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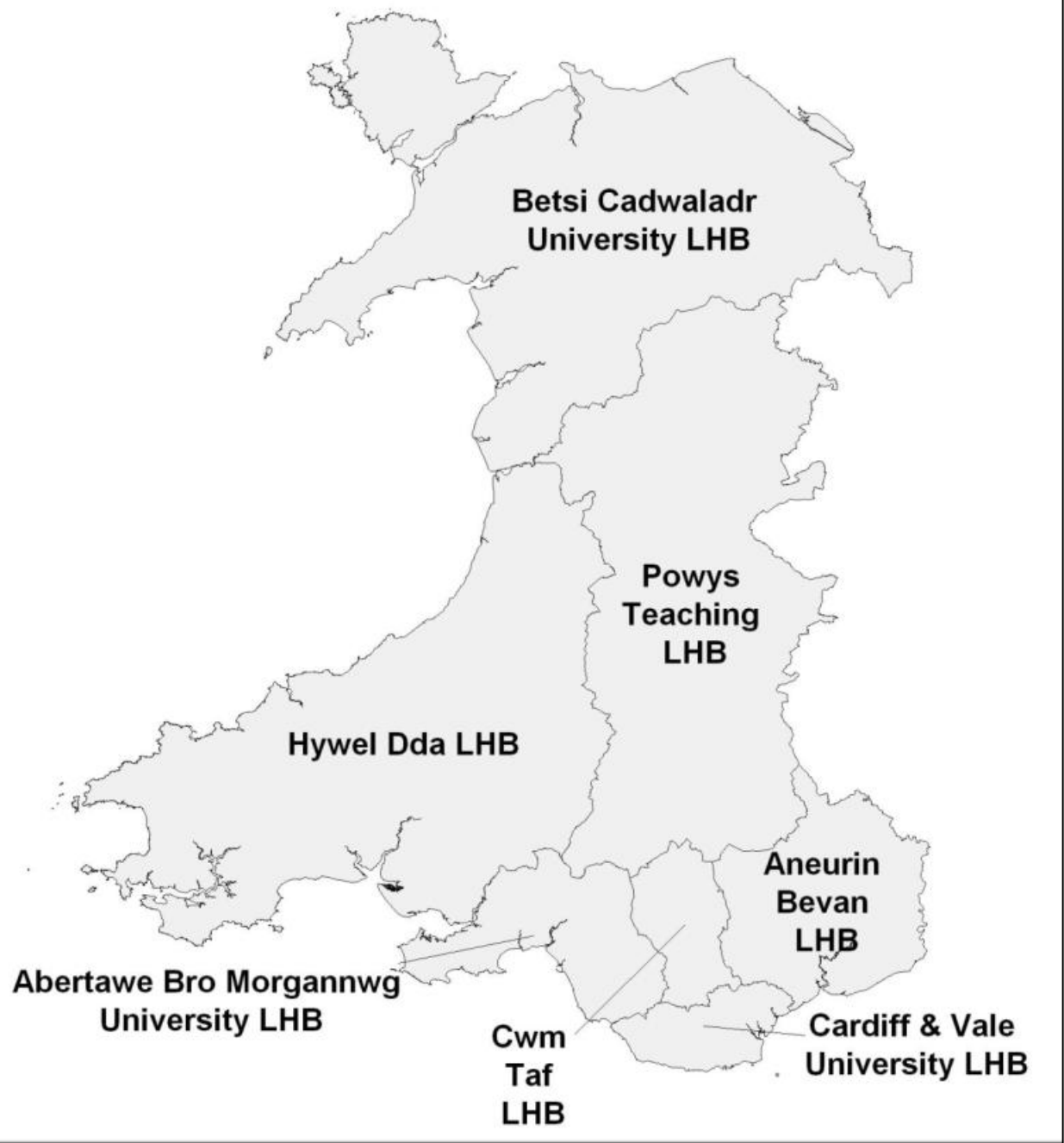
1st December 2017 – Antimicrobial stewardship quality indicators for hospital and primary care – progress, outcomes and future strategy

Quality indicators and outcomes in the devolved nations - Wales

Dr Nicholas Reid - Public Health Wales

Conflicts of Interest

- None



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National Performance Indicators

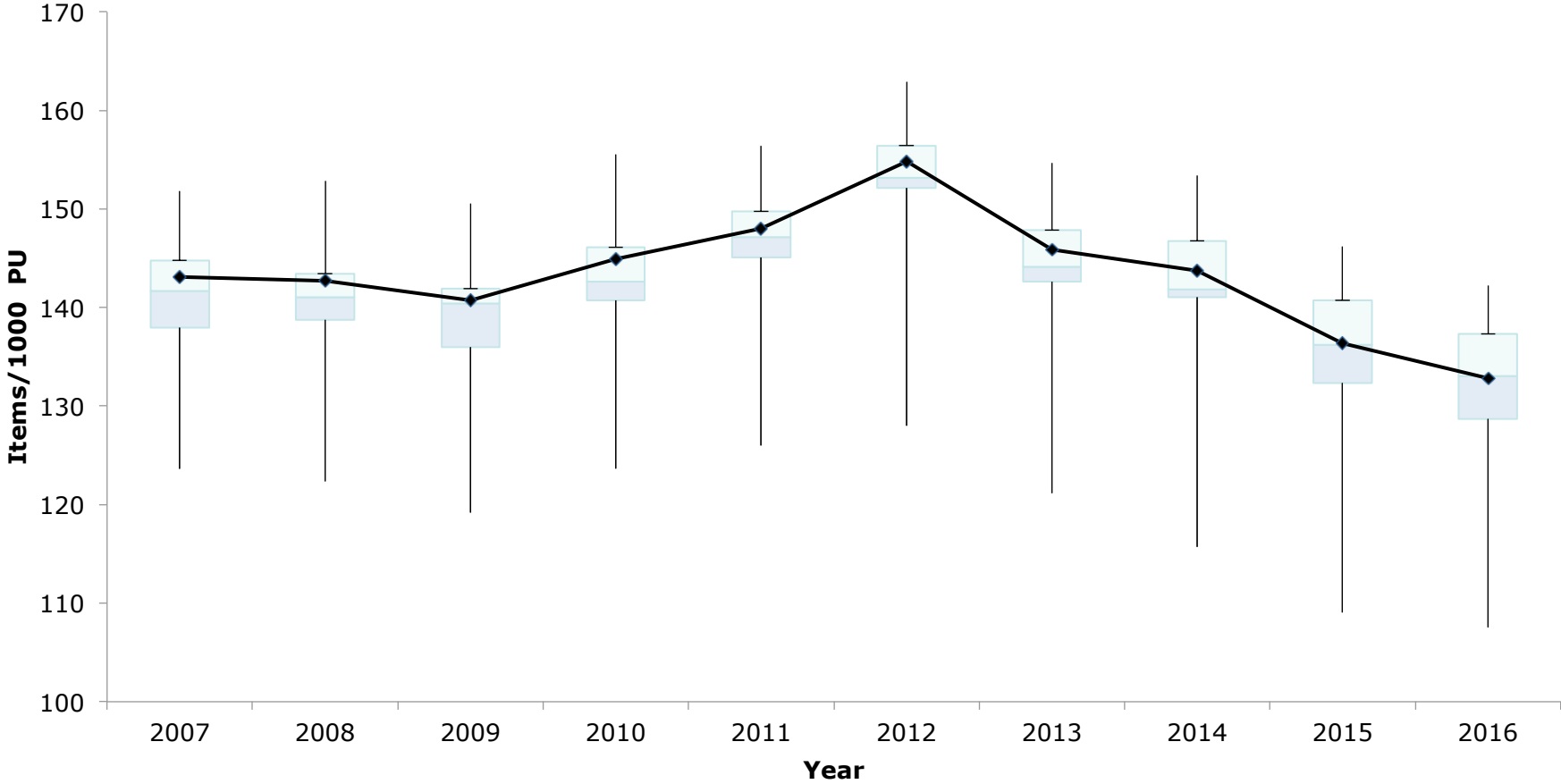
- **Primary care since April 2012:**
 - Total antibacterial items per 1000 STAR-PU
 - Quinolones as percentage total antibacterials
 - Cephalosporins as percentage total antibacterials
 - Co-amoxiclav as percentage total antibacterials
- **Secondary care since April 2017:**
 - Percentage elective colorectal surgical prophylaxis >24 hours



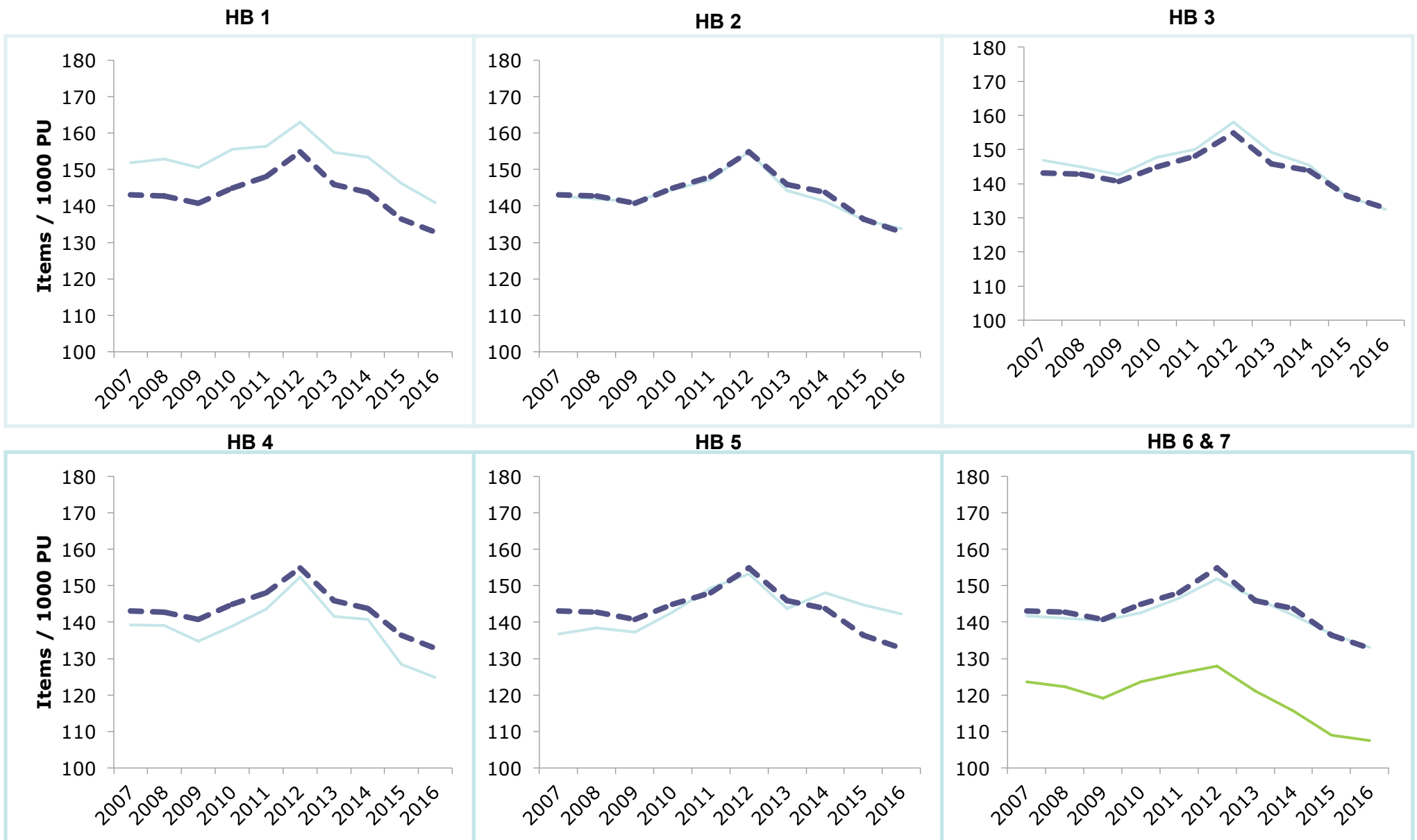
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Total Volume Antimicrobial Usage in Wales (Primary Care)



* Data source: primary care prescribing data. Interpret with caution as y axis do not start at zero



*charts show Items/1000 PU for each health board in Wales. Interpret with caution as y axis do not start at zero

**Data source: primary care prescribing data

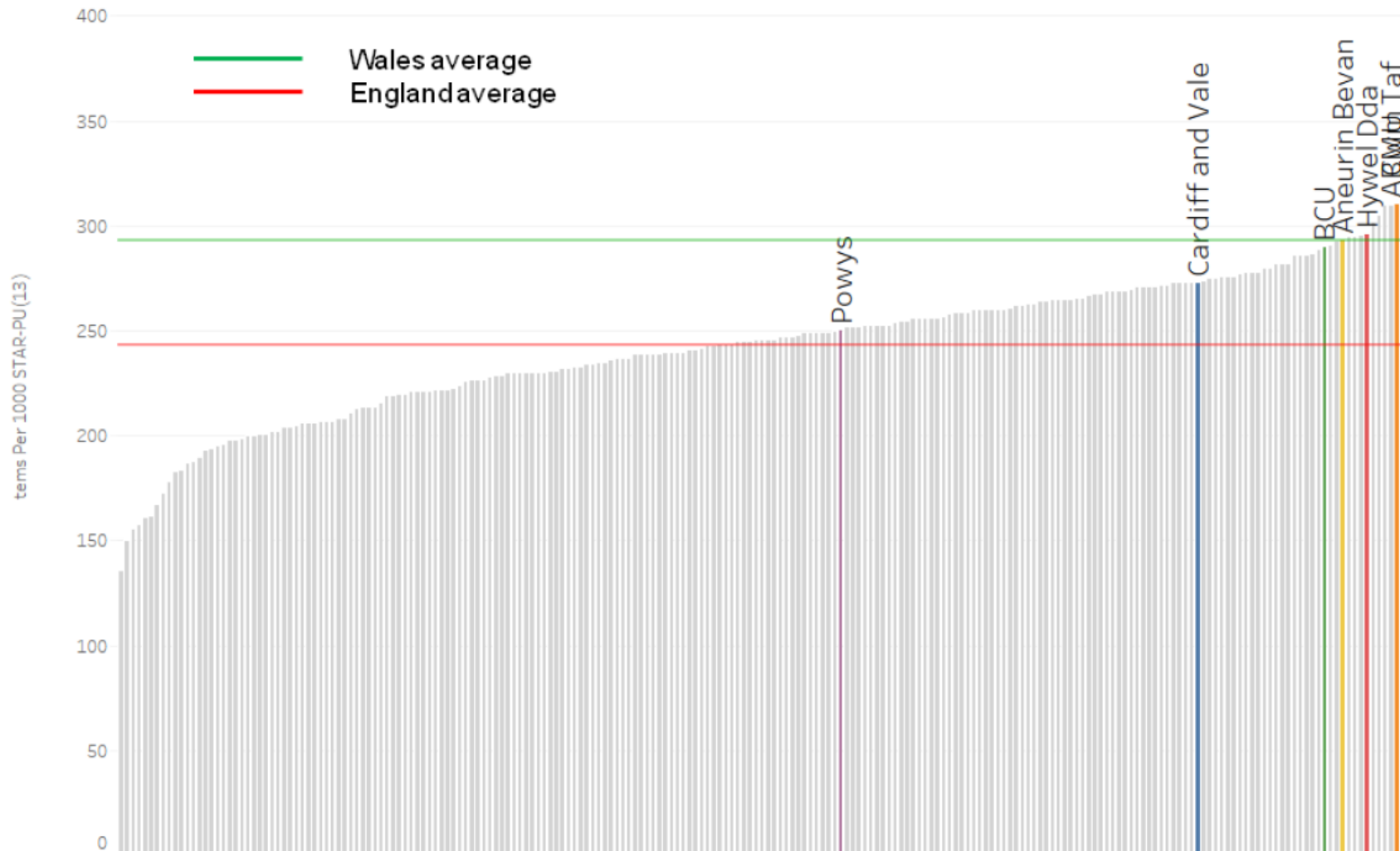
Total Volume Antimicrobial Usage in Wales (Primary Care) showing Health Board Variation



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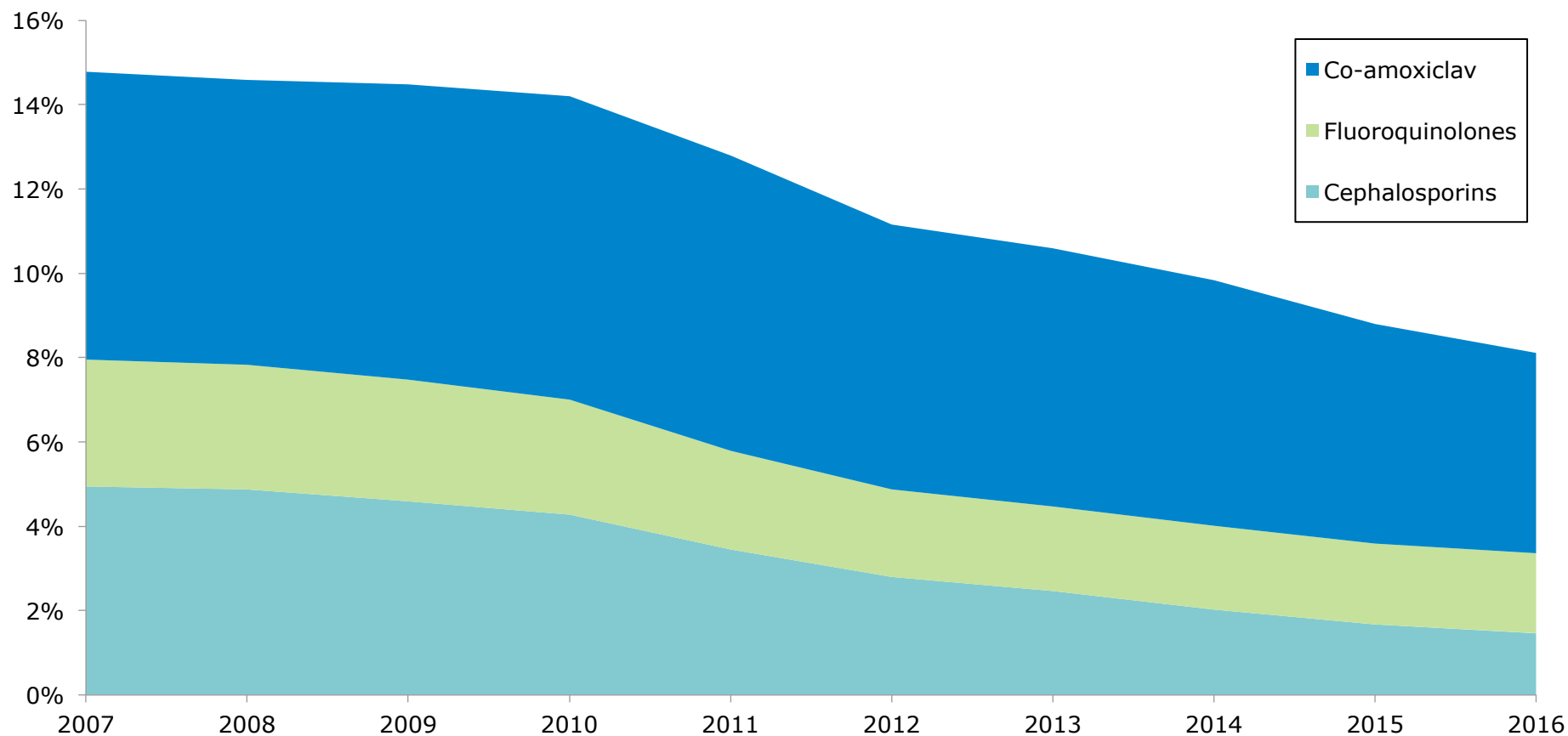
Total antibacterial items per 1000 STAR-PU for Welsh HBs and English CCGs, Q2 2017



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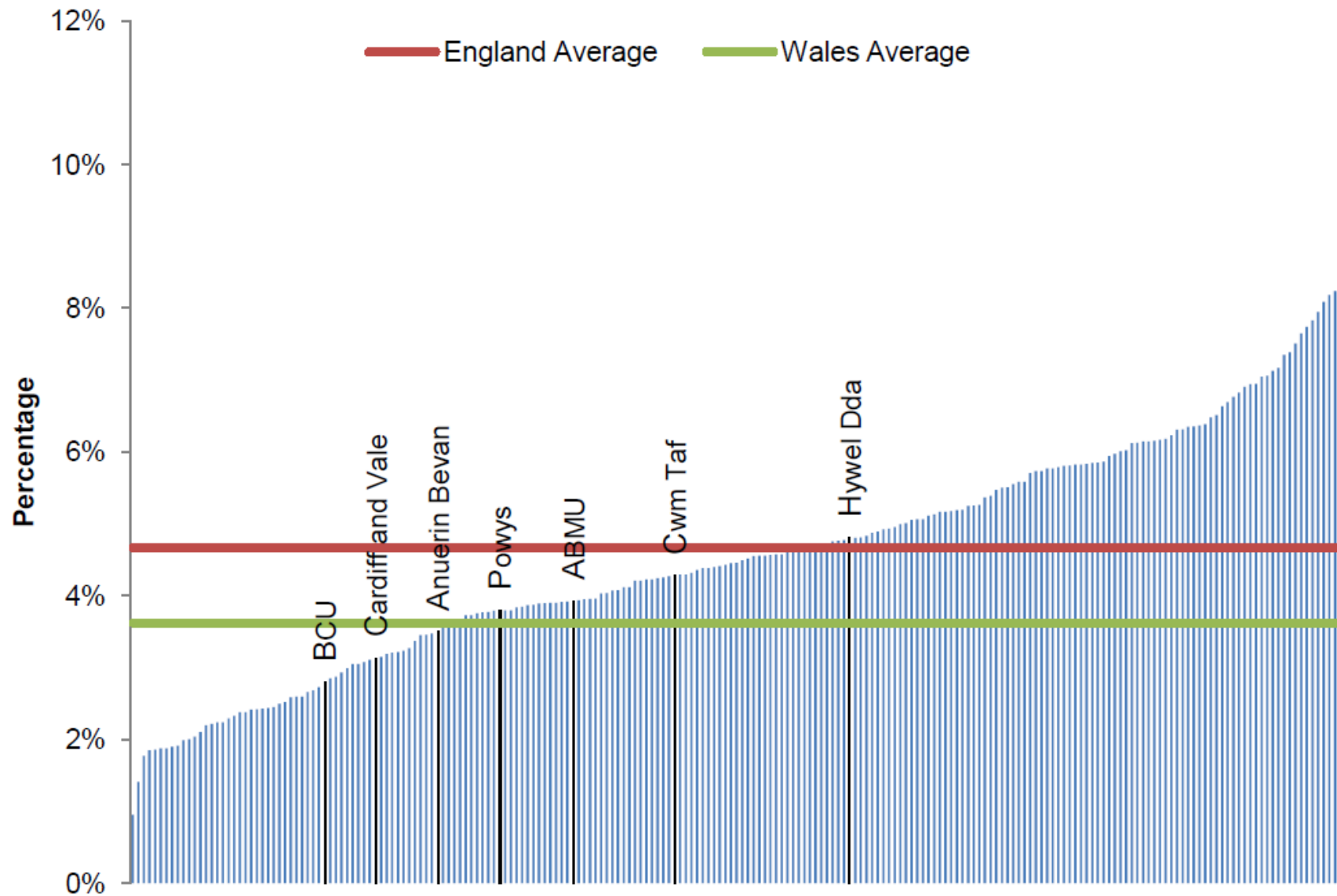
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Wales 3C as Proportion of Total Antibacterials



*Data source: primary care prescribing data

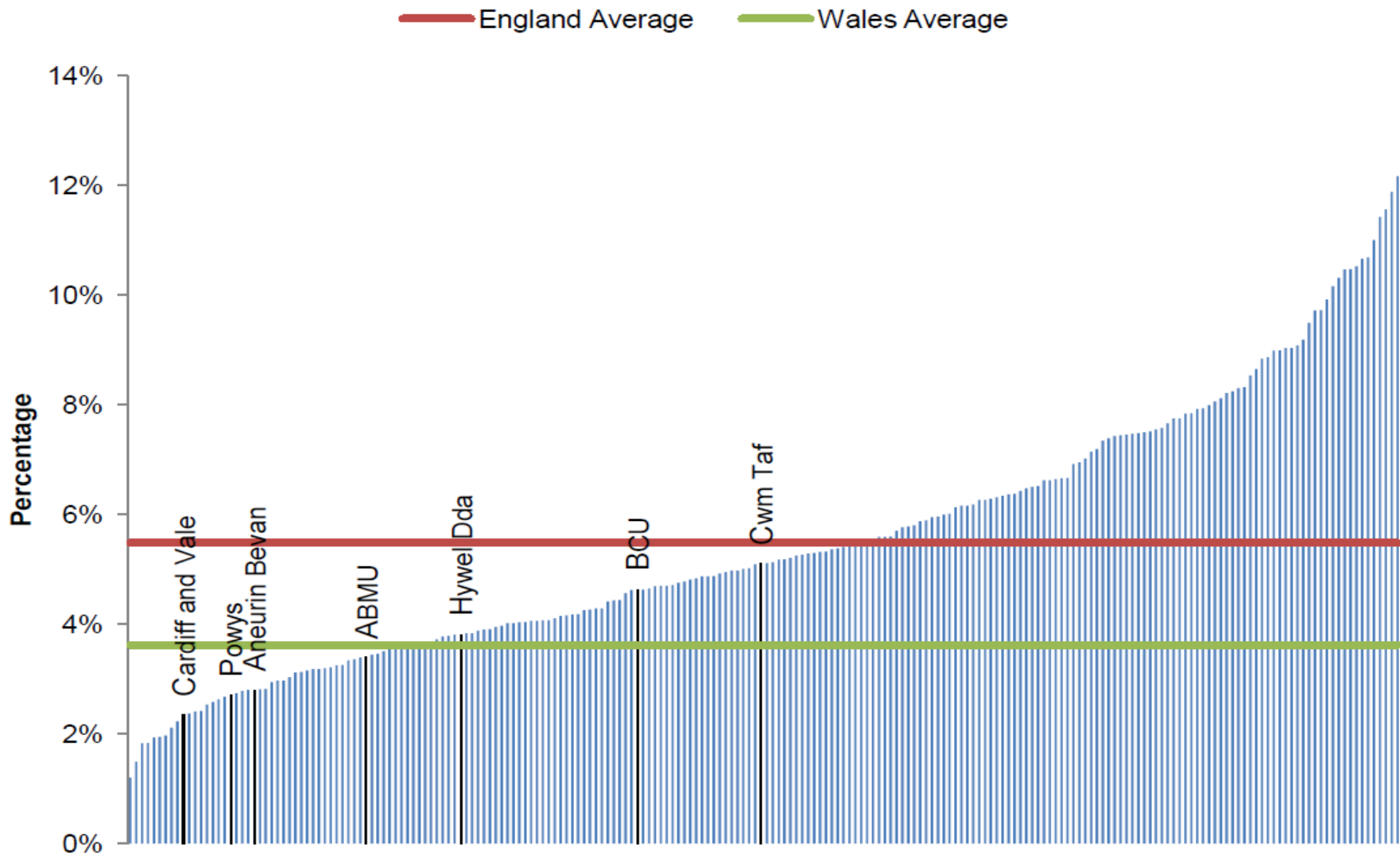
Co-amoxiclav items as a percentage of total antibacterial items – Quarter ending September 2016



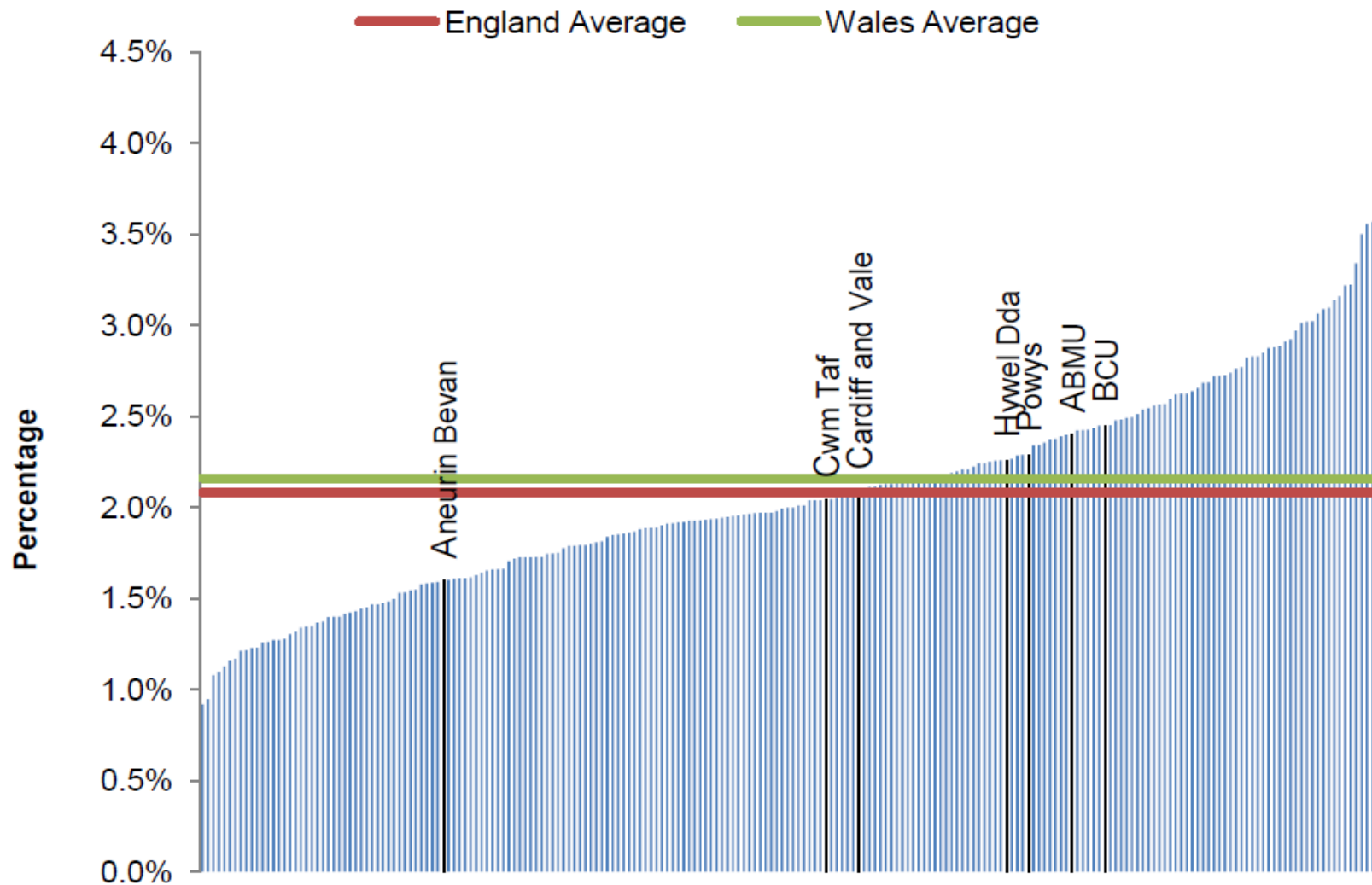
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Cephalosporin items as a percentage of total antibacterial items – Quarter ending September 2016



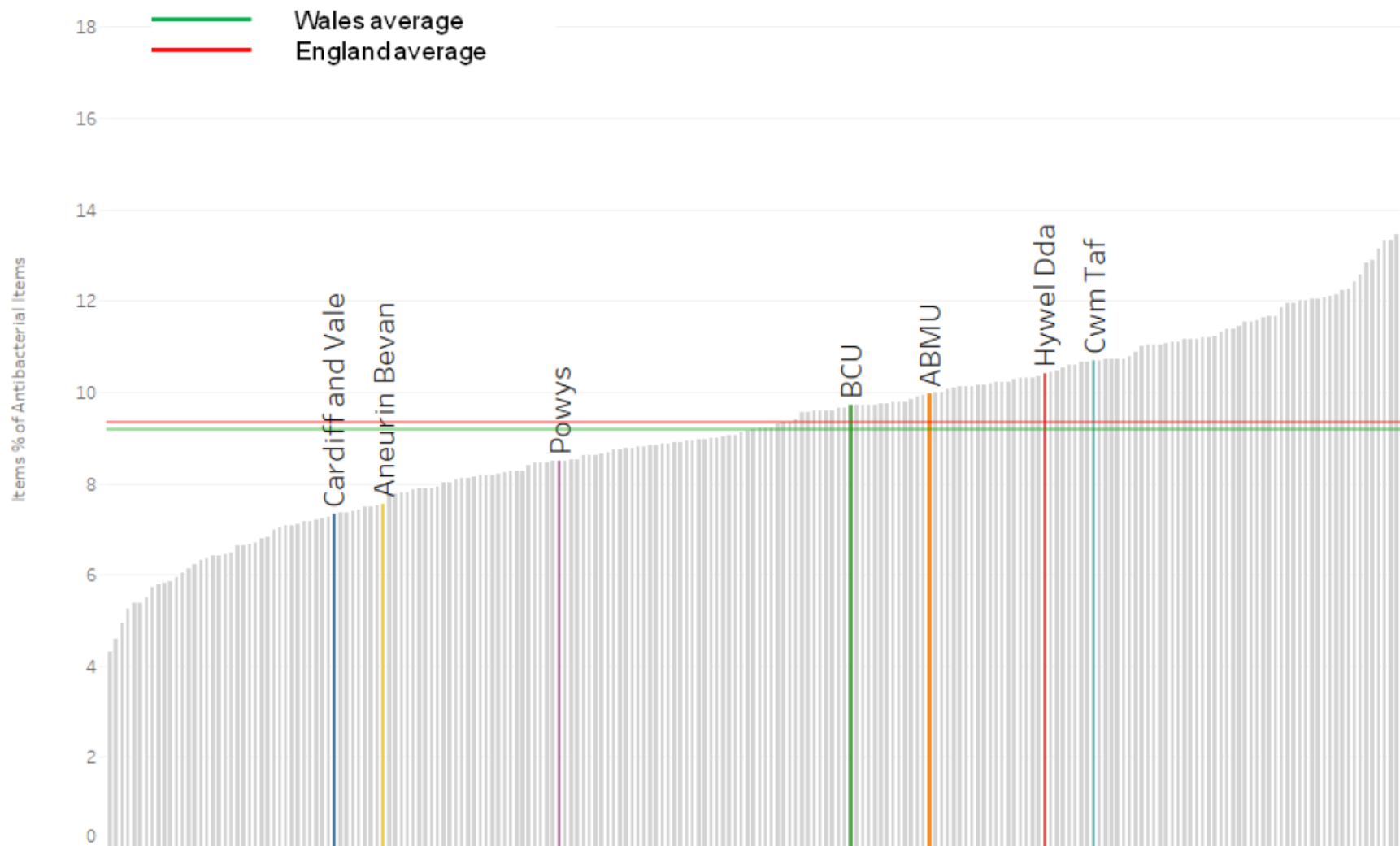
Fluoroquinolone items as a percentage of total antibacterial items – Quarter ending September 2016



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4C items as percentage of total antibacterials for Welsh HBs and English CCGs, Q2 2017



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4C items as percentage of total antibacterials for Welsh HBs, Q2 2015 – Q2 2017

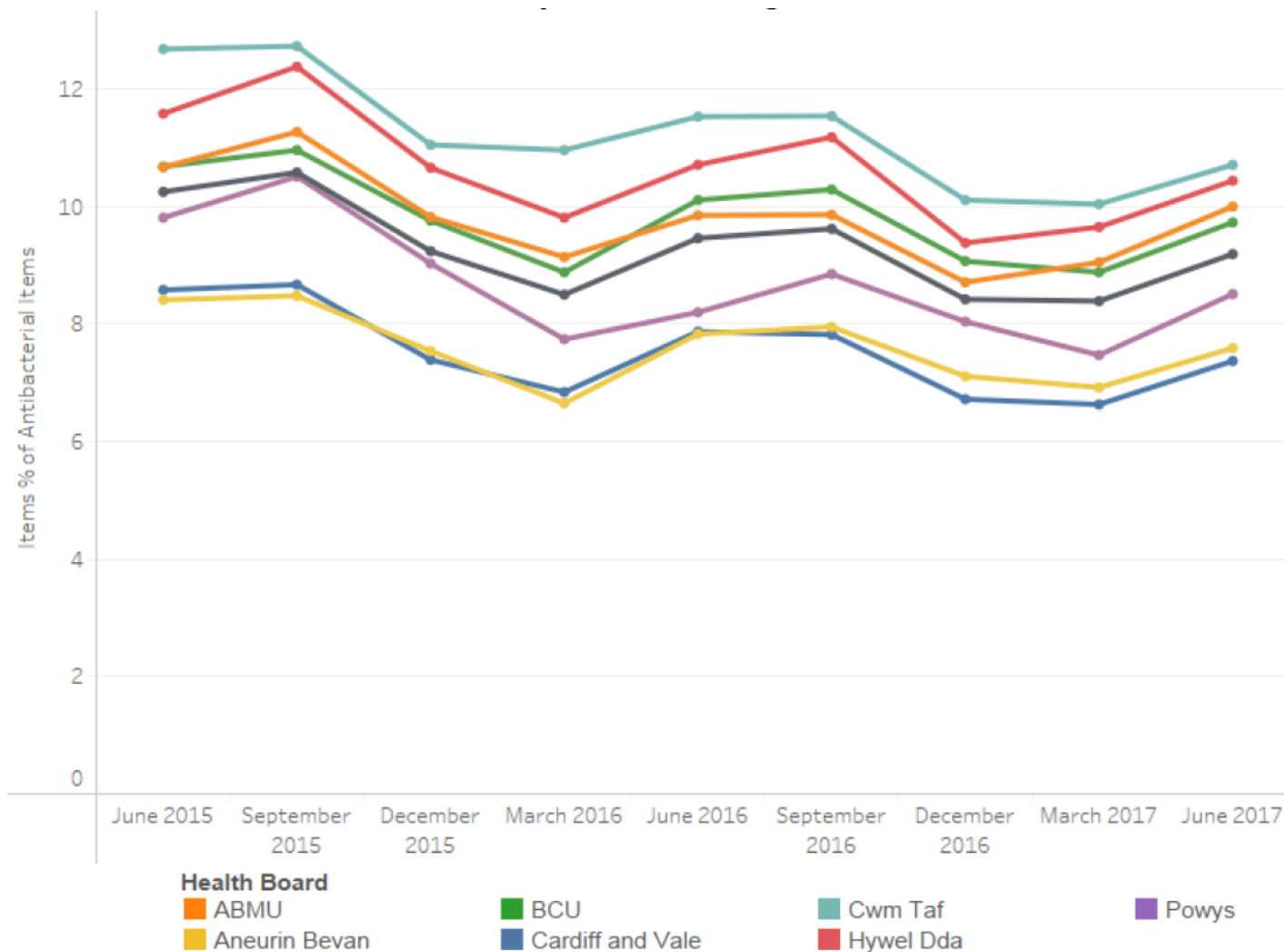


Chart 1. All Wales monthly numbers of *C. difficile*, for the period Apr 10 to Oct 17

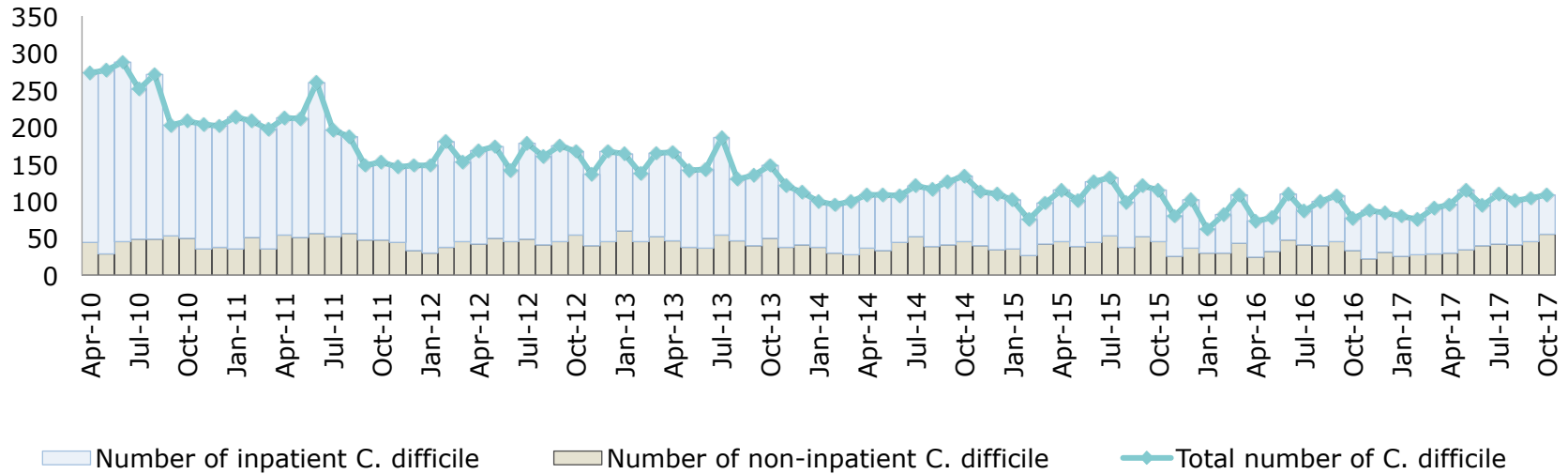
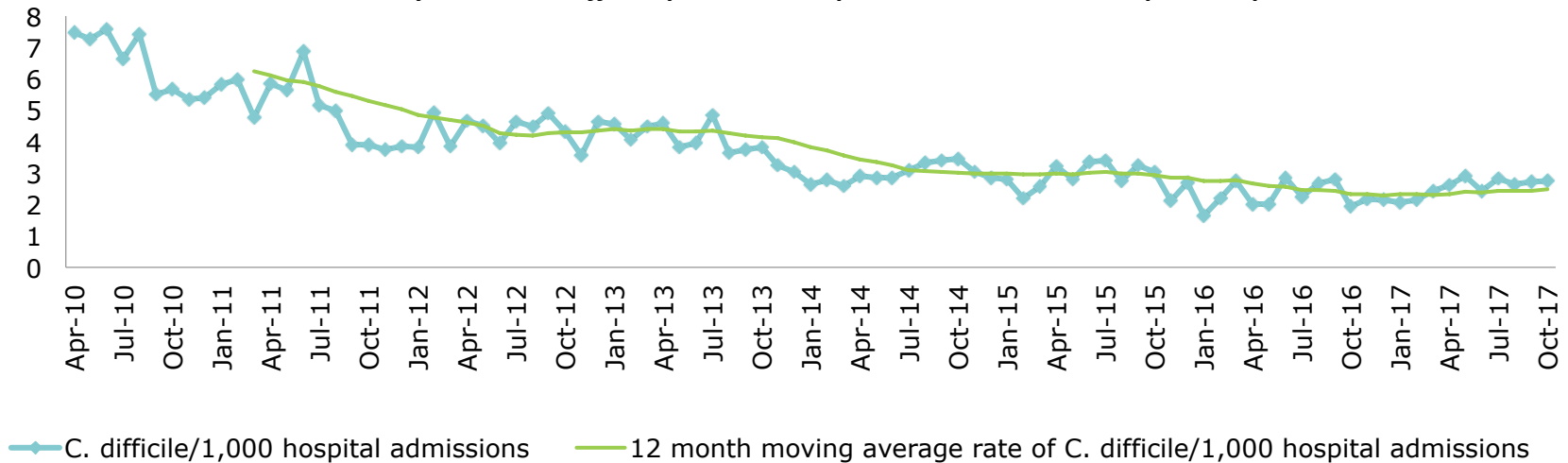
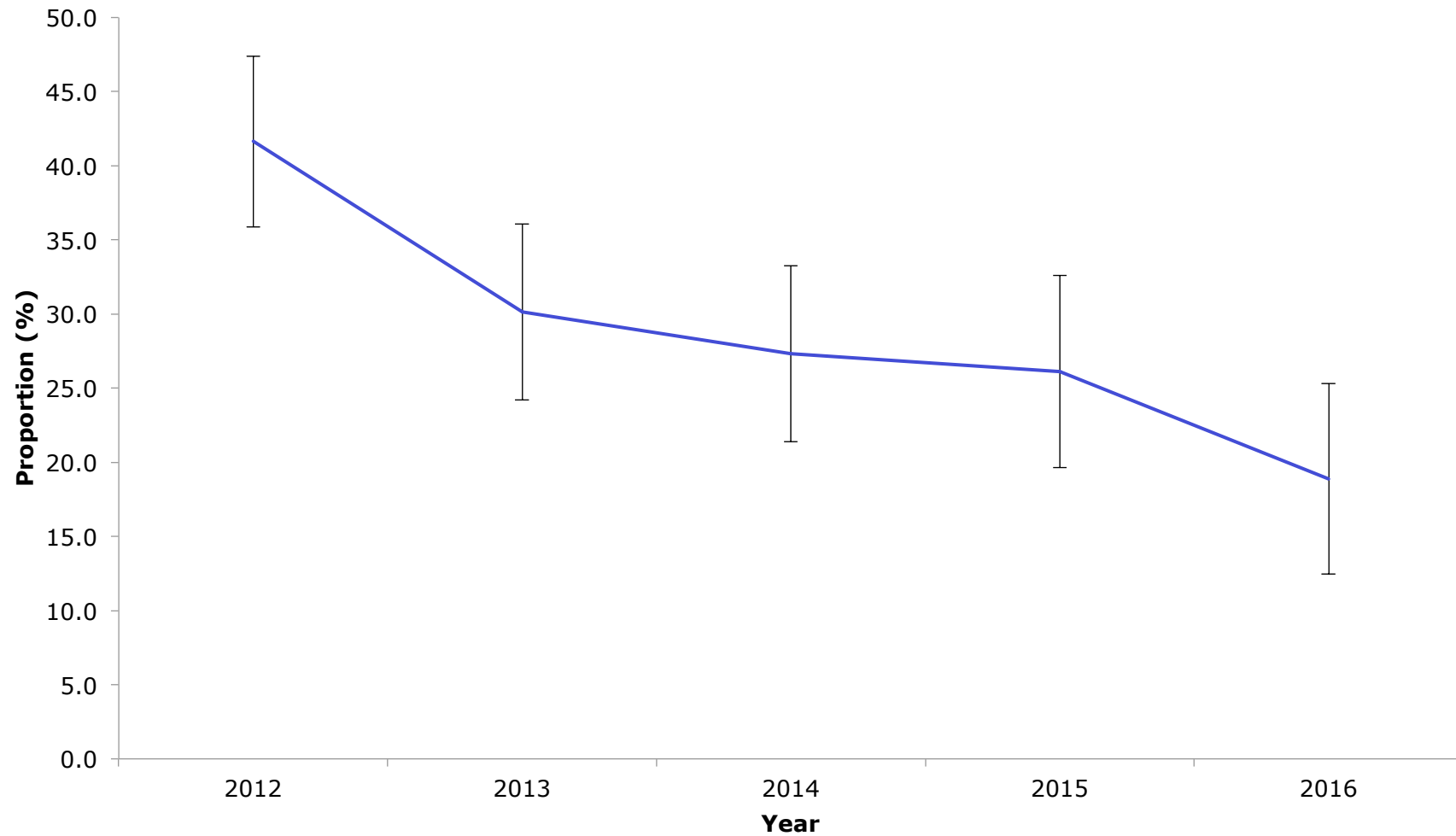


Chart 2. All Wales monthly rates of *C. difficile* per 1,000 hospital admissions, for the period Apr 10 to Oct 17

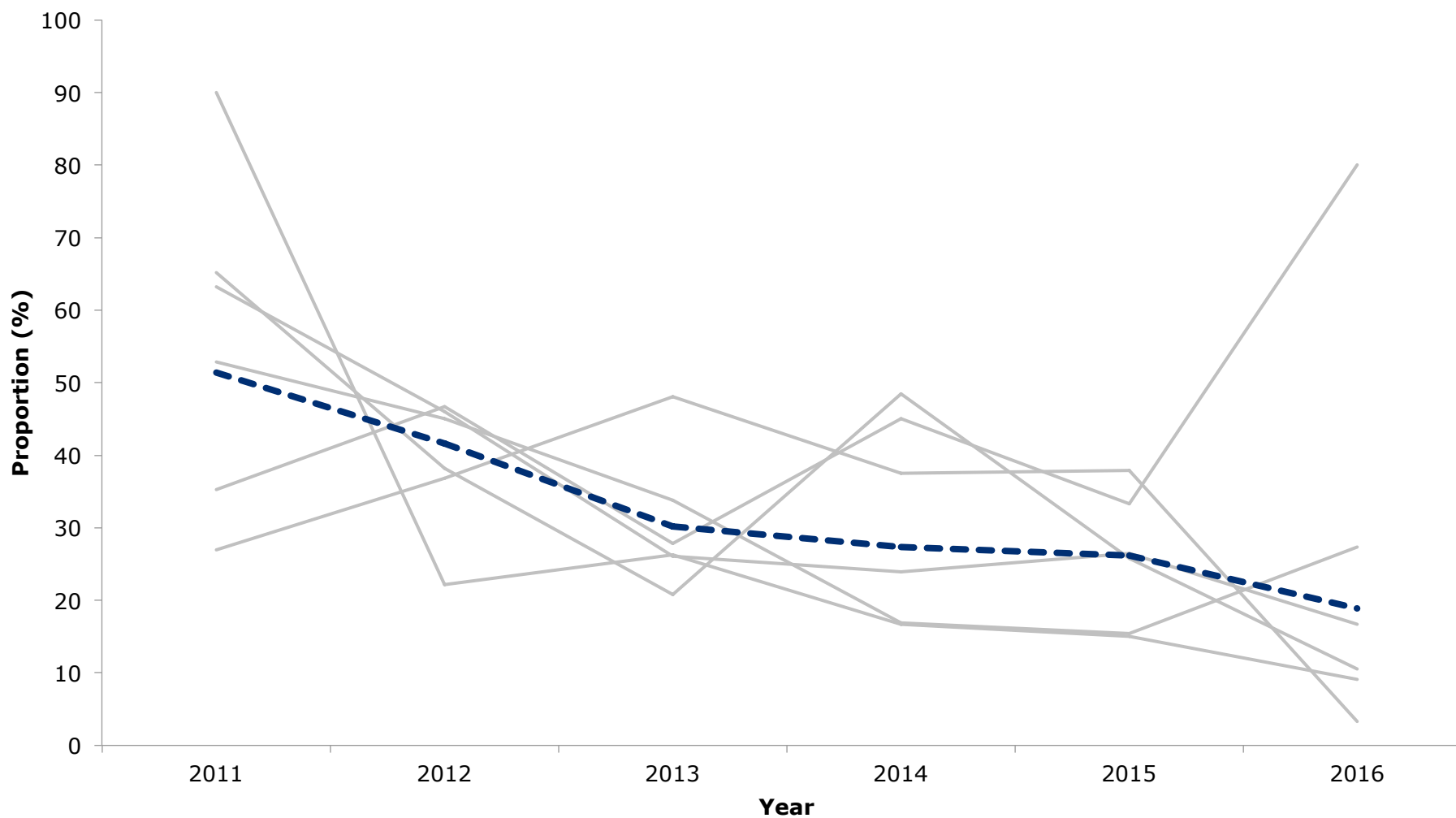


Wales surgical prophylaxis >24 hours



* Data source: annual national point prevalence study

Wales surgical prophylaxis >24 hours showing health board variation



* Data source: annual national point prevalence study

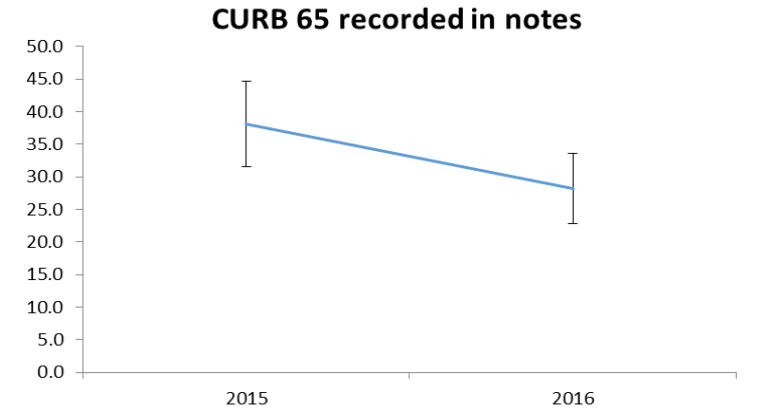
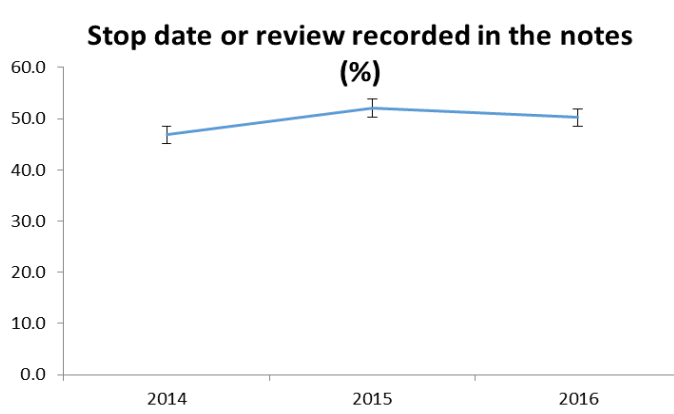
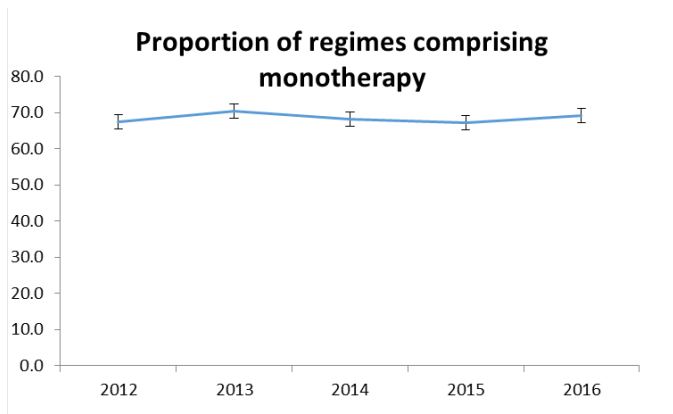
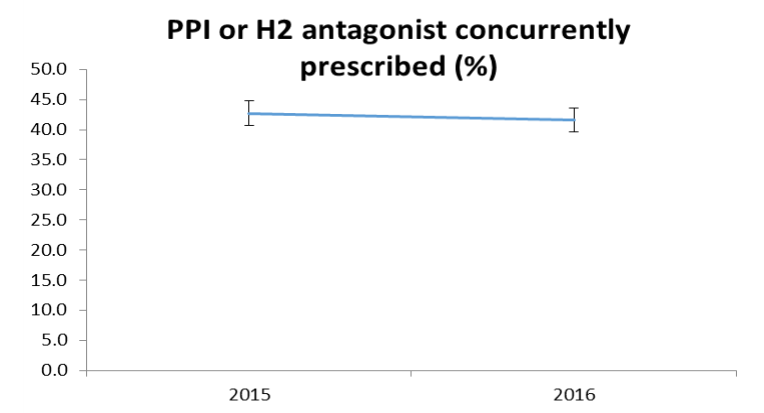
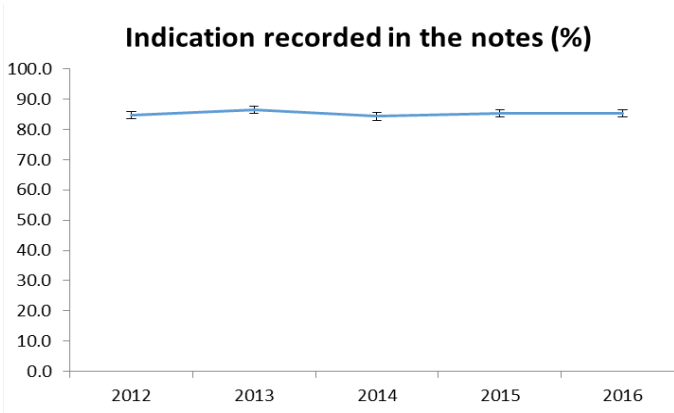
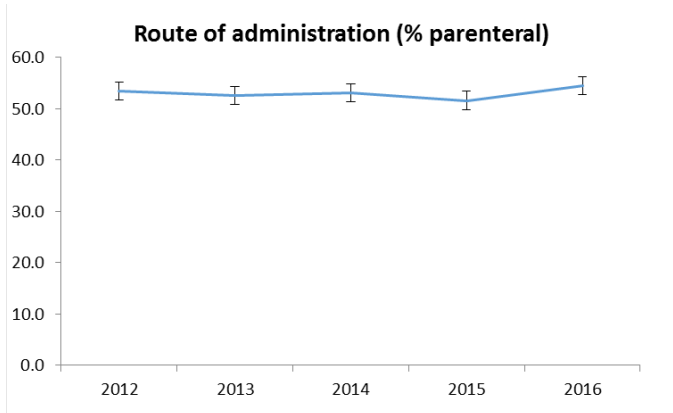
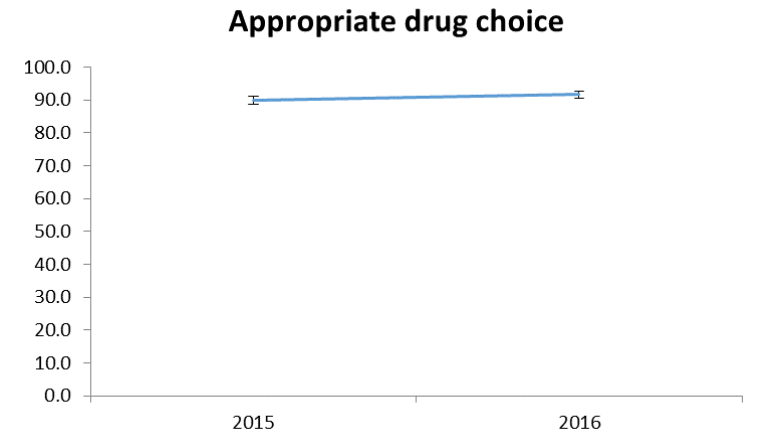
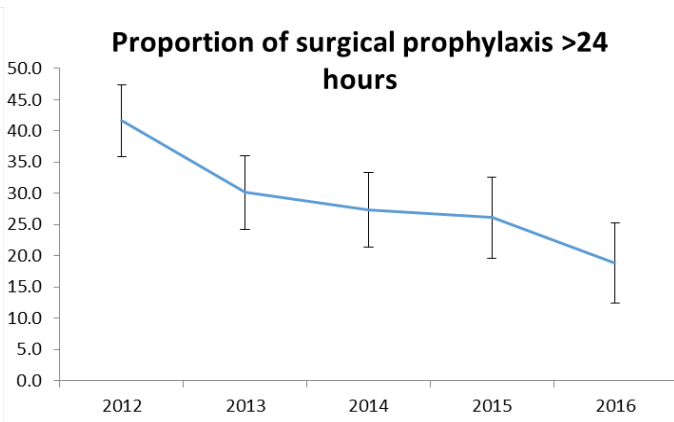
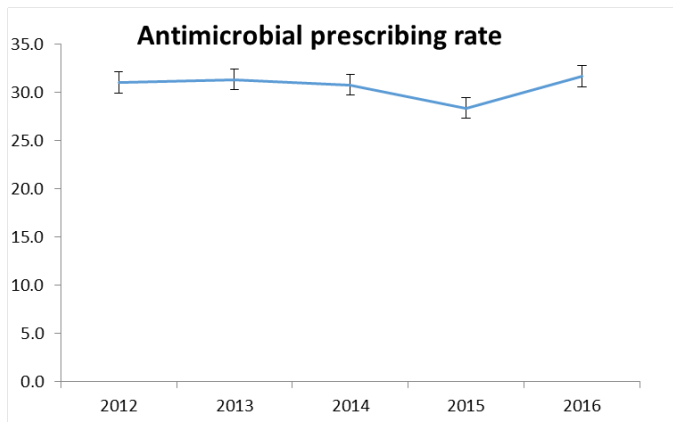
National Annual Point Prevalence Surveys

- Annually (Nov) since 2008
- All acute and non-acute hospitals
- 9 quality measures + full data
- Provides longitudinal data
- National and local reports



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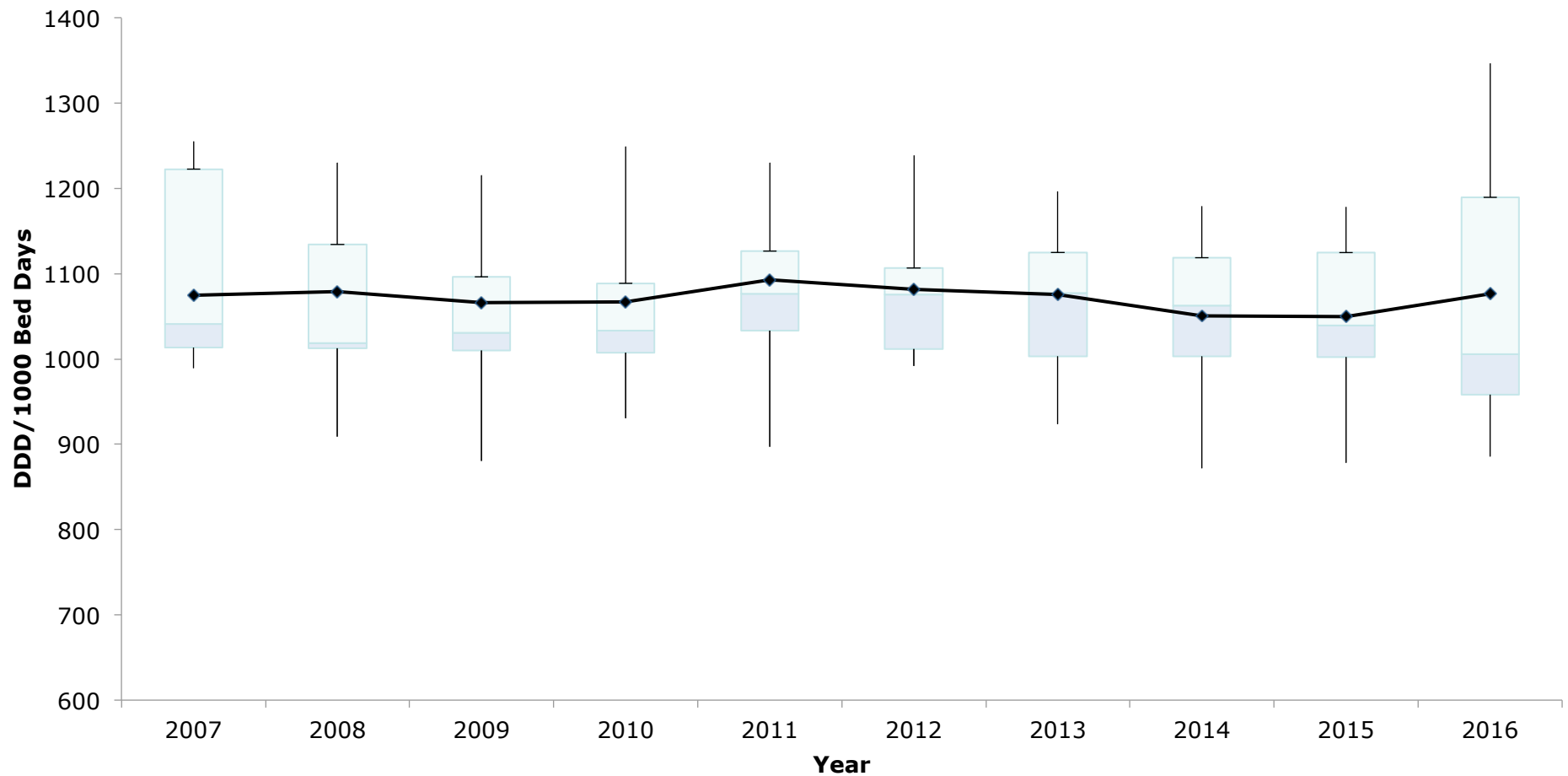
Future strategy



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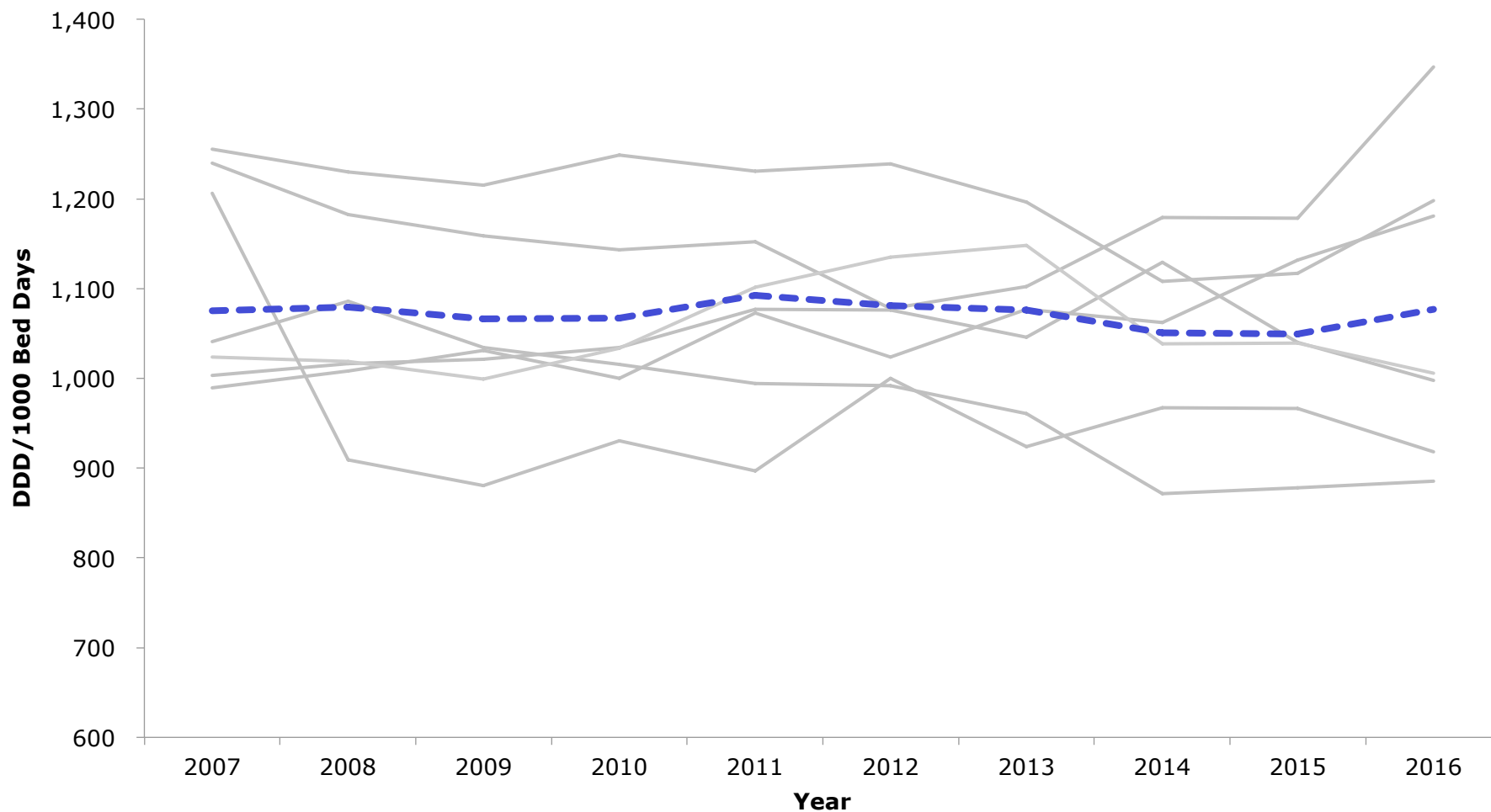
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Total Volume Antimicrobial Usage in Wales (Secondary Care)

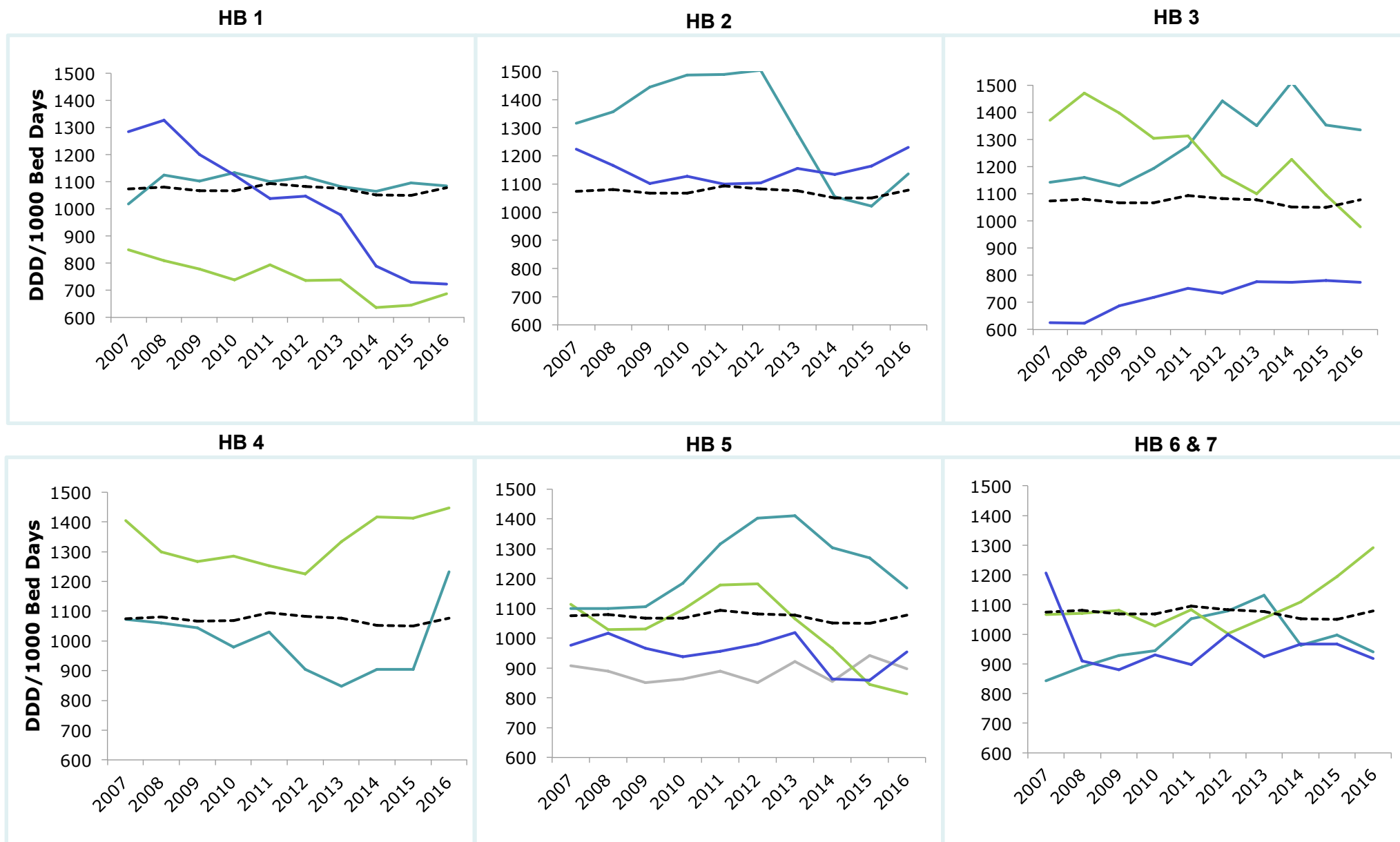


* Data source: secondary care supply data. Chart shows DDD/1000 Bed days for Wales. Interpret with caution as y axis does not start at zero

Total Volume Antimicrobial Usage in Wales (Secondary Care) showing Health Board Variation



* Data source: secondary care supply data. Charts shows DDD/1000 Bed days for each health board in Wales. Interpret with caution as y axis do not start at zero



*charts show DDD/1000 Bed days for each health board in Wales. Interpret with caution as y axis do not start at zero

Total Volume Antimicrobial Usage in Wales (Secondary Care) showing Health Board Variation

National targets

- *E coli* bacteraemia / CDI / SAB
- Inappropriate prescribing

Supported by

Effective Prescribing Indicators

- Antimicrobial usage data
- Clinical measures (SSTF / Audit+)
- Clinical outcomes
- Unintended consequences



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PHW web-portal

- Primary care antimicrobial prescribing data down to practice level
- Secondary care antimicrobial supply data down to hospital level
- Resistance data based on annual report and nationally agreed bug/drug combinations
- Point prevalence quality indicators at HB level
- Separate section to enter SSTF audits



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Front Page
Content to be supplied as text rather than data derived.

Primary Care
About
Usage Over Time
Compare Usage

Secondary Care
About
Usage Over Time
Compare Usage

Resistance
About
Hospital Level Resistance
Cluster Level Resistance
Compare Cluster
Compare Hospital

Point Prevalence
About
Trends

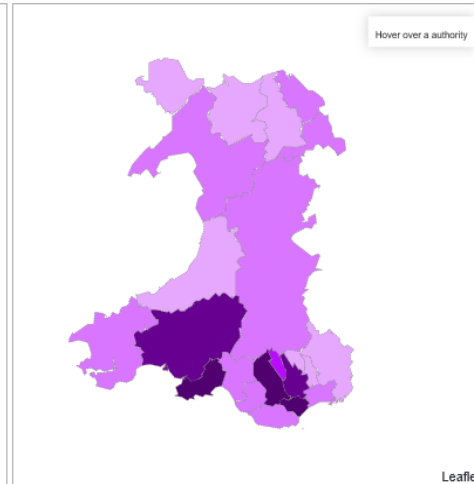
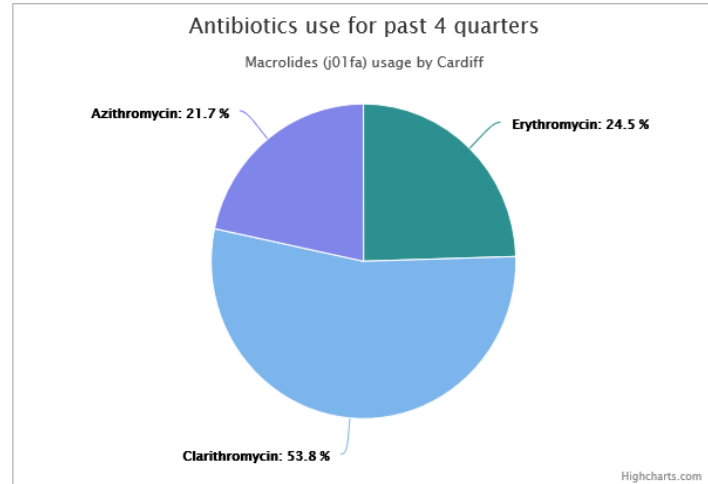
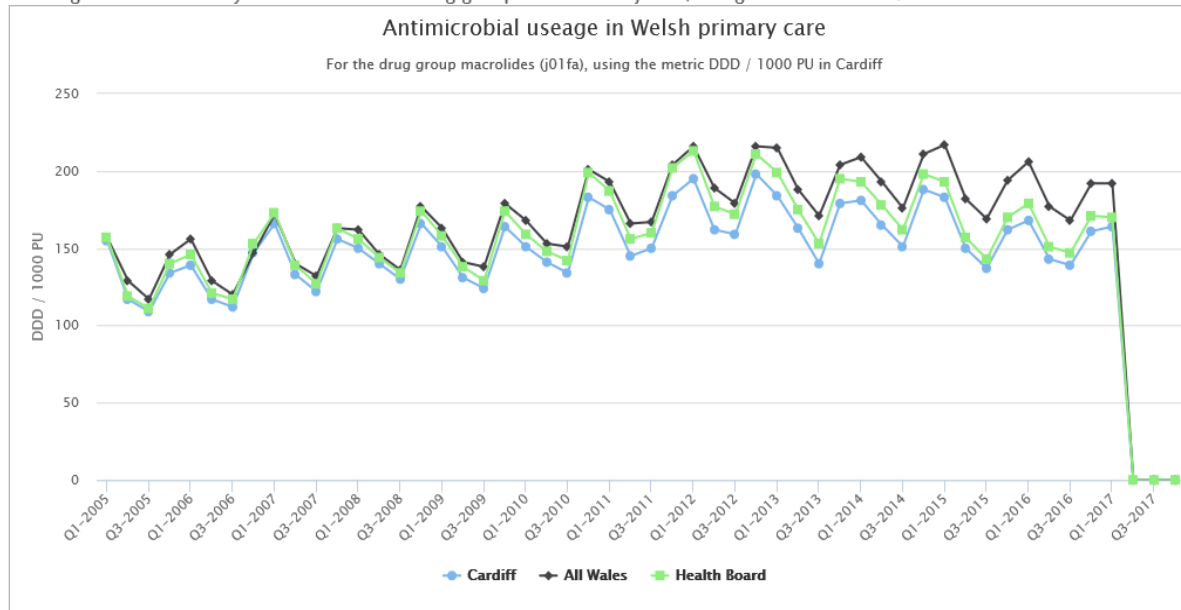


This portal aims to present a series of antimicrobial usage and resistance information sets. It has been developed from within Public Health Wales by Health Protection and Informatics teams.

Web portal front page

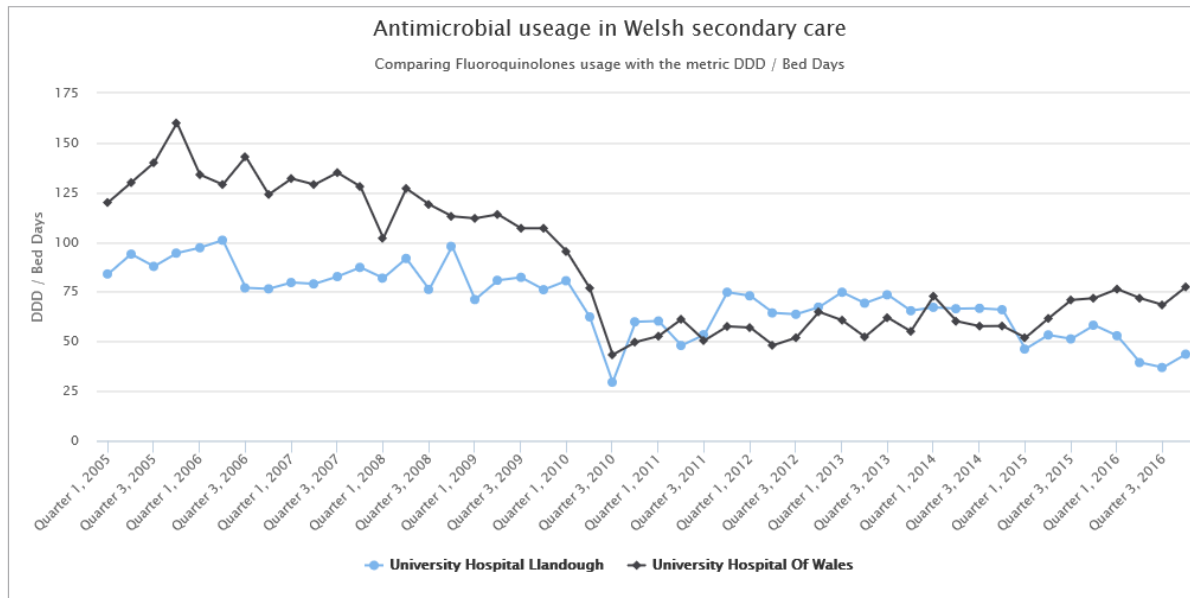


Looking at local authority level data for the drug group macrolides (j01fa), using the metric DDD / 1000 PU



Add A New Comparison Target

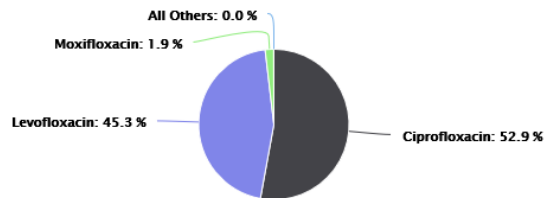
Perform A Comparison With Selected Options



University Hospital Llandough

Antibiotics use over past 4 quarters

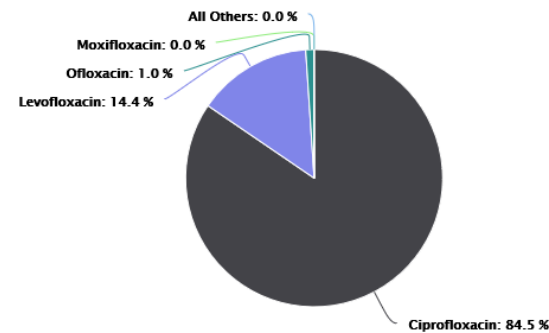
Fluoroquinolones usage by University Hospital Llandough



University Hospital Of Wales

Antibiotics use over past 4 quarters

Fluoroquinolones usage by University Hospital Of Wales



Secondary care usage data: two hospital comparisons in a HB



Antimicrobial resistance within acute hospitals in Wales

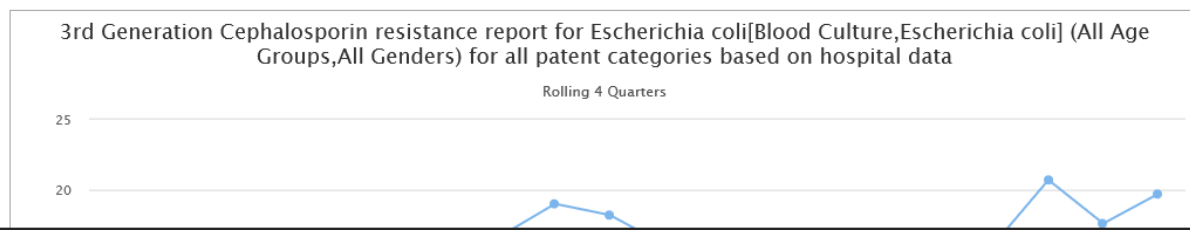
Select the organism group and/or individual organism together with the specimen type

Organism Group	All
Organism	Escherichia coli
Specimen Type	Haemophilus influenzae
	Neisseria gonorrhoeae
	Pseudomonas aeruginosa
	Staphylococcus aureus
	Streptococcus pyogenes
	All Coliforms
	Campylobacter spp.
	Enterobacter spp.
	Enterococcus spp.
	Klebsiella spp.
	Proteus spp.
	Serratia spp.
	Streptococcus pneumoniae

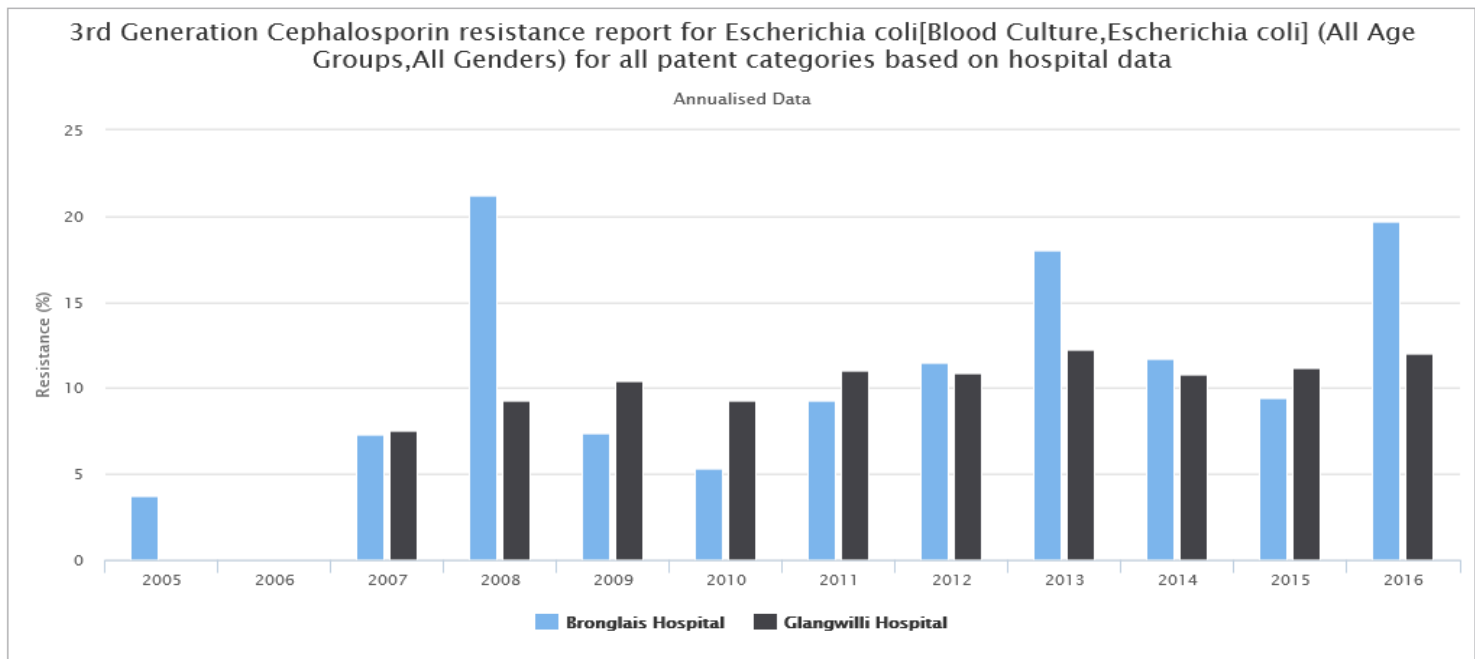
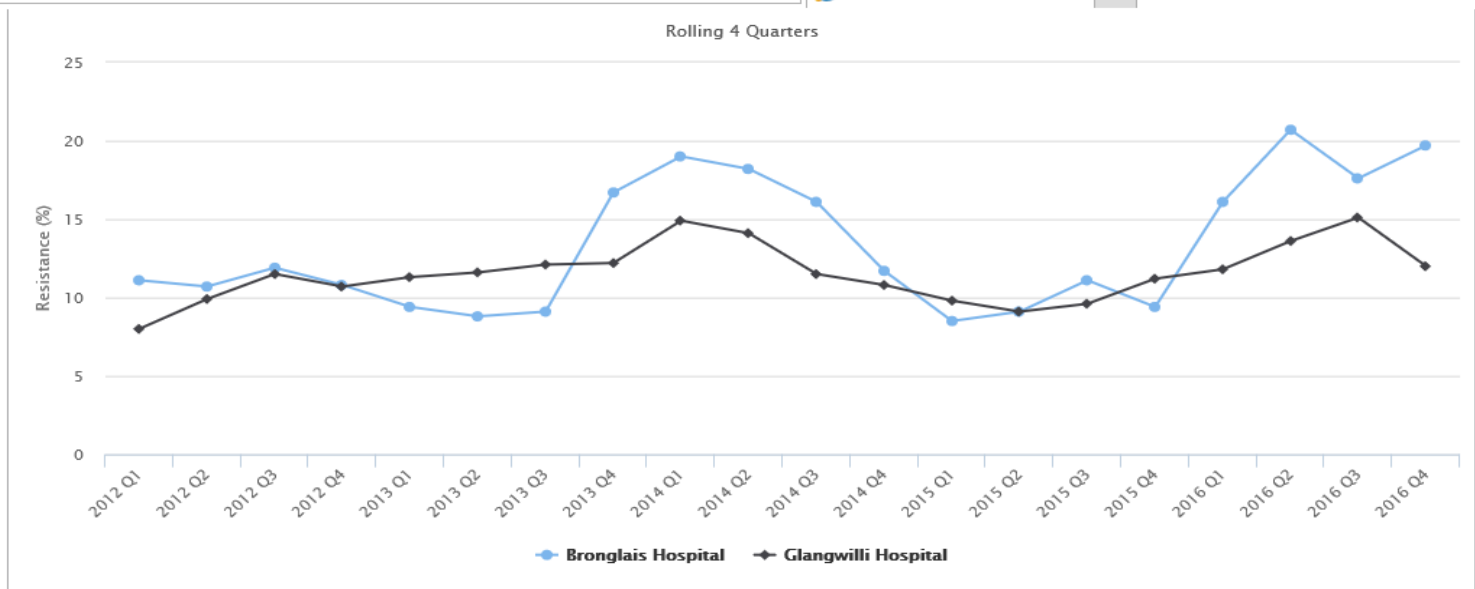
... across these locations.

Hospital	Bronglais Hospital	delete
Hospital	Glangwilli Hospital	delete

Add A New Comparison Target Perform A Comparison With Selected Options



Resistance data selection screen



Resistance data: comparing two hospitals in a HB

PHW Antimicrobial Audit Tools

SSTF RESPIRATORY

Welcome back Nicholas, hope you are super, smashing and / or great!

[Add New Audit Information](#)

[Review Existing Audit Information](#)

[Unit Of Intrest Management](#)



System developed within Public Health Wales by the informatics team. For technical support please email: phwinformatics@wales.nhs.uk

Public Health Wales, 2 Capital Quarter, Tyndall Street, Cardiff CF10 4BZ

Audit tool front page



PHW Antimicrobial Audit Tools

SSTF RESPIRATORY

Welcome back Nicholas, hope you are super, smashing and / or great!

Part 1: Select Audit Background Information

Select audit period

Select Healthboard Select Hospital

Select Unit

You must select a hospital and specialism to continue...

Part 2: Start Smart

- Q1 Is the antimicrobial indication recorded on the drug chart or in the medical notes?
- Q2 Is antimicrobial prescribed according to HB guidelines, in response to C+S results or following advice from a Consultant Microbiologist/ID Physician?
- Q3 Is the intended duration or review date recorded on the drug chart or in the medical notes?

Part 3: Then Focus

- Q4 Was a senior review carried out at 48 – 72 hours and recorded on the drug chart or medical notes?
- Q5 What was the outcome of this review?
- Select Review Outcome

Send This Survey



SSTF audit questions



PHW Antimicrobial Audit Tools

SSTF RESPIRATORY

Welcome back Nicholas, hope you are super, smashing and / or great!

Part 1: Please select the healthboard and hospital of the unit

Cardiff & Vale University HB
University Hospital Of Wales
Ward 4 (Surgical Dentistry)

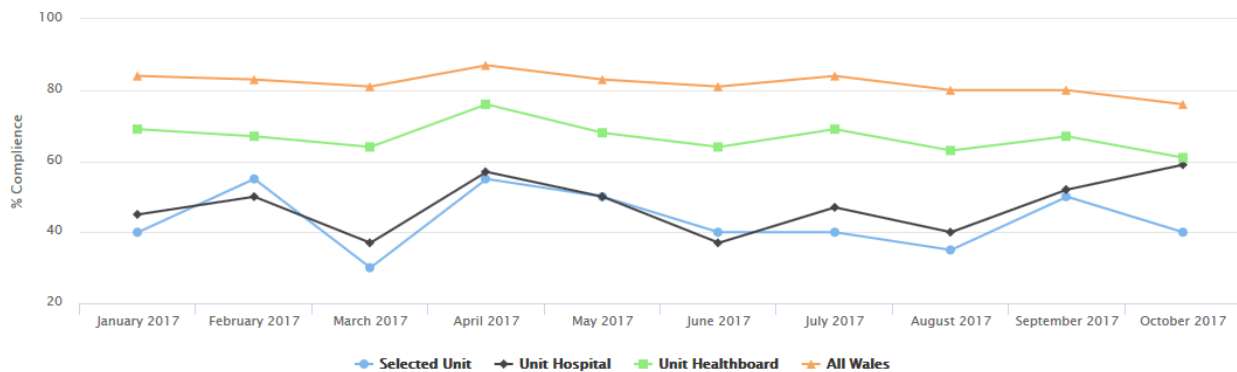
Part 2: Please select the Question to review

Is antimicrobial prescribed according to HB guidelines, in response to C+S results or following advice from a Consultant Microbiologist/ID Physician?

Review This Unit

Performance Of Selected Unit Over Time

In Comparision With Other Units



SSTF measure: comparing unit, hospital, HB and Wales

Acknowledgements

Public Health Wales

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Maggie Heginbothom

All Wales Therapeutics and Toxicology
Centre

Welsh Government