usage across individual practices according to cluster group for the quarter ending December 2013. Each line represents a practice; the colour of the line indicates whether the practice has achieved (blue) or not achieved (orange) the NPI threshold.

**Figure 2. LAC statin prescribing as a percentage of all statin, ezetimibe and simvastatin/ezetimibe combination prescribing
Quarter ending December 2013**



2.0 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), with the aim of achieving or reducing towards the threshold of 1,568 ADQs per 1,000 STAR-PU.

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

Figure 3 shows the trend in hypnotic and anxiolytic usage by health board from quarter 1 2010–2011 to quarter 3 2013–2014.

Figure 3. Trend in hypnotic and anxiolytic prescribing

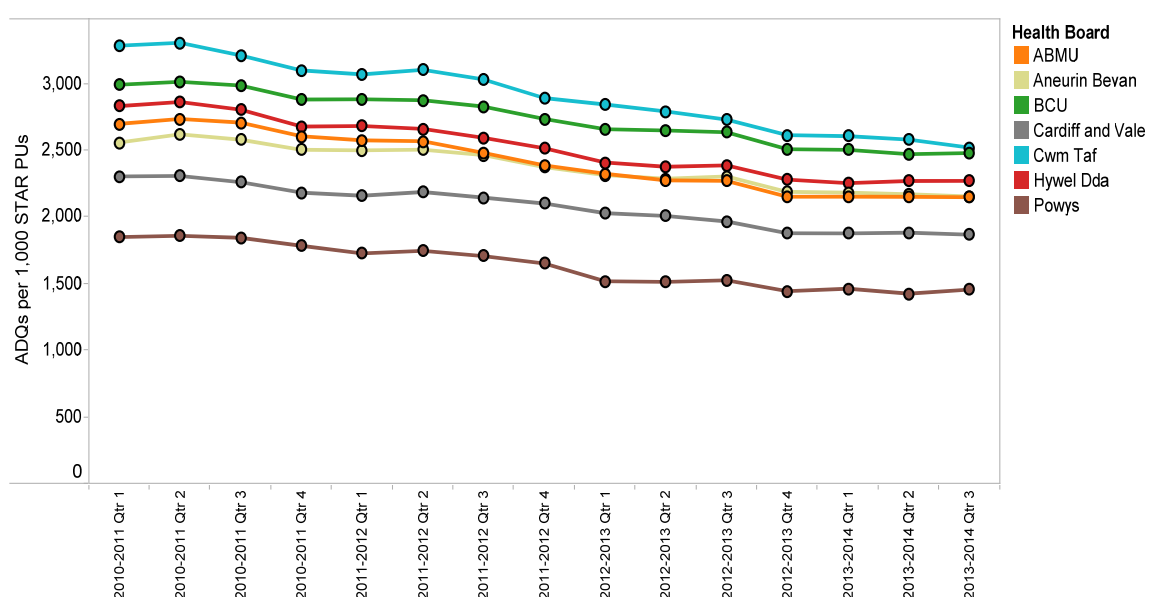
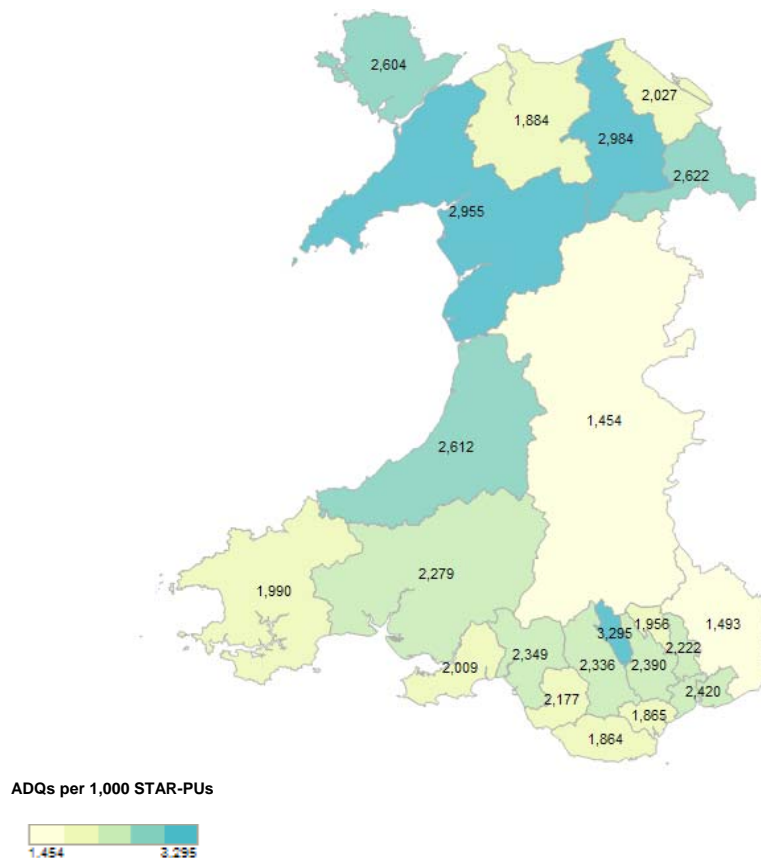


Figure 4 shows a map of the variation in hypnotic and anxiolytic usage amongst the former local health board regions for the quarter ending December 2013.

Figure 4. Hypnotic and anxiolytic prescribing – Quarter ending December 2013



3.0 DOSULEPIN

Unit of measurement:

Dosulepin defined daily doses (DDD) per 1,000 prescribing units (PUs), with the aim of achieving or reducing towards the threshold of 31.22 DDDs per 1,000 PUs.

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

Figure 5 shows a downward trend in dosulepin prescribing in all health boards from quarter 3 2010–2011 to quarter 3 2013–2014, although some variation between the health boards remains.

Figure 5. Trend in dosulepin prescribing

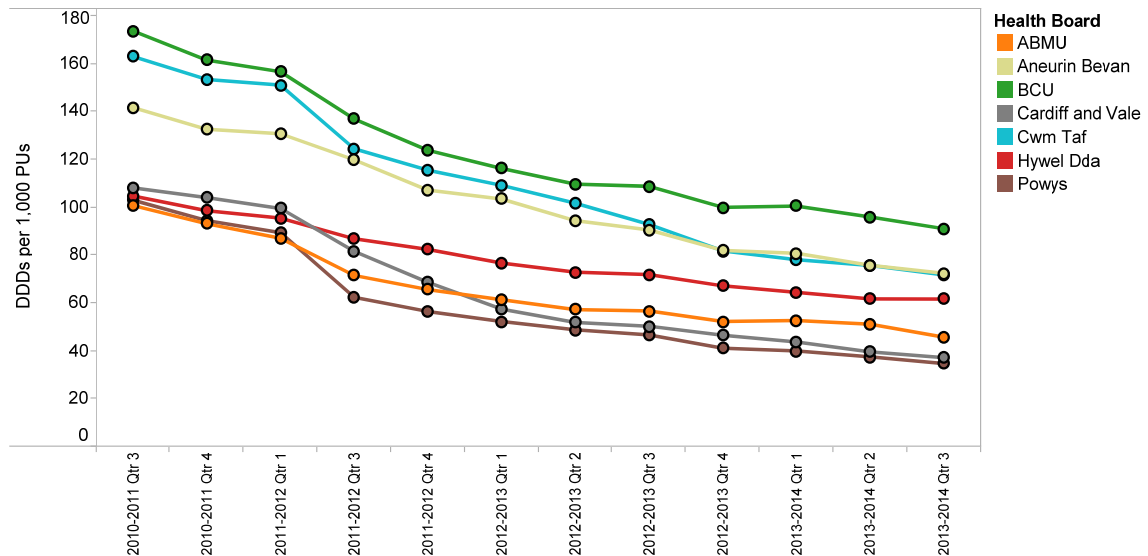
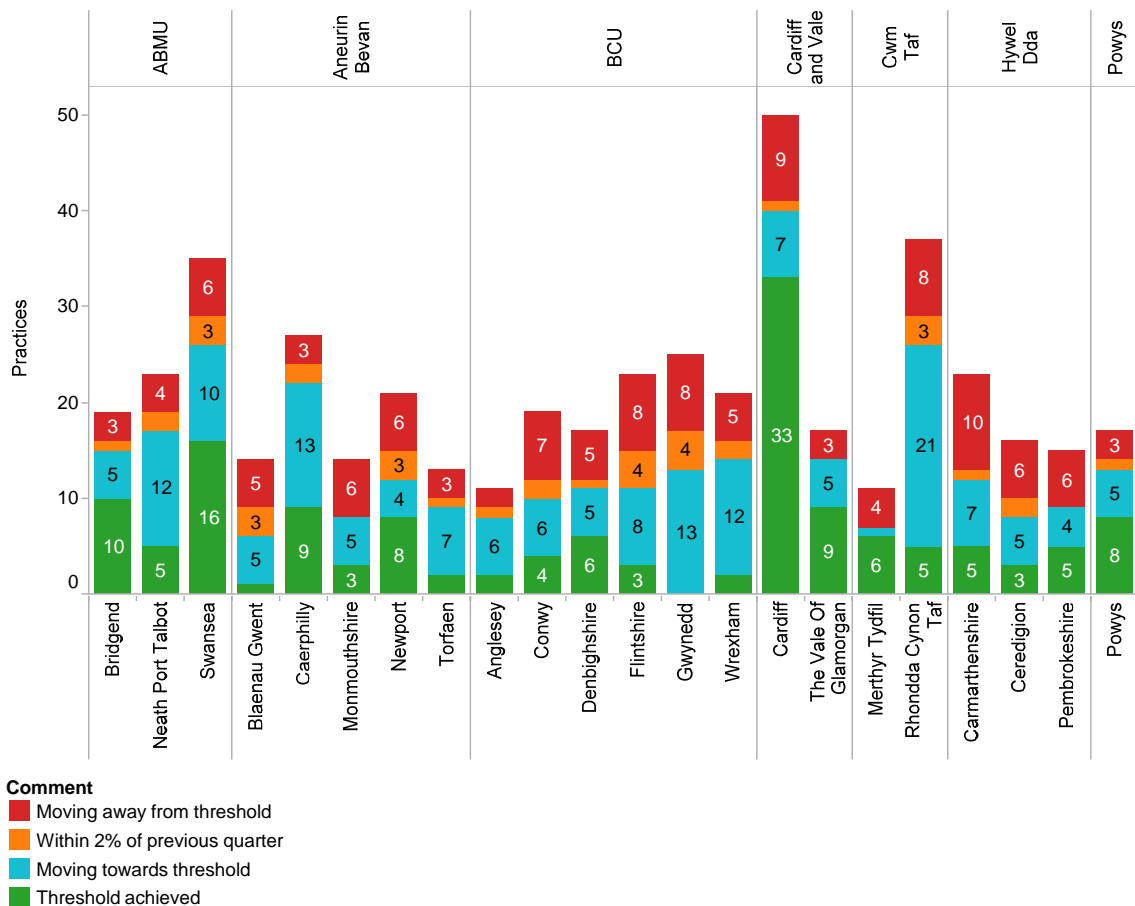


Figure 6 shows dosulepin prescribing for the quarter to December 2013. It illustrates the number of practices in each locality grouped according to whether they met the threshold, did not meet the threshold but moved towards it, remained unchanged compared to the previous quarter (within 2%), or moved away from the threshold (by more than 2%).

Figure 6. Movement of practices relative to the dosulepin threshold
Quarter ending December 2013

4.0 ANTIDEPRESSANTS

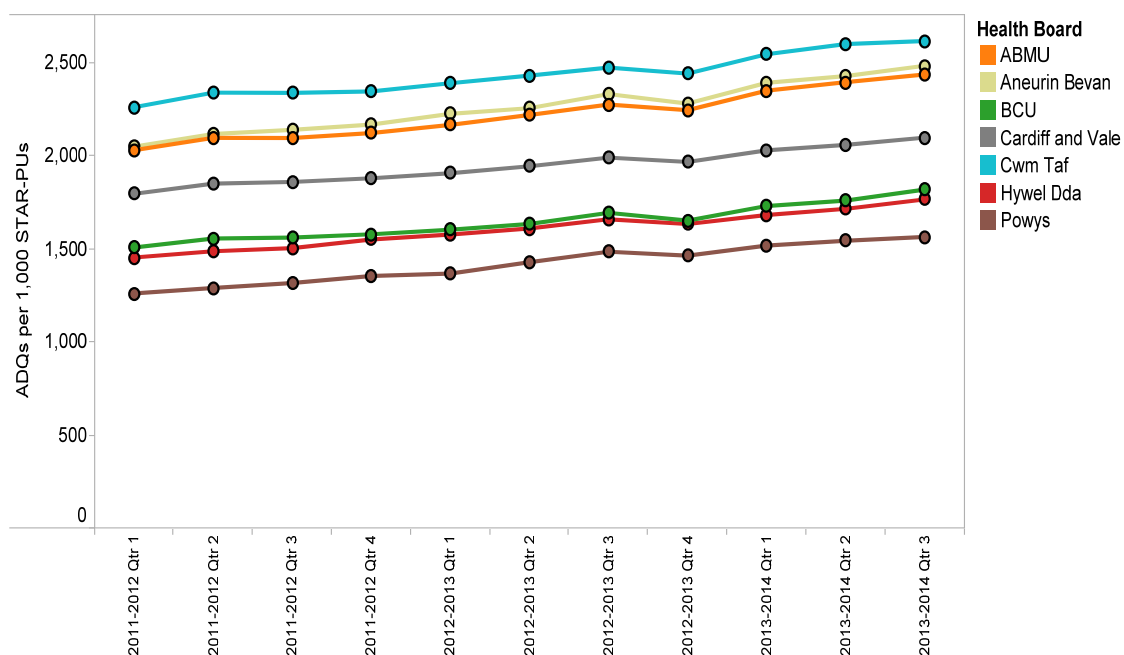
Unit of measurement:

Antidepressant ADQs per 1,000 STAR-PU.

This NPI was introduced in 2013–2014 to monitor the variation in usage across Wales.

Figure 7 shows the trend in antidepressant usage from quarter 1 2011–2012 to quarter 3 2013–2014. It shows an increase in prescribing in all health boards and illustrates regional variation in prescribing.

Figure 7. Trend in antidepressant prescribing



5.0 STRONG OPIOIDS

Unit of measurement:

Morphine items as a percentage of strong opioid items, with the aim of achieving or increasing towards the threshold of 56%. The indicator has a UDG:

UDG: Buprenorphine, dipipanone, fentanyl, hydromorphone, morphine, oxycodone, papaveretum, pentazocine, pethidine, tapentadol (buprenorphine preparations prescribed for the management of opioid dependence, and injection formulations, are excluded from this indicator).

Figure 8 shows the trend in morphine usage as a percentage of strong opioids from quarter 1 2011–2012 to quarter 3 2013–2014. The graph illustrates the increases seen across the health boards since the introduction of this indicator in 2012.

Figure 8. Trend in morphine prescribing as a percentage of strong opioid prescribing

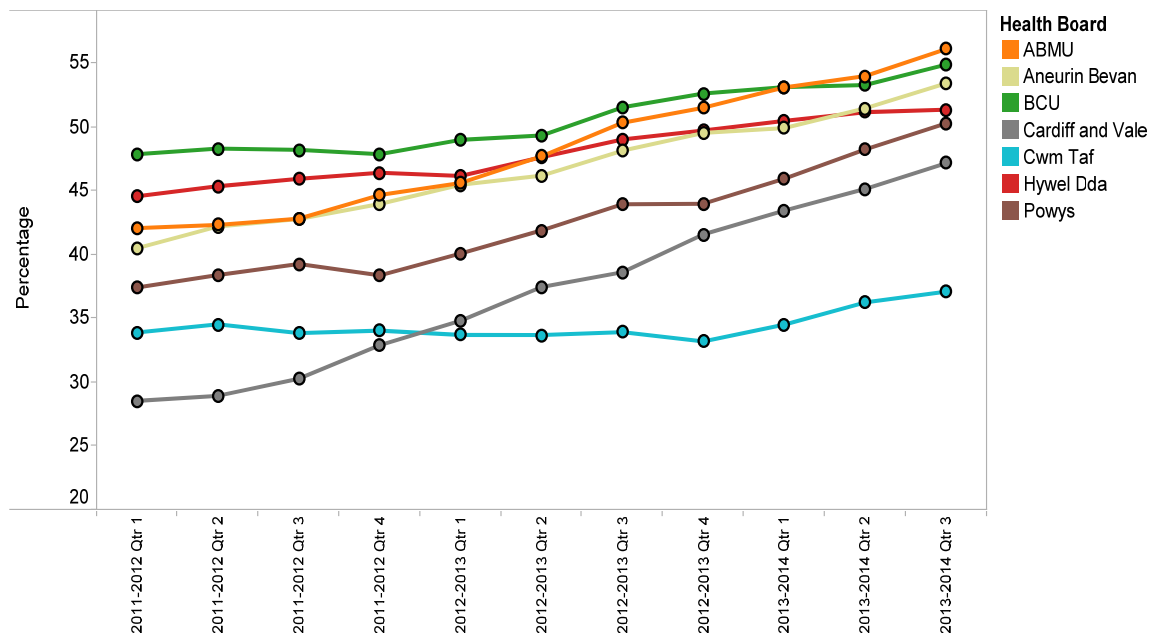
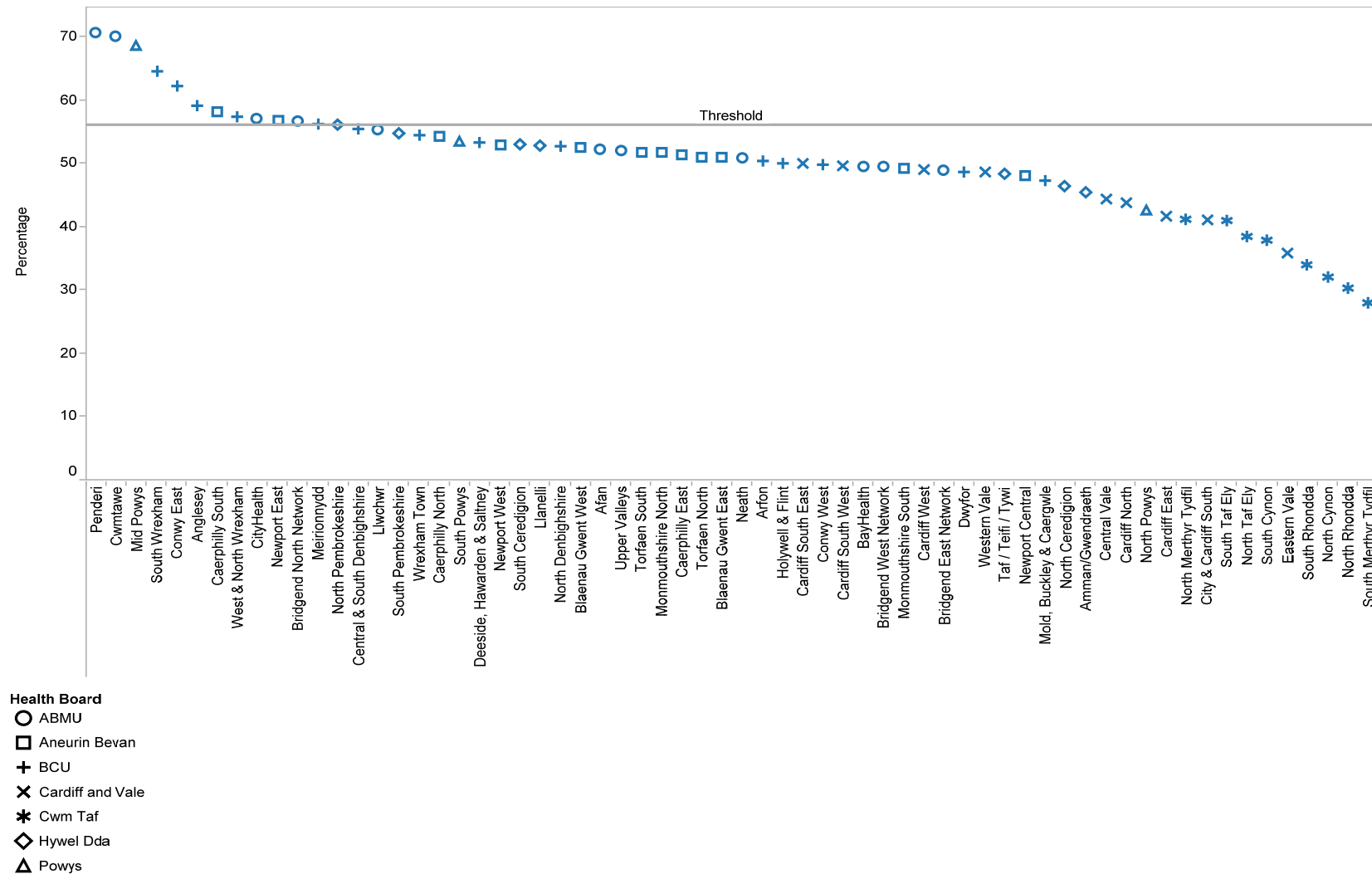


Figure 9 shows the variation in prescribing across the cluster groups in Wales for the quarter ending December 2013.

Figure 9. Morphine prescribing as a percentage of strong opioid prescribing by cluster group – Quarter ending December 2013



6.0 ANTIBIOTICS

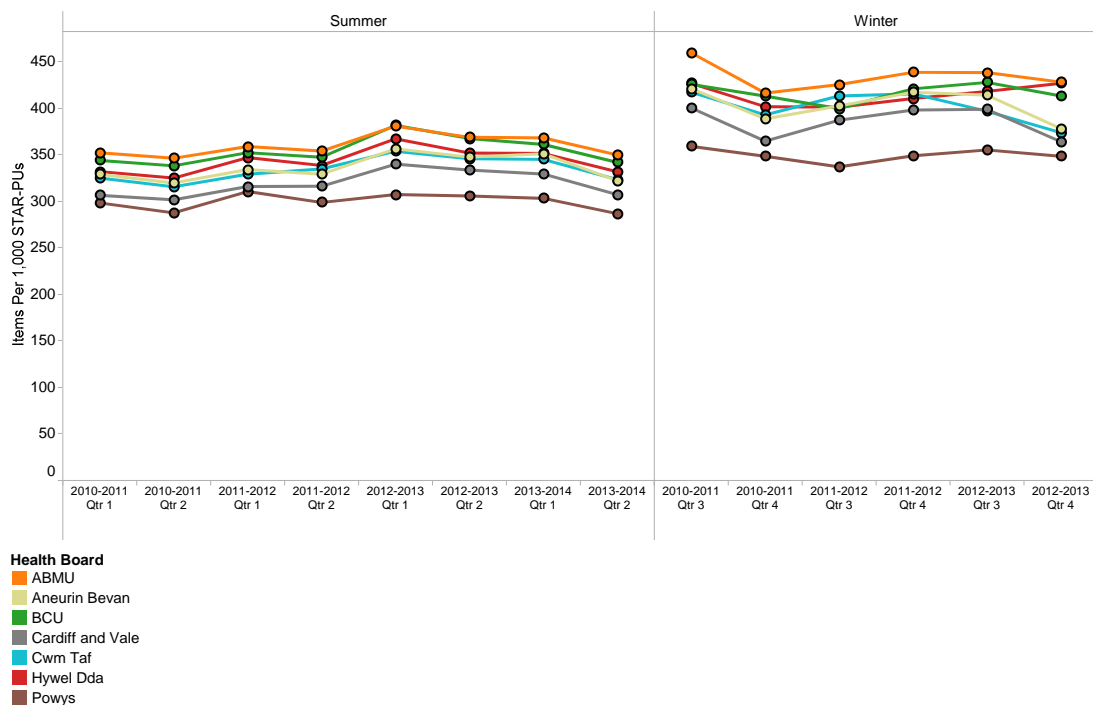
Units of measurement:

There are four antibacterial prescribing indicators, focusing on reducing antibiotic prescribing for 2013–2014:

1. Total antibacterial items per 1,000 STAR-PUs;
2. Cephalosporins as a percentage of total antibacterial items;
3. Quinolones as a percentage of total antibacterial items;
4. Co-amoxiclav as a percentage of total antibacterial items.

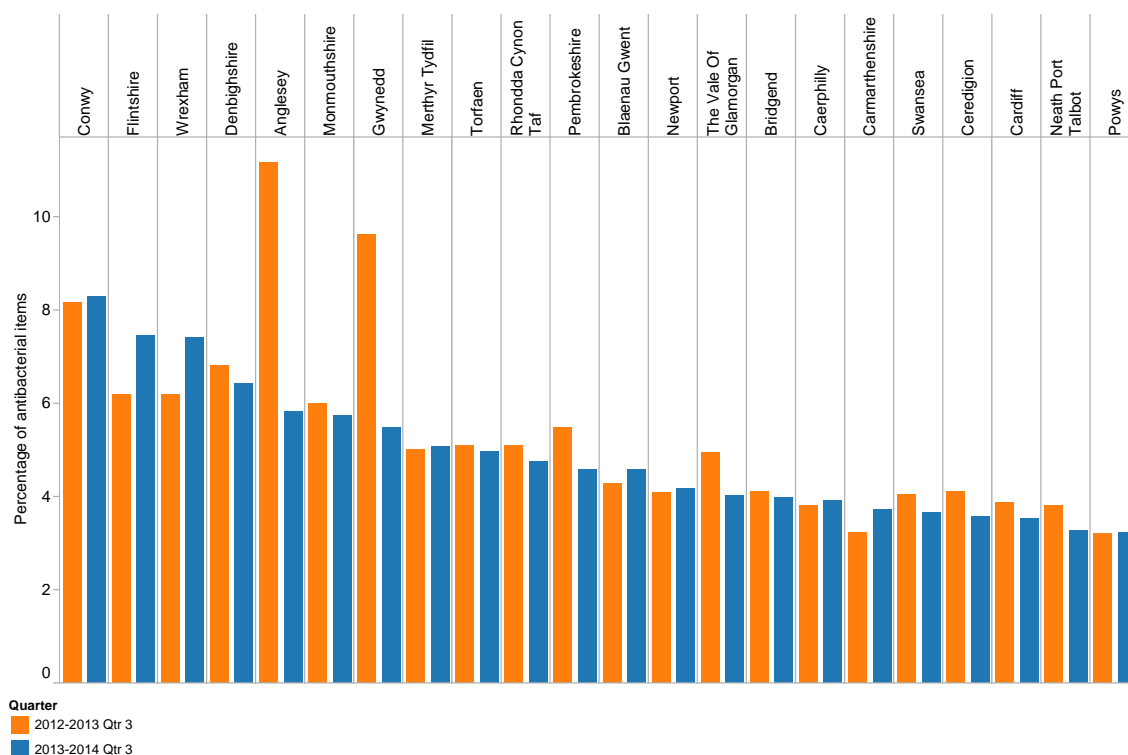
Figure 10 shows the trend in total antibiotic usage for the summer quarters (April–September) and the winter quarters (October–March) as items per 1,000 STAR-PUs. The upward trend in usage for the summer quarters 2010–2011 to 2012–2013 appears to be reversing and total antibiotic usage has decreased from summer quarters 2012–2013 to summer quarters 2013–2014. For the winter quarters (2010–2011 to 2012–2013), whilst there has been a reduction in overall usage in some health boards, variation remains.

Figure 10. Trend in antibiotic prescribing for summer and winter quarters

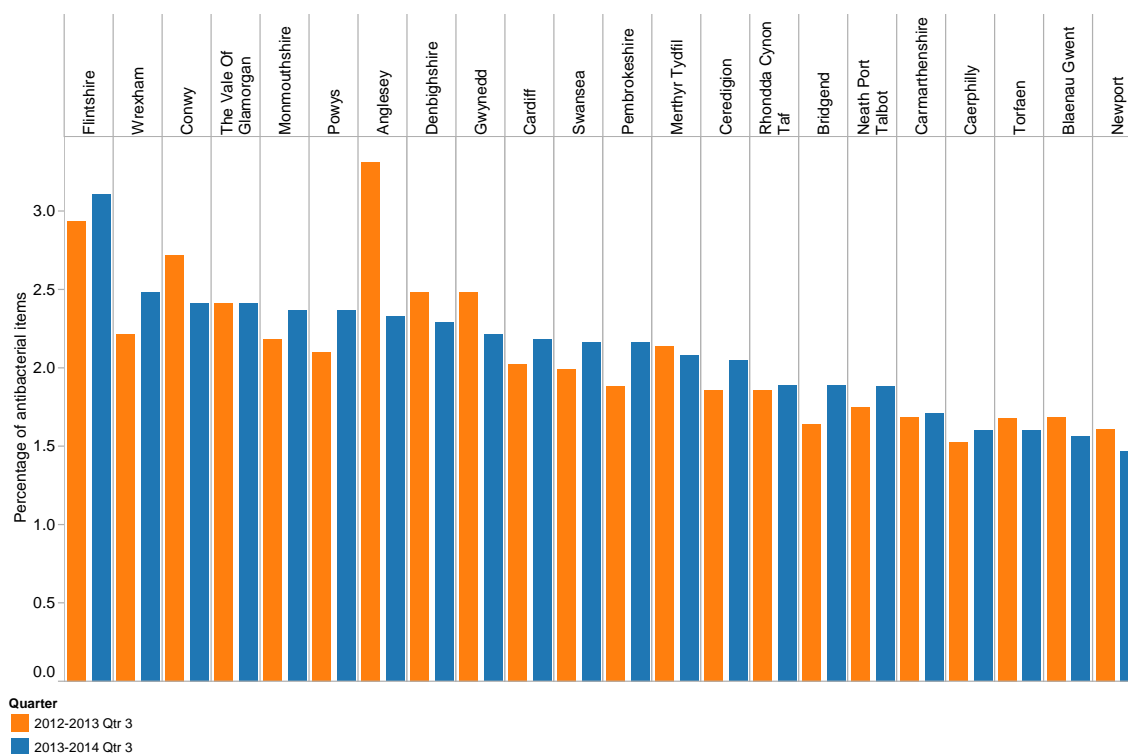


Data relating to the remaining antibiotic indicators are presented in Figures 11 to 13. The graphs compare proportional usage of each antibiotic or group of antibiotics for the quarter to December 2012 with that for the quarter to December 2013. The graphs clearly show reductions in usage for the quarter to December 2013 compared with the previous year in certain localities (particularly Anglesey and Gwynedd); however, increases compared with the previous year are also evident in some localities, particularly for quinolone prescribing. This may be due in part to an overall reduction in antibiotic prescribing for the quarter ending December 2013 compared to the previous year, resulting in proportionately higher usage of quinolones relative to other medicines.

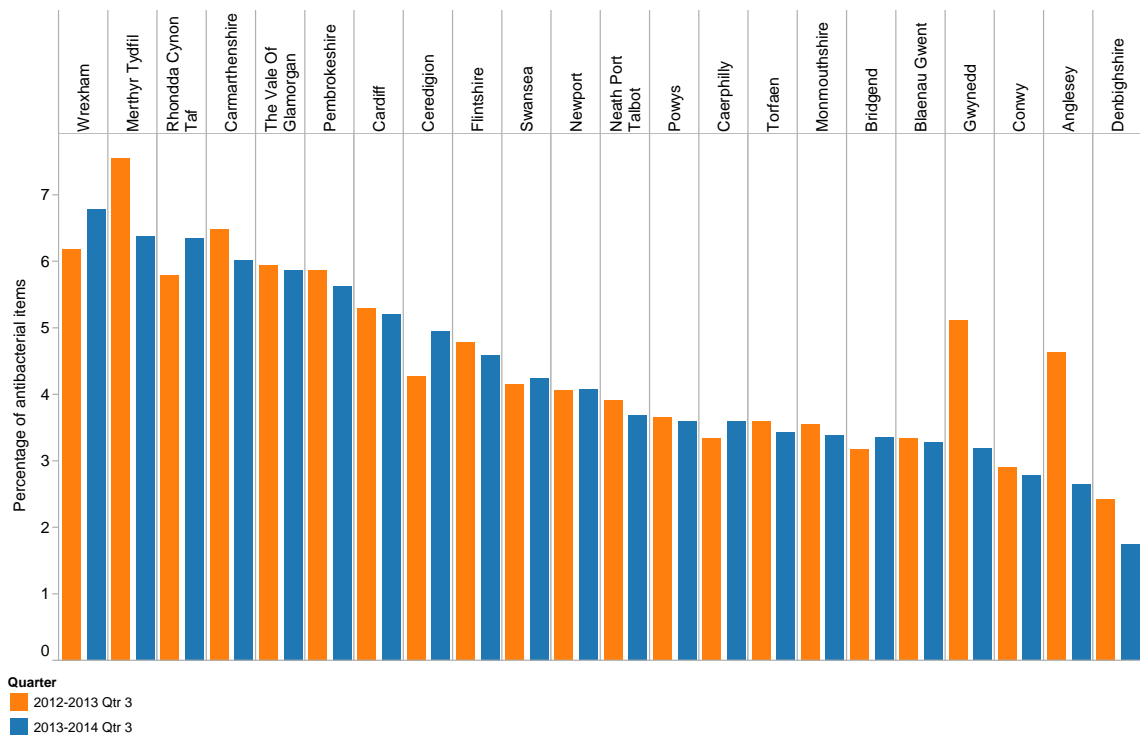
**Figure 11. Cephalosporin prescribing as a percentage of total antibacterial prescribing
Quarter ending December 2012 versus quarter ending December 2013**



**Figure 12. Quinolone prescribing as a percentage of total antibacterial prescribing
Quarter ending December 2012 versus quarter ending December 2013**



**Figure 13. Co-amoxiclav prescribing as a percentage of total antibacterial prescribing
Quarter ending December 2012 versus quarter ending December 2013**



7.0 INSULIN

Unit of measurement:

Long-acting insulin analogue items as a percentage of long- and intermediate-acting insulin items (excluding biphasics), with the aim of achieving or reducing towards the threshold of 90%.

This indicator does not include insulin degludec as this medicine was only licensed in March 2013 and is currently being appraised by AWMSG. Insulin degludec accounted for a very small number of items in the quarter ending December 2013 compared to insulin glargine and insulin detemir.

Figure 14 shows the trend in long-acting insulin analogue items as a percentage of all long- and intermediate-acting insulin items from quarter 1 2010–2011 to quarter 3 2013–2014. The graph shows that there is still variation in usage across health boards.

Figure 14. Trend in long-acting insulin analogue prescribing as a percentage of all long- and intermediate-acting insulin prescribing

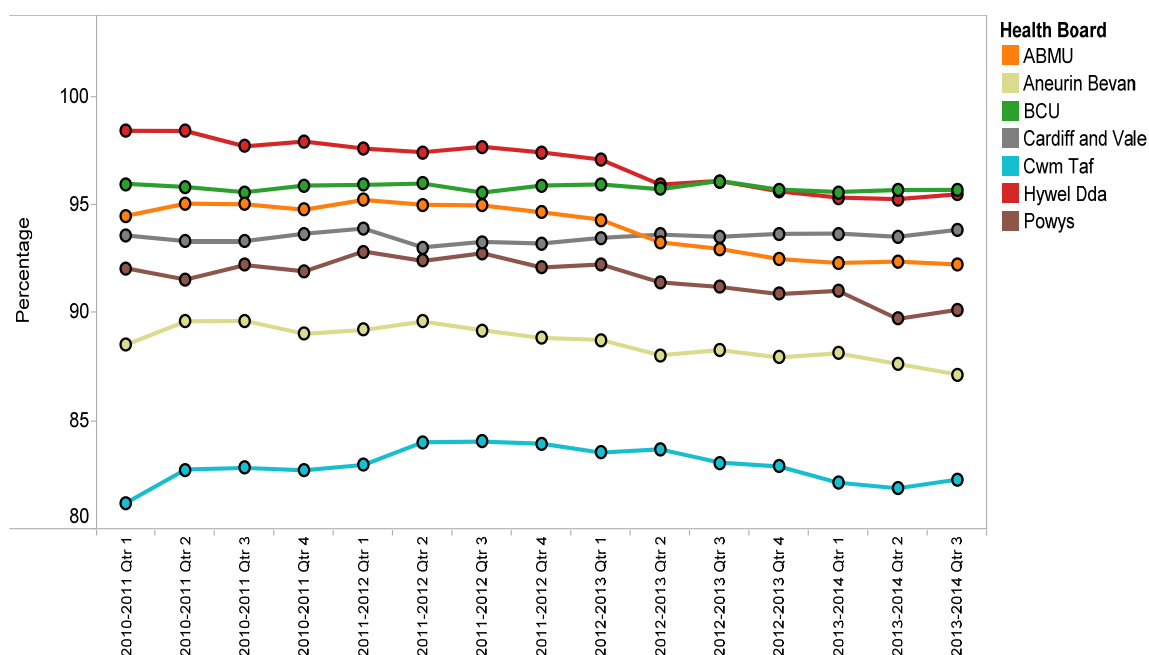
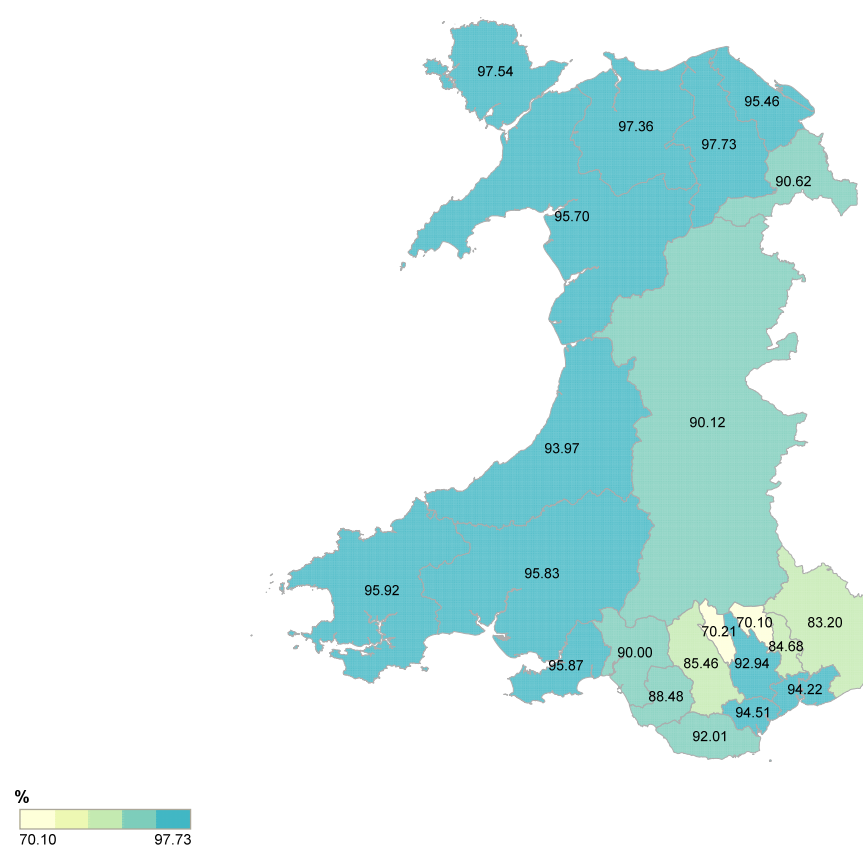


Figure 15 shows the regional variation in insulin usage, in the form of a map, amongst the former local health board regions for the quarter ending December 2013.

Figure 15. Long-acting insulin analogue prescribing as a percentage of all long- and intermediate-acting insulin prescribing – Quarter ending December 2013



8.0 NON-STEROIDAL ANTI-INFLAMMATORY DRUGS

Units of measurement:

There are two non-steroidal anti-inflammatory drug (NSAID) NPIs for 2013–2014:

1. Total NSAID ADQs per 1,000 STAR-PU, with the aim of achieving or reducing towards the threshold of 923 ADQs per 1,000 STAR-PU.
2. Ibuprofen and naproxen as a percentage of total NSAID items with the aim of achieving or increasing towards the threshold of 78.3%.

Figure 16 shows the trend in total NSAID usage from quarter 3 2010–2011 to quarter 3 2013–2014, and Figure 17 shows prescribing of ibuprofen and naproxen as a proportion of total NSAID usage over the same period. The graphs show that prescribing has changed in line with the NPIs, and that the variation between health boards has reduced.

Figure 16. Trend in total NSAID prescribing

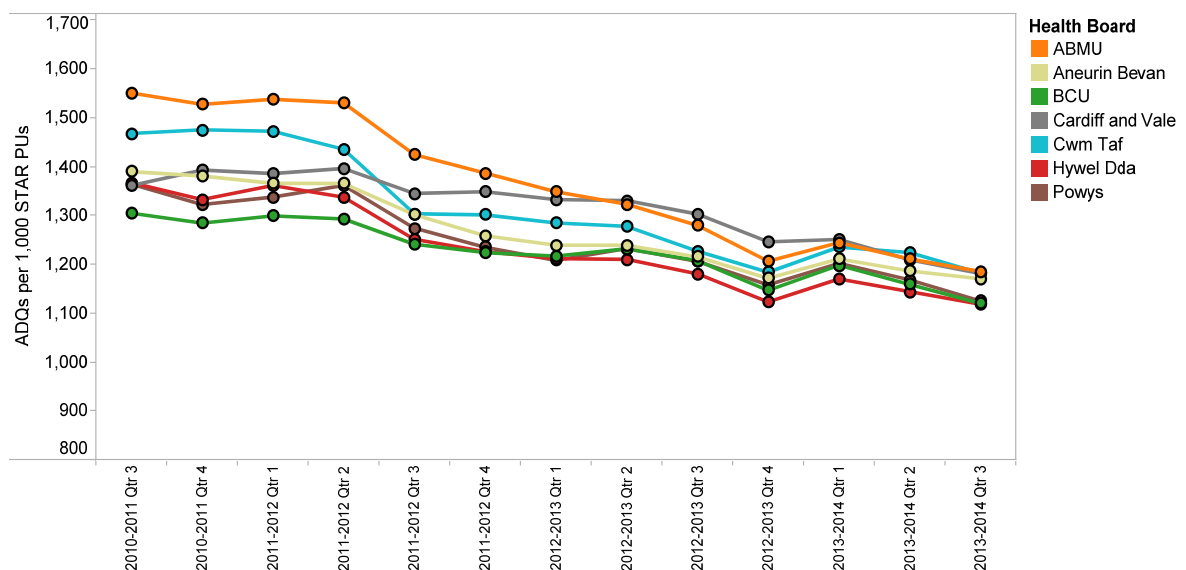
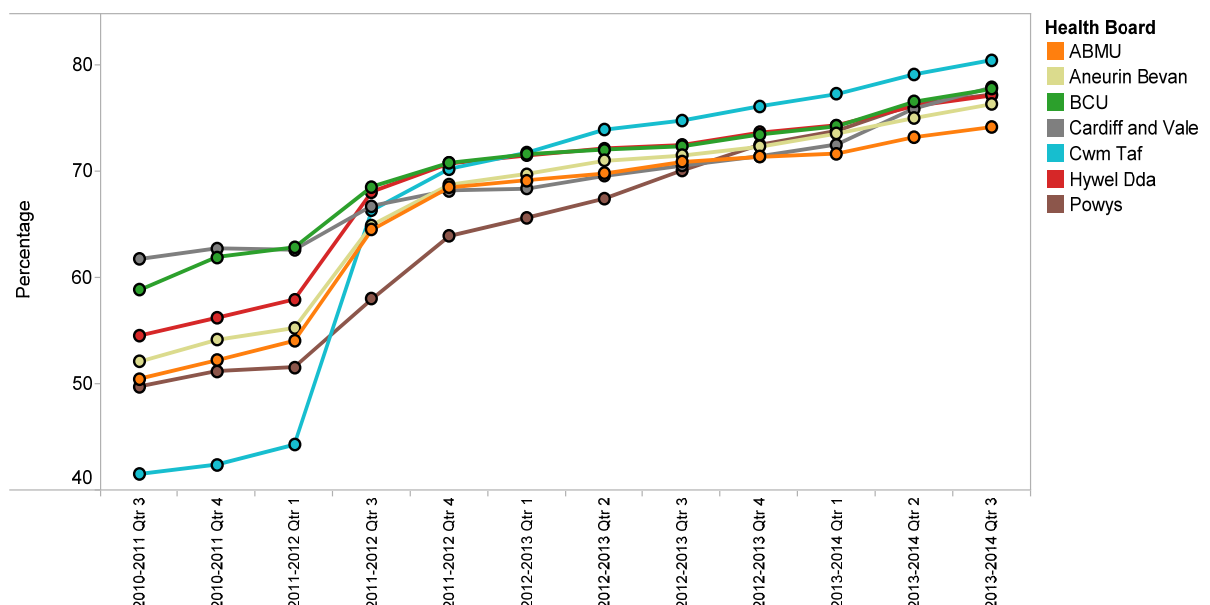


Figure 17. Trend in ibuprofen and naproxen prescribing as a percentage of total NSAID prescribing



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 dose (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 DDIs 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.