

Dadansoddiad o bresgripsiynu gwrthficrobaidd 2013/14-2023/24

Analysis of antimicrobial prescribing 2013/14-2023/24



Swyddogaeth Gwybodaeth Iechyd y Geg, Tîm Iechyd Deintyddol y Cyhoedd, Iechyd Cyhoeddus Cymru
Oral Health Intelligence function, Dental Public Health Team, Public Health Wales

Ein cenhadaeth

Ni yw Iechyd Cyhoeddus Cymru. Ni yw sefydliad iechyd cyhoeddus cenedlaethol Cymru. Rydym yn bodoli i helpu pawb yng Nghymru i fyw bywydau hirach, iachach.

Gyda'n partneriaid, ein nod yw cynyddu disgwyliad oes iach, gwella iechyd a llesiant, a lleihau anghydraddoldebau i bawb yng Nghymru, nawr ac ar gyfer cenedlaethau'r dyfodol.

Gyda'i gilydd, mae ein timau'n gweithio i atal clefyd, diogelu iechyd, darparu arweinyddiaeth systemau, gwasanaethau arbenigol ac arbenigedd iechyd cyhoeddus.

Ni yw'r brif ffynhonnell o wybodaeth, ymchwil ac arloesedd iechyd cyhoeddus, i helpu pawb yng Nghymru i fyw bywydau iachach.

Gweithio gyda'n gilydd ar gyfer Cymru iachach.

Our Mission

We are Public Health Wales. We are the national public health organisation for Wales. We exist to help all people in Wales live longer, healthier lives.

With our partners, we aim to increase healthy life expectancy, improve health and wellbeing, and reduce inequalities for everyone in Wales, now and for future generations.

Together, our teams work to prevent disease, protect health, provide system leadership, specialist services and public health expertise.

We are the primary source of public health information, research and innovation, to help everyone in Wales live healthier lives.

Working together for a healthier Wales.

Ein gweledigaeth

Erbyn 2035, byddwn wedi cyflawni dyfodol iachach i Gymru. Rydym yn gweithio tuag at Gymru lle mae pobl yn byw bywydau hirach, iachach a lle mae gan bawb yng Nghymru fynediad teg a chyfartal at y pethau sy'n arwain at iechyd a llesiant da.

Our Vision

By 2035, we will have achieved a healthier future for Wales. We are working towards a Wales where people live longer, healthier lives and where all people in Wales have fair and equal access to the things that lead to good health and well-being.

Cyflwyniad

Mae Cylchlythyr Iechyd Cymru (WHC/2019/019) yn gorchymyn gostyngiad sylfaenol o 25% yn y cyfanswm cyfaint gwrthficrobaidd o'i gymharu â blwyddyn waelodlin 2013/14 (eitemau/1000 STAR-PU).

Mae'n ofynnol i raglen Heintiau sy'n Gysylltiedig â Gofal Iechyd, Ymwrthedd Gwrthficrobaidd a Rhagnodi (HARP) Iechyd Cyhoeddus Cymru fonitro defnydd gwrthficrobaidd a darparu safbwynt terfynol yn erbyn y nod gwella hwn.

Mae'r adroddiad hwn yn rhoi manylion am lefel presgripsiynu gwrthficrobaidd gan ddeintyddion gofal sylfaenol ac mae'n defnyddio Cyrsiau o Driniaeth (CoT) fel yr enwadur (a fynegir fel eitemau/1,000 CoT ar lefel genedlaethol).

Hoffem gydnabod a diolch i'n cydweithwyr yng Ngwasanaethau Gofal Sylfaenol PCGC a HARP Iechyd Cyhoeddus Cymru.

Introduction

The Welsh Health Circular (WHC/2019/019) mandates a minimum 25% reduction in total antimicrobial volume compared to the baseline year of 2013/14 (items/1000 STAR-PU).

Public Health Wales Healthcare Associated Infection, Antimicrobial Resistance and Prescribing programme (PHW/HARP) is required to monitor antimicrobial use and provide a final position against this improvement goal.

This report details the level of antimicrobial prescribing by primary care dentists and uses Courses of Treatment (CoT) as the denominator (expressed as items/1,000 CoT).

We would like to acknowledge and thank our colleagues at NWSSP-PCS and PHW/HARP.

Cyflwyniad

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Hoffem gydnabod a diolch i'n cydweithwyr yng Ngwasanaethau Gofal Sylfaenol PCGC a HARP Iechyd Cyhoeddus Cymru.

Methodology

Antimicrobial prescribing data was provided by the Prescribing Services Unit (PSU). This data is based on prescriptions that are submitted to PSU by dispensing contractors at the end of each month, based on BNF chapter 5.1 entitled 'Infections'.

Data has been allocated to Health Boards based on the geographic location where the item was dispensed.

Courses of treatment (CoT) data for Wales and Health Board level was sourced from the StatsWales website:

<https://statswales.gov.wales/Catalogue/Health-and-Social-Care/General-Dental-Services/Current-Contract>

Data is presented as either items or Daily Defined Dose (DDD) For more information on DDD, please visit

https://atcddd.fhi.no/ddd/definition_and_general_considera/

Crynodeb

Mae'r adroddiad yn dangos cynnydd sylweddol mewn defnyddio cyffuriau gwrthficrobaidd yn dilyn pandemig COVID-19, o'i gymharu â lefelau cyn y pandemig.

Mae'r adroddiad hefyd yn amlygu amrywiadau ar draws gwahanol Fyrddau Iechyd.

Dylid ystyried sawl ffactor wrth ddehongli'r data:

Mae'r data'n cynrychioli gweithgarwch mewn deintyddiaeth gofal sylfaenol y GIG yn unig. Nid yw'n cynnwys deintyddiaeth gofal eilaidd y GIG na deintyddiaeth breifat.

Gallai newidiadau ac amrywiadau mewn mynediad at ofal deintyddol fod wedi effeithio ar newid mewn cyfraddau presgripsiynu.

Mae data yn cynrychioli eitemau gwrthficrobaidd sydd wedi'u rhoi ar bresgripsiwn

Dim ond data ar gyfer defnyddio cyffuriau gwrthficrobaidd drwy'r geg a thrwy wythïen a nodir yn yr adroddiad hwn (nid yw cymysgeddau ar gyfer y croen wedi'u cynnwys)

Summary

The report shows a substantive increase in antimicrobial usage following the COVID-19 pandemic, compared to pre-pandemic levels. The report also highlights a variation across Health Boards.

Several factors should be considered when interpreting the data:

- 1 The data represents activity in primary care NHS dentistry only, it does not include NHS dentistry in secondary care or private dentistry
- 2 Change in prescribing rates may have been affected by changes and variation in access to dental care
- 3 Data represents antimicrobial items that have been dispensed
- 4 Only data for oral and parenteral antimicrobial usage are included in this report (topical preparations are not included)

Crynodeb

Penisilin sbectrwm eang (BSP) e.e. amoxicillin yw'r cyffur gwrthficrobaidd mwyaf cyffredin sy'n cael ei bresgripsiynu yn Neintyddiaeth y GIG ledled Cymru. Mae'n cyfrif am o leiaf 60% o gyfanswm y presgripsiynu gwrthficrobaidd.

Gostyngodd nifer y presgripsiynau BSP 29.6% yn unig yn 2023/24 o'i gymharu â gwaelodlin 2013/14.

Cynyddodd presgripsiynu penisilin sensitif beta lactamase (BL) (phenoxymethylpenicillin) 65.2% rhwng 2013/14 a 2023/24.

Er bod defnyddio erythromycin ac azithromycin wedi gostwng 68.4% a 30.0% yn 2023/24 o'i gymharu â 2013/14, cynyddodd y defnydd o clarithromycin yn sylweddol (328.6%).

Ychydig iawn o newid a fu yn y cyfrannau ar gyfer y grwpiau cyffuriau eraill.

Summary

Broad spectrum penicillins (BSP) e.g. amoxicillin are the most commonly prescribed antimicrobials in NHS Dentistry across Wales, accounting for at least 60% of total antimicrobial prescribing.

The number of BSP prescribing has reduced by only 29.6% in 2023/24 compared to the baseline of 2013/14.

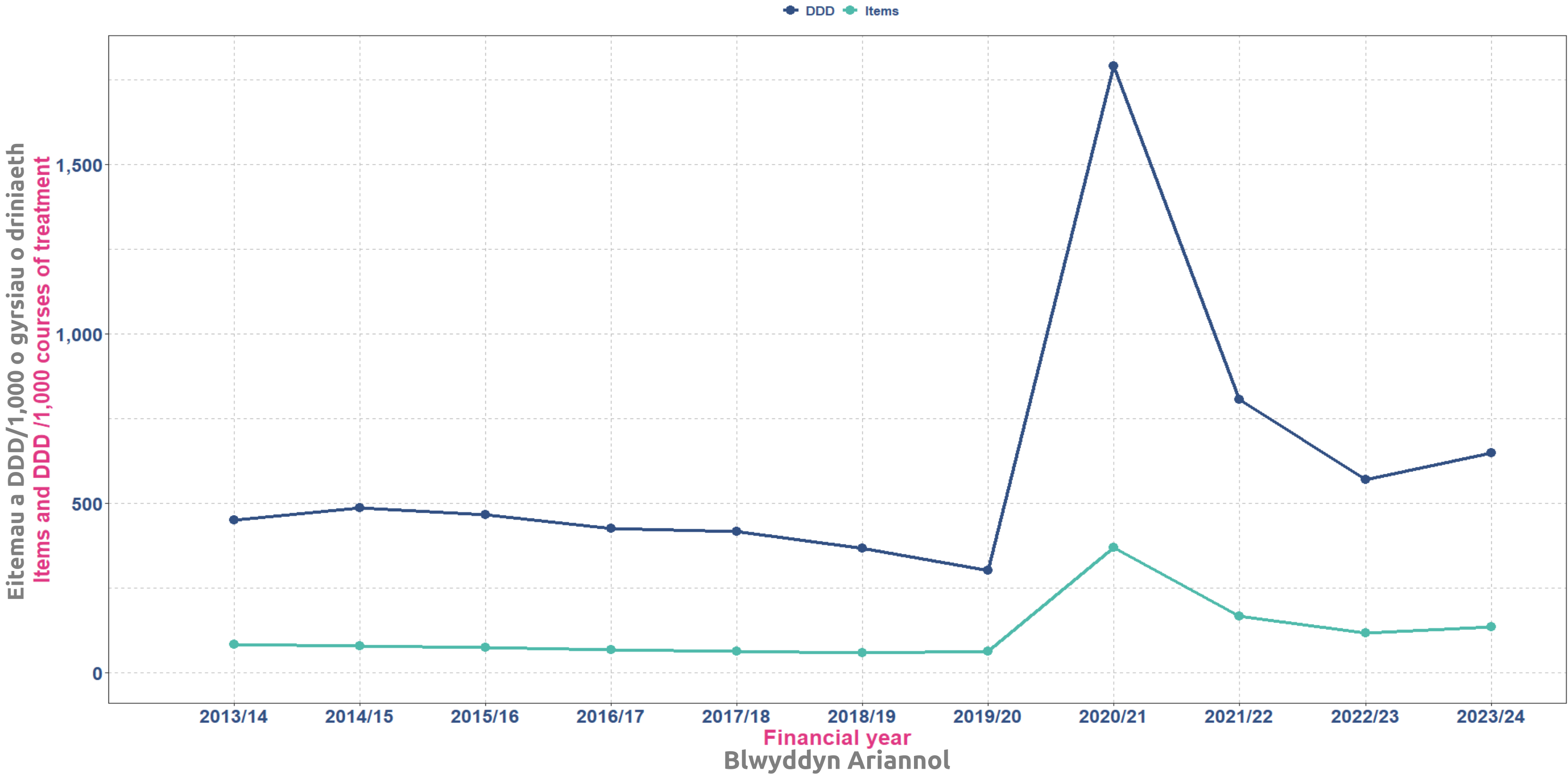
Beta lactamase (BL) sensitive penicillin (phenoxymethylpenicillin) prescribing has increased by 65.2% between 2013/14 and 2023/24.

Whilst the use of erythromycin and azithromycin reduced by 68.4% and 30.0% in 2023/24 compared to 2013/14, clarithromycin has increased substantively (328.6%).

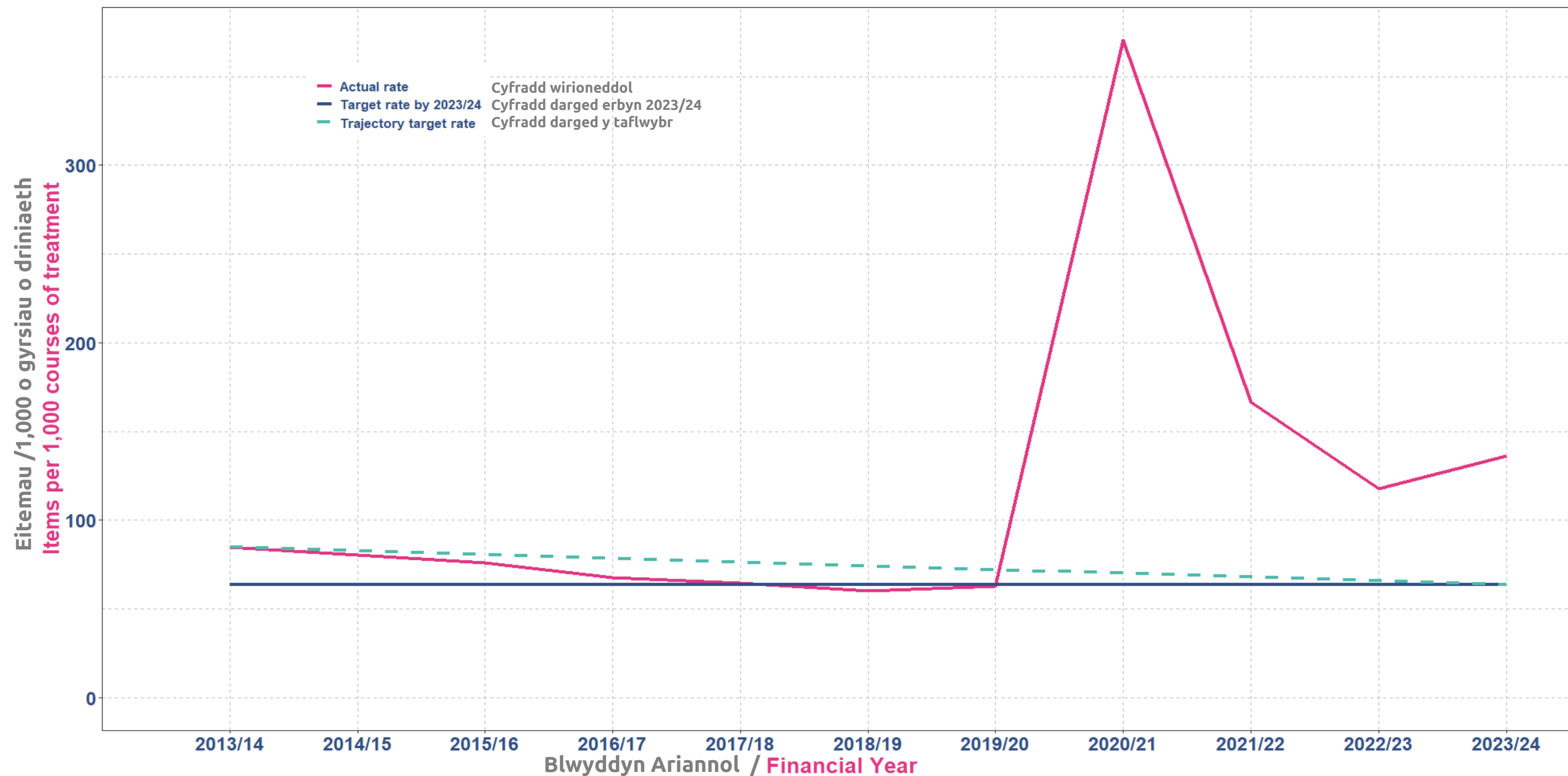
There has been little change in the proportions for the other drug groups.

Cyfanswm yr eitemau gwrthficrobaidd a roddwyd ar bresgripsiwn a dosau dyddiol diffiniedig (DDD) fesul 1,000 o gyrsiau o driniaeth: 2013/14 – 2023/24

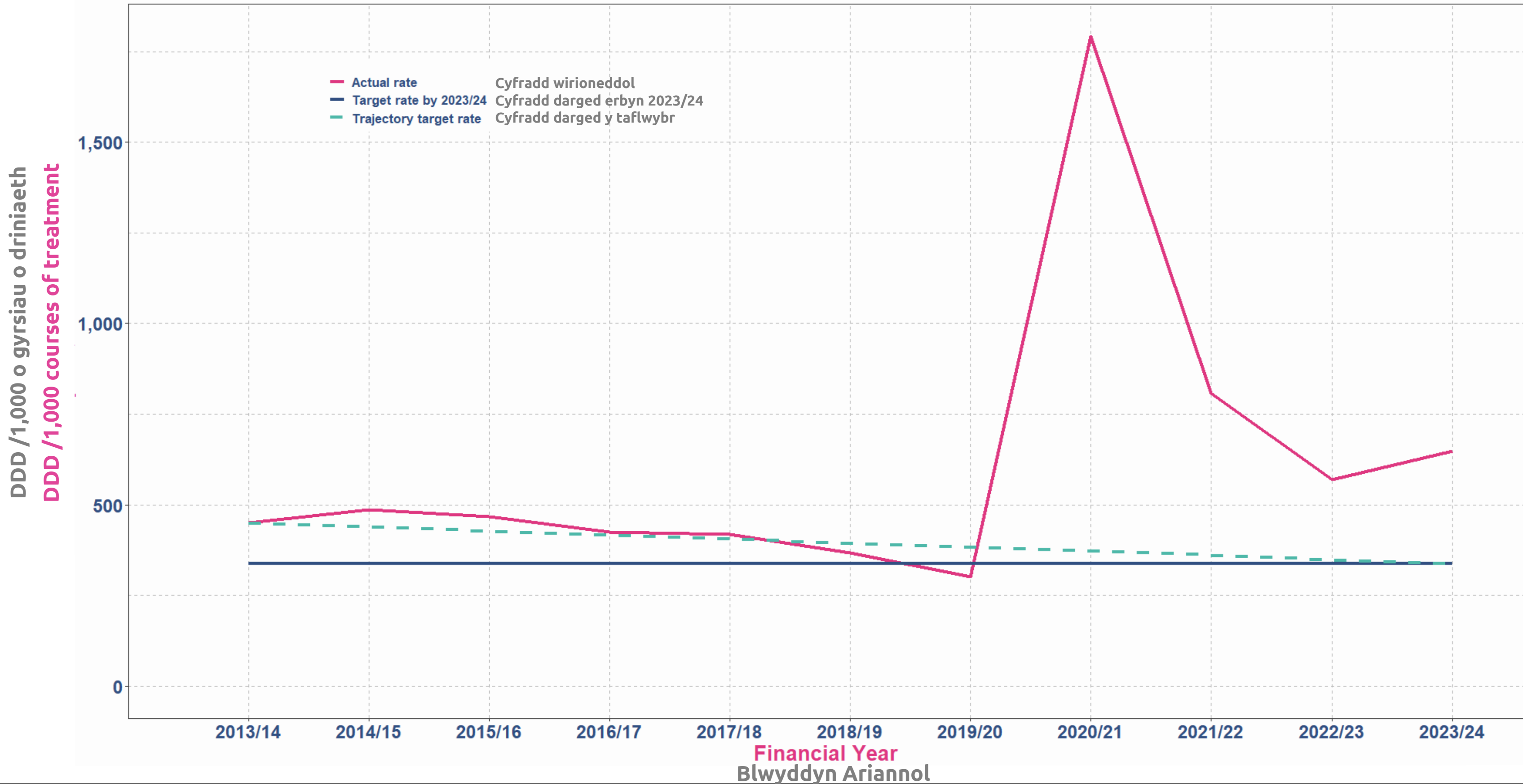
Total antimicrobial items dispensed and daily defined dose (DDD) per 1,000 courses of treatment: 2013/14 – 2023/24



Taflwybr a defnydd gwrthficrobaidd (eitemau): 2013/14 – 2023/24 Antimicrobial trajectory and usage (items): 2013/14 – 2023/24



Taflwybr a defnydd gwrthficrobaidd (DDD): 2013/14 – 2023/24
Antimicrobial trajectory and usage (DDD): 2013/14 – 2023/24



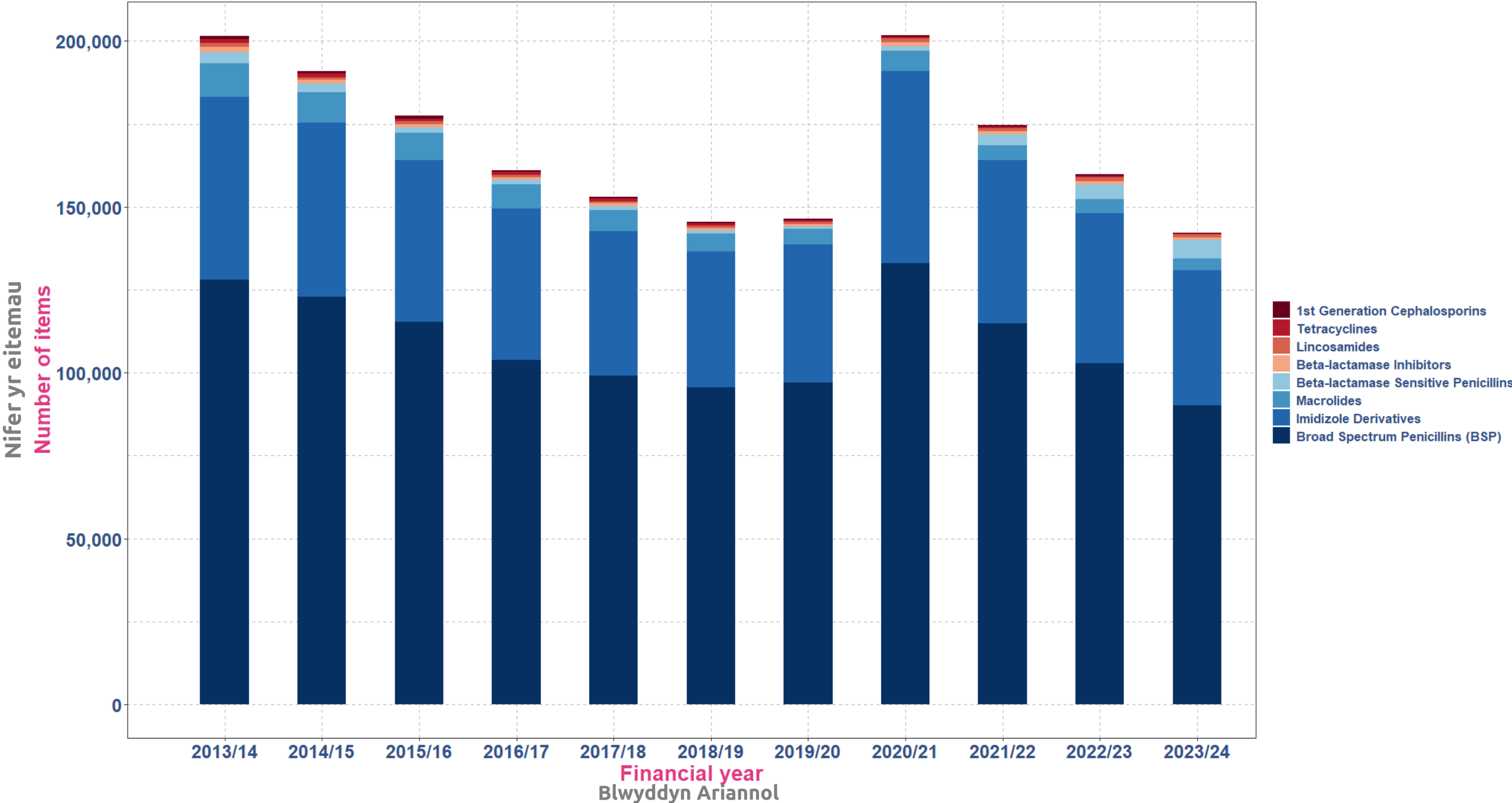
Nod gwella’r cyfanswm cyfaint gwrthficrobaidd ar gyfer Cymru (eitemau): 2013/14 – 2023/24
 Total antimicrobial volume improvement goal for Wales (items): 2013/14 – 2023/24

Blwyddyn Year	Targed (eitemau/1,000 CoT) Target (items/1,000 CoT)	Gwirioneddol (eitemau/1,000 CoT) Actual (items/ 1,000 CoT)	Gostyngiad (%) Reduction (%)	Gwahaniaeth croninol Cumulative Difference
2013/14	-	84.9	0.0	0.0
2014/15	82.8	80.4	-2.5	-5.4
2015/16	80.7	75.8	-5.0	-10.8
2016/17	78.6	67.6	-7.5	-20.4
2017/18	76.4	64.5	-10.0	-24.1
2018/19	74.3	60.0	-12.5	-29.4
2019/20	72.2	62.7	-15.0	-26.2
2020/21	70.1	370.5	-17.5	336.2
2021/22	67.9	166.6	-20.0	96.1
2022/23	65.8	117.8	-22.5	38.7
2023/24	63.7	136.0	-25.0	60.1

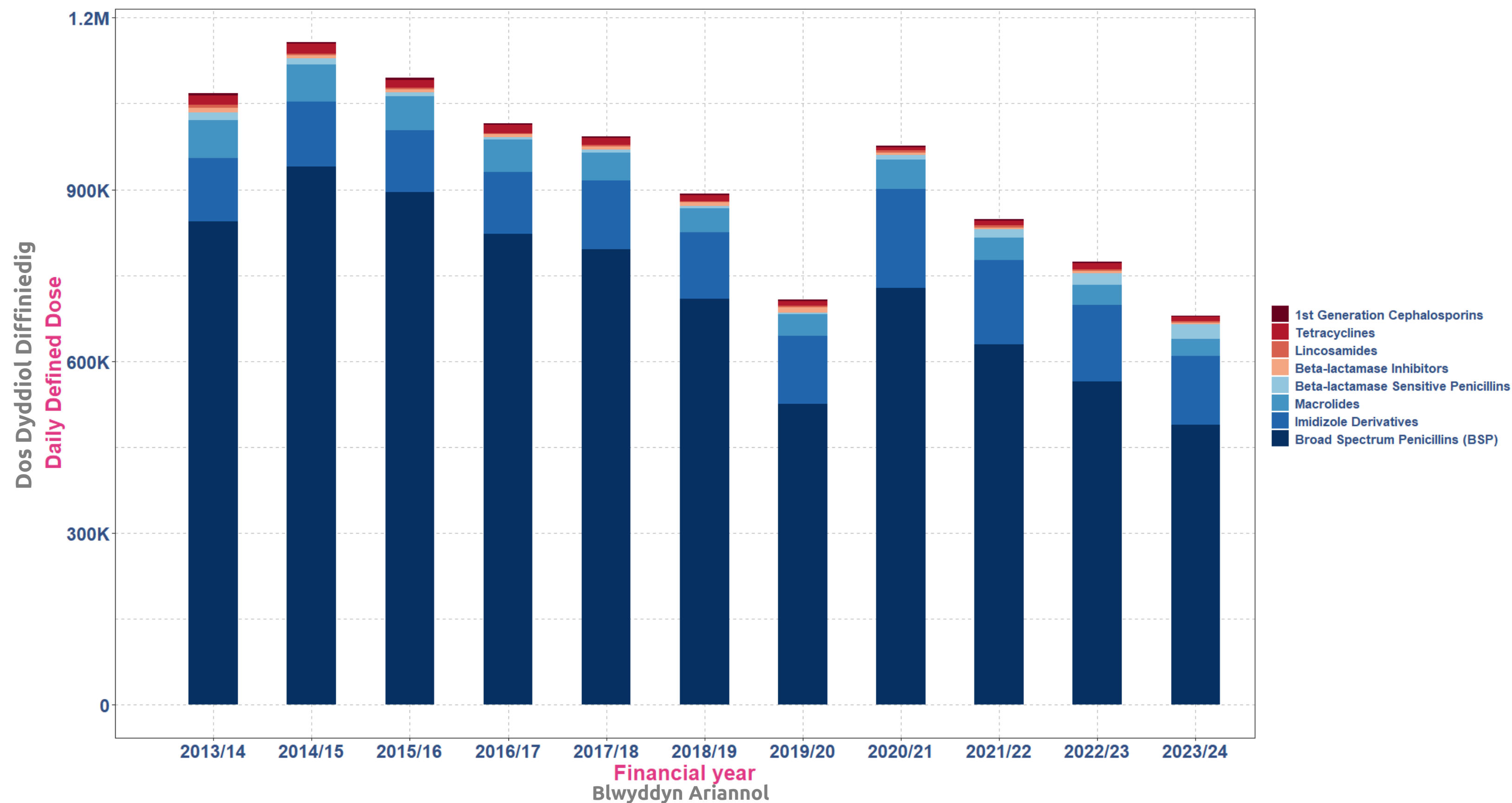
Nod gwella’r cyfanswm cyfaint gwrthficrobaidd ar gyfer Cymru (DDD): 2013/14 – 2023/24
 Total antimicrobial volume improvement goal for Wales (DDD): 2013/14 – 2023/24

Blwyddyn Year	Targed (DDD/1,000 CoT) Target (items/1,000 CoT)	Gwirioneddol (DDD/1,000 CoT) Actual (items/ 1,000 CoT)	Gostyngiad (%) Reduction (%)	Gwahaniaeth cronol Cumulative Difference
2013/14	-	450.0	0.0	0.0
2014/15	438.8	487.2	-2.5	8.3
2015/16	427.5	467.5	-5.0	3.9
2016/17	416.3	425.8	-7.5	-5.4
2017/18	405.0	418.0	-10.0	-7.1
2018/19	393.8	367.9	-12.5	-18.3
2019/20	382.5	302.5	-15.0	-32.8
2020/21	371.3	1,792.0	-17.5	298.2
2021/22	360.0	808.2	-20.0	79.6
2022/23	348.8	570.0	-22.5	26.7
2023/24	337.5	648.7	-25.0	44.2

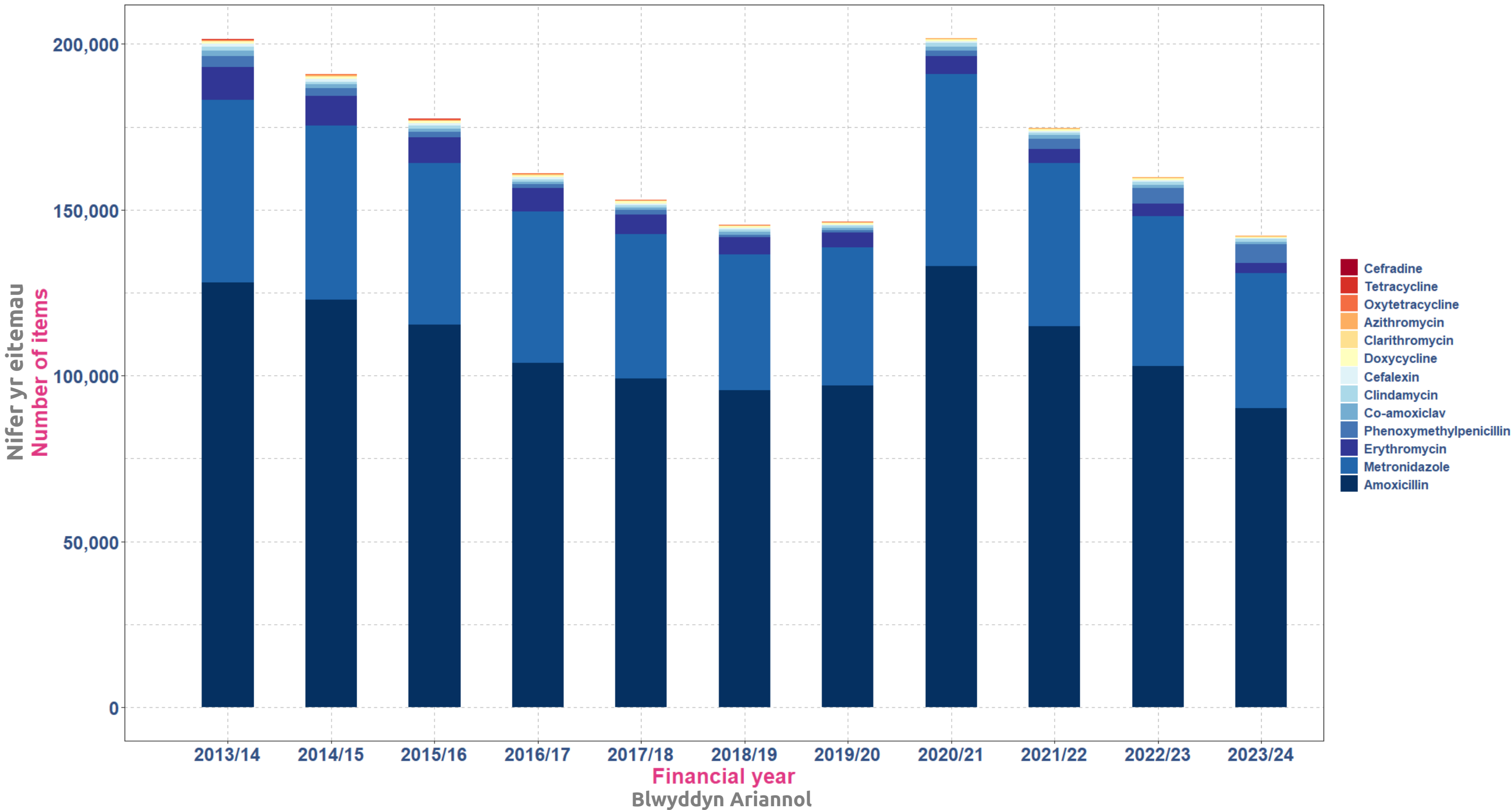
Nifer yr eitemau a ddosbarthwyd fesul blwyddyn ariannol a grŵp cyffuriau gwrthficrobaidd: 2013/14-2023/24 Number of items dispensed by financial year and antimicrobial drug group: 2013/14-2023/24



Dosau Dyddiol Diffiniedig a roddwyd ar bresgripsiwn fesul blwyddyn ariannol a grŵp cyffuriau gwrthficrobaidd: 2013/14-2023/24 Daily Defined Doses dispensed by financial year and antimicrobial drug group: 2013/14-2023/24



Eitemau gwrthficrobaidd a roddwyd ar bresgripsiwn fesul asiant unigol: 2013/14-2023/24 Items of antimicrobial dispensed by individual agent: 2013/14-2023/24

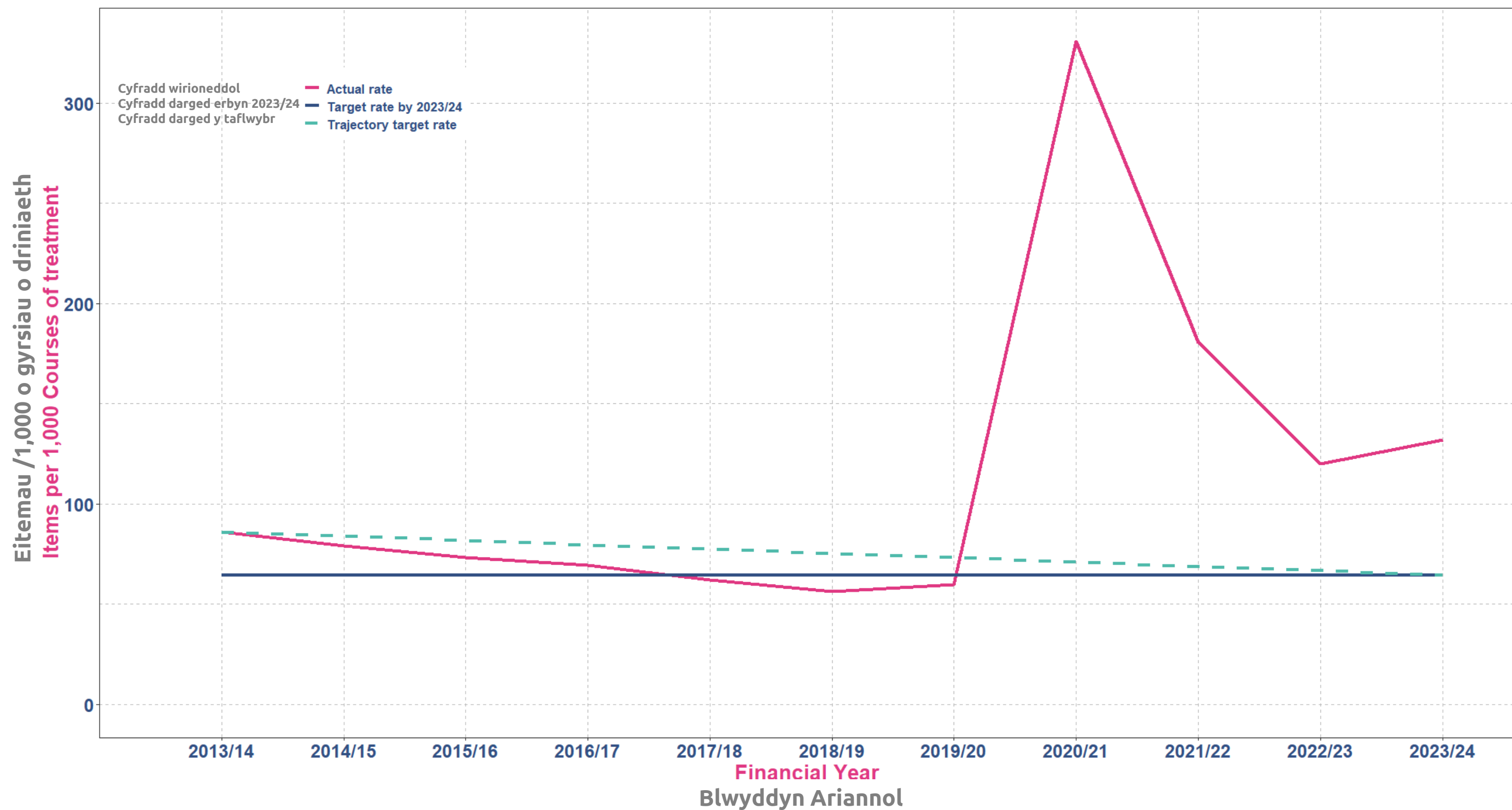


Canran y newid mewn rhoi cyffuriau gwrthficrobaidd a roddwyd ar bresgripsiwn fesul asiant unigol a grŵp cyffuriau: 2013/14-2023/24
Percentage change in antimicrobial dispensing by individual agent and drug group: 2013/14-2023/24

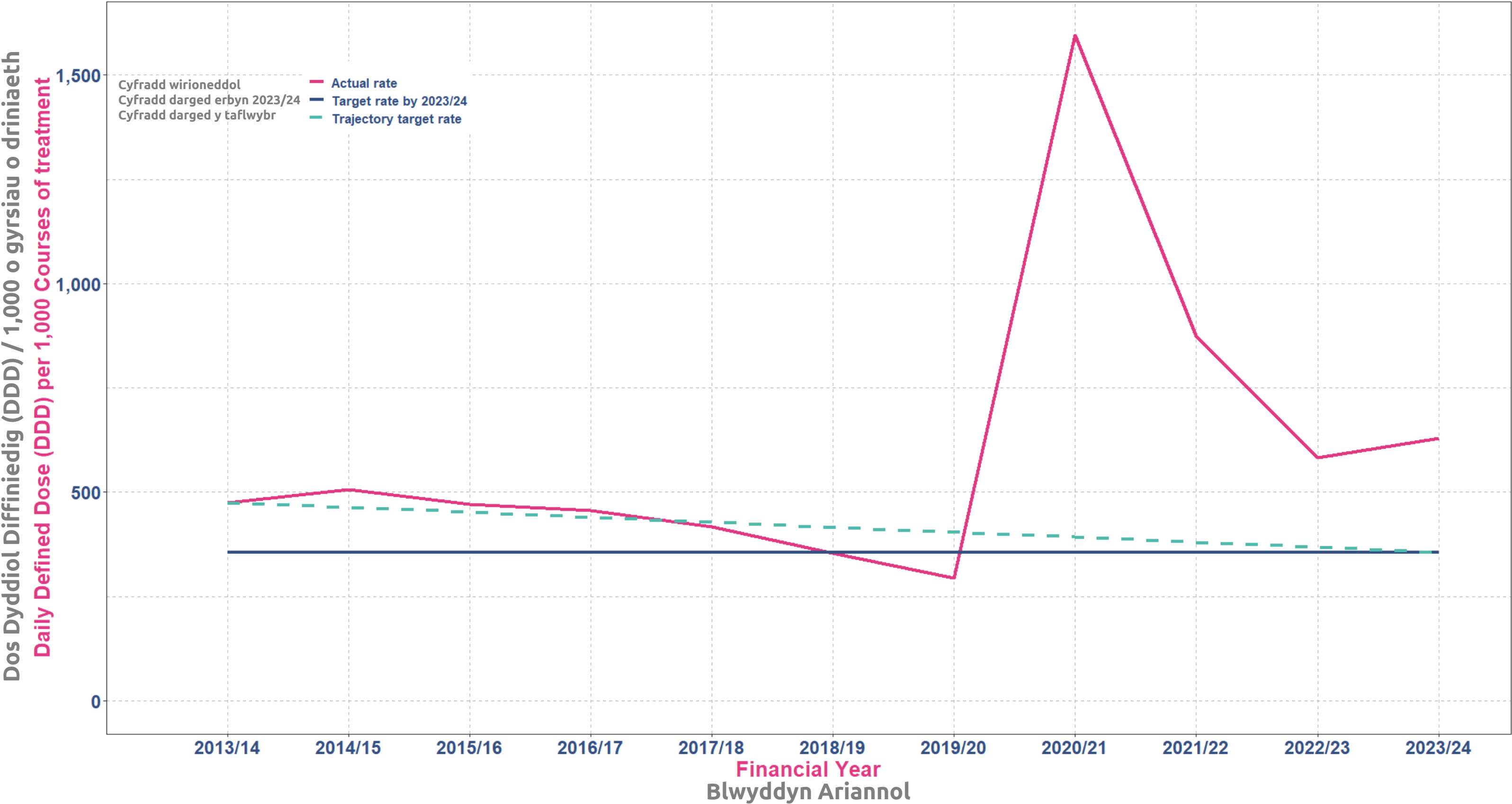
Antibiotic Group	Enw Cyffredin Common Name	Eitemau (2013/14) Items (2013/14)	Eitemau (2013/14) Items (2023/24)	% Newid % Change
1st Generation Cephalosporins	Cefalexin	862	236	-72.6
1st Generation Cephalosporins	Cefradine	67	3	-95.5
Beta-lactamase Inhibitors	Co-amoxiclav	1,665	834	-49.9
Beta-lactamase Sensitive Penicillin	Phenoxymethylpenicillin	3,335	5,509	65.2
Broad Spectrum Penicillin (BSP)	Amoxicillin	128,036	90,118	-29.6
Broad Spectrum Penicillin (BSP)	Ampicillin	<5	0	0
Imidazole Derivatives	Metronidazole	55,128	40,783	-26.0
Lincosamides	Clindamycin	1,232	828	-32.8
Macrolides	Azithromycin	210	147	-30.0
Macrolides	Clarithromycin	70	300	328.6
Macrolides	Erythromycin	9,814	3,099	-68.4
Tetracyclines	Doxycycline	695	343	-50.6
Tetracyclines	Oxytetracycline	261	40	-84.7
Tetracyclines	Tetracycline	149	44	-70.5

Bwrdd Iechyd Prifysgol Aneurin Bevan - taflwybr a defnydd gwrthficrobaidd (eitemau): 2013/14-2023/24

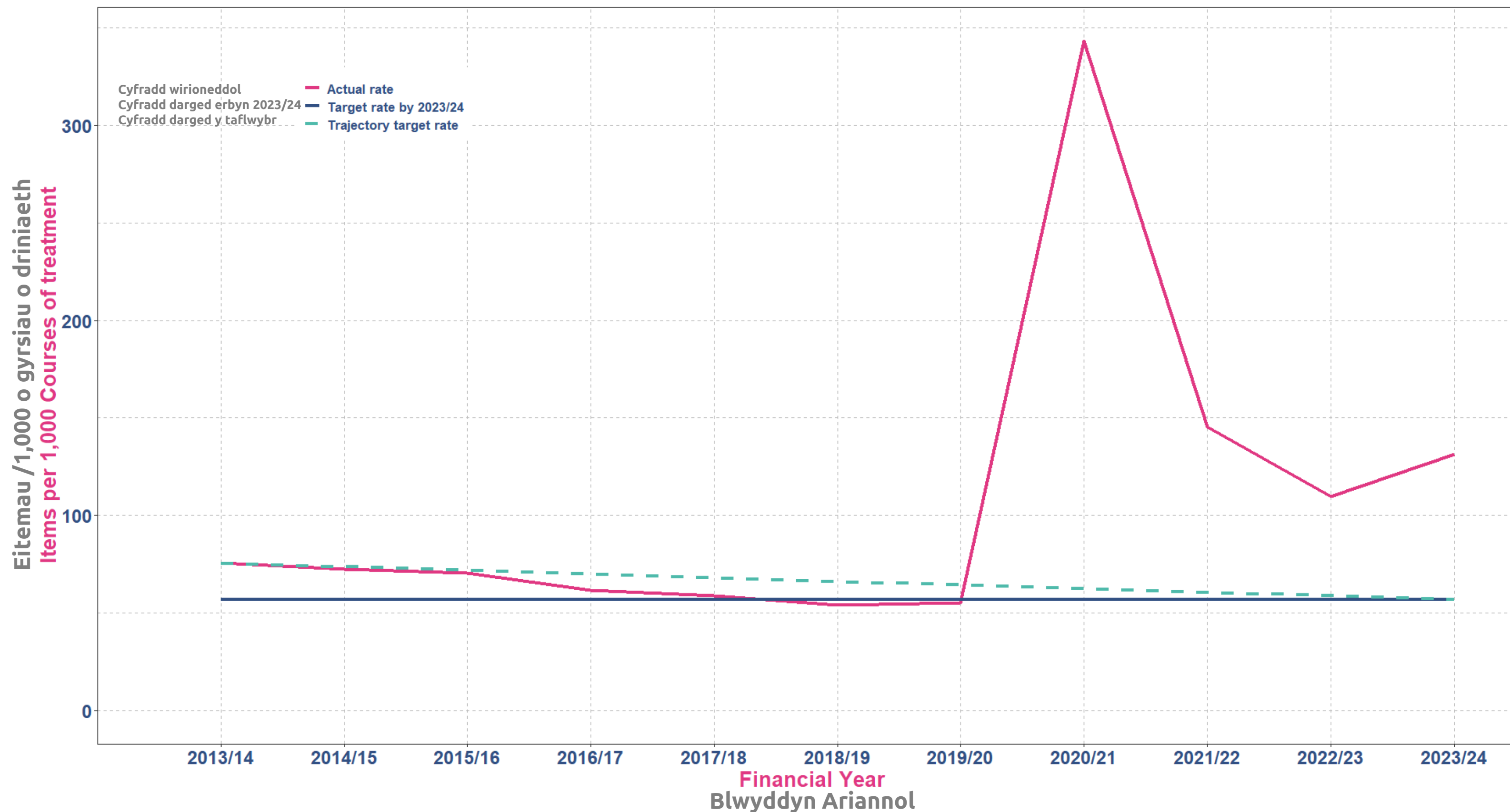
Aneurin Bevan University Health Board - antimicrobial trajectory and usage (items): 2013/14-2023/24



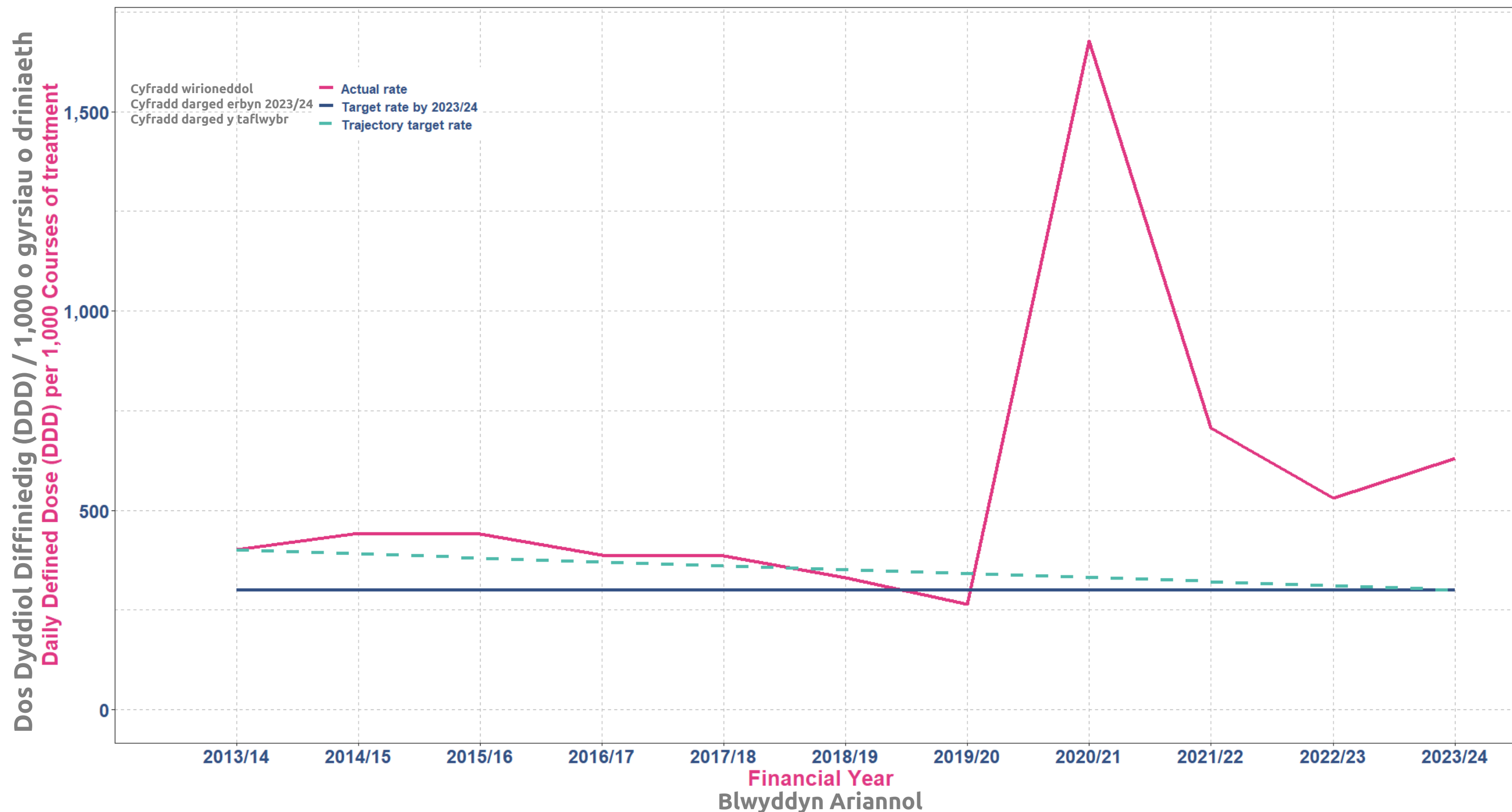
Bwrdd Iechyd Prifysgol Aneurin Bevan - taflwybr a defnydd gwrthficrobaidd (DDD): 2013/14-2023/24 Aneurin Bevan University Health Board - antimicrobial trajectory and usage (DDD): 2013/14-2023/24



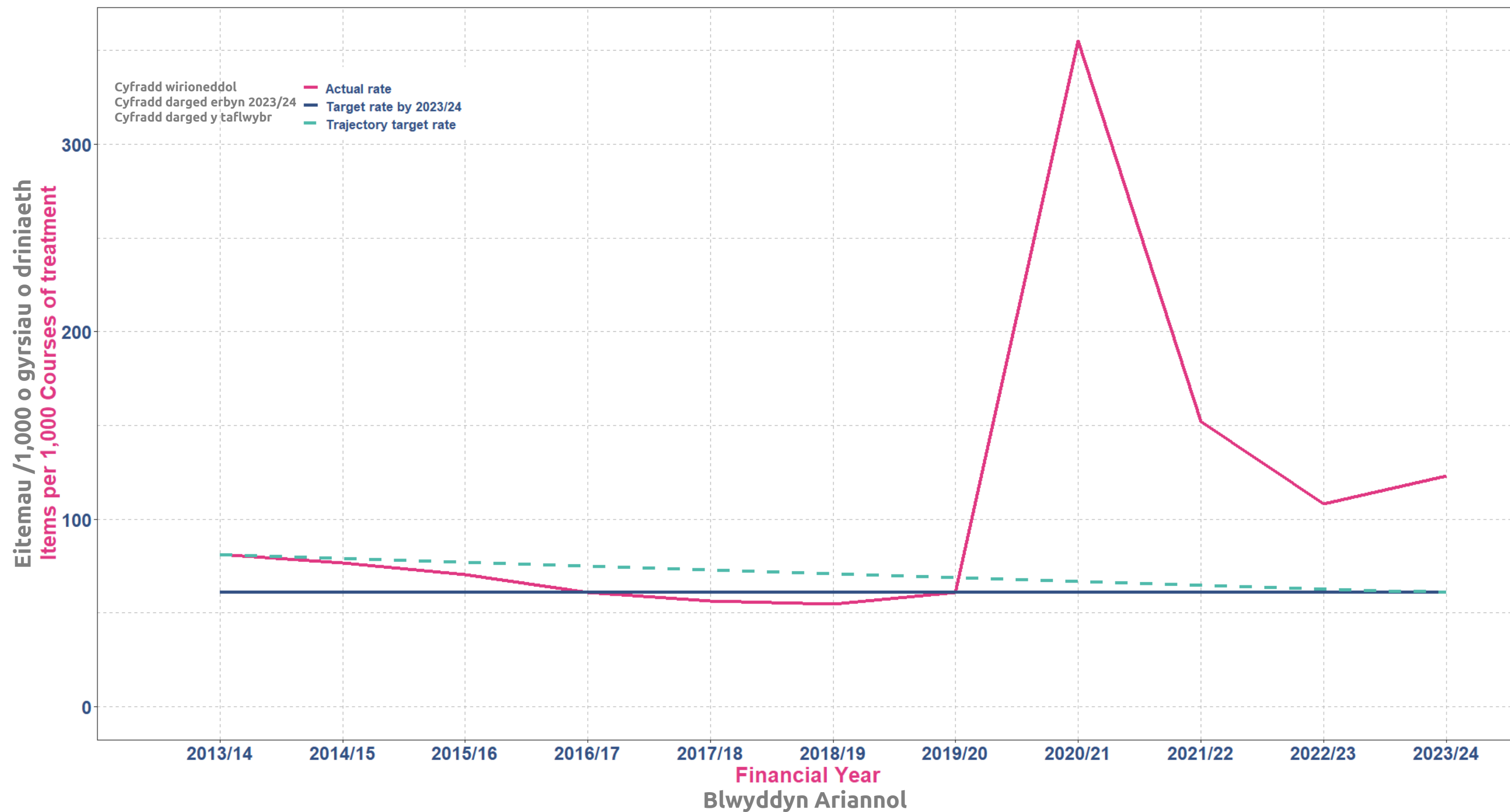
Bwrdd Iechyd Prifysgol Betsi Cadwaladr - taflwybr a defnydd gwrthficrobaidd (eitemau): 2013/14-2023/24 Betsi Cadwaladr University Health Board - antimicrobial trajectory and usage (items): 2013/14-2023/24



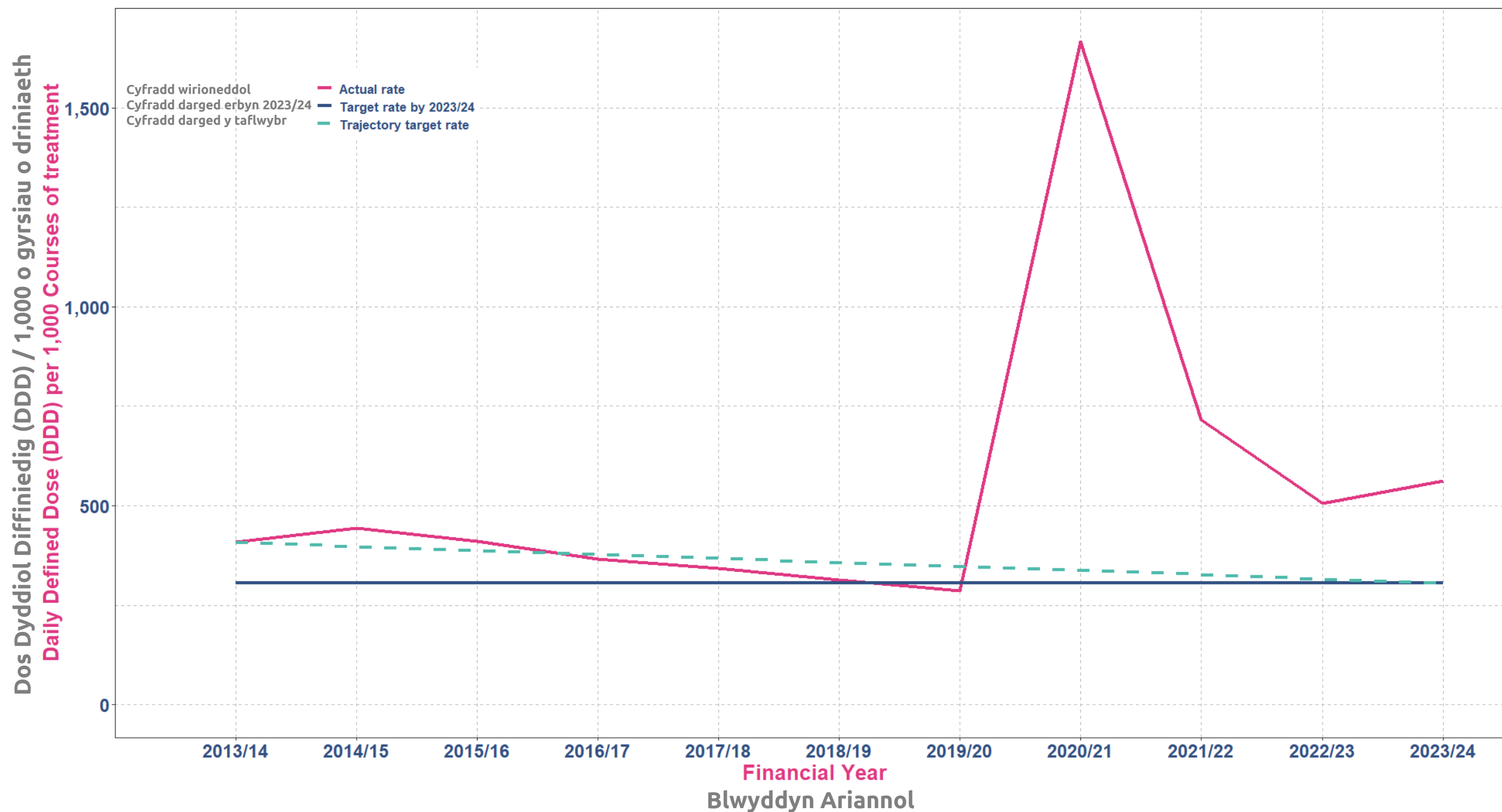
Bwrdd Iechyd Prifysgol Betsi Cadwaladr - taflwybr a defnydd gwrthficrobaidd (DDD): 2013/14-2023/24 Betsi Cadwaladr University Health Board - antimicrobial trajectory and usage (DDD): 2013/14-2023/24



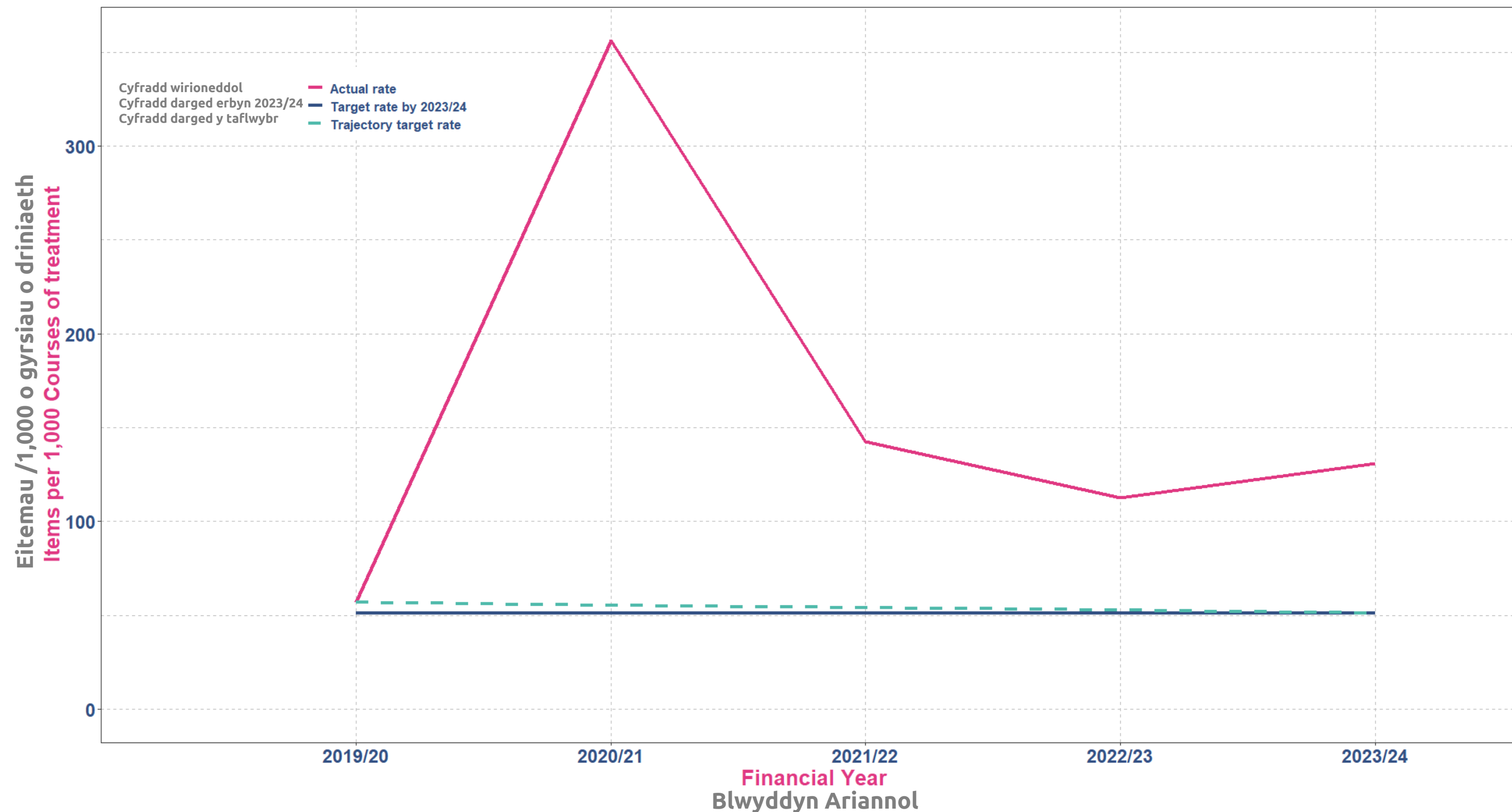
Bwrdd Iechyd Prifysgol Caerdydd a'r Fro - taflwybr a defnydd gwrthficrobaidd (eitemau): 2013/14-2023/24 Cardiff & Vale University Health Board - antimicrobial trajectory and usage (items): 2013/14-2023/24



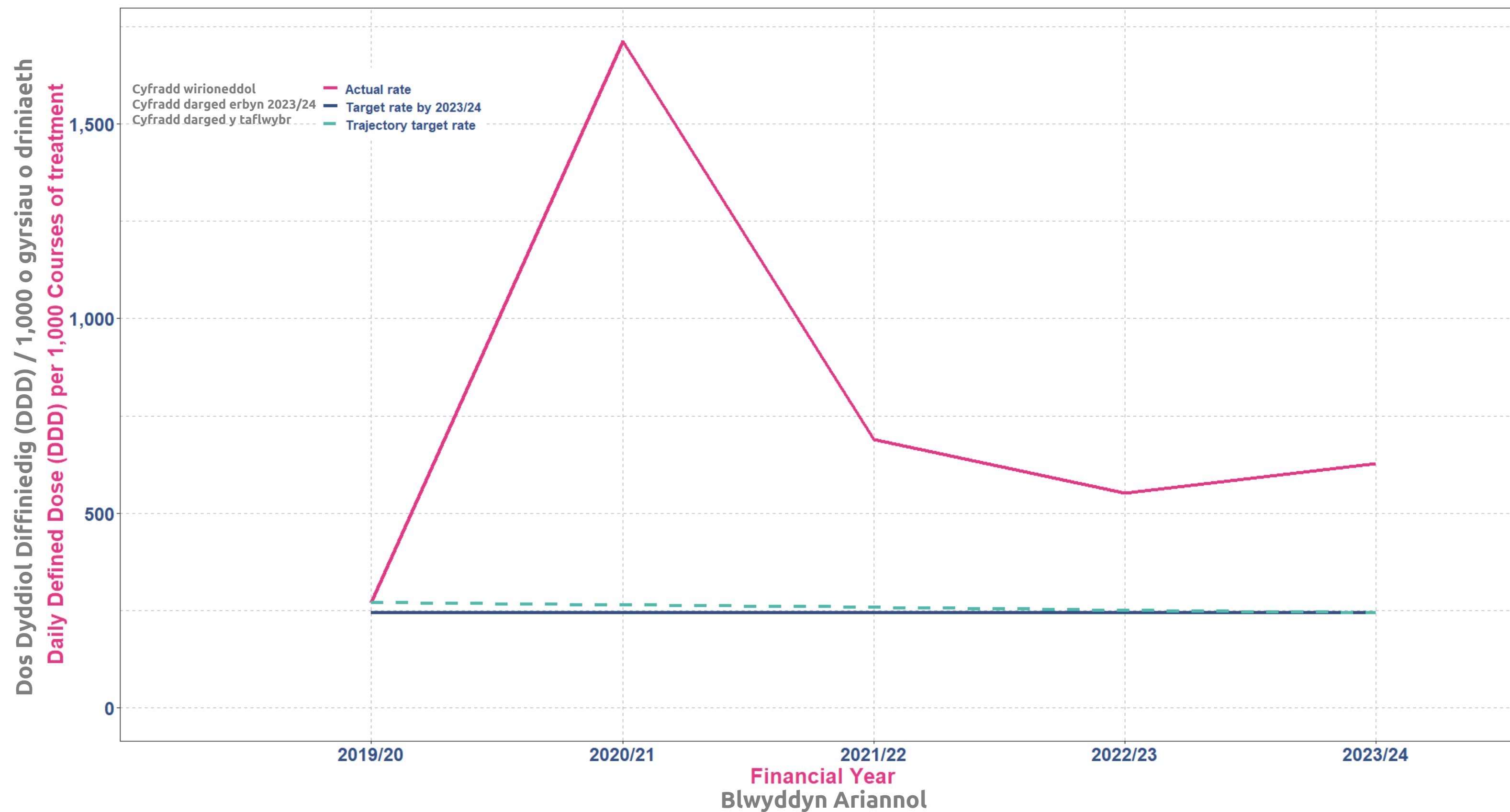
Bwrdd Iechyd Prifysgol Caerdydd a'r Fro - taflwybr a defnydd gwrthficrobaidd (DDD): 2013/14-2023/24 Cardiff & Vale University Health Board - antimicrobial trajectory and usage (DDD): 2013/14-2023/24



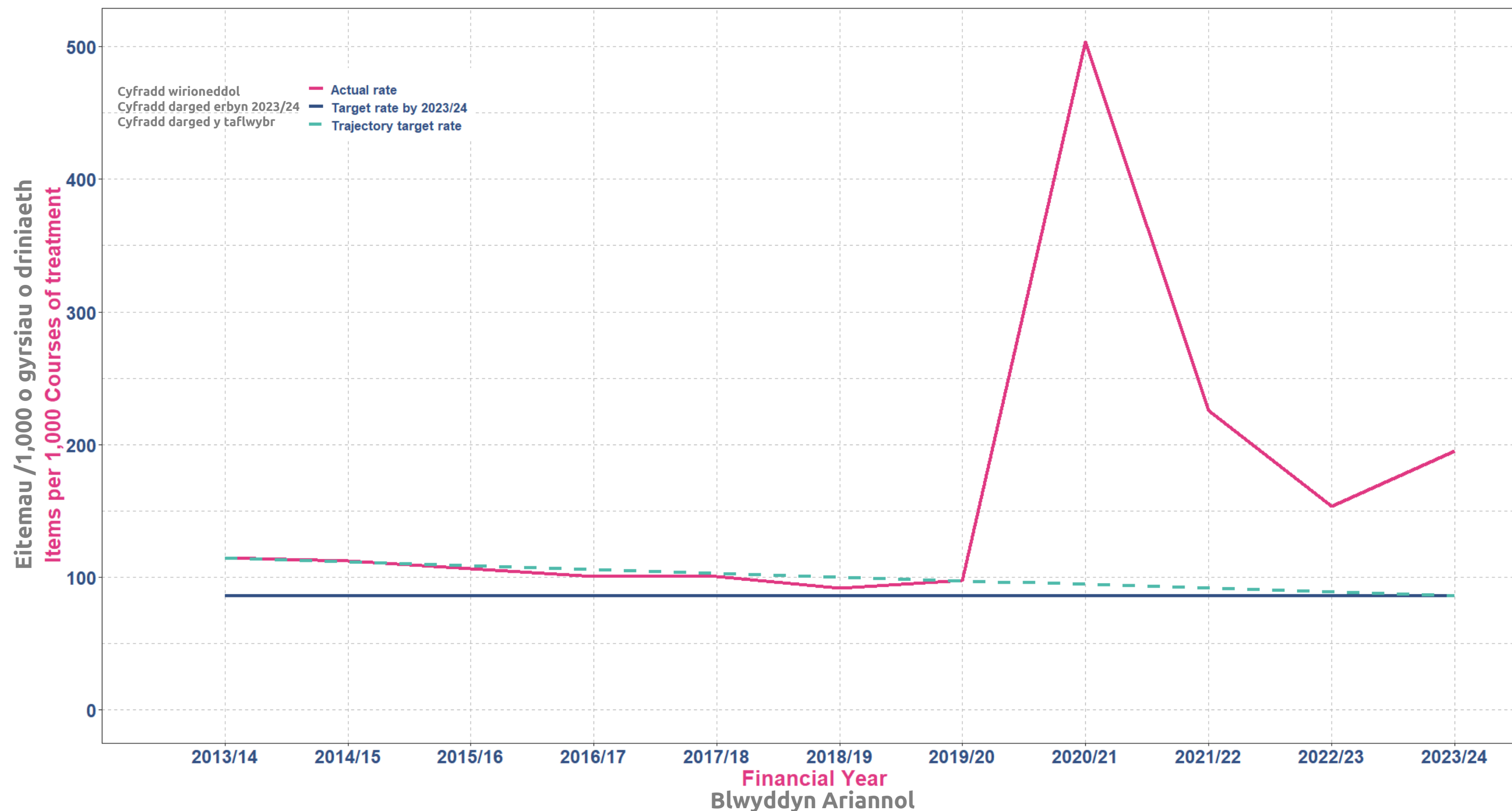
Bwrdd Iechyd Prifysgol Cwm Taf Morgannwg - taflwybr a defnydd gwrthficrobaidd (eitemau): 2013/14-2023/24 Cwm Taf Morgannwg University Health Board - antimicrobial trajectory and usage (items): 2019/20-2023/24



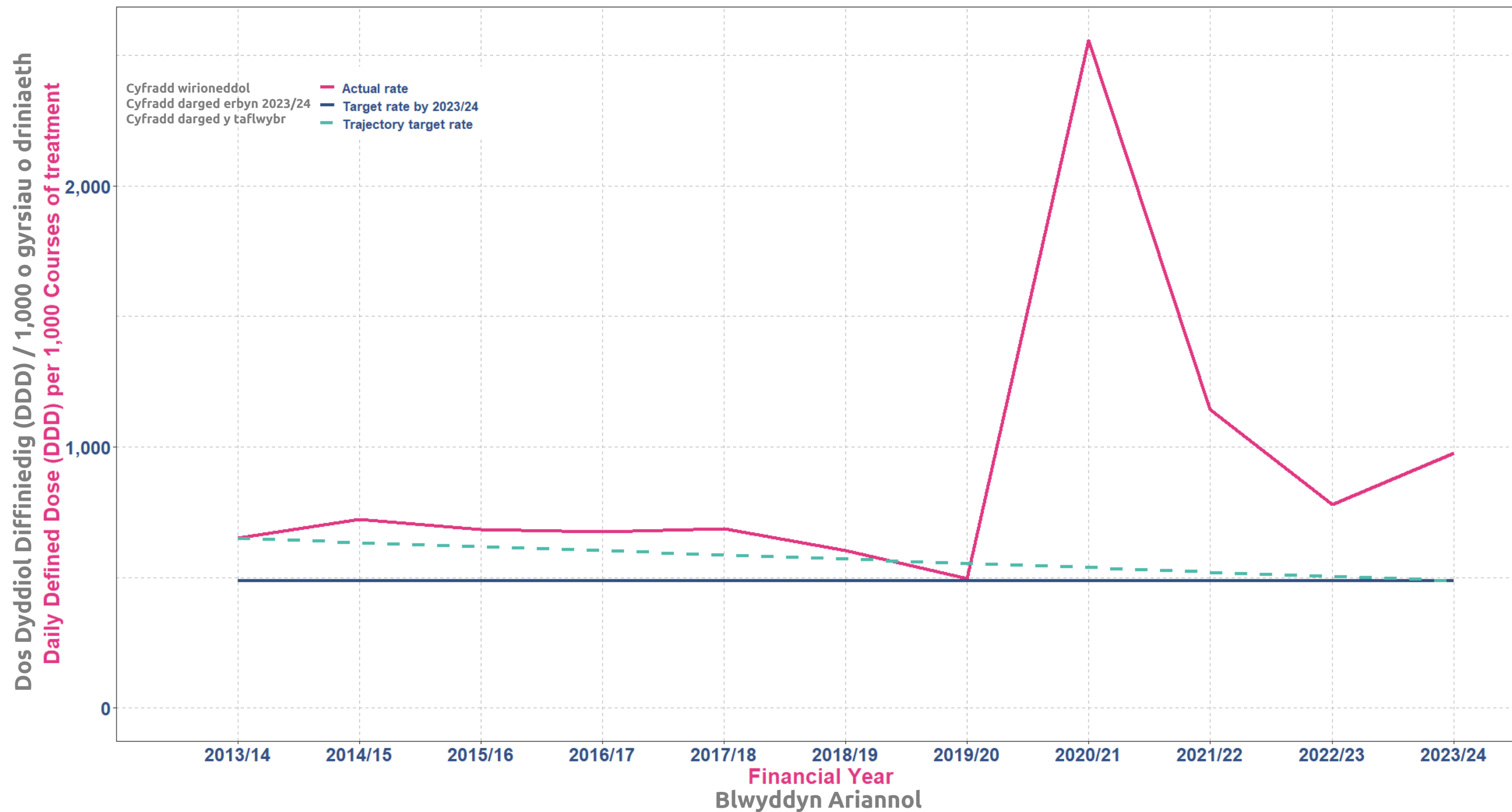
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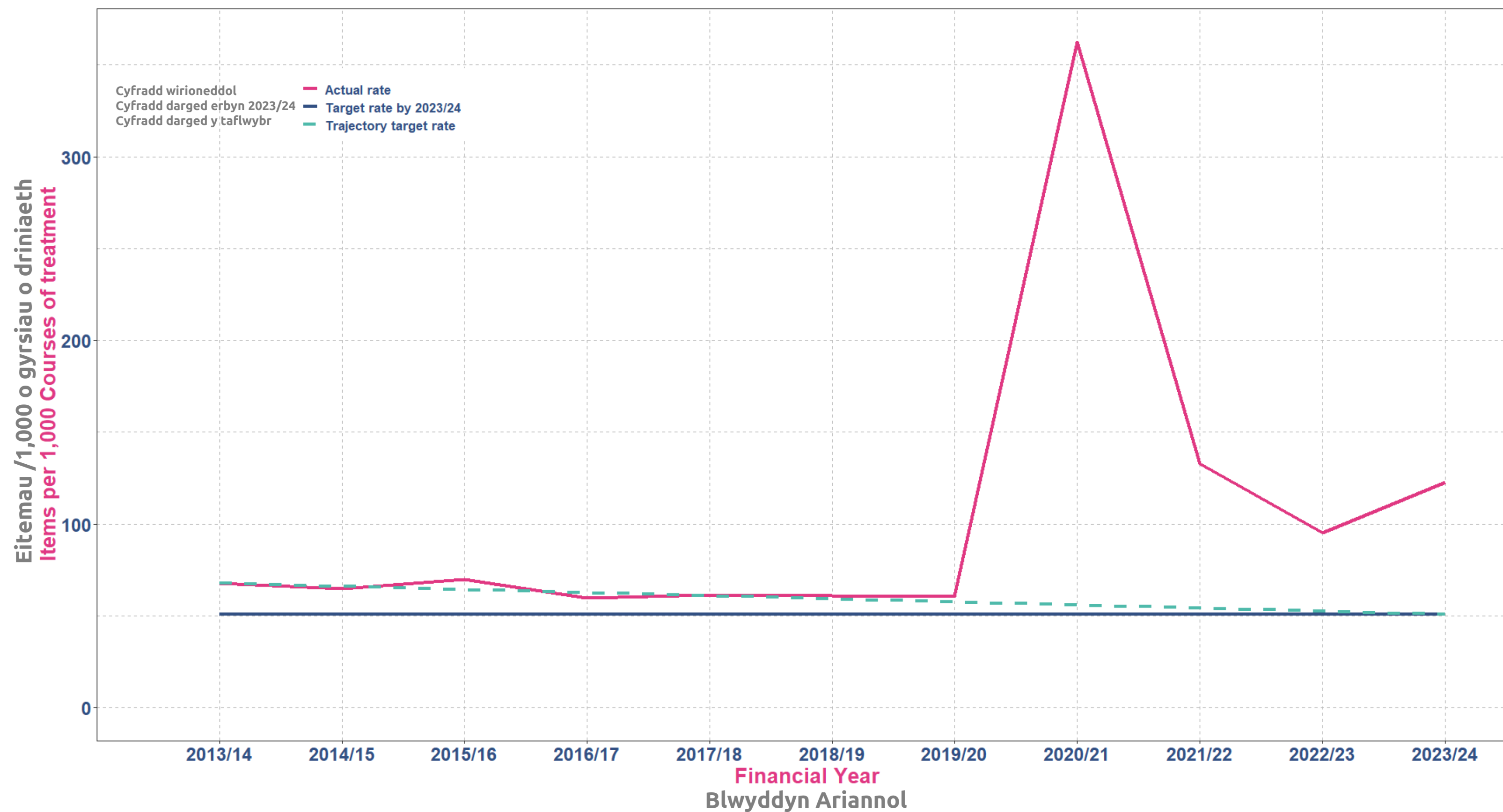
Bwrdd Iechyd Prifysgol Hywel Dda - taflwybr a defnydd gwrthficrobaidd (eitemau): 2013/14-2023/24 Hywel Dda University Health Board - antimicrobial trajectory and usage (items): 2013/14-2023/24



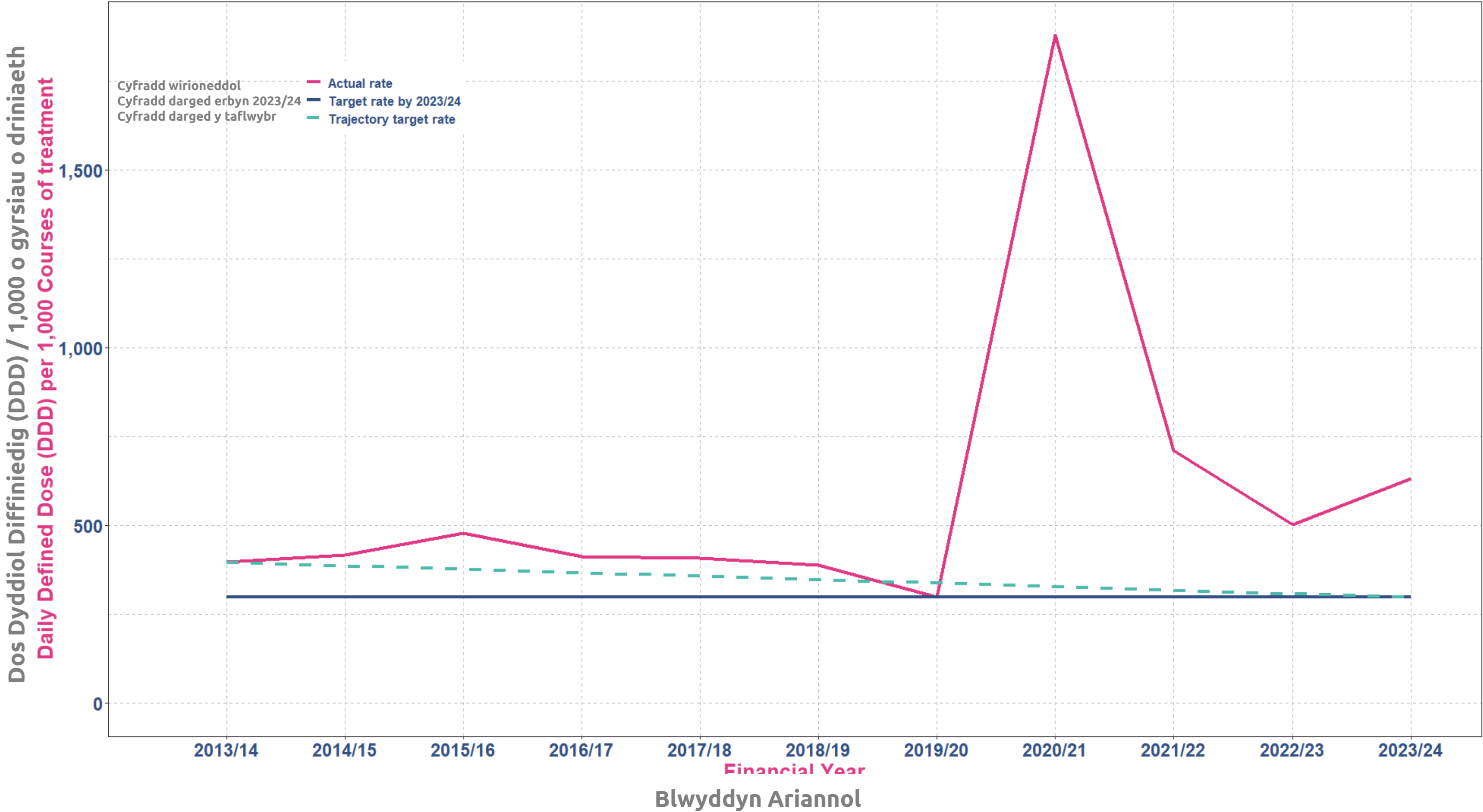
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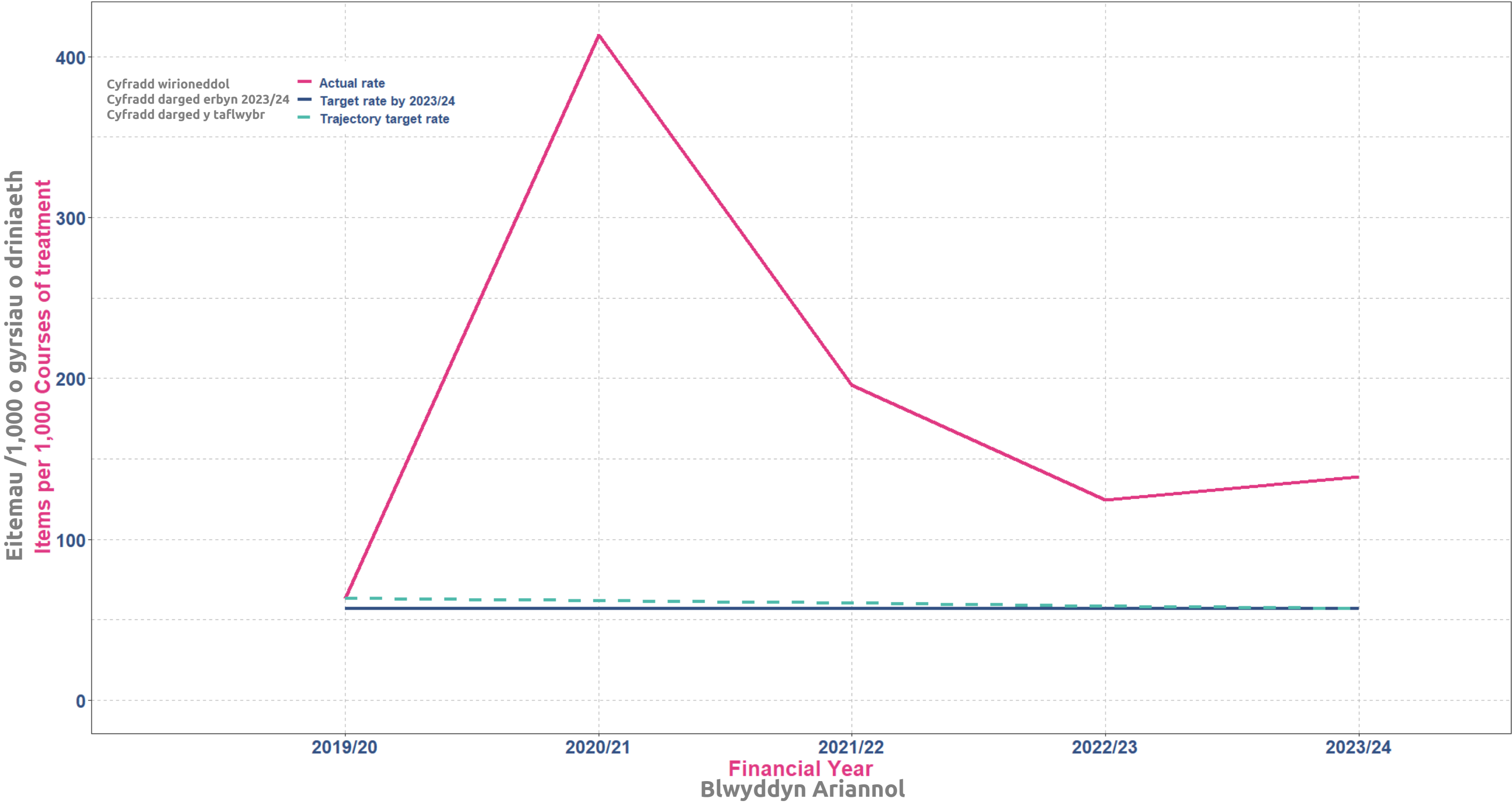
Bwrdd Iechyd Addysgu Powys - taflwybr a defnydd gwrthficrobaidd (eitemau): 2013/14-2023/24 Powys Teaching Health Board - antimicrobial trajectory and usage (items): 2013/14-2023/24



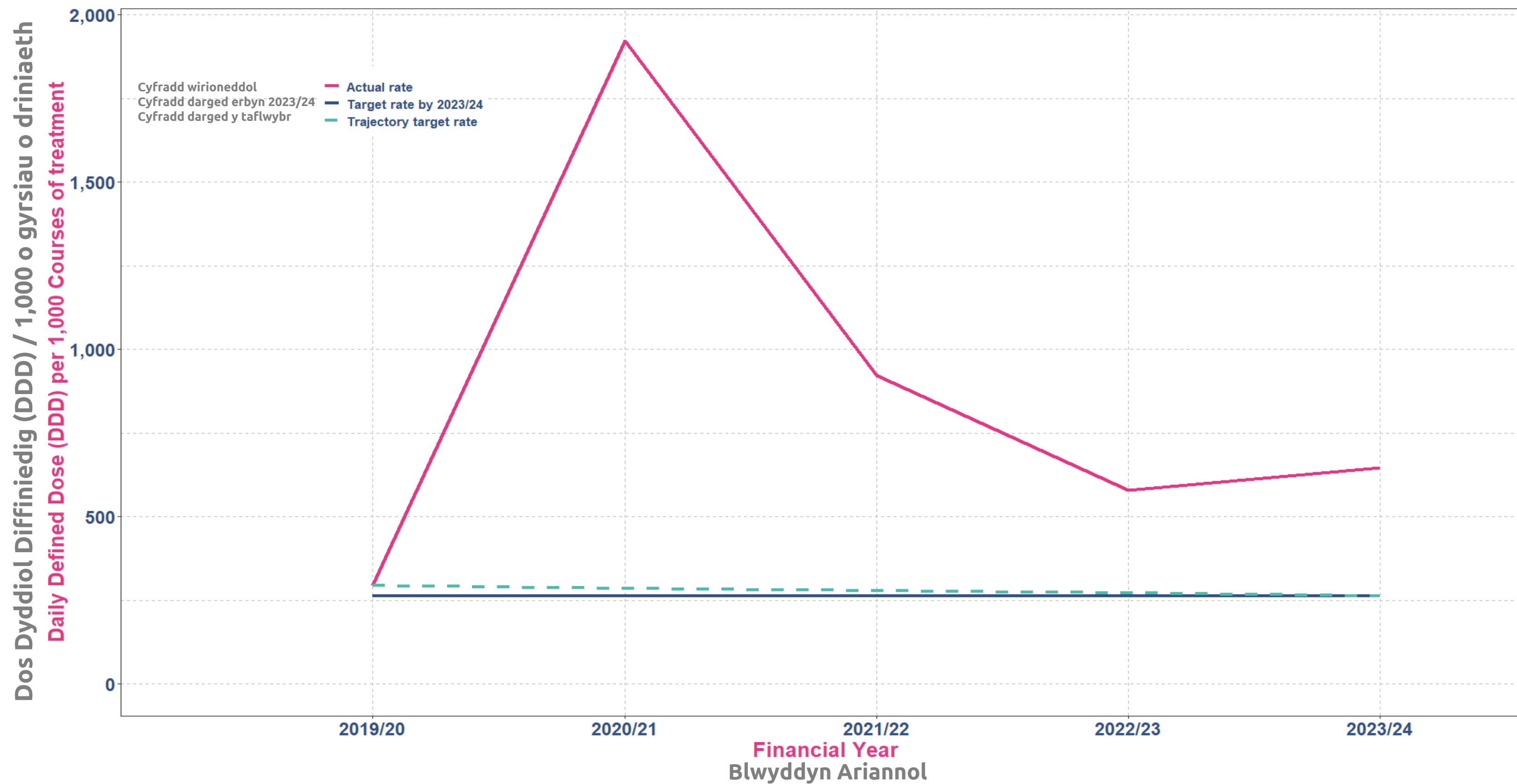
Bwrdd Iechyd Addysgu Powys - taflwybr a defnydd gwrthficrobaidd (DDD): 2013/14-2023/24 Powys Teaching Health Board - antimicrobial trajectory and usage (DDD): 2013/14-2023/24



Bwrdd Iechyd Prifysgol Bae Abertawe - taflwybr a defnydd gwrthficrobaidd (eitemau): 2013/14-2023/24 Swansea Bay University Health Board - antimicrobial trajectory and usage (Items): 2019/20 - 2023/24



Bwrdd Iechyd Prifysgol Bae Abertawe - taflwybr a defnydd gwrthficrobaidd (DDD): 2013/14-2023/24 Swansea Bay University Health Board - antimicrobial trajectory and usage (DDD): 2019/20-2023/24



Eitemau a DDDs fesul 1,000 o gyrsiau o driniaeth (CoT) gan Fyrddau Iechyd ym mlwyddyn ariannol 2023/24

Items and DDDs per 1,000 courses of treatment (CoT) by Health Boards in 2023/24 financial year

Bwrdd Iechyd* Health Board*	Targed ar gyfer 2023/24 - Eitemau/1,000 CoT 2023/24 Target - Items/ 1,000 CoT	Gwirioneddol ar gyfer 2023/24 - Eitemau/1,000 CoT 2023/24 Actual - Items/ 1,000 CoT	Targed ar gyfer 2023/24 - DDD/1,000 CoT 2023/24 Target DDD/1,000 CoT	Gwirioneddol ar gyfer 2023/24 - DDD/1,000 CoT 2023/24 Actual DDD/1,000 CoT
Aneurin Bevan UHB	64.6	131.8	356.6	629.9
Betsi Cadwaladr UHB	56.8	131.4	300.6	630.7
Cardiff and Vale UHB	60.8	123.0	305.6	561.2
Hywel Dda UHB	85.8	195.2	488.0	976.8
Powys HB	50.8	122.5	297.9	632.8
Cwm Taf Morgannwg UHB*	51.1	131.0	243.7	627.0
Swansea Bay UHB*	57.0	138.8	263.7	645.0

*Y flwyddyn gyfeirio ar gyfer Cwm Taf Morgannwg a Bae Abertawe yw 2019/20. 2013/14 ydyw ar gyfer Byrddau Iechyd eraill

*Reference year for Cwm Taff Morgannwg & Swansea Bay is 2019/20. Other Health Boards is 2013/14.



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