



YCC Wales
Yellow Card Centre Wales
Canolfan Cerdyn Melyn Cymru

Annual Report 2020-2021



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YELLOW CARD CENTRE WALES ANNUAL REPORT TO MHRA

Date: 2020-21

1. TEAM

Executive Team

| | |
|---------------|--|
| Dr A M Thomas | Medical Director, Yellow Card Centre (YCC) Wales |
| Mrs J Walker | Specialist Information Pharmacist – Pharmacovigilance and Patient Safety |
| Mrs F Woods | National Medicines Information Lead for Wales (Advisory Board Chair) |

Advisory Board

| | |
|----------------|--|
| Mrs A Adams | Principal Pharmacist, Welsh Medicines Information Centre |
| Dr R Bracchi | Medical Advisor, All Wales Therapeutics and Toxicology Centre (AWTTC) |
| Dr J Coulson | Interim Clinical Director, AWTTC |
| Mr A Evans | Chief Pharmaceutical Officer, Welsh Government |
| Dr L Gray | Consultant in Acute Medicine, Cardiff and Vale UHB |
| Mr J Hayes | Director, Welsh Medicines Resource Centre |
| Dr L Hughes | Senior Lecturer in Pharmacy, Cardiff University |
| Dr L James | All Wales Consultant Pharmacist, Acute Care & Medication Safety |
| Mrs N Mahon | Immunisation Co-ordinator, Child Health, Cardiff and Vale UHB |
| Dr R Ratcliffe | General Practitioner, Wales Deanery |
| Mrs K Samuels | Head of Health Technology Appraisals, Medicines Management and Programme Director, AWTTC |
| Dr M Singh | Consultant in Acute Medicine, Aneurin Bevan UHB |
| Dr J Thompson | Senior Lecturer in Clinical Pharmacology, Cardiff University |

2. EXECUTIVE SUMMARY

The year 2020/21 has been a year like no other in the history of Yellow Card Centre (YCC) Wales. The impact of the COVID-19 pandemic on the health care system throughout Wales and the UK affected the ways in which YCC Wales was able to carry out their promotional and educational activities. Despite the challenges faced, the team from the YCC Wales continued to promote the reporting of suspected adverse drug reactions (ADRs) via the Yellow Card scheme to healthcare professionals and members of the public across Wales. The YCC Wales executive team, responsible for the day to day operations of the centre, continued to be supported by the Advisory Board.

The number of Yellow Card reports for non-COVID-19 vaccine medicinal products, submitted from Wales decreased from 2927 in 2019/20 to 1955 in 2020/21, a decrease of 33%. The highest percentage increase was seen within Velindre NHS Trust, where the number of Yellow Card reports that were submitted increased by 562% when compared with 2020/21. The largest percentage decrease was seen within Cardiff and Vale UHB, where the number of reports fell by 50%.

During December 2020, the UK COVID-19 vaccination programme was launched. YCC Wales met with key stakeholders from Public Health Wales' Vaccine Preventable Disease Programme Team, to discuss ways in which to raise awareness of ADR reporting to COVID-19 vaccines and ensure appropriate reporting processes were in place within Mass Vaccination Centres. In addition to the



1955 Yellow Card reports mentioned above, 7440 reports of suspected ADRs to the COVID-19 vaccines were submitted from Wales.

General Practitioners (GPs) remained the highest reporting group during 2020/21, contributing 37% (725) of the total number of reports for the year. However, when compared with the previous year, there was a reduction of 49% in the number of Yellow Card reports submitted by GPs. An increase was seen in reporting numbers from pre-registration pharmacists, hospital nurses, radiographers, physicians and optometrists.

YCC Wales continued to support local Yellow Card Champions throughout the year and continued to engage with the Welsh Medication Safety Officers (MSOs) and other members of the Welsh Medicines Safety Network.

Throughout the year, YCC Wales continued to use and develop bilingual promotional materials for use in primary and secondary care. YCC Wales' mascot 'Yellow Card Charlie' continued to feature in these. All four targets for the Yellow Card National Prescribing (reporting) Indicators remained in place.

It is disappointing to report a reduction in the number of Yellow Card reports for non-COVID-19 vaccine medicinal products submitted from Wales for the year 2020/21. However, it is possible that the impact of the COVID-19 pandemic on the healthcare system throughout the year may have contributed to this.

During 2021/22 YCC Wales will continue to introduce new initiatives to promote and encourage reporting of suspected ADRs via the Yellow Card scheme throughout Wales.

3. YELLOW CARD DATA

a. Total numbers

A total of 1955 reports of suspected ADRs to non-COVID-19 vaccine medicinal products, originated from the YCC Wales region in 2020/21. This represents a decrease of 33% when compared with 2019/20 (2927). Table 1 and Figure 1 show the total number of Yellow Card (YC) reports from Wales over the last 5 years.

| Year | Number of reports | Percentage change on previous year |
|---------|-------------------|------------------------------------|
| 2020/21 | 1955* | -33* |
| 2019/20 | 2927 | -8 |
| 2018/19 | 3192 | +5 |
| 2017/18 | 3036 | +30 |
| 2016/17 | 2330 | +28 |

Table 1: Number of Yellow Card reports submitted from Wales over the last 5 years

* For the year 2020/21, the number of Yellow Card reports stated in Table 1 does not include reports of suspected adverse drug reactions to the COVID-19 vaccines

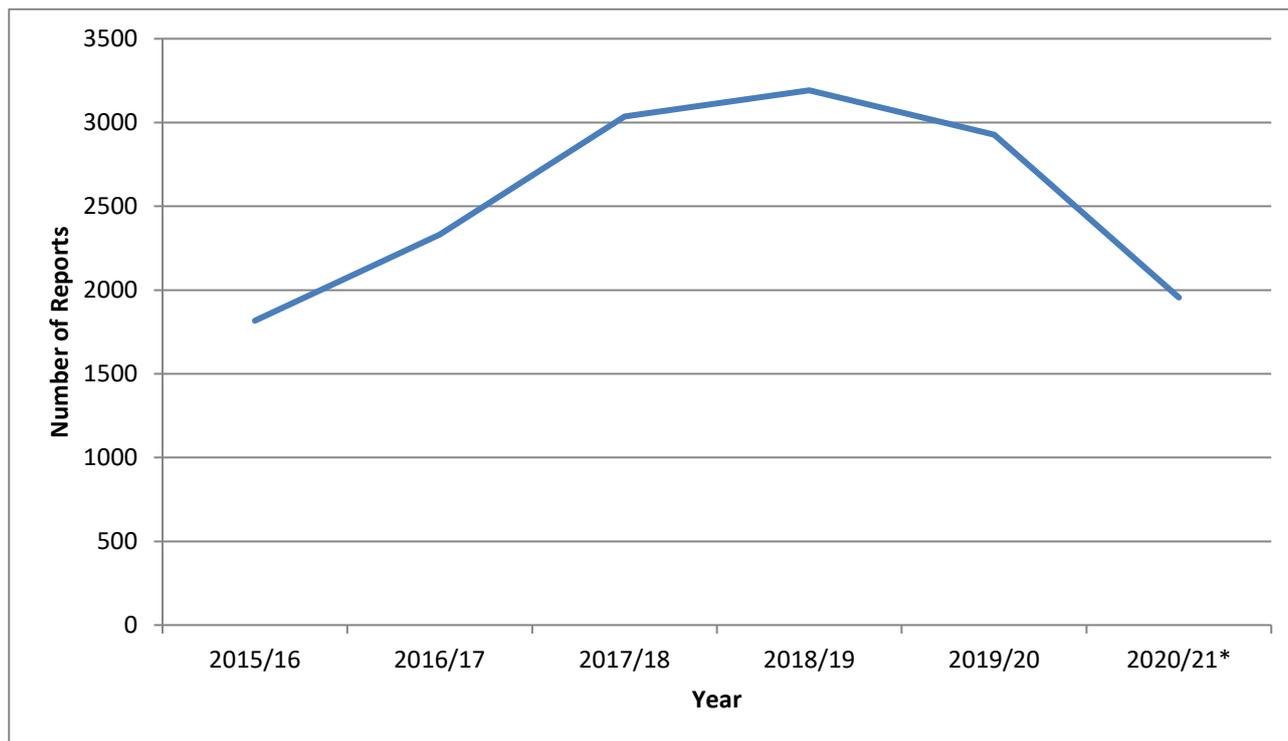


Figure 1: Number of Yellow Card reports submitted from Wales over the last 5 years

* For the year 2020/21, the number of Yellow Card reports shown in Figure 1 does not include reports of suspected adverse drug reactions to the COVID-19 vaccines.

In addition to the 1955 Yellow Card reports shown above, 7440 reports of suspected ADRs to the COVID-19 vaccines were submitted from the YCC Wales region during the period of December 2020 to March 2021. If we are to include these reports in our comparison to the previous year (2019/20) this would represent an increase of 221%. See Appendix 1 for a breakdown summary of the number of reports submitted by vaccine brand, reporter qualification, sex and age.

The Medicines and Healthcare products Regulatory Agency (MHRA) have received a large volume of reports associated with the newly introduced COVID-19 vaccines which are not included within this annual report. The MHRA's role is to continually monitor safety during widespread use of a vaccine, and there is a [proactive strategy](#) in place to do this. Information regarding the reports received by the MHRA in relation to the COVID-19 vaccines can be found [here](#). It is hoped that further breakdowns of reporting associated with the COVID-19 vaccines by area will be published in the near future.

Figure 2 shows the seven Health Boards in Wales and Figure 3 the number of reports from each Health Board over the past five years. Reporting numbers for Velindre NHS Trust have also been included.

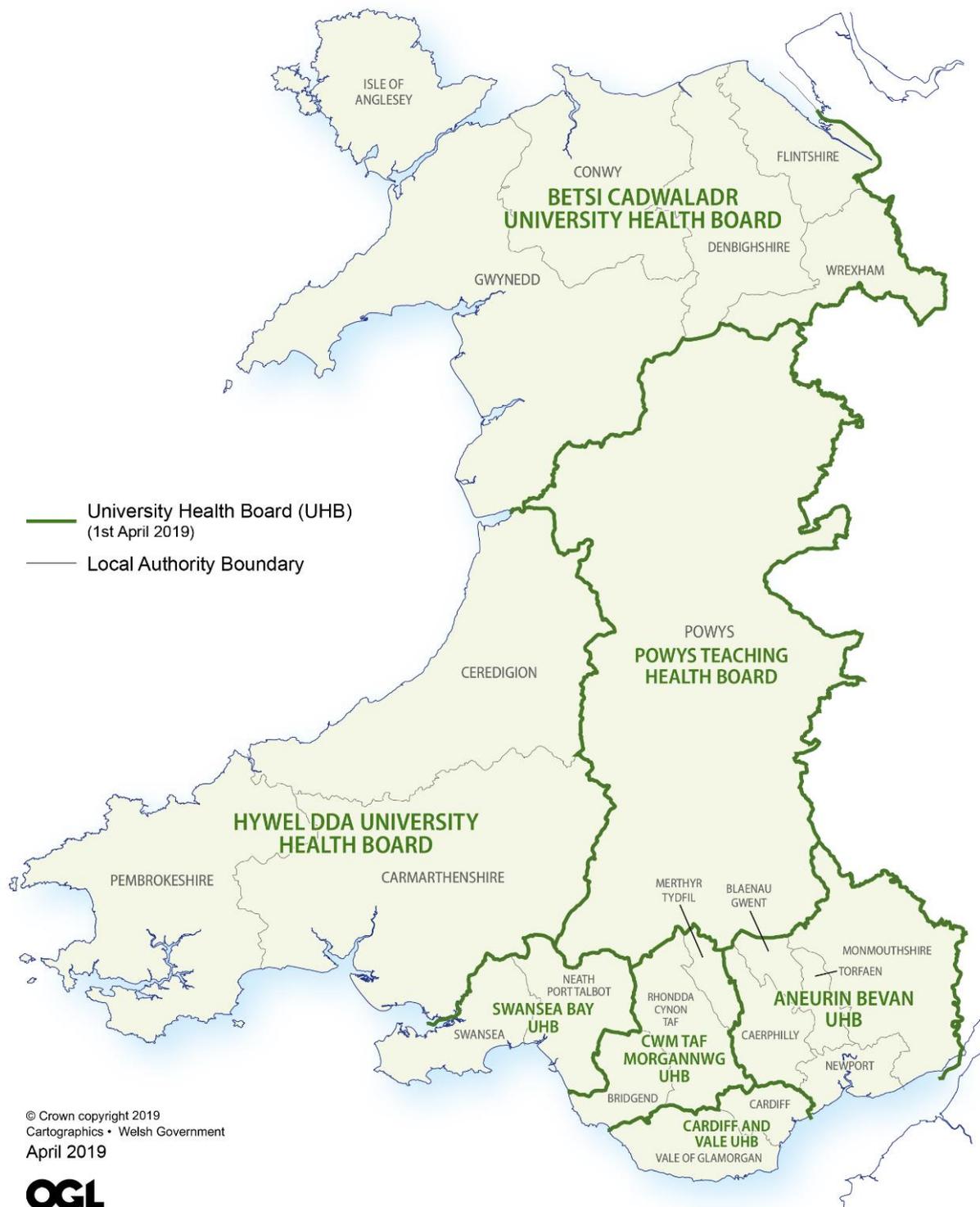


Figure 2: Map showing Health Boards in Wales

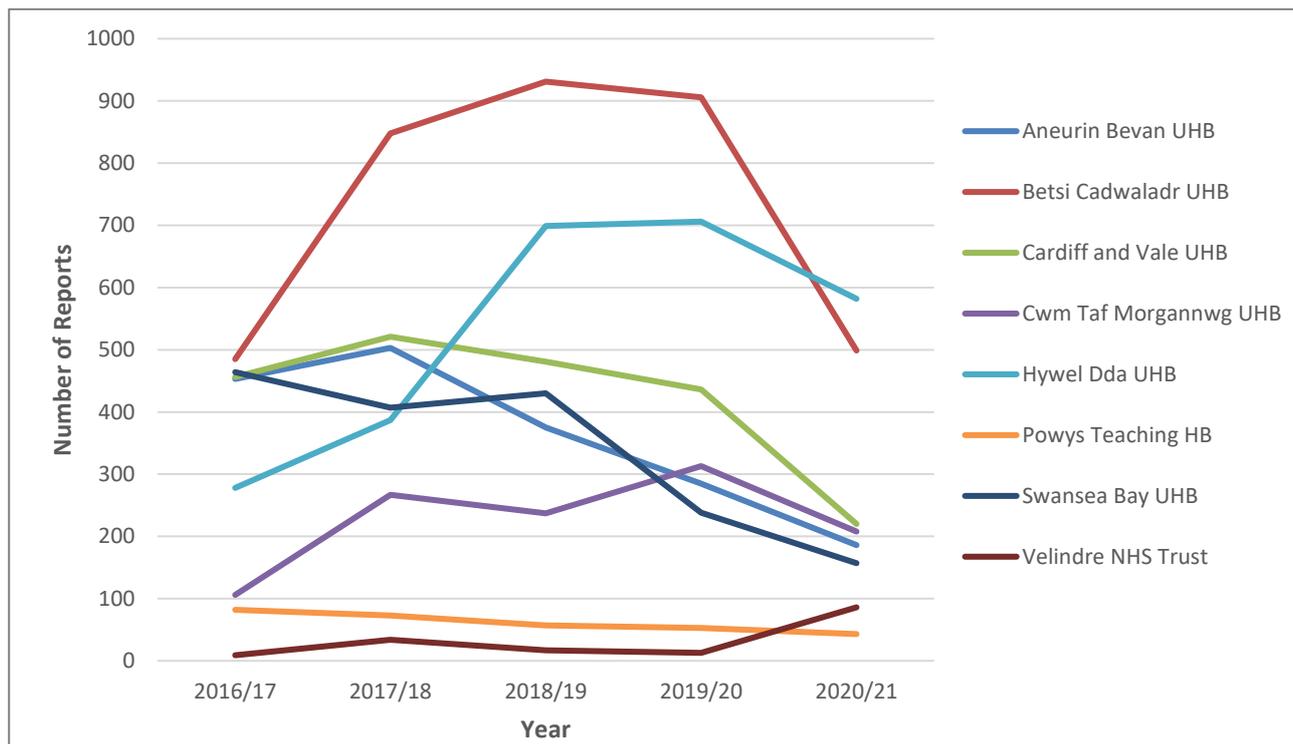


Figure 3: Number of Yellow Card reports submitted from each Health Board/NHS Trust in Wales over the last five years

b. Reporter qualifications

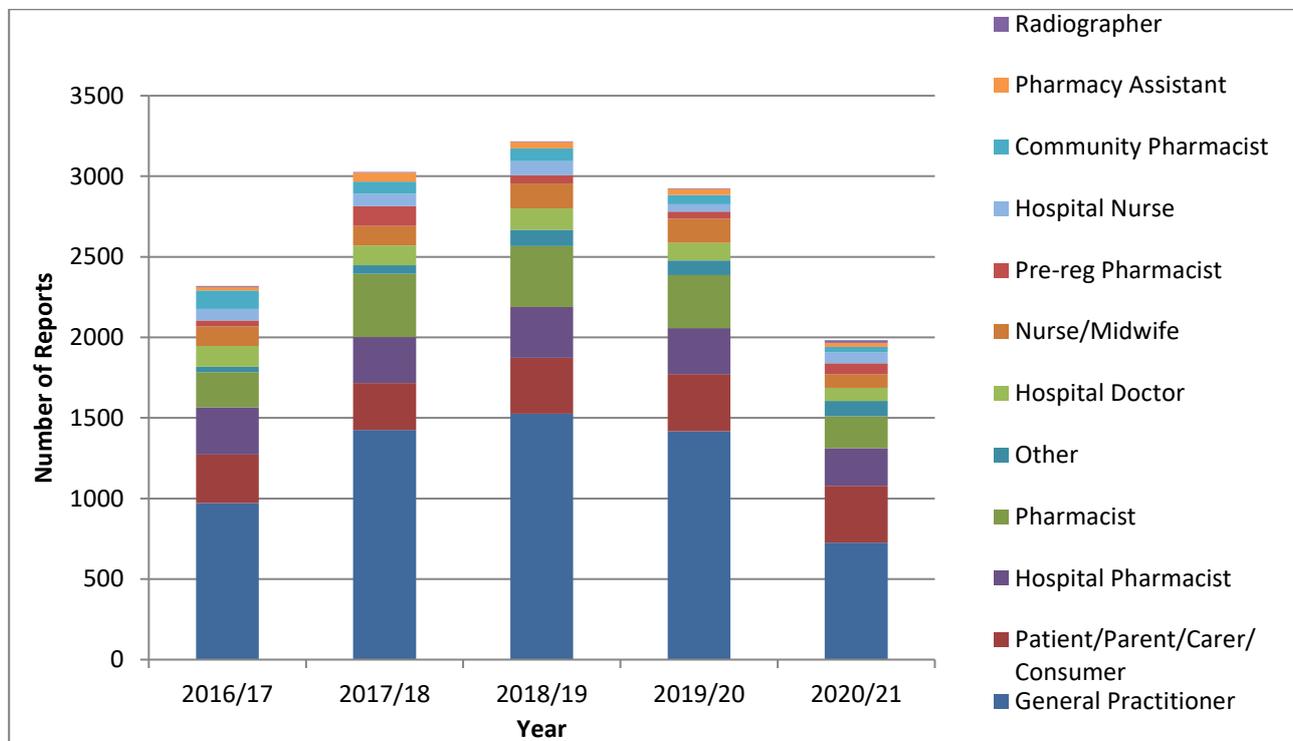


Figure 4: Number of Yellow Card reports submitted from Wales over the last 5 years by reporter qualification

*Other reporter qualifications = physician, dentist, medical student, optometrist, coroner, other health professional



| Reporter | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|-------------------------------|---------|---------|---------|---------|---------|
| General Practitioner | 972 | 1425 | 1527 | 1417 | 725 |
| Patient/Parent/Carer/Consumer | 300 | 292 | 346 | 355 | 353 |
| Hospital Pharmacist | 295 | 286 | 315 | 286 | 235 |
| Pharmacist | 217 | 392 | 378 | 328 | 197 |
| Hospital Doctor | 129 | 124 | 134 | 108 | 83 |
| Nurse/Midwife | 122 | 120 | 154 | 152 | 82 |
| Other Health Professional | 22 | 35 | 84 | 72 | 69 |
| Pre-registration pharmacist | 38 | 123 | 51 | 42 | 69 |
| Hospital Nurse | 71 | 78 | 87 | 46 | 68 |
| Community Pharmacist | 114 | 75 | 81 | 58 | 34 |
| Pharmacy assistant | 23 | 56 | 38 | 37 | 26 |
| Radiographer | 5 | 3 | 5 | 5 | 15 |
| Dentist | 1 | 4 | 6 | 7 | 7 |
| Physician | 1 | 6 | 0 | 0 | 7 |
| Hospital Health Professional | 19 | 17 | 13 | 29 | 5 |
| Medical student | 3 | 1 | 2 | 6 | 4 |
| Optometrist | 1 | 3 | 1 | 0 | 2 |
| Coroner | 0 | 0 | 2 | 1 | 1 |
| Paramedic | 0 | 0 | 1 | 1 | 0 |

Table 2: Number of Yellow Card reports submitted from Wales over the last 5 years by reporter qualification

a. Serious reports

| Year | Number of serious reports | Percentage of total reports | Percentage change on previous year |
|---------|---------------------------|-----------------------------|------------------------------------|
| 2020/21 | 771 | 39 | 0 |
| 2019/20 | 1138 | 39 | +2 |
| 2018/19 | 1176 | 37 | -5 |
| 2017/18 | 1267 | 42 | 0 |
| 2016/17 | 987 | 42 | -8 |

Table 3: Number of serious reactions reported from Wales over the last five years

b. Fatal reports

| Year | Number of fatal reports | Percentage of total reports | Percentage change on previous year |
|---------|-------------------------|-----------------------------|------------------------------------|
| 2020/21 | 23 | 1.2 | 0 |
| 2019/20 | 36 | 1.2 | 0 |
| 2018/19 | 37 | 1.2 | +0.4 |
| 2017/18 | 25 | 0.8 | -0.7 |
| 2016/17 | 34 | 1.5 | +0.3 |

Table 4: Number of fatal reports submitted from Wales over the last five years

It is important to note that suspected ADRs are associations only and there is not necessarily a causal link between any of the medicines reported on a particular Yellow Card and the fatal outcome.



c. Age breakdown

| Age band | 2018/19 | 2019/20 | 2020/21 |
|---------------|-------------|-------------|-------------|
| Unknown | 74 | 76 | 64 |
| Under 2 | 52 | 37 | 24 |
| 2 - 6 years | 71 | 56 | 25 |
| 7 - 12 years | 45 | 38 | 18 |
| 13 - 17 years | 50 | 45 | 34 |
| 18 - 24 years | 137 | 109 | 101 |
| 25 -34 years | 221 | 207 | 181 |
| 35 - 44 years | 251 | 220 | 156 |
| 45 - 54 years | 376 | 307 | 212 |
| 55 - 64 years | 453 | 441 | 286 |
| 65 - 74 years | 682 | 639 | 406 |
| 75-84 years | 550 | 531 | 312 |
| 85+ years | 230 | 221 | 136 |
| Total | 3192 | 2927 | 1955 |

Table 5: Number of Yellow Card reports submitted from Wales over the last three years by patient age

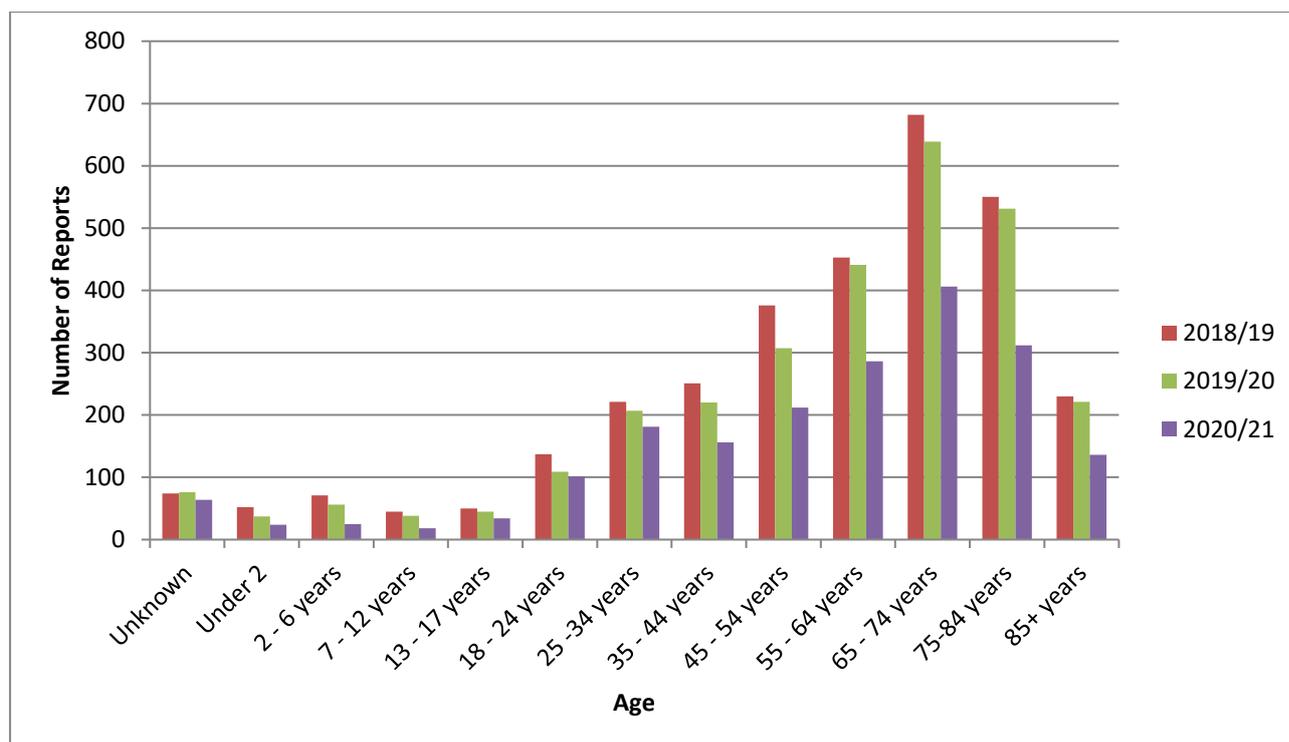


Figure 5: Number of Yellow Card reports submitted from Wales over the last three years by patient age



d. Top 10 suspected medicines - comparison of last two years

| Drug name | Number of reports (2019/20) | Number of reports (2020/21) |
|---|-----------------------------|-----------------------------|
| Apixaban | 136 | 73 |
| Influenza Virus Vaccines* (▼ some brands) | 78 | 73 |
| Rivaroxaban▼ | 88 | 72 |
| Sertraline | 71 | 57 |
| Edoxaban (▼ until December 2020) | 58 | 41 |
| Nitrofurantoin | 59 | 39 |
| Amlodipine | 87 | 38 |
| Clarithromycin | 36 | 37 |
| Atorvastatin | 62 | 36 |
| Doxycycline | 51 | 31 |

Table 6: Comparison of the number of Yellow Card reports submitted over the last two years for the top 10 suspected medicines in Wales

*multiple brands

▼ medicine subject to additional monitoring

e. Sources of reports – detailed breakdown

| Reporter | 2018/19 | | 2019/20 | | 2020/21 | |
|----------------------|---------|------------|---------|------------|---------|------------|
| | Number | % of total | Number | % of total | Number | % of total |
| Carer | 14 | 0.4 | 17 | 0.6 | 19 | 1.0 |
| Parent | 56 | 1.7 | 48 | 1.6 | 38 | 1.9 |
| Patient | 276 | 8.6 | 289 | 9.8 | 290 | 14.8 |
| Consumer | 0 | 0 | 1 | 0.0 | 6 | 0.3 |
| Community Pharmacist | 81 | 2.5 | 58 | 2.0 | 34 | 1.7 |
| Hospital Pharmacist | 315 | 9.8 | 286 | 9.7 | 235 | 12.0 |
| Pharmacist | 378 | 11.7 | 328 | 11.1 | 197 | 10.0 |
| Pharmacy Assistant | 38 | 1.2 | 37 | 1.3 | 26 | 1.3 |
| Pre-reg pharmacist | 51 | 1.6 | 42 | 1.4 | 69 | 3.5 |
| Hospital Nurse | 87 | 2.7 | 46 | 1.6 | 68 | 3.5 |
| Nurse | 150 | 4.6 | 148 | 5.0 | 78 | 4.0 |
| GP | 1527 | 47.3 | 1417 | 48.0 | 725 | 36.9 |
| Hospital Doctor | 134 | 4.2 | 108 | 3.7 | 83 | 4.2 |
| Physician | 0 | 0.0 | 0 | 0.0 | 7 | 0.4 |
| Coroner | 2 | 0.1 | 1 | 0.0 | 1 | 0.1 |
| Dentist | 6 | 0.2 | 7 | 0.2 | 7 | 0.4 |



| | | | | | | |
|----------------------------------|-------------|------------|-------------|------------|-------------|------------|
| Midwife | 4 | 0.1 | 4 | 0.1 | 4 | 0.2 |
| Optometrist | 1 | 0.03 | 0 | 0.0 | 2 | 0.1 |
| Paramedic | 1 | 0.03 | 1 | 0.0 | 0 | 0.0 |
| Radiographer | 5 | 0.2 | 5 | 0.2 | 15 | 0.8 |
| Hospital Healthcare Professional | 13 | 0.4 | 28 | 0.9 | 5 | 0.3 |
| Healthcare Assistant | 2 | 0.1 | 1 | 0.0 | 2 | 0.1 |
| Other Healthcare Professional | 84 | 2.6 | 72 | 2.4 | 67 | 3.4 |
| Medical Student | 2 | 0.1 | 6 | 0.2 | 4 | 0.2 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Total | 3227 | 100 | 2950 | 100 | 1982 | 100 |

Table 7: Number of Yellow Card reports submitted from Wales over the last three years by reporter type

As can be seen in Table 7 a total of 1982 reports were analysed. This figure differs from the 1955 reports stated in section 3a above (Table 1 and Figure 1). The reasons for this are:

- Merger of duplicate reports by the Medicines & Healthcare products Regulatory Agency (MHRA)
- Removal of invalid reports following further investigation by the MHRA.

f. Type of Reports

| Report Type | Number of reports (2020/21) | Percentage of total reports |
|-------------|-----------------------------|-----------------------------|
| EYC | 1137 | 57.4 |
| GP systems | 618 | 31.2 |
| Paper | 99 | 5.0 |
| App | 107 | 5.4 |
| MiDatabank | 21 | 1.1 |

Table 8: Number of reports submitted during 2020-21 from Wales by submission route

4. DISCUSSION OF YELLOW CARD DATA

A decrease of 33% was seen in the number of Yellow Card reports submitted for non-COVID-19 vaccine medicinal products, from Wales during 2019/20 (1955) when compared with the previous year (2927). When including the additional 7440 Yellow Card reports to COVID-19 vaccines submitted from the YCC Wales regions during December 2020 to March 2021, this would represent an increase of 221%.

The number of Yellow Card reports that were submitted from Velindre NHS Trust during 2020/21 increased by 562% when compared with 2019/20. All other Health Boards in Wales, had a decrease in the number of Yellow Card reports submitted. The largest percentage decrease was seen within Cardiff and Vale UHB, where the number of Yellow Card reports that were submitted decreased by 50%.

The highest number of reports came from General Practitioners (GPs), who contributed 37% (725) of the total number of reports received for the year. However, when compared with the previous



year, there was a reduction of 49% in the number of Yellow Card reports submitted by GPs. This represents the biggest percentage decrease across all main reporter types. This decrease was seen despite Yellow Card reporting rates continuing as a National Prescribing (reporting) Indicator in primary care and the integration of Yellow Card reporting into one of the clinical systems which is used in some practices in Wales.

An increase was seen in Yellow Card reporting numbers from pre-registration pharmacists (42 to 69 reports, +64.3%), hospital nurses (46 to 68 reports, +47.8%), radiographers (5 to 15 reports, +200.0%), Physicians (0 to 7 reports) and Optometrists (0 to 2 reports). No change was seen in the number of reports submitted from dentists and coroners. A decrease was seen in the number of reports submitted from all other reporter types.

Whilst it is disappointing to report a reduction in the number of Yellow Card reports submitted from Wales for non-COVID-19 vaccines during the year 2020/21 it is possible that the impact of the COVID-19 pandemic on the healthcare system, during this period, may be responsible. It has been reported that during this time there was a reduction in the number of GP consultations taking place and in the number of acute admissions to hospitals (for indications not related to COVID-19), thus reducing opportunities for healthcare professionals to identify and report suspected ADRs. Other possible reasons for a reduction in reporting numbers during this period include reduced staffing levels, sickness, changes in workforce, less time available, pressure to complete other duties, and stress.

The percentage of serious suspected ADR reports submitted within Wales remained the same (39%) when compared with 2020/21. The percentage of serious reports from GPs reduced by 2% when compared with the previous year. The proportion of fatal reports remained static.

As in the previous year the highest number of reports concerned patients in the group aged 65-74 years. There has been a reduction in the number of reports across all age groups.

The most frequently reported suspected medicine was apixaban, a direct-acting oral anticoagulant (DOAC), with 73 reports. Two other DOACs (rivaroxaban▼ and edoxaban▼) also feature in the top 10 suspected medicines list. Three of the top 10 suspected medicines were on the list of medicines subject to additional monitoring (identified using an inverted black triangle ▼).

The majority (57.4%) of reports were submitted as electronic Yellow Cards. Only 5.4% were submitted via the app and 1.1% via MiDatabank. YCC Wales will continue to advertise the availability of the app more widely and will work with Medicines Information Teams across Wales to increase Yellow Card reporting via the MiDatabank programme.



5. PROMOTIONAL ACTIVITIES

a. Training delivered to healthcare professionals and their respective groups

| Audience type | Session type | Duration (hours) | Number of sessions | Total audience numbers | Total hours training |
|--|--------------|------------------|--------------------|------------------------|----------------------|
| Dental Professionals at Public Health Wales/Welsh Government | Meeting | 1 | 1 | 14 | 1 |
| Healthcare Professionals | Meeting | 0.5 | 1 | 10 | 0.5 |
| Healthcare Professionals | Webinar | 0.5 | 2 | 20 | 1 |
| Healthcare Professionals at Vaccine Preventable Disease Programme, Public Health Wales | Meeting | 1 | 3 | 7 | 3 |
| Mammographers | Lecture | 1 | 1 | 10 | 1 |
| Medicines Information Pharmacists | Meeting | 0.25 | 2 | 12 | 0.5 |
| Medicines Safety Officers | Meeting | 0.5 | 1 | 11 | 0.5 |
| Pharmacist | One to one | 1 | 1 | 1 | 1 |
| Pharmacists | Meeting | 1 | 2 | 18 | 2 |
| Pharmacists | Lecture | 1 | 1 | 20 | 1 |
| Podiatrists | Lecture | 1 | 1 | 10 | 1 |
| Pre-registration pharmacists | Lecture | 1 | 1 | 6 | 1 |

Table 9: Training activities delivered to healthcare professionals during 2020/21

b. Training delivered to patients and their respective groups

| Audience type | Session type | Duration (hours) | Number of sessions | Total audience numbers | Total hours training |
|--|--------------|------------------|--------------------|------------------------|----------------------|
| 3G Public Genetics and Genomics Conference | Lecture | 1 | 1 | 80 | 1 |

Table 10: Training activities delivered to patients and their respective groups during 2020/21



c. Training delivered to undergraduates

| Audience type | Session type | Duration (hours) | Number of sessions | Total audience numbers | Total hours training |
|-------------------------------|--|------------------|--------------------|------------------------|----------------------|
| BSc students | Lecture | 1 | 1 | 34 | 1 |
| BSC students | Lecture | 1 | 1 | 30 | 1 |
| BDS Year 4 | Lecture | 1 | 1 | 75 | 1 |
| Medical Students | Revision Workshops PSA Style including ADR | 1.5 | 3 | 13 | 4.5 |
| Medical Students | PSA Workshops | 1 | 2 | 295 | 1 |
| Medical Students | Lecture | 1 | 1 | 295 | 1 |
| Medical Students | Lecture | 1 | 3 | 300 | 3 |
| Medical and Pharmacy Students | Workshop | 2 | 6 | 360 | 12 |
| Pharmacy Students | Pre-recorded Lecture | 1 | 1 | 120 | 1 |
| Pharmacy Students | Workshop | 2 | 3 | 120 | 6 |

Table 11: Training activities delivered to undergraduates during 2020/21

In March 2021, YCC Wales provided a pre-recorded lecture and virtual workshops to Pharmacy undergraduate students. This was the second time these sessions had been run with Cardiff University. The feedback from the students was very positive. They particularly enjoyed the case studies presented during the workshops. YCC Wales hopes to continue with these teaching sessions in future years.

d. Materials developed for YCS promotion

YCC Wales continued to produce bilingual posters and other promotional resources (e.g. display screen materials) to raise awareness of Yellow Card reporting amongst healthcare professionals and members of the public.

Specific materials were developed in support of World Patient Safety Day 2020 and for inclusion in the 2021 Celtic Conference brochure and Public Health Network Cymru e-bulletin.

YCC Wales also provided public focused promotional materials to a number of patient organisations throughout Wales e.g. Headway, Kidney Wales and Ataxia and me.org, to share amongst their members.

YCC Wales continued to provide all new champions with a Champion Resource Pack. This pack is designed to provide Yellow Card Champions throughout Wales with information that will enable them to undertake their role effectively, including the champion role outline, YCC Wales contact information, and links to available resources.



6. PUBLICATIONS

Full Articles

Bracchi RC, Tseliou F, Copeland L, Routledge PA, Thomas A, Woods F, Adams A, Walker J, Jadeja M, Atkinson MD, Ashfield Watt P. Public awareness in Wales of the UK Yellow Card scheme for reporting suspected adverse drug reaction. *British Journal of Clinical Pharmacology* 2021, 1-5.

Routledge PA, Bracchi RC and Woods FJ. Drug interactions with herbal medicines: mechanisms and implications. *Adverse Drug Reaction Bulletin*. February 2021.

7. YCC WEBSITE

a. Website updates

The YCC Wales website is incorporated into the All Wales Therapeutics and Toxicology Centre (AWTTC) website.

The site includes:

- Information about the YCC Wales team including contact details
- YCC Wales News and Events
- Yellow Card reporting during the Covid-19 outbreak
- Advice for healthcare professionals on reporting ADRs
- Information for patients
- Information on our Champion Scheme.
- Links to external educational resources, YCC Wales publications and annual reports.

Information contained on the website is regularly reviewed and updated.

b. Number of website hits

This function has not yet been activated but will hopefully be for future years.

8. RESEARCH AND ONGOING INITIATIVES

8.1 Yellow Card Champion Scheme

In November 2012 the All Wales Chief Pharmacists Committee agreed to the implementation of the Yellow Card Hospital Champion Scheme. Whilst the scheme was initially aimed at recruiting hospital pharmacists and pharmacy technicians as Champions it has now been expanded to primary care pharmacists. Champions working across all sectors are invited to attend our training days.

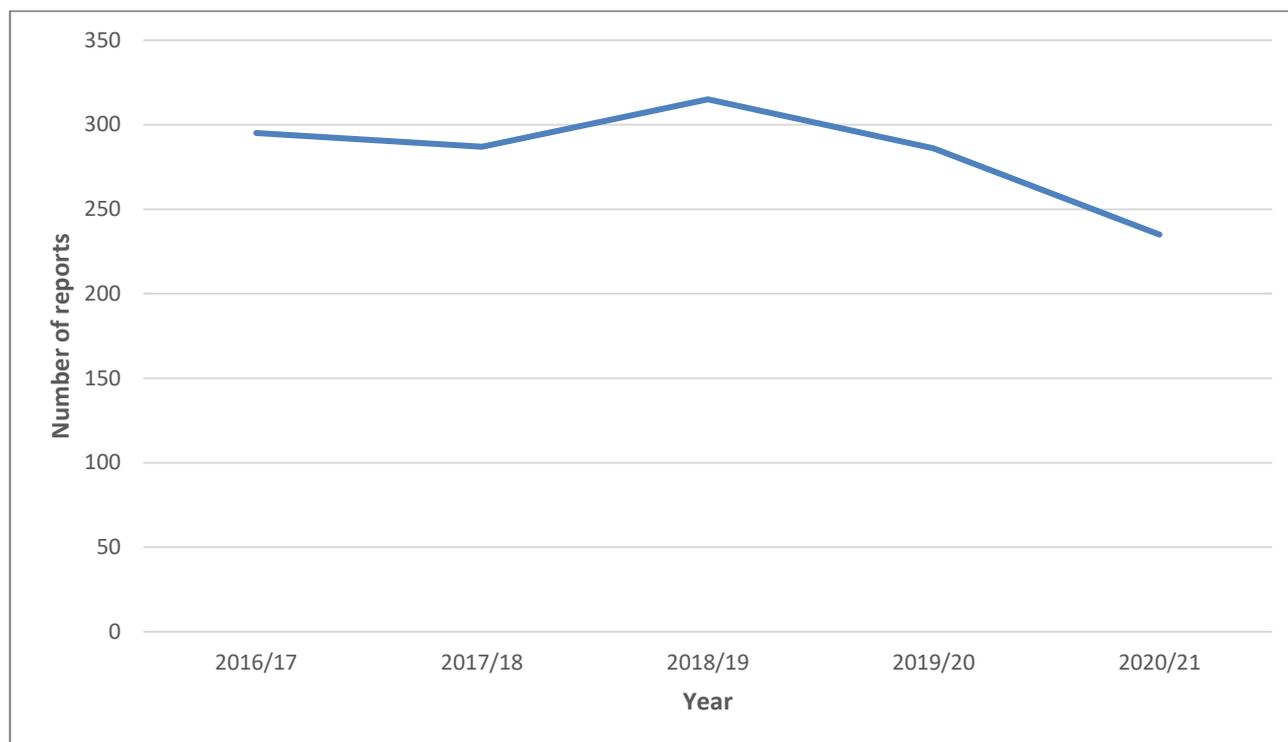


Figure 6: Number of Yellow Card reports submitted by Hospital Pharmacists in Wales over the last five years

Figure 6 shows the number of Yellow Card reports submitted by hospital pharmacists during 2020/21. There was an 18% decrease in the number of reports submitted when compared with the previous year. The aim for the next year will be to increase the number of reports by hospital pharmacists.

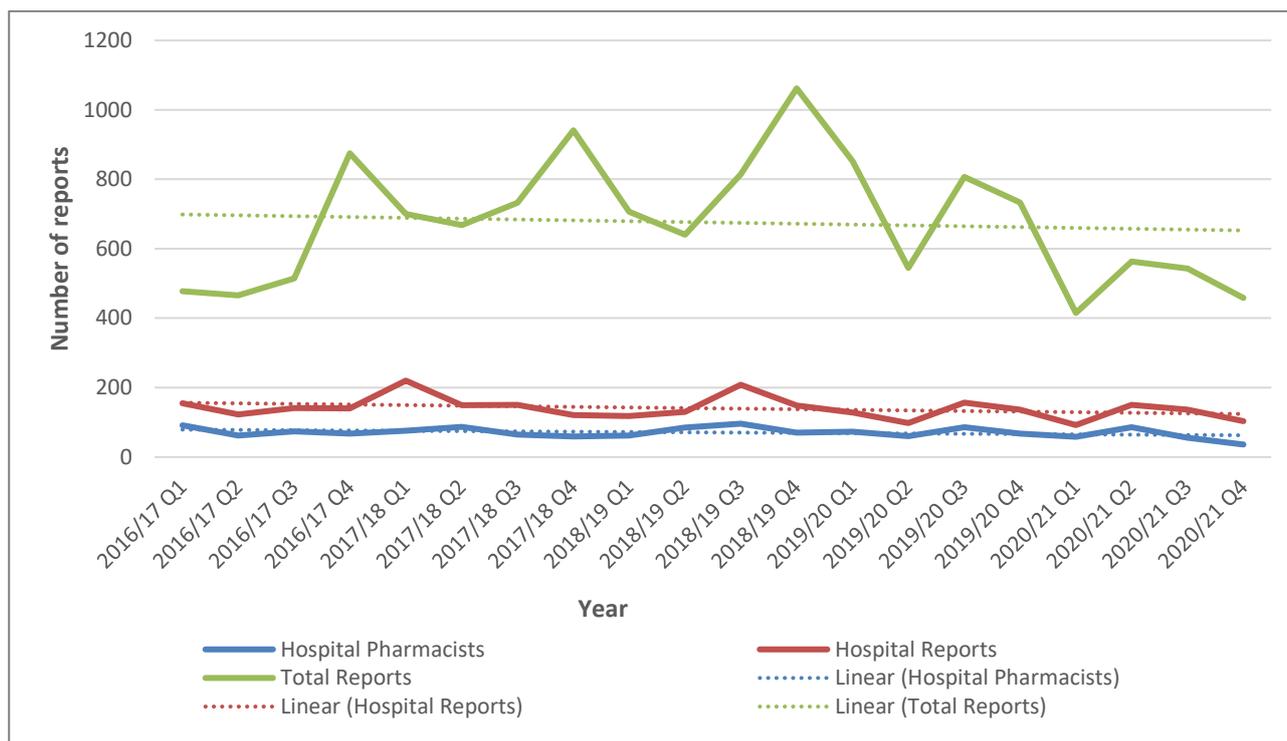


Figure 7: Number of Yellow Card reports submitted by Hospital Pharmacists, Hospital Reporters and all reporters in Wales over the last five years

Figure 7 illustrates that there has been an overall reduction in the number of Yellow Card reports from secondary care and primary care sources. The Yellow Card Champions have continued to provide education to healthcare professionals working within primary and secondary care. YCC Wales has also continued to recruit and train new Yellow Card Champions.

A new Wales wide e-prescribing system is planned for use in secondary care. It is hoped that this system will allow for direct ADR submission to the Yellow Card scheme and will assist the user by pre-populating much of the required information. This will help to simplify the reporting process and encourage reporting amongst healthcare professionals working in secondary care.

In January 2020, YCC Wales enlisted the support of the Welsh Medication Safety Officers (MSOs) in order to enhance its Yellow Card Champion Programme. YCC Wales continues to engage with Welsh MSOs and medicines management nurses to enable them to support and encourage the Champions working within their Local Health Boards.

Unfortunately, due to the COVID-19 pandemic YCC Wales was unable to hold its annual face to face Medicines Safety Training Day during 2021. YCC Wales hopes to hold a training day in 2022 where Yellow Card Champions and members of the All Wales Medicines Safety Network will be invited.

In the coming year, YCC Wales also hopes to continue to further develop its Champion scheme to improve communication, engagement and the sharing of materials with Yellow Card Champions.

8.2 National Prescribing Indicator

In 2020/21, Yellow Card reporting continued as a National Prescribing (reporting) Indicator (NPI) in Wales. NPIs are developed annually to promote national prescribing, balancing both quality and efficacy.

The following targets were maintained during 2020/21:

- A. GP practices - GP practices to submit one Yellow Card per 2,000 practice population.
- B. Health Boards - submit in excess of one Yellow Card per 2,000 Health Board population.
- C. Health Boards - demonstrate a 20%, or greater, increase from baseline*, for Yellow Cards submitted by secondary care.
- D. Health Boards - demonstrate a 50%, or greater, increase from baseline*, for Yellow Cards submitted by members of the public.
- E. Yellow Cards submitted in community pharmacy - no target value set.

*Baseline: number of Yellow Cards submitted in 2019/20.

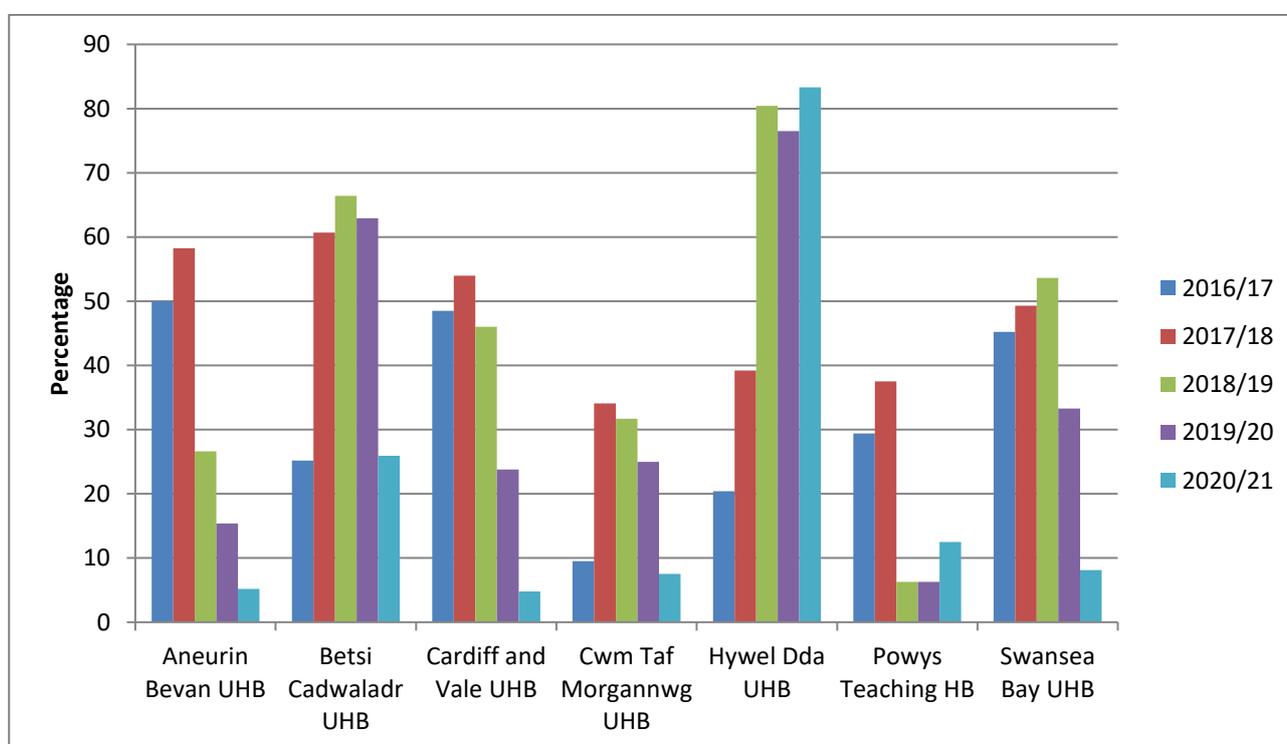


Figure 8: Percentage of practices per Health Board attaining the NPI target of 1 Yellow Card submitted per 2,000 patients, over the last five years

Figure 8 shows the percentage of GP practices achieving the target of submitting 1 Yellow Card per 2,000 patients. For the sixth year running all Health Boards in Wales have practices achieving the target. However, the percentage of practices attaining the target in all but two Health Boards has reduced when compared with 2019/20.

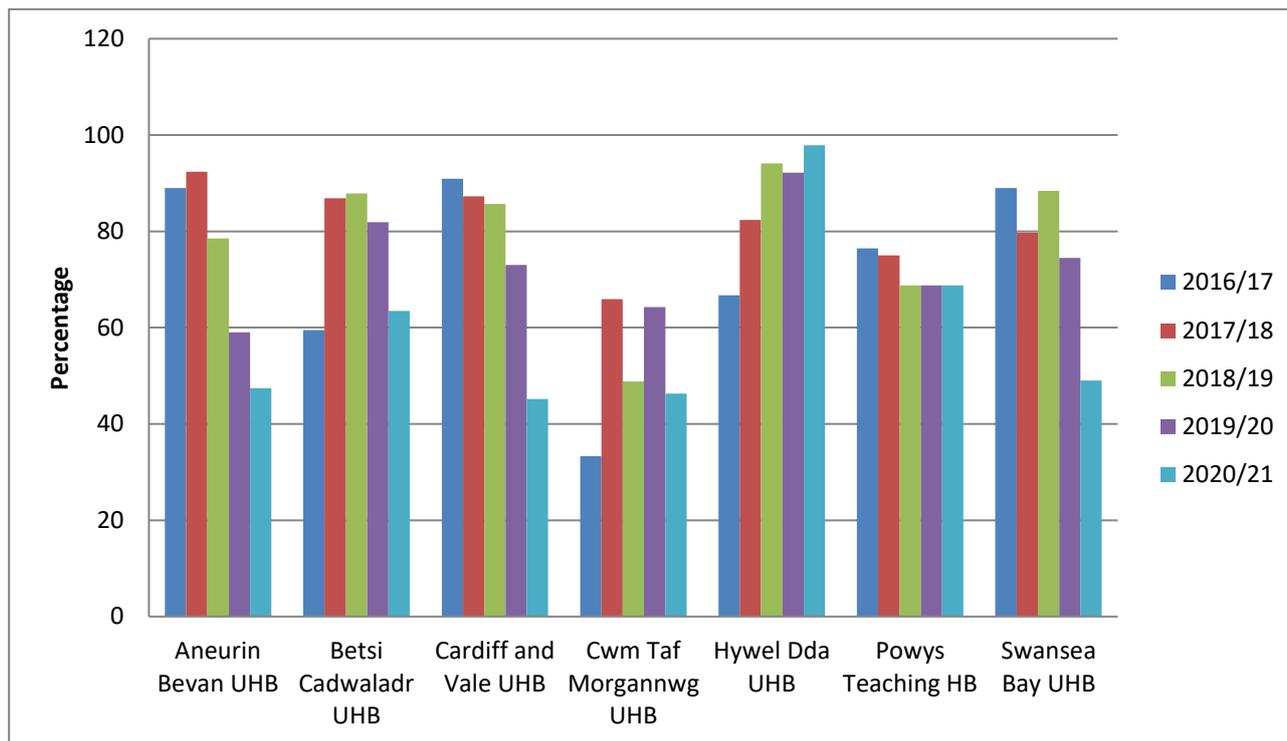


Figure 9: Percentage of GP practices in each Health Board submitting a Yellow Card over the last 5 years

Figure 9 shows the percentage of GP practices who have submitted at least one Yellow Card. Practice level data is published on a quarterly basis by the Welsh Analytical Prescribing Support Unit (WAPSU) on the [Server for Prescribing Information Reporting and Analysis \(SPIRA\) NPI dashboard](#). This dashboard is available for all Health Boards to view and can be used to target those practices who have not submitted a Yellow Card and to offer additional training and support. YCC Wales also continues to work with local Yellow Card Champions throughout Wales.

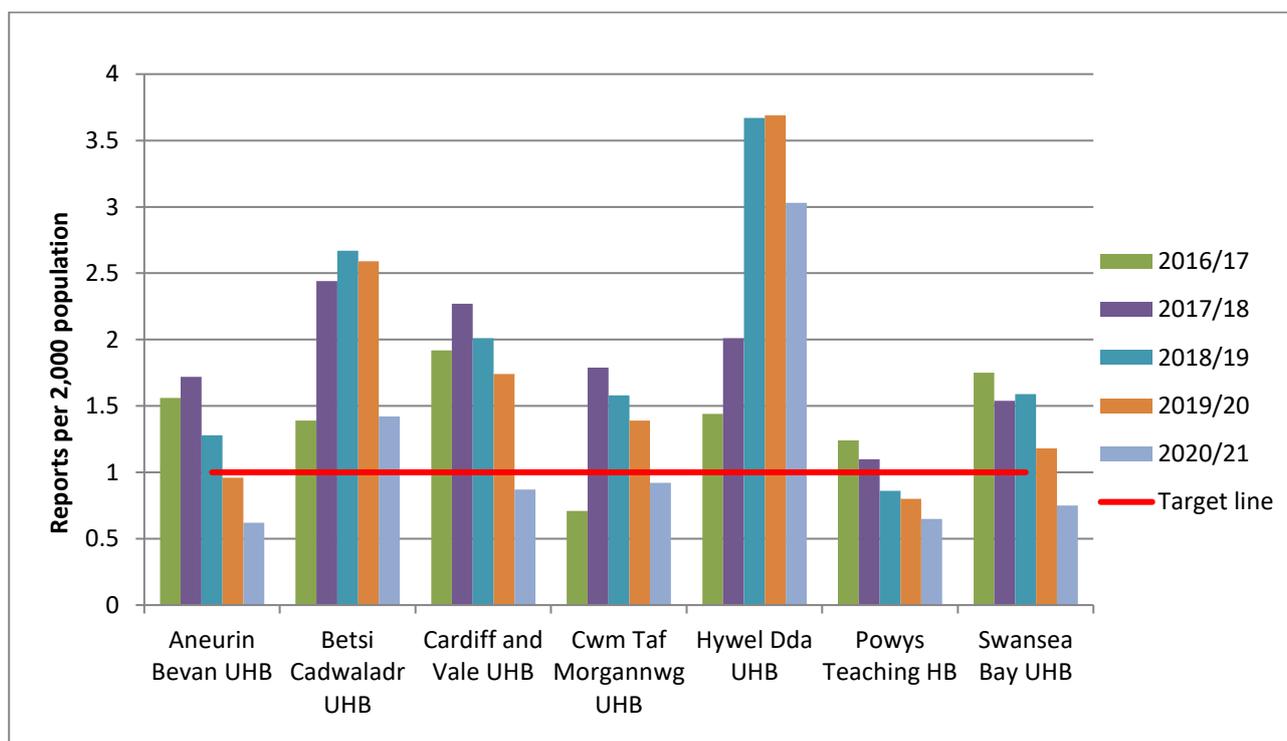


Figure 10: Number of Yellow Card reports per 2,000 patient population submitted per Health Board over the last 5 years

Figure 10 shows the performance of each Health Board against the target to submit in excess of one Yellow Card per 2,000 Health Board population. Two of the seven Health Boards attained this target, however a reduction in reporting rates were seen in all Health Boards.

Since their introduction, the NPIs within primary care have been positively associated with increased numbers of Yellow Card reports submitted from this healthcare sector in Wales. It is possible that the impact of the COVID-19 pandemic on the healthcare system and the reported reduction of GP consultations that took place during this period may have resulted in a reduction in the number of Yellow Card reports submitted by health care professionals working within GP practices. A reduction in acute hospital admissions (for non-COVID-19 reasons) and pressure felt by healthcare workers in all sectors may also have contributed to this reduction in reporting rates.

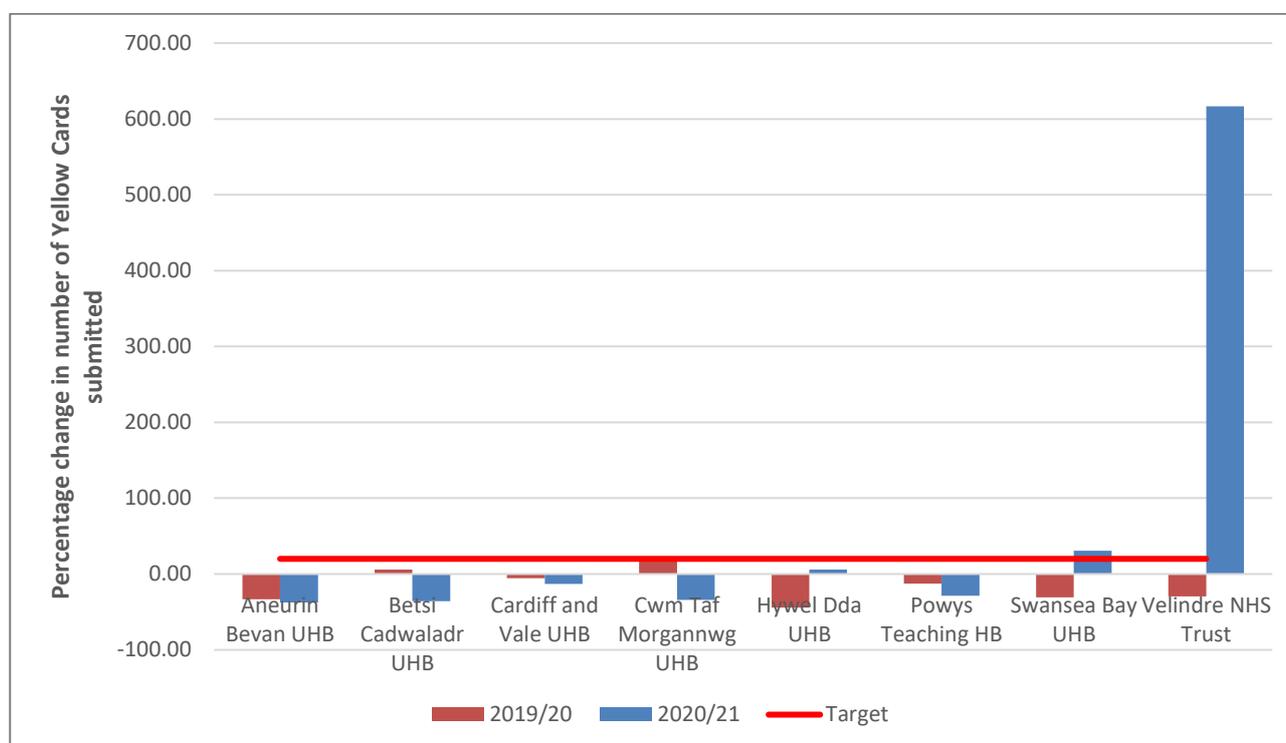


Figure 11: Performance of each Health Board/NHS Trust against the NPI Secondary Care Target demonstrate a 20%, or greater, increase from baseline, for Yellow Cards submitted by secondary care)

Figure 11 shows the performance of each Health Board/NHS Trust against the secondary care target.

Two Health Boards achieved the target to increase Yellow Card reporting by 20% in secondary care. Velindre NHS Trust saw the largest percentage increase (+617%). The largest percentage decrease (-38%) was seen in Aneurin Bevan UHB. YCC Wales are working with colleagues, including Yellow Card Champions and MSOs, in all Health Boards to improve reporting in secondary care.

This NPI target for 2020/21 has been rolled over into 2021/22. However, it has been revised for 2022/23. The performance target for each health board will be to demonstrate a 10% or greater, increase from base in the number of Yellow Cards submitted by secondary care.

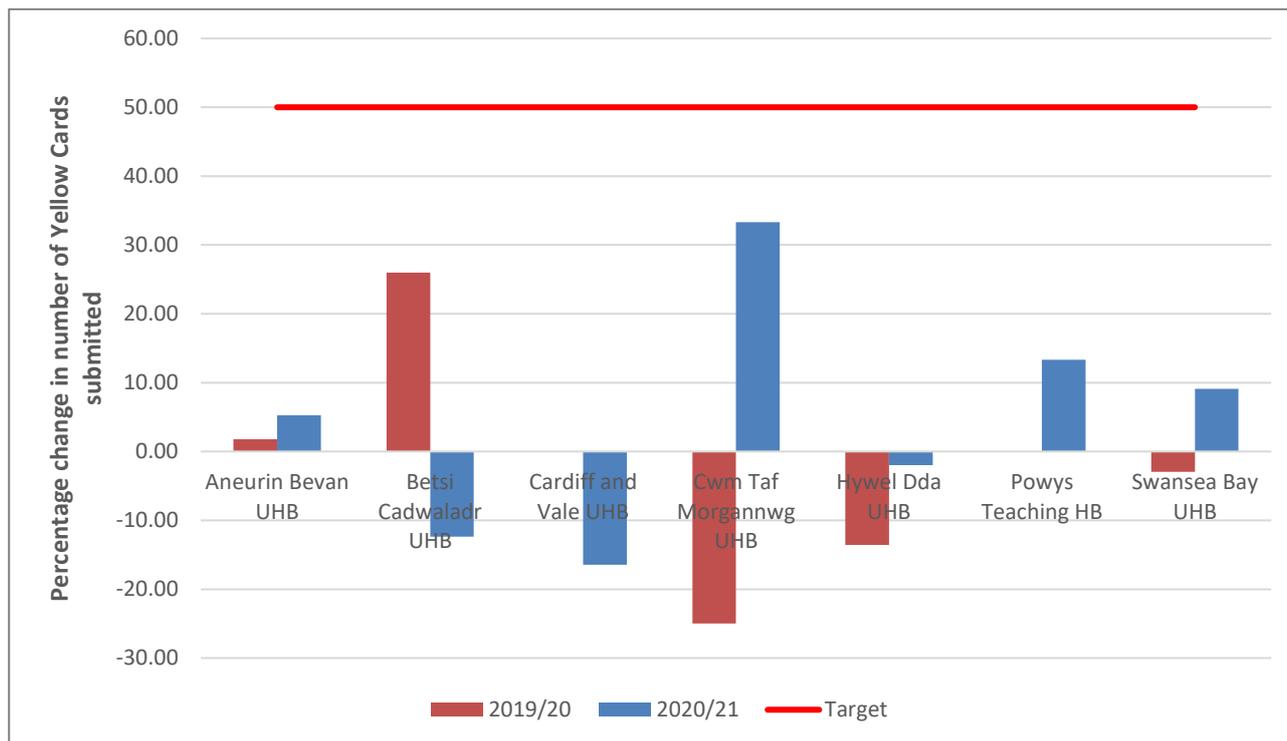


Figure 12: Performance of each Health Board against the NPI Public Target (demonstrate a 50%, or greater, increase from baseline, for Yellow Cards submitted by members of the public)

Figure 12 shows the performance of each Health Board against the target for reports from members of the public.

No Health Board achieved the target to increase Yellow Card reporting by 50% by members of the public. However, member of the public reporting rates increased in four of the seven Health Boards. The highest percentage increase (+33%) was seen in Cwm Taf Morgannwg UHB.

This NPI target for 2020/21 has been rolled over into 2021/22. However, it has been revised for 2022/23. The performance target for each health board will be to demonstrate a 25% or greater, increase from base in the number of Yellow Cards submitted by members of the public.

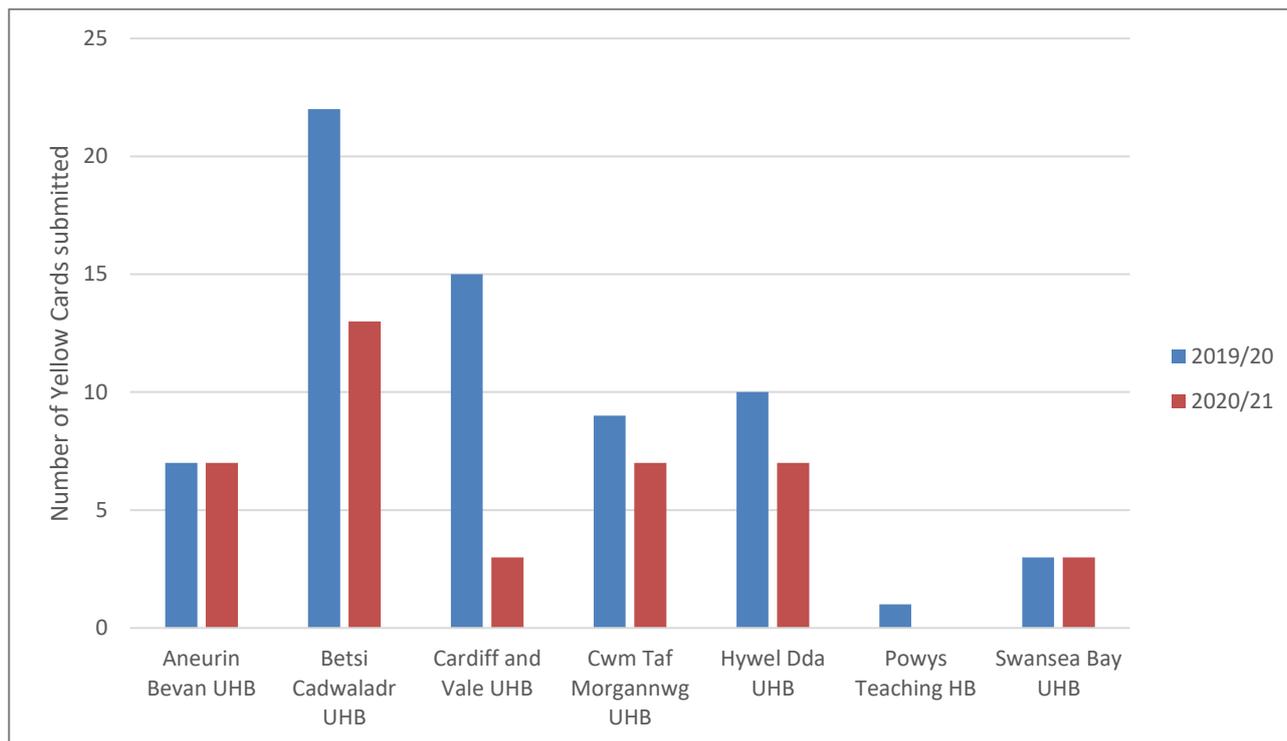


Figure 13: Number of Yellow Cards submitted by Community Pharmacy in each Health Board

Figure 13 shows the performance of each Health Board against the Community Pharmacy NPI. No target was set for the number of Yellow Cards submitted by community pharmacies. A reduction was seen in the number of reports submitted from community pharmacies in five Health Boards.

8.3 Social Media

YCC Wales launched its Twitter account in August 2016. Posts are published to encourage Yellow Card reporting amongst healthcare professionals and members of the public. In order to increase awareness of the Yellow Card scheme and encourage Yellow Card reporting amongst members of the public and healthcare professionals, YCC Wales contributed to a number of social media campaigns.

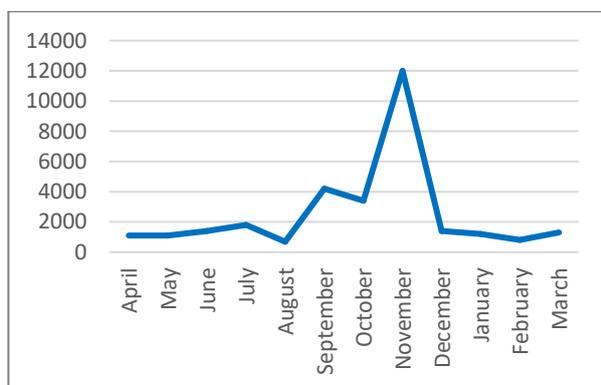


Figure 14: Number of monthly Twitter Impressions during 2020/21

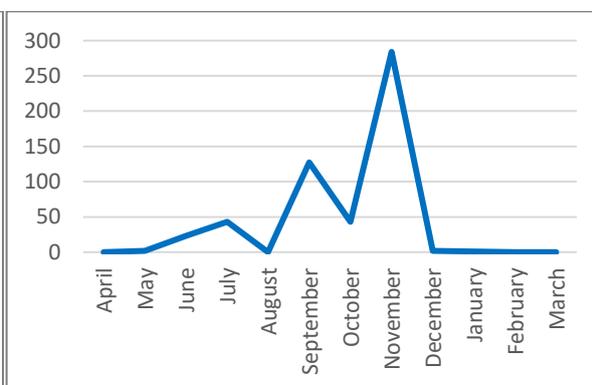


Figure 15: Number of monthly Twitter Engagements during 2020/21

Figures 14 and 15 illustrate the peak numbers of Twitter impressions and post engagements achieved in September and November 2020. These coincided with World Patient Safety Day in



September 2020 and #MedSafetyWeek in November 2020. During these periods YCC Wales was very active on Twitter. To date YCC Wales has 331 followers. It is hoped that this number will increase further over the next year.

In June 2017 YCC Wales launched a YCC Wales Facebook page. The current page following is 118. YCC Wales are hopeful that the following will increase over the next financial year.

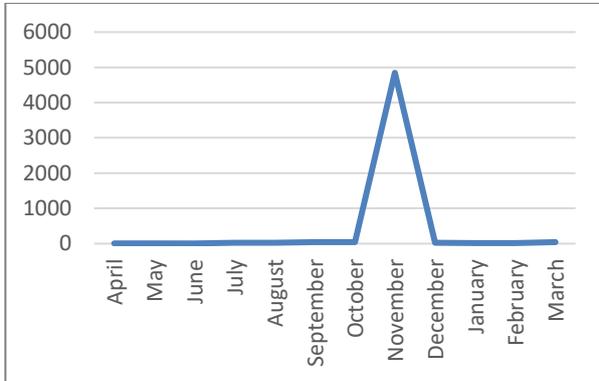


Figure 16: Monthly Facebook reach during 2020/21

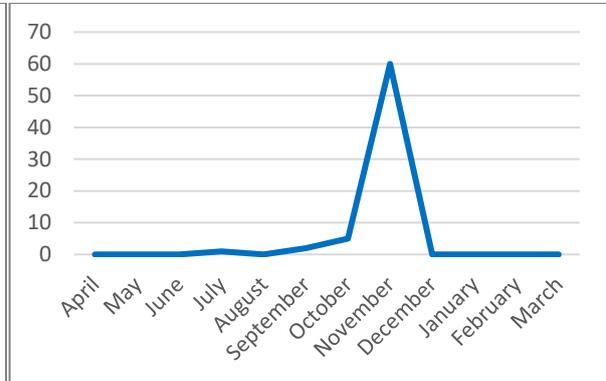


Figure 17: Number of monthly Facebook Engagements during 2020/21

As can be seen in Figures 16 and 17 peak reach and engagements were seen in November 2020, which coincided with #MedSafetyWeek. During this campaign YCC Wales utilised the Facebook advertising tool to increase reach.

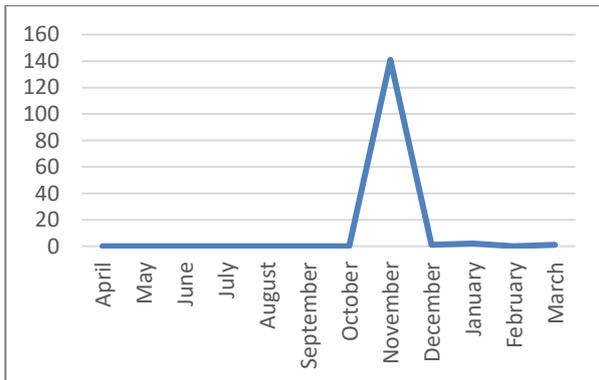


Figure 18: Monthly Instagram reach during 2020/21

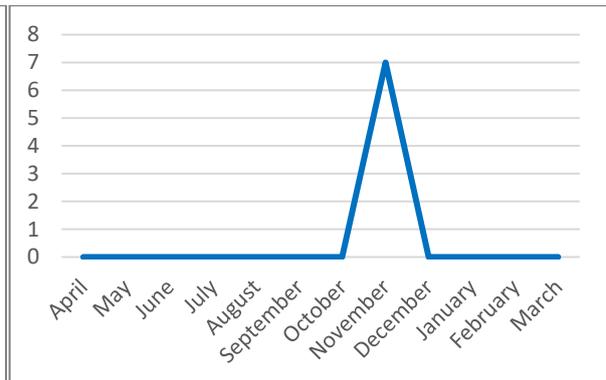


Figure 19: Number of monthly Instagram Engagements during 2020/21

To coincide with #MedSafetyWeek, YCC Wales expanded its social media presence by launching a YCC Wales Instagram page, in an effort to spread the word wider about the Yellow Card scheme and the importance of reporting ADRs. To date YCC Wales has only 22 followers but hopes to make further use of this platform and increase their following over the next year.

8.4 Yellow Card Supporter Pledge

During 2017/18 YCC Wales, with input from the MHRA, developed a Yellow Card Supporter Pledge. The pledge was developed to provide information about the Yellow Card scheme and invite members of the public and healthcare professionals to make a pledge to making medicines safer. Due to local organisational changes there is currently no electronic version of the pledge available. This will be addressed over the coming months to enable wider sharing.



9. CONCLUSIONS

During 2020/21 a reduction in the number of Yellow Card reports submitted from Wales was seen. This is the second year running for a reduction in reporting numbers to be seen from Wales. Despite difficult circumstances YCC Wales worked hard to promote the Yellow Card scheme and encourage reporting amongst healthcare professionals and members of the public. The Yellow Card Champion Scheme continued to be expanded and the Yellow Card National Prescribing (reporting) Indicator was maintained.

Whilst it is not possible to say with certainty, it appears that the impact of the COVID-19 pandemic on the healthcare system continued to have a profound effect on Yellow Card reporting rates in Wales. As the implications of the pandemic continue YCC Wales will adapt to new ways of promoting the scheme amongst healthcare professionals and members of the public.

Our strategy for 2021/22 will be to:

- Develop materials and utilise virtual teaching platforms to continue raising awareness of the Yellow Card Scheme and encourage reporting by healthcare professionals and members of the public.
- Increase awareness of the Yellow Card scheme and reporting rates amongst members of the public through patient centred initiatives e.g. visits to MVCs.
- Continue to raise awareness of the National Prescribing (reporting) Indicator amongst primary and secondary care organisations and provide appropriate support.
- Improve communication and engagement of Yellow Card Champions and Welsh MSOs by utilising platforms for team working such as Microsoft Teams.
- Target low reporting groups and Health Boards.
- Increase activity on Social Media to reach a wider audience.



10. ACKNOWLEDGEMENTS

YCC Wales acknowledges the contribution made by the following individuals during 2020/21 in helping us to promote and develop our current initiatives:

Secondary Care Yellow Card Champions

Rosemary Allgeier, Public Health Wales
Huw Carson, Aneurin Bevan UHB
Samantha Clitheroe, Betsi Cadwaladr UHB
Ellen Crowley, Swansea Bay UHB
Rebecca Dent, Velindre NHS Trust
Petra Francis, Swansea Bay UHB
Andrea Griffiths, Cardiff and Vale UHB
Ciara Griffiths, Hywel Dda UHB
Amanda Halloway, Cwm Taf Morgannwg UHB
Katherine Howard, Cwm Taf Morgannwg UHB
Judith Harding, Aneurin Bevan UHB
Hannah Leggett, Hywel Dda UHB

Edward Jones, Swansea Bay UHB
Kelly Jones, Swansea Bay UHB
Lowri Jones, Hywel Dda UHB
Rhian Jenkins, Hywel Dda UHB
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Janet Thomas, Betsi Cadwaladr UHB
Lowri Thomas, Cardiff and Vale UHB
Sean Thomas, Hywel Dda UHB

Primary Care Yellow Card Champions

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Anne-Marie Montoto, Cwm Taf Morgannwg UHB
Jatinder Parma, Swansea Bay UHB

Welsh Analytical Prescribing Support Unit

Anne Coles
Kath Haines

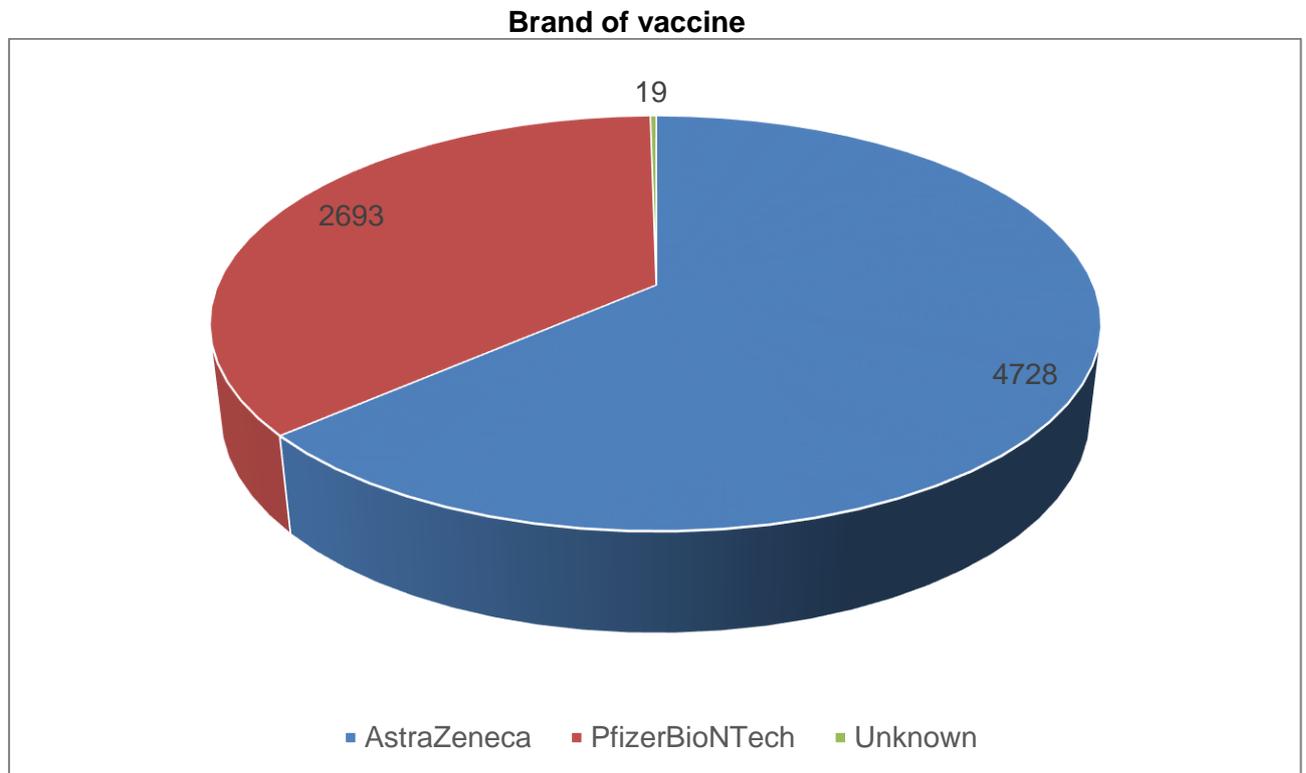
David Lewis
Claire Thomas

Welsh Medicines Information Centre

Hannah Evans
Kate Todd



11. **APPENDIX 1 – Summary of reports of suspected ADRs to COVID-19 vaccines received December 2020 – March 2021**



Reporter Qualification

| Reporter | Total |
|----------------------------------|-------|
| Patient/carer/recipient | 5379 |
| Other Healthcare Professional | 389 |
| GP | 383 |
| Nurse | 322 |
| Healthcare assistant | 224 |
| Hospital Nurse | 143 |
| Pharmacist | 97 |
| Hospital doctor | 92 |
| Dentist | 68 |
| Hospital Healthcare Professional | 64 |
| Hospital Pharmacist | 55 |
| Pharmacy Assistant | 51 |
| Medical student | 46 |
| Paramedic | 28 |
| Pre-registration Pharmacist | 20 |
| Midwife | 18 |
| Physician | 17 |
| Community Pharmacist | 17 |
| Radiographer | 16 |
| Optometrist | 9 |
| Chiropodist | 2 |

Sex of individual experiencing suspected ADR

| Sex | Total |
|---------|-------|
| Female | 5493 |
| Male | 1639 |
| Unknown | 308 |

Age breakdown

| Sex | Total |
|----------|-------|
| Under 18 | 68 |
| 18-24 | 362 |
| 25-34 | 1048 |
| 35-44 | 1103 |
| 45-54 | 1143 |
| 55-64 | 1325 |
| 65-74 | 1157 |
| 75-84 | 451 |
| 85+ | 137 |
| Unknown | 646 |



YCC Wales

Yellow Card Centre Wales
Canolfan Cerdyn Melyn Cymru

For further information visit:

www.awttc.org/yccwales

or e-mail:

YCCWales@wales.nhs.uk