



YCC Wales

Yellow Card Centre Wales
Canolfan Cerdyn Melyn Cymru

Annual Report 2021-2022



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YELLOW CARD CENTRE WALES ANNUAL REPORT

Date: 2021/22

1. TEAM

Executive Team

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

Advisory Board

| | |
|----------------|---|
| Mrs A Adams | Principal Pharmacist, Welsh Medicines Information Centre [Chair] |
| Dr R Bracchi | Medical Advisor, All Wales Therapeutics and Toxicology Centre (AWTTC) |
| Dr J Coulson | Interim Clinical Director, AWTTC |
| Dr A Cope | Dental Consultant, Public Health Wales |
| Mr A Evans | Chief Pharmaceutical Officer, Welsh Government |
| Dr L Gray | Medical Director, National Poisons Information Service Cardiff |
| Ms K Haines | Head of Welsh Analytical Prescribing Support Unit, AWTTC |
| Ms C Howard | Immunisation Co-ordinator, Child Health, Cardiff and Vale UHB |
| 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 |
| Mr A Meudell | Patient representative |
| Dr R Ratcliffe | General Practitioner, Wales Deanery |
| Mrs K Samuels | Head of Patient Access to Medicines Service, AWTTC |
| Dr M Singh | Consultant in Acute Medicine, Aneurin Bevan UHB |

2. EXECUTIVE SUMMARY

During 2021/22 the impact of the COVID-19 pandemic on the health care system throughout Wales and the UK, continued to affect the way in which the Yellow Card Centre (YCC) Wales was able to carry out their promotional and educational activities. Despite the challenges faced, the team from 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 number of Yellow Card reports for non-COVID-19 vaccine medicinal products, submitted from Wales increased from 1955 in 2020/21 to 2084 in 2021/22, an increase of 7%. The highest percentage increase was seen in Cwm Taf Morgannwg UHB, with an increase of 29% when compared with 2020/21. The largest percentage decrease was seen in Velindre NHS Trust, where the number of reports fell by 55%.

Throughout 2021/22 YCC Wales continued to work with key stakeholders to raise awareness of the importance of ADR reporting to COVID-19 vaccines. In addition to the 2084 Yellow Card reports mentioned above, 13,688 reports of suspected ADRs to the COVID-19 vaccines were submitted from Wales. YCC Wales also worked with the National Antiviral Service to develop materials promoting reporting of suspected ADRs to COVID-19 treatments.

General Practitioners (GPs) remained the highest reporting group during 2021/22, contributing 37% (774) of the total number of reports for the year. This was an increase of 7% when compared with 2020/22. The largest percentage increase (+49%) was seen in the number of reports submitted by



patients, parents, carers and consumers. An increase was also seen in the number of reports from nurses/midwives, pre-registration pharmacists, pharmacy assistants, physicians and hospital health professionals.

YCC Wales continued to support local Yellow Card Champions and continued to engage with the Welsh Medication Safety Officers (MSOs) and other members of the Welsh Medicines Safety Network. During 2021/22, YCC Wales also embarked on a relationship with colleagues and students at the School of Pharmacy, Swansea University, by providing teaching to their new cohort of Pharmacy undergraduate students.

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. The new YCC Wales website (yccwales.org) was launched.

It is encouraging to see that there was an increase in the number of Yellow Card reports submitted from Wales during 2021/22, for non-COVID-19 vaccine medicinal products. In 2022/23, YCC Wales will continue to introduce new initiatives to promote and encourage reporting of suspected ADRs via the Yellow Card scheme throughout Wales and hopes to see reporting rates recover to pre-pandemic levels and beyond.

3. YELLOW CARD DATA

a. Total numbers

A total of 2084 reports of suspected ADRs to non-COVID-19 vaccine medicinal products, originated from the YCC Wales region in 2021/22. This represents an increase of 7% when compared with 2020/21 (1955). 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 |
|---------|-------------------|------------------------------------|
| 2021/22 | 2084* | +7* |
| 2020/21 | 1955* | -33* |
| 2019/20 | 2927 | -8 |
| 2018/19 | 3192 | +5 |
| 2017/18 | 3036 | +30 |

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

* For the years 2020/21 and 2021/22, the number of Yellow Card reports stated in Table 1 does not include reports of suspected adverse drug reactions to the COVID-19 vaccines

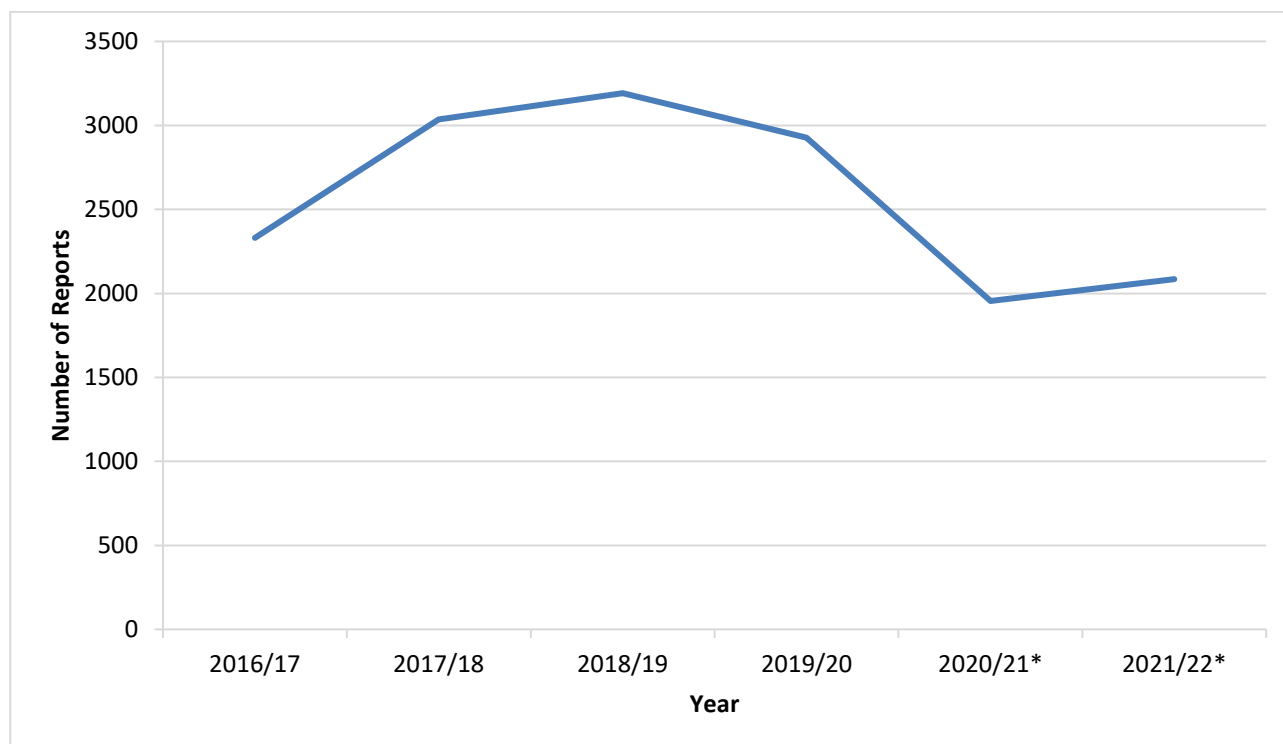


Figure 1: Number of Yellow Card reports submitted from Wales over the last 5 years

* For the years 2020/21 and 2021/22, 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 2084 Yellow Card reports shown above, 13,688 suspected ADRs to the COVID-19 vaccines were submitted from the YCC Wales region during 2021/22. If we were to include these in our comparison to the total number of reports submitted during 2020/21 (9395, including COVID-19 vaccine reports), this would represent an increase of 68%. 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 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.

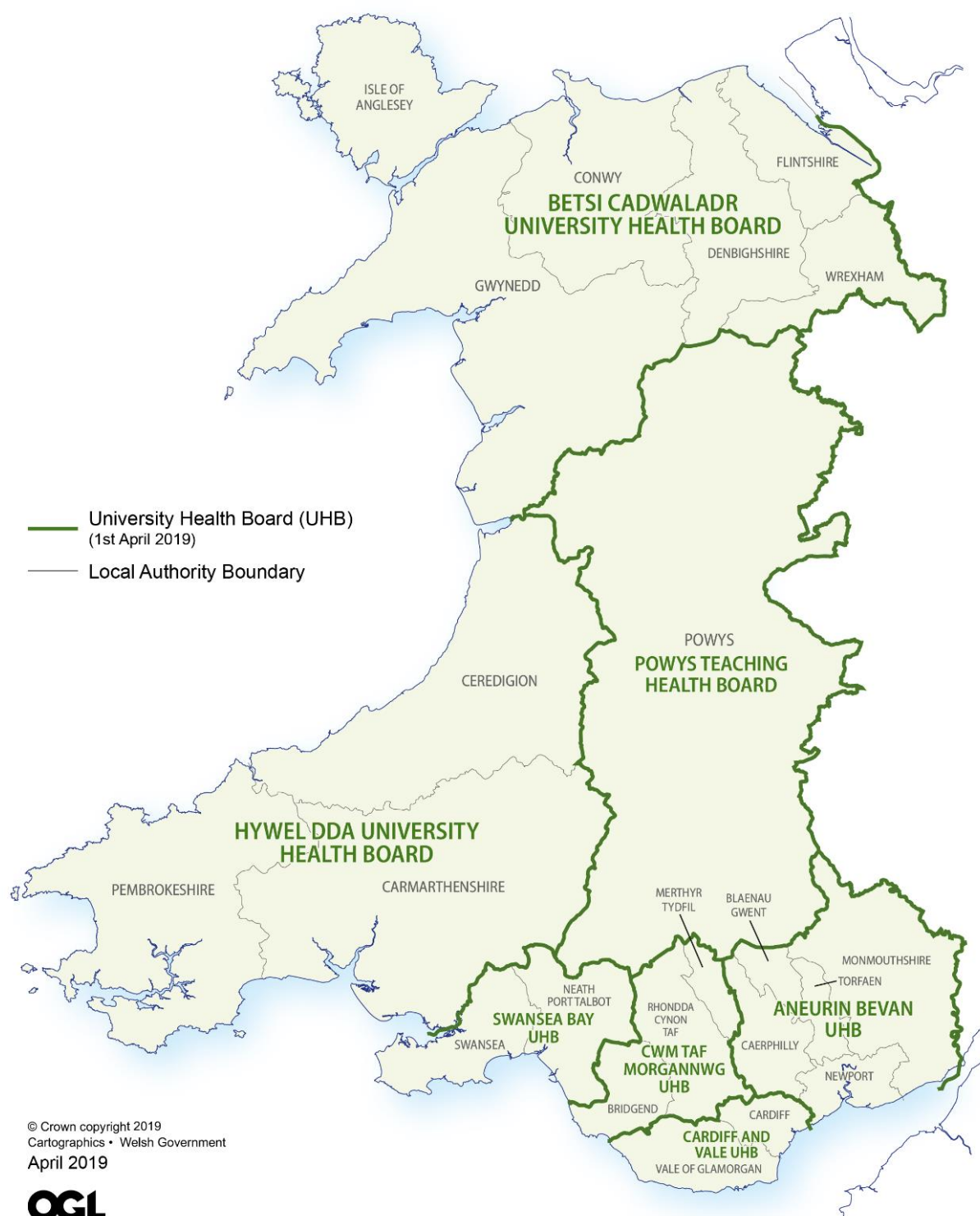


Figure 2: Map showing Health Boards in Wales

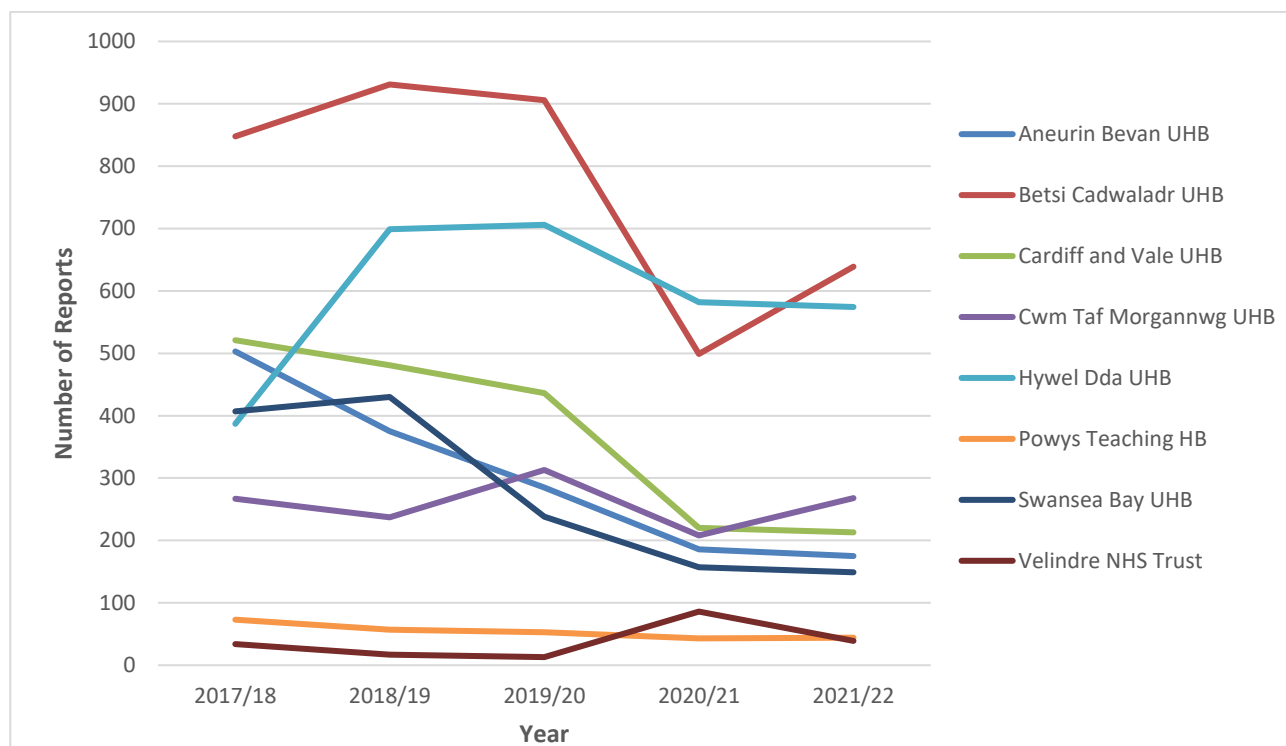


Figure 3: Number of Yellow Card reports submitted from each Health Board/NHS Trust in Wales over the last five years

b. Reporter qualifications

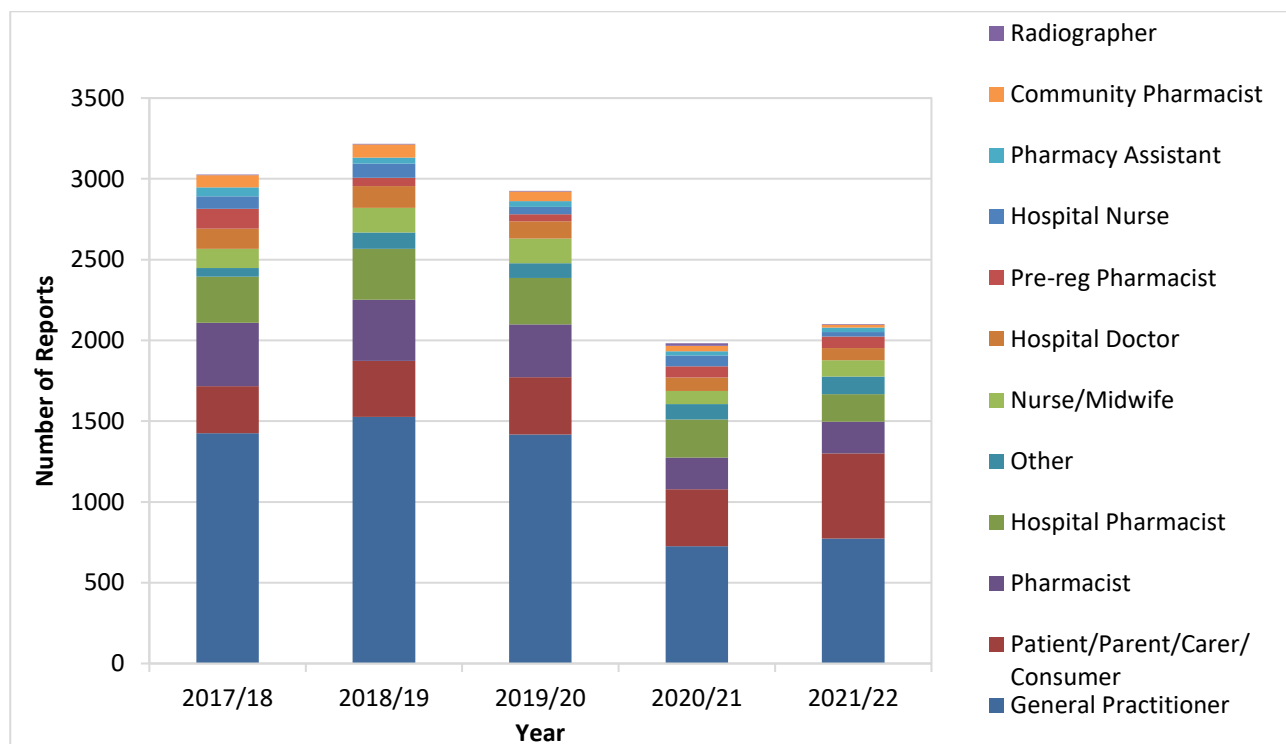


Figure 4: Number of Yellow Card reports submitted from Wales over the last 5 years by reporter qualification

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



| Reporter | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 |
|-------------------------------|---------|---------|---------|---------|---------|
| General Practitioner | 1425 | 1527 | 1417 | 725 | 774 |
| Patient/Parent/Carer/Consumer | 292 | 346 | 355 | 353 | 527 |
| Pharmacist | 392 | 378 | 328 | 197 | 195 |
| Hospital Pharmacist | 286 | 315 | 286 | 235 | 171 |
| Nurse/Midwife | 120 | 154 | 152 | 82 | 101 |
| Hospital Doctor | 124 | 134 | 108 | 83 | 76 |
| Pre-registration pharmacist | 123 | 51 | 42 | 69 | 70 |
| Unknown | 0 | 0 | 0 | 0 | 33 |
| Other Health Professional | 35 | 84 | 72 | 69 | 29 |
| Hospital Nurse | 78 | 87 | 46 | 68 | 29 |
| Pharmacy assistant | 56 | 38 | 37 | 26 | 28 |
| Physician | 6 | 0 | 0 | 7 | 20 |
| Hospital Health Professional | 17 | 13 | 29 | 5 | 19 |
| Community Pharmacist | 75 | 81 | 58 | 34 | 17 |
| Radiographer | 3 | 5 | 5 | 15 | 4 |
| Medical student | 1 | 2 | 6 | 4 | 3 |
| Dentist | 4 | 6 | 7 | 7 | 2 |
| Optometrist | 3 | 1 | 0 | 2 | 2 |
| Paramedic | 0 | 1 | 1 | 0 | 1 |
| Coroner | 0 | 2 | 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 |
|---------|---------------------------|-----------------------------|------------------------------------|
| 2021/22 | 790 | 38 | -1 |
| 2020/21 | 771 | 39 | 0 |
| 2019/20 | 1138 | 39 | +2 |
| 2018/19 | 1176 | 37 | -5 |
| 2017/18 | 1267 | 42 | 0 |

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 |
|---------|-------------------------|-----------------------------|------------------------------------|
| 2021/22 | 23 | 1.1 | -0.1 |
| 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 |

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 | 2019/20 | 2020/21 | 2021/22 |
|---------------|-------------|-------------|-------------|
| Unknown | 76 | 64 | 212 |
| Under 2 | 37 | 24 | 35 |
| 2 - 6 years | 56 | 25 | 19 |
| 7 - 12 years | 38 | 18 | 25 |
| 13 - 17 years | 45 | 34 | 52 |
| 18 - 24 years | 109 | 101 | 81 |
| 25 -34 years | 207 | 181 | 173 |
| 35 - 44 years | 220 | 156 | 170 |
| 45 - 54 years | 307 | 212 | 229 |
| 55 - 64 years | 441 | 286 | 280 |
| 65 - 74 years | 639 | 406 | 395 |
| 75-84 years | 531 | 312 | 289 |
| 85+ years | 221 | 136 | 124 |
| Total | 2927 | 1955 | 2084 |

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

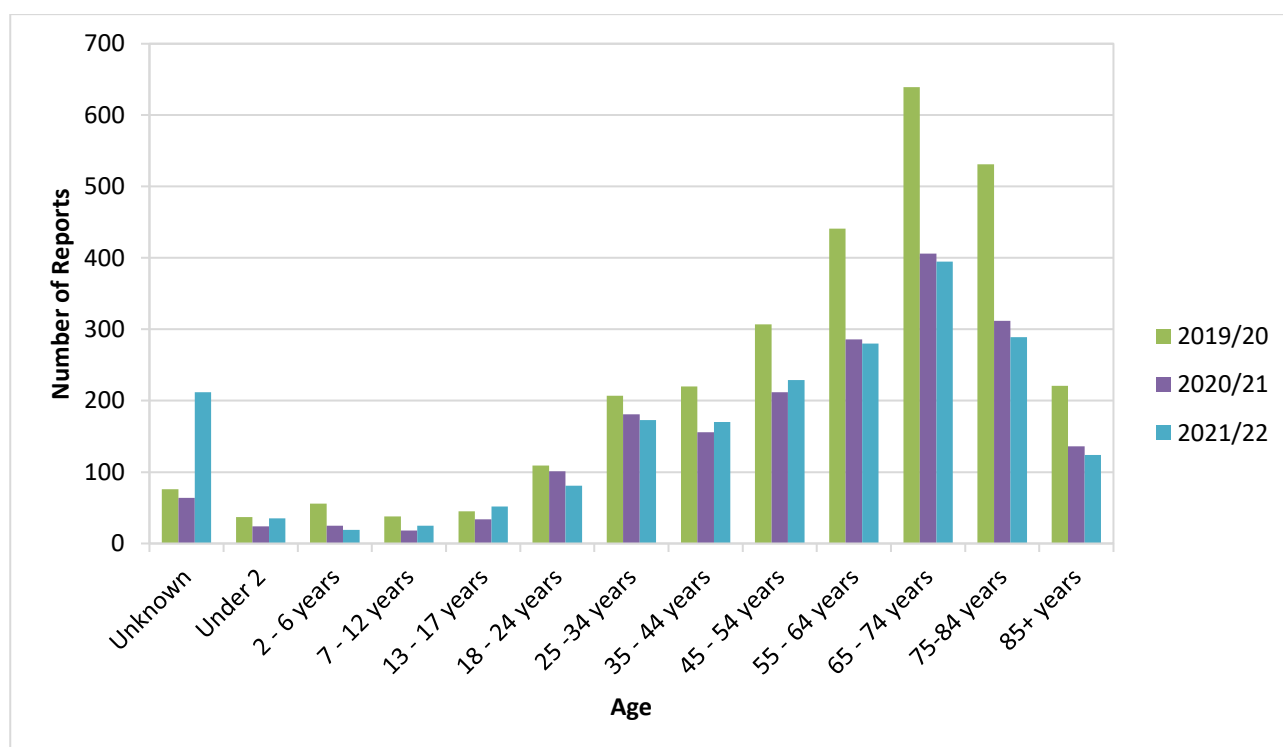


Figure 5: Number of Yellow Card reports submitted from Wales over the last three years by patient age



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

| Drug name | Number of reports (2020/21) | Number of reports (2021/22) |
|---|-----------------------------|-----------------------------|
| Influenza Virus Vaccines* (▼ some brands) | 73 | 116 |
| Sertraline | 57 | 65 |
| Nitrofurantoin | 39 | 54 |
| Amlodipine | 38 | 53 |
| Apixaban | 73 | 46 |
| Ramipril | 30 | 46 |
| Rivaroxaban ▼ | 72 | 44 |
| Amoxicillin | 13 | 35 |
| Doxycycline | 31 | 35 |
| Trimethoprim | 27 | 32 |

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 | 2019/20 | | 2020/21 | | 2021/22 | |
|----------------------|---------|------------|---------|------------|---------|------------|
| | Number | % of total | Number | % of total | Number | % of total |
| Carer | 17 | 0.6 | 19 | 1.0 | 18 | 0.9 |
| Parent | 48 | 1.6 | 38 | 1.9 | 55 | 2.6 |
| Patient | 289 | 9.8 | 290 | 14.8 | 451 | 21.5 |
| Consumer | 1 | 0.0 | 6 | 0.3 | 3 | 0.1 |
| Community Pharmacist | 58 | 2.0 | 34 | 1.7 | 17 | 0.8 |
| Hospital Pharmacist | 286 | 9.7 | 235 | 12.0 | 171 | 8.1 |
| Pharmacist | 328 | 11.1 | 197 | 10.0 | 195 | 9.3 |
| Pharmacy Assistant | 37 | 1.3 | 26 | 1.3 | 28 | 1.3 |
| Pre-reg pharmacist | 42 | 1.4 | 69 | 3.5 | 70 | 3.3 |
| Hospital Nurse | 46 | 1.6 | 68 | 3.5 | 29 | 1.4 |
| Nurse | 148 | 5.0 | 78 | 4.0 | 101 | 4.8 |
| GP | 1417 | 48.0 | 725 | 36.9 | 774 | 36.8 |
| Hospital Doctor | 108 | 3.7 | 83 | 4.2 | 76 | 3.6 |
| Physician | 0 | 0.0 | 7 | 0.4 | 20 | 1.0 |
| Coroner | 1 | 0.0 | 1 | 0.1 | 0 | 0.0 |



| | | | | | | |
|----------------------------------|-------------|------------|-------------|------------|-------------|------------|
| Dentist | 7 | 0.2 | 7 | 0.4 | 2 | 0.1 |
| Midwife | 4 | 0.1 | 4 | 0.2 | 0 | 0.0 |
| Optometrist | 0 | 0.0 | 2 | 0.1 | 2 | 0.1 |
| Paramedic | 1 | 0.0 | 0 | 0.0 | 1 | 0.0 |
| Radiographer | 5 | 0.2 | 15 | 0.8 | 4 | 0.2 |
| Hospital Healthcare Professional | 28 | 0.9 | 5 | 0.3 | 19 | 0.9 |
| Healthcare Assistant | 1 | 0.0 | 2 | 0.1 | 4 | 0.2 |
| Other Healthcare Professional | 72 | 2.4 | 67 | 3.4 | 25 | 1.2 |
| Medical Student | 6 | 0.2 | 4 | 0.2 | 3 | 0.1 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 33 | 1.6 |
| Total | 2950 | 100 | 1982 | 100 | 2101 | 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 2101 reports were analysed. This figure differs from the 2084 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 (2021/22) | Percentage of total reports |
|-------------|-----------------------------|-----------------------------|
| EYC | 1325 | 63.1 |
| GP systems | 599 | 28.5 |
| App | 83 | 4.0 |
| Paper | 78 | 3.7 |
| MiDatabank | 16 | 0.8 |

Table 8: Number of reports submitted during 2021-22 from Wales by submission route

4. DISCUSSION OF YELLOW CARD DATA

An increase of 7% was seen in the number of Yellow Card reports submitted for non-COVID-19 vaccine medicinal products, from Wales during 2020/21 (2084) when compared with the previous year (1955). When including the additional 13,688 Yellow Card reports to COVID-19 vaccines that were submitted from the YCC Wales region during 2021/22 and comparing to the total number of reports submitted during 2020/21 (9395, including COVID-19 vaccine reports), this would represent an increase of 68%.

The health board with the largest percentage increase in the number of Yellow Card reports that were submitted was Cwm Taf Morgannwg UHB, where there was an increase of 29% in 2021/22 compared with 2020/21. Betsi Cadwaladr UHB had an increase of 28% and Powys THB had an increase of 2%, when compared with the previous year. All other Health Boards in Wales, had a decrease in the number of Yellow Card reports submitted. The largest percentage decrease was



seen within Velindre NHS Trust, where the number of Yellow Card reports that were submitted decreased by 55%.

The highest number of reports came from General Practitioners (GPs), who contributed 37% (774) of the total number of reports received for the year. This was an increase of 6.8% when compared with the previous year. The second highest reporting group was patients/parents/carers and consumers who contributed 25% (527) of the total number of reports received for the year. When compared with the previous year, there was an increase of 49% in the number of Yellow Card reports submitted by this group.

An increase was seen in Yellow Card reporting numbers from nurses/midwives (82 to 101, +23.2%), pre-registration pharmacists (69 to 70, +1.5%), pharmacy assistants (26 to 28, +7.7%), physicians (7 to 20, +185.7%), and hospital health professionals (5 to 19, +280%). No change was seen in the number of reports submitted from optometrists. A decrease was seen in the number of reports submitted from all other reporter types.

Whilst it is disappointing that the number of Yellow Card reports submitted from Wales for non-COVID-19 vaccines during the year 2021/22 remains lower than pre-pandemic reporting levels, it is possible that the continued 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 increased by 1% to 38% when compared with 2020/21. The proportion of fatal reports remained static (-0.1%).

As in the previous year the highest number of reports concerned patients in the group aged 65-74 years (395). There was an increase in the number of reports for the following age groups: <2 years (24 in 2020/21 to 35 in 2021/22), 7-12 years (18 to 25), 13-17 years (34 to 52), 35-44 years (156 to 170), 45-54 years (212 to 229). There was been a reduction in the number of reports across all other age groups.

The most frequently reported suspected medicine from the YCC Wales region was Influenza Virus Vaccines* (▼ some brands), with 116 reports. Four antimicrobial agents (nitrofurantoin, amoxicillin, doxycycline and trimethoprim) and two direct-acting oral anticoagulants (apixaban and rivaroxaban ▼) featured in the top 10 suspected medicines list. Two of the top 10 suspected medicines were on the list of medicines subject to additional monitoring (identified using an inverted black triangle ▼).

The majority (63.1%) of reports were submitted as electronic Yellow Cards. Only 4% were submitted via the app and 0.8% 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 |
|---|--------------|------------------|--------------------|------------------------|----------------------|
| F1 medics | Lecture | 1 | 1 | 100 | 1 |
| F1 medics | Lecture | 1 | 1 | 100 | 1 |
| GPs/ Practice pharmacists/ Practice managers | Presentation | 0.25 | 3 | 40 | 0.75 |
| Head of Genomics | Meeting | 0.5 | 1 | 1 | 0.5 |
| Healthcare Professionals | Meeting | 1 | 1 | 25 | 1 |
| Mammographers | Lecture | 1 | 1 | 10 | 1 |
| Medicines Information Pharmacists | Meeting | 0.25 | 4 | 12 | 1 |
| Medicines Safety Officers | Meeting | 0.25 | 4 | 11 | 1 |
| Pharmacists | Workshop | 1 | 1 | 4 | 1 |
| Pharmacist | Meeting | 1 | 1 | 1 | 1 |
| Pharmacists and technicians | Meeting | 0.25 | 2 | 10 | 0.5 |
| Post-graduate MRes | Lecture | 1 | 1 | 10 | 1 |
| Post-graduate medics | Lecture | 2.5 | 1 | 40 | 2.5 |
| Trainee pharmacists | Workshop | 0.5 | 3 | 8 | 1.5 |

Table 9: Training activities delivered to healthcare professionals during 2021/22

b. Training delivered to patients and their respective groups

| Audience type | Session type | Duration (hours) | Number of sessions | Total audience numbers | Total hours training |
|---|--------------|------------------|--------------------|------------------------|----------------------|
| Brecon U3a | Lecture | 1.5 | 1 | 20 | 1.5 |
| Headway | Lecture | 1 | 1 | 15 | 1 |
| Patient and Public Interest Group (PAPIG) | Meeting | 1 | 2 | 20 | 2 |

Table 10: Training activities delivered to patients and their respective groups during 2021/22



c. Training delivered to undergraduates

| Audience type | Session type | Duration (hours) | Number of sessions | Total audience numbers | Total hours training |
|---------------------------|--|------------------|--------------------|------------------------|----------------------|
| BDS Year 4 | Lecture | 1 | 1 | 75 | 1 |
| BSc pharmacology students | Lecture | 1 | 1 | 30 | 1 |
| BSc students | Lecture | 1 | 1 | 30 | 1 |
| Medical Students | Revision Workshops PSA Style including ADR | 1.5 | 5 | 295 | 6 |
| Medical Students | PSA Workshops | 1 | 4 | 295 | 1 |
| Medical Students | Lecture | 1 | 1 | 295 | 1 |
| Pharmacy Students | Pre-recorded Lecture | 1 | 1 | 120 | 1 |
| Pharmacy Students | Lecture | 1 | 1 | 60 | 1 |
| Pharmacy Students | Workshop | 2 | 2 | 60 | 4 |
| Pharmacy Students | Workshop | 2 | 4 | 120 | 8 |
| Pharmacy Student | Meeting | 1 | 3 | 1 | 3 |

Table 11: Training activities delivered to undergraduates during 2021/22

In March 2022, YCC Wales provided a lecture and workshops to Pharmacy first year undergraduate students at Swansea University. This was the first time these sessions had been run with Swansea 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 2021 and #MedSafetyWeek 2021. Yellow Card promotional materials were distributed electronically to Yellow Card champions, members of the Welsh Medicines Safety Network, GP practices and Community Pharmacies across Wales. Posters promoting Yellow Card reporting to COVID-19 vaccines were produced and distributed to Mass Vaccination Centres.

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

Deslandes PN, Bracchi RC, Jones K, Haines KE, Carey E, Adams A, Walker J, Thomas A, Routledge PA. Changes in suspected adverse drug reaction reporting via the Yellow Card scheme in Wales following the introduction of a National Reporting Indicator. British Journal of Clinical Pharmacology. March 2022. Available at: <https://doi.org/10.1111/bcp.15326>

7. YCC WEBSITE

a. Website updates

In collaboration with the All Wales Therapeutics and Toxicology Centre (AWTTC), YCC Wales launched their new [website](#) in January 2022. The YCC Wales site is incorporated into the AWTTC website. A welsh language [website](#) is also now available.

The site includes:

- Information about YCC Wales
- Yellow Card reporting information for healthcare professionals
- Yellow Card reporting information for patients, carers and the public
- Information about the YCC Wales Yellow Card Champion scheme
- Links to external educational and drug safety resources
- YCC Wales promotional materials 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 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.

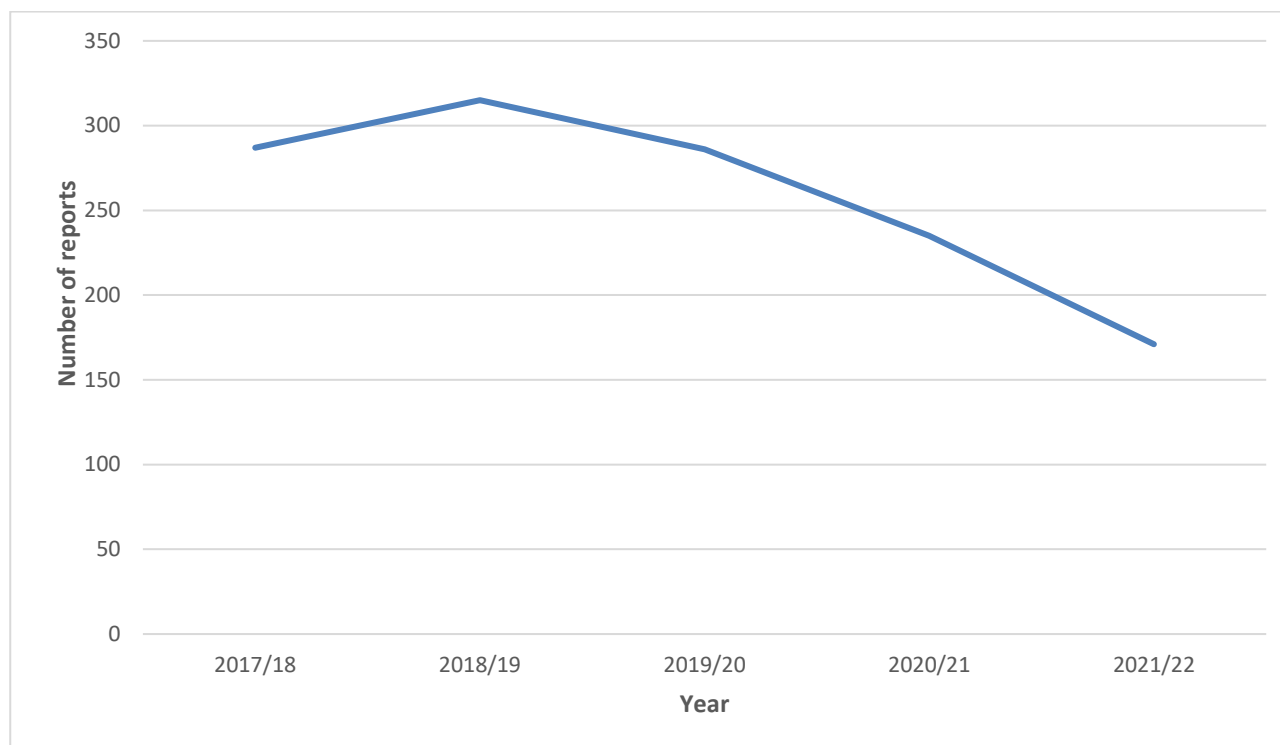


Figure 6: Number of Yellow Card reports submitted by Hospital Pharmacists in Wales over the last five years

Figure 6 shows the number of Yellow Card reports submitted by hospital pharmacists during 2020/21. There was a 27% 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.

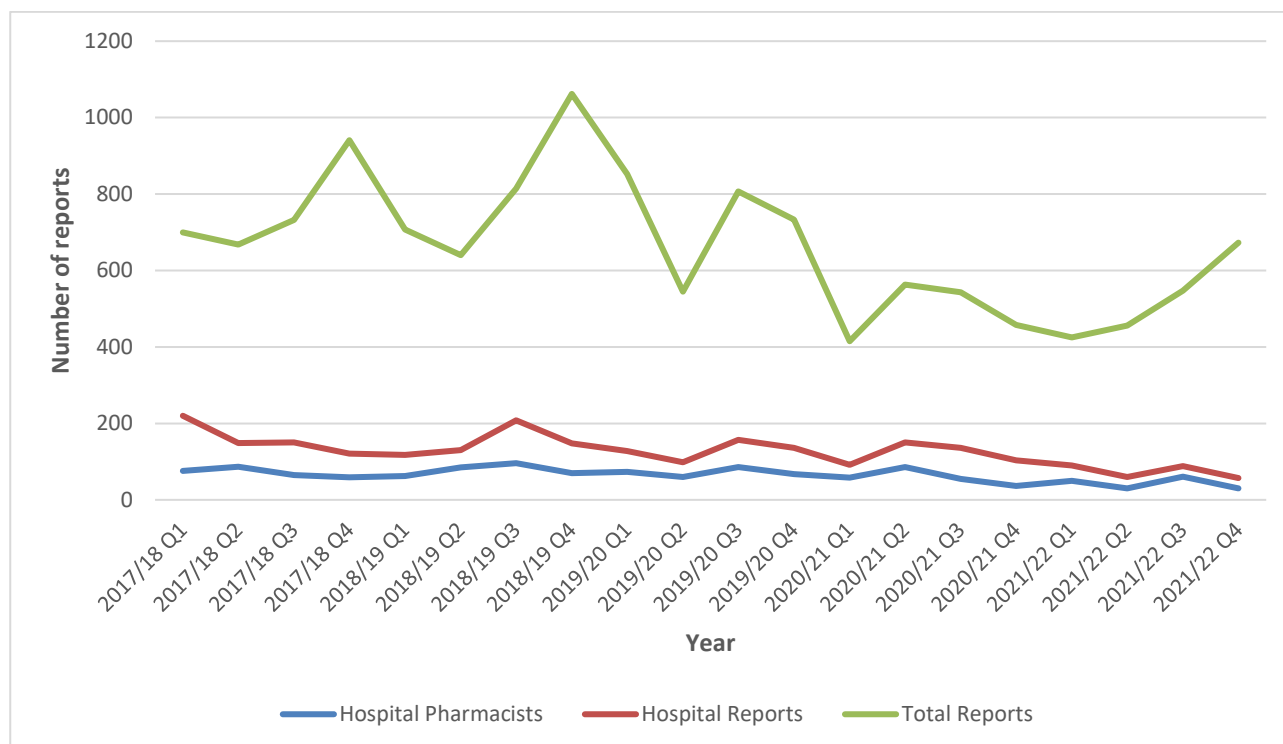


Figure 7: Number of Yellow Card reports submitted by Hospital Pharmacists, Hospital Reporters and all reporters in Wales over the last five years

Figure 7 illustrates that there has been an overall reduction in the number of Yellow Card reports from secondary care sources. The Yellow Card Champions have continued to provide education to healthcare professionals working within primary and secondary care, however they have reported that the number of activities carried out during 2021/22 was lower than previous years as a result of COVID-19 related work pressures. YCC Wales has continued to recruit and train new Yellow Card Champions.

Work is underway to introduce Hospital Electronic Prescribing and Medicines Administration (HEPMA) systems to hospitals across Wales. YCC Wales has put forward a strong recommendation that the systems must support integrated Yellow Card reporting. This will simplify the reporting process and encourage reporting amongst healthcare professionals working in secondary care.

During 2021/22 YCC Wales asked Yellow Card Champions to complete a survey to ascertain their views on the Yellow Card Champion scheme, the support available to them and what they need to fulfil their role. In 2022/23 YCC Wales plans to strengthen and revitalise the Yellow Card Champion scheme.

YCC Wales continues to work with members of the All Wales Medicines Safety Network (MSOs and medicines management nurses) to enable them to provide encouragement and support to the Yellow Card 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 2021/22. YCC Wales will hold a training day in June 2022 where Yellow Card Champions and members of the All Wales Medicines Safety Network will be invited.



8.2 National Prescribing Indicator

In 2021/22, 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 2021/22:

- 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 2020/21.

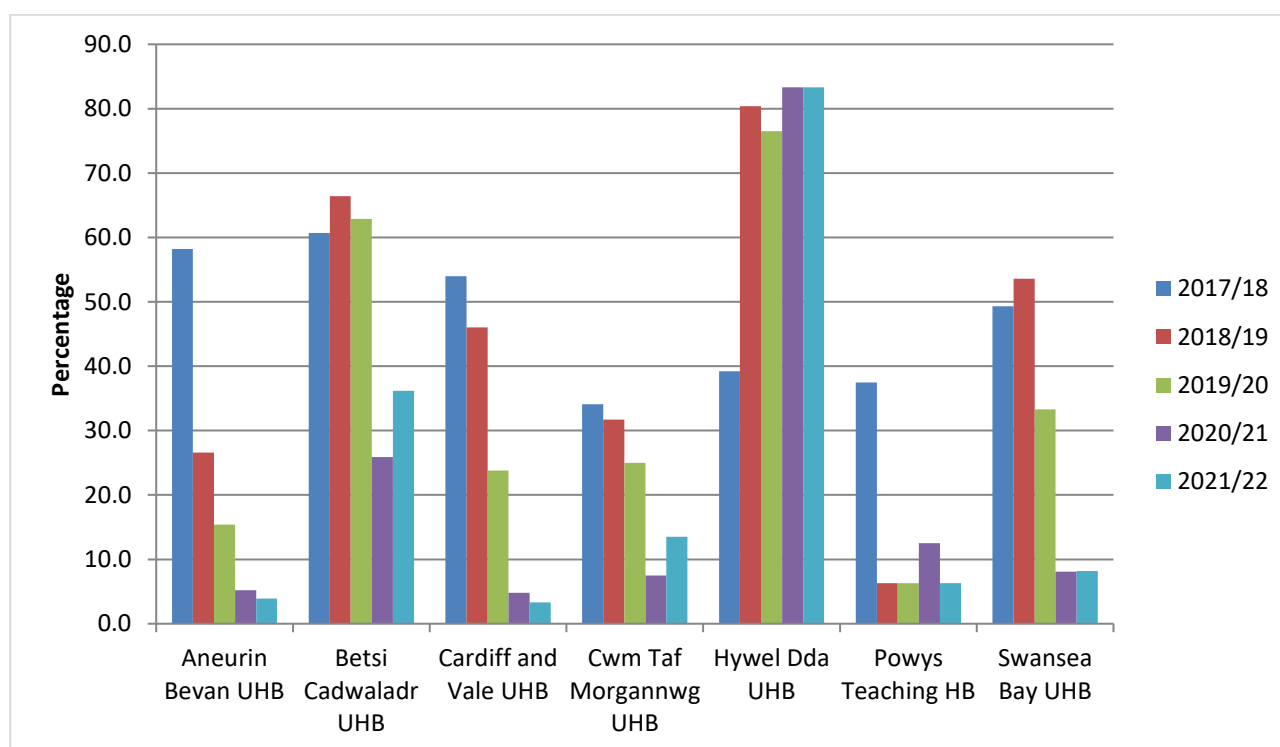


Figure 8: Percentage of practices per Health Board attaining the NPI target of 1 Yellow Card submitted per 2,000 patients, over the last five years

Figure 8 shows the percentage of GP practices achieving the target of submitting 1 Yellow Card per 2,000 patients. For the seventh consecutive year all Health Boards in Wales have practices achieving the target. However, the percentage of practices attaining the target in three Health Boards has reduced when compared with 2020/21.

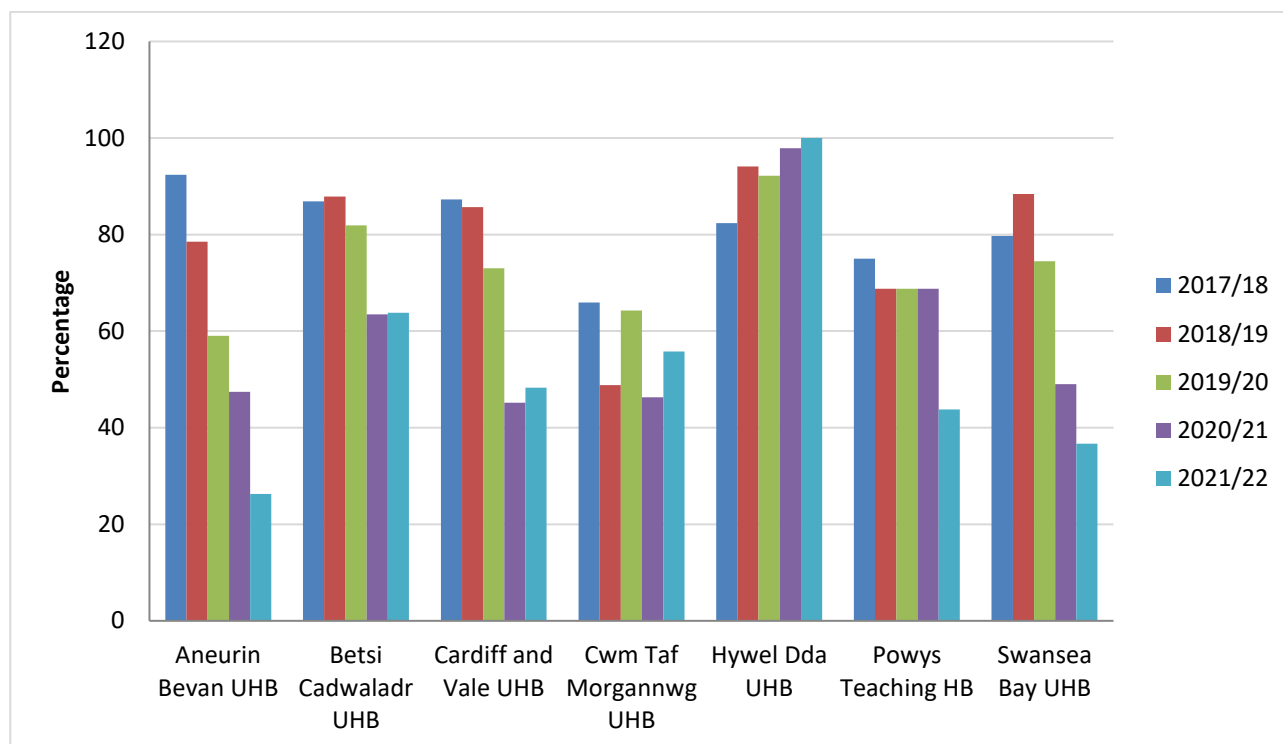


Figure 9: Percentage of GP practices in each Health Board submitting a Yellow Card over the last 5 years

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.

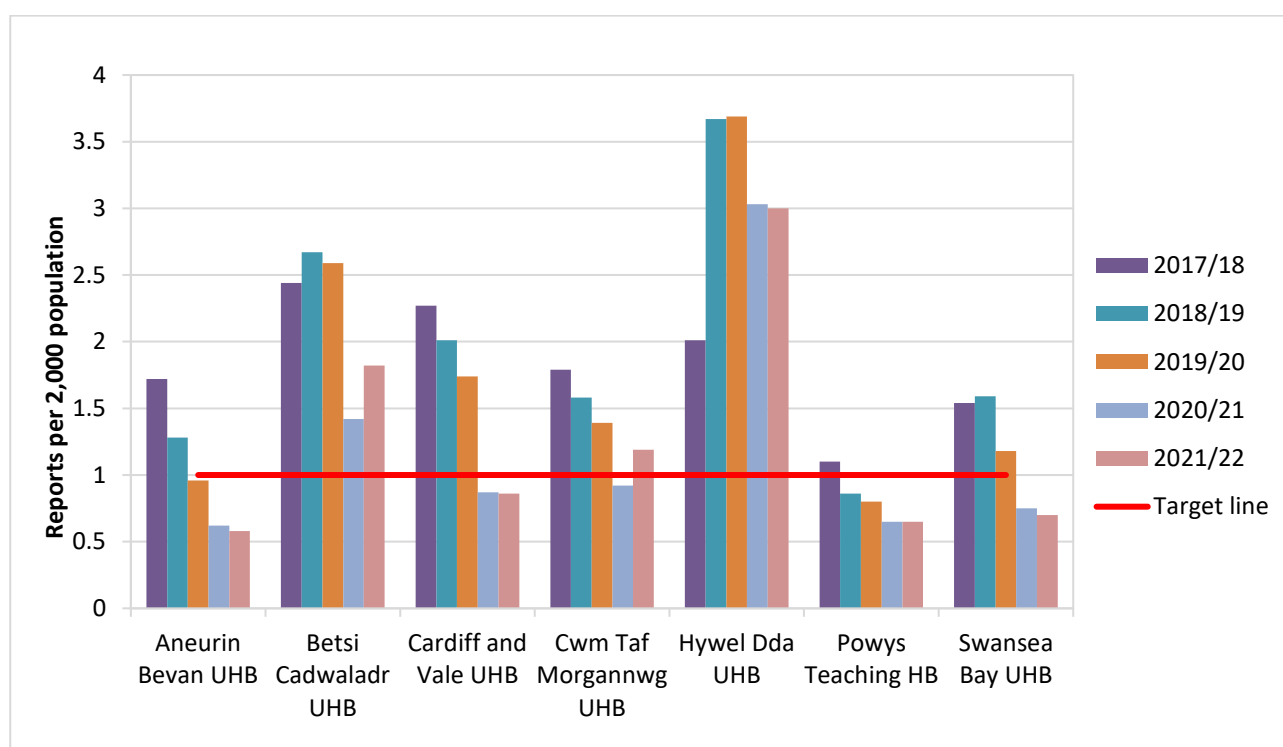


Figure 10: Number of Yellow Card reports per 2,000 patient population submitted per Health Board over the last 5 years



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. Three of the seven Health Boards attained this target. An increase was seen in reporting rates in two Health Boards. The largest percentage increase, when compared with 2020/21, was seen in Cwm Taf Morgannwg UHB where the number of Yellow Card reports per 2,000 patient population increased by 29%.

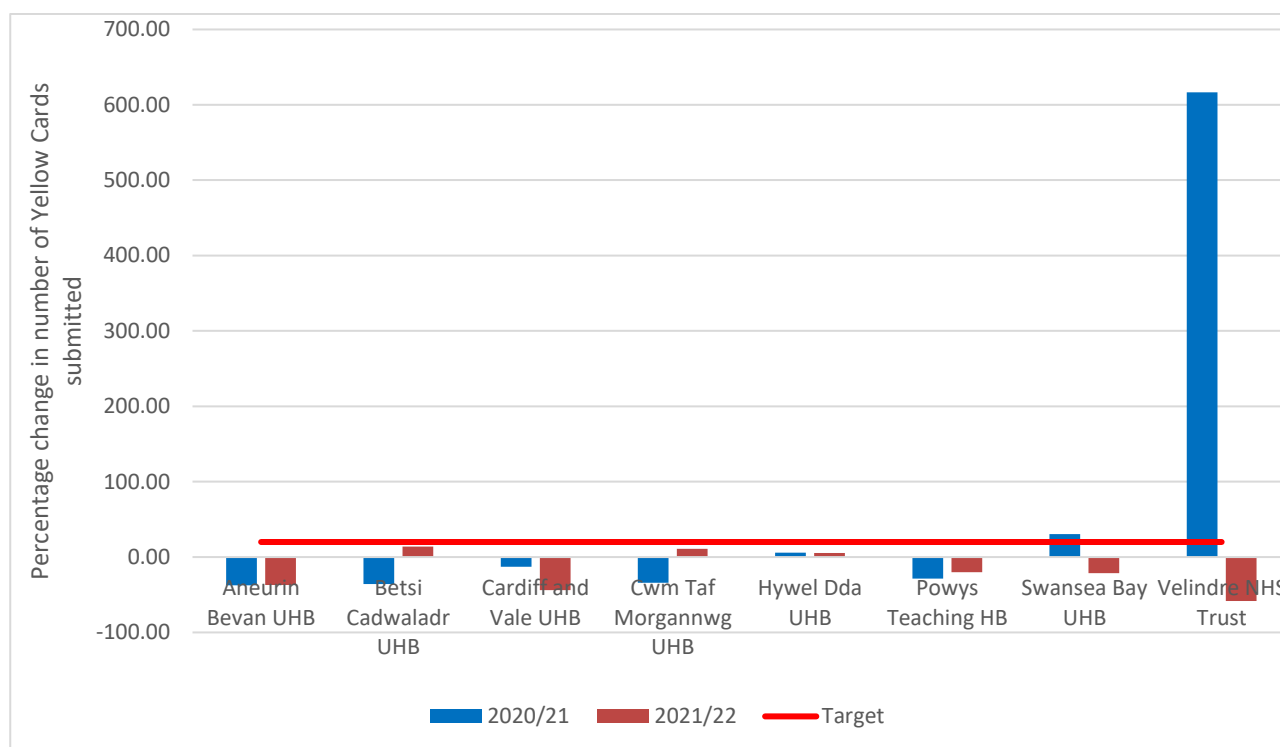


Figure 11: Performance of each Health Board/NHS Trust against the NPI Secondary Care Target demonstrate a 20%, or greater, increase from baseline, for Yellow Cards submitted by secondary care)

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

No Health Board achieved the target to increase Yellow Card reporting by 20% in secondary care. Velindre NHS Trust saw the largest percentage decrease (-58%) and Betsi Cadwaladr UHB saw the largest percentage increase (+14%). 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 2022/23 has been revised. 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.

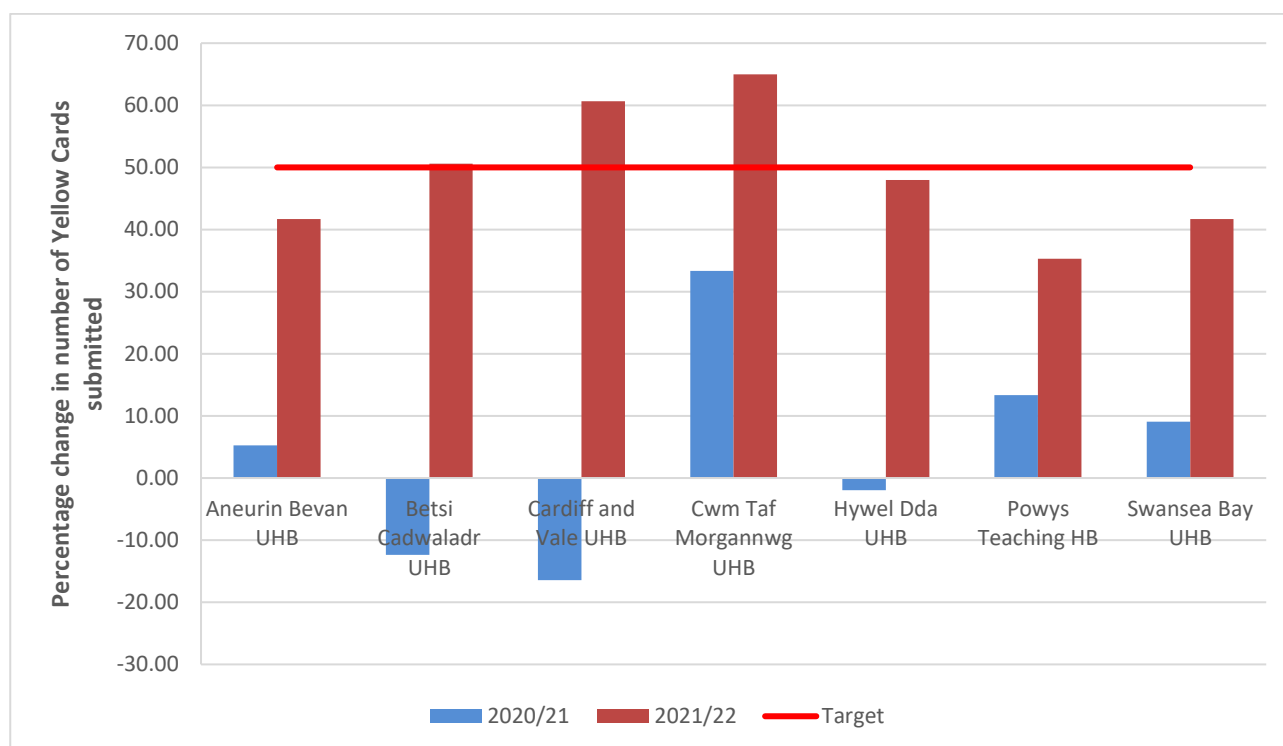


Figure 12: Performance of each Health Board against the NPI Public Target (demonstrate a 50%, or greater, increase from baseline, for Yellow Cards submitted by members of the public)

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

Three Health Boards achieved the target to increase Yellow Card reporting by 50% by members of the public. Member of the public reporting rates increased in all seven Health Boards. The highest percentage increase (+65%) was seen in Cwm Taf Morgannwg UHB.

This NPI target 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.

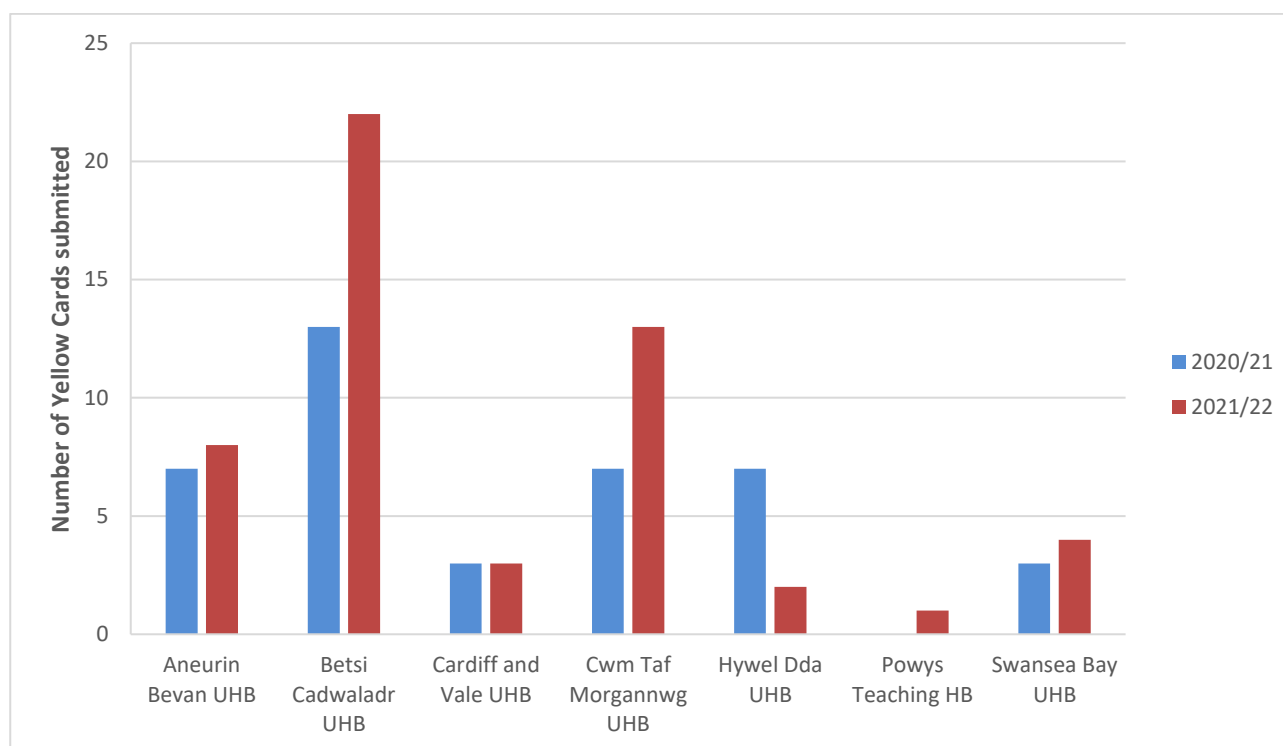


Figure 13: Number of Yellow Cards submitted by Community Pharmacy in each Health Board

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. An increase was seen in the number of reports submitted from community pharmacies in four Health Boards.

8.3 Social Media

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.

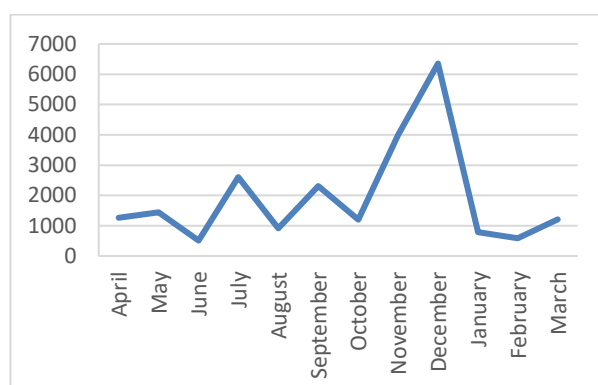


Figure 14: Number of monthly Twitter Impressions during 2021/22

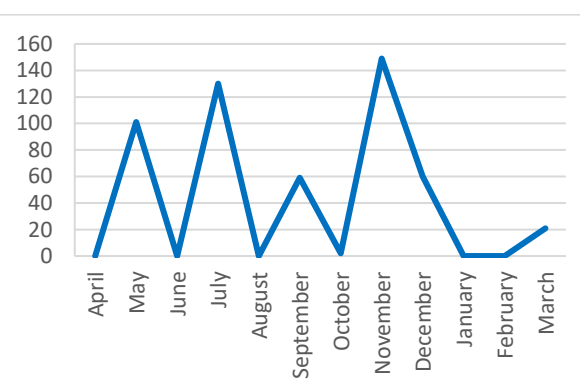


Figure 15: Number of monthly Twitter Engagements during 2021/22

Figures 14 and 15 illustrate the numbers of Twitter impressions and post engagements achieved. December was the month with the highest number of impressions and engagements. During this month YCC Wales ran a children's colouring competition via their social media pages. The months of July, September and November 2021 also had higher numbers of



impressions and engagements compared with other months. These coincided with YCC Wales' PAPIG event in July 2021, World Patient Safety Day in September 2021 and #MedSafetyWeek in November 2021. During these periods YCC Wales was very active on Twitter. To date YCC Wales has 368 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 129. YCC Wales are hopeful that the following will increase over the next year.

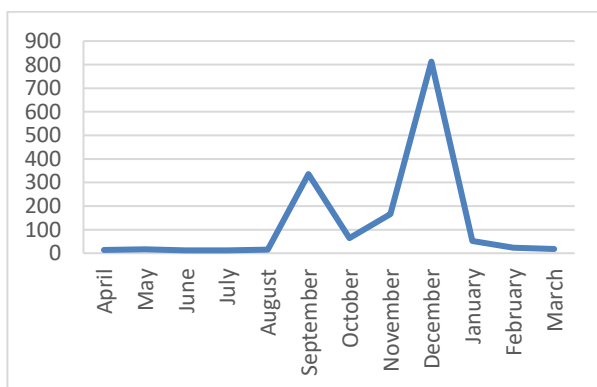


Figure 16: Monthly Facebook reach during 2021/22

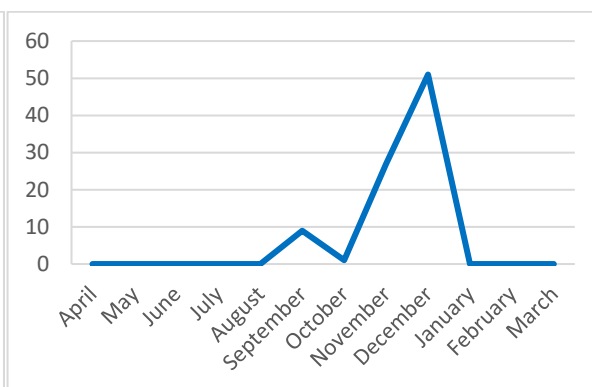


Figure 17: Number of monthly Facebook Engagements during 2021/22

As can be seen in Figures 16 and 17 peak Facebook reach and engagements were seen in September and December 2021, which coincided with World Patient Safety Day and YCC Wales' colouring competition.

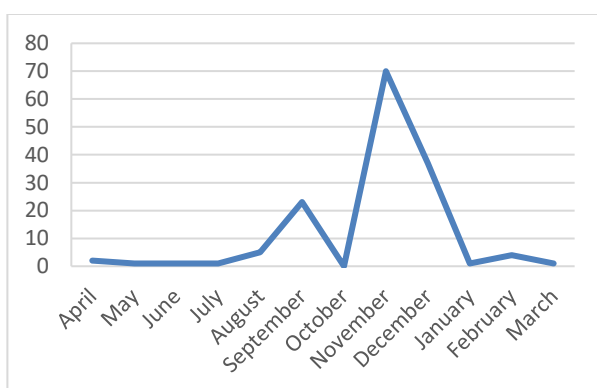


Figure 18: Monthly Instagram reach during 2021/22

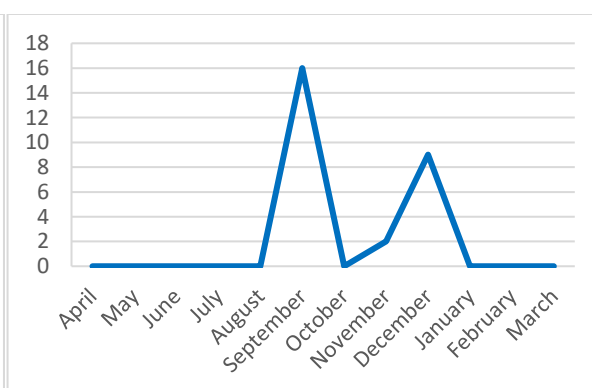


Figure 19: Number of monthly Instagram Engagements during 2021/22

YCC Wales' Instagram page, aims to spread the word wider about the Yellow Card scheme and the importance of reporting ADRs. To date YCC Wales has 69 followers but hopes to make further use of this platform and increase their following over the next year. Peak Instagram reach and engagements were seen in September and December 2021, which once again coincided with World Patient Safety Day and YCC Wales' colouring competition.

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. Work is underway to address this in order to enable wider sharing.



9. CONCLUSIONS

During 2021/22 a 7% increase was seen in the number of Yellow Card reports submitted from Wales for non-COVID-19 related medicinal products. It is promising to see a significant increase in the number of Yellow Card reports submitted from members of the public. Despite ongoing difficult circumstances as a result of the COVID-19 pandemic 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 ongoing impact of the COVID-19 pandemic on the healthcare system continued to have an effect on Yellow Card reporting rates in Wales.

Our strategy for 2022/23 will be to:

- Develop promotional video to encourage healthcare professionals, undergraduate students and members of the public to report suspected adverse drug reactions to the Yellow Card scheme.
- Increase awareness of the Yellow Card scheme and reporting rates amongst members of the public through patient centred initiatives e.g. visits to public events throughout Wales.
- 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 2021/22 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
Esyllt Jenkins, Cardiff and Vale UHB
Rhian Jenkins, Hywel Dda UHB
Bethan Owen, Betsi Cadwaladr UHB
Glesni Owen, Betsi Cadwaladr UHB
Ann Pearson, Swansea Bay UHB
Bethan Perry, Powys Teaching HB
Alexander Reed, Aneurin Bevan UHB
Anwen Richards, Hywel Dda UHB
Nia Sainsbury, Cwm Taf Morgannwg UHB
Llinos Strange, Hywel Dda UHB
Janet Thomas, Betsi Cadwaladr UHB
Lowri Thomas, Cardiff and Vale UHB
Sean Thomas, Hywel Dda UHB
Robert Weller, Aneurin Bevan UHB

Primary Care Yellow Card Champions

Lloyd Hambridge, Aneurin Bevan UHB
Suzanne Hemming, Aneurin Bevan UHB
Lucy Higgins, Aneurin Bevan UHB

Hywel Jones, Aneurin Bevan UHB
Rhian Welham, Hywel Dda UHB

Medication Safety Officers

Lindsay Davies, Cardiff and Vale UHB
Rebecca Dent, Velindre NHS Trust
Louise Howard-Baker, Betsi Cadwaladr UHB
Hannah Leggett, Hywel Dda UHB

Rhian Lloyd-Evans, Aneurin Bevan UHB
Anne-Marie Montoto, Cwm Taf Morgannwg UHB
Jatinder Parma, Swansea Bay UHB

Welsh Analytical Prescribing Support Unit

Anne Coles
Kath Haines

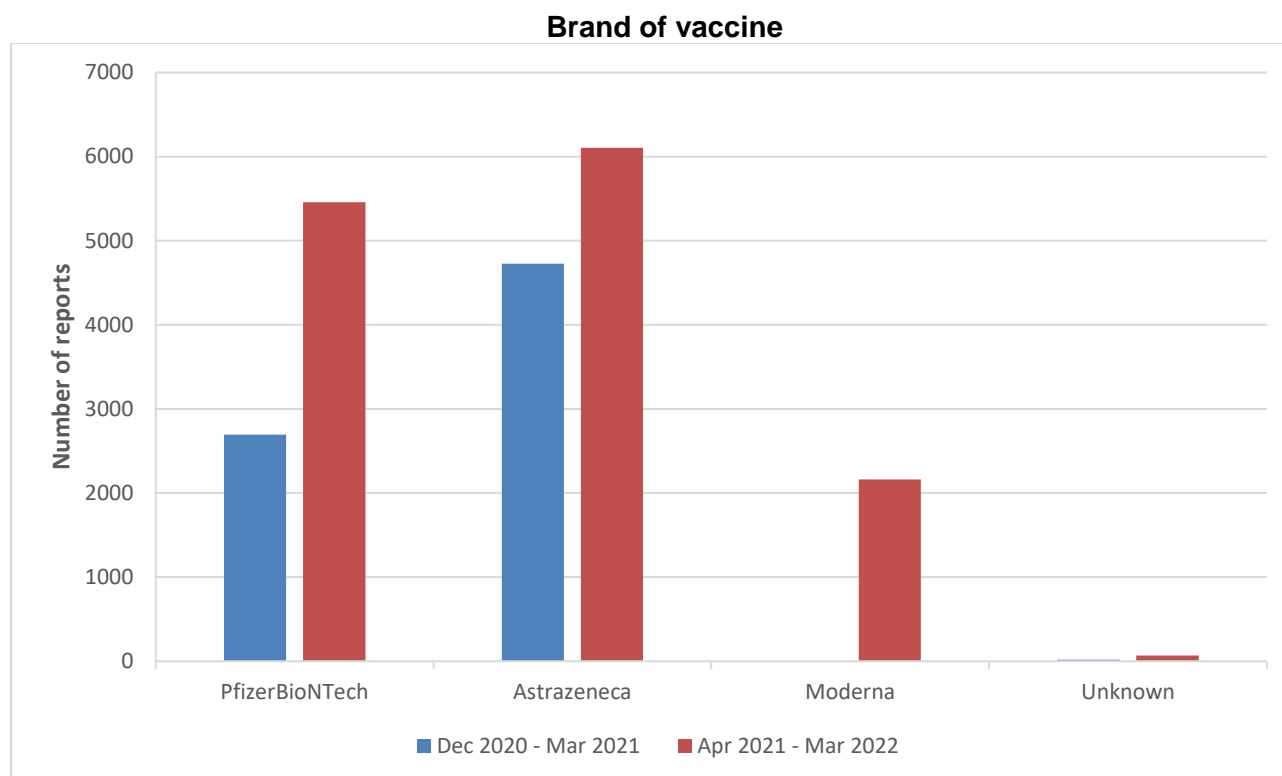
David Lewis
Claire Thomas

Welsh Medicines Information Centre

Diane Skillern



11. APPENDIX 1 – Summary of reports of suspected ADRs to COVID-19 vaccines



Reporter Qualification

| Reporter | Dec 2020 – Mar 2021 | Apr 2021 – Mar 2022 |
|----------------------------------|---------------------|---------------------|
| Patient/carer/recipient | 5379 | 12285 |
| GP | 383 | 497 |
| Nurse | 322 | 181 |
| Hospital doctor | 92 | 154 |
| Other Healthcare Professional | 389 | 145 |
| Pharmacist | 97 | 112 |
| Dentist | 68 | 90 |
| Healthcare assistant | 224 | 77 |
| Hospital Nurse | 143 | 65 |
| Hospital Pharmacist | 55 | 30 |
| Pharmacy Assistant | 51 | 30 |
| Pre-registration Pharmacist | 20 | 27 |
| Community Pharmacist | 17 | 22 |
| Hospital Healthcare Professional | 64 | 18 |
| Medical student | 46 | 15 |
| Paramedic | 28 | 13 |
| Physician | 17 | 10 |
| Midwife | 18 | 5 |
| Radiographer | 16 | 6 |
| Optometrist | 9 | 5 |
| Chiropodist | 2 | 3 |
| Total | 7440 | 13790 |



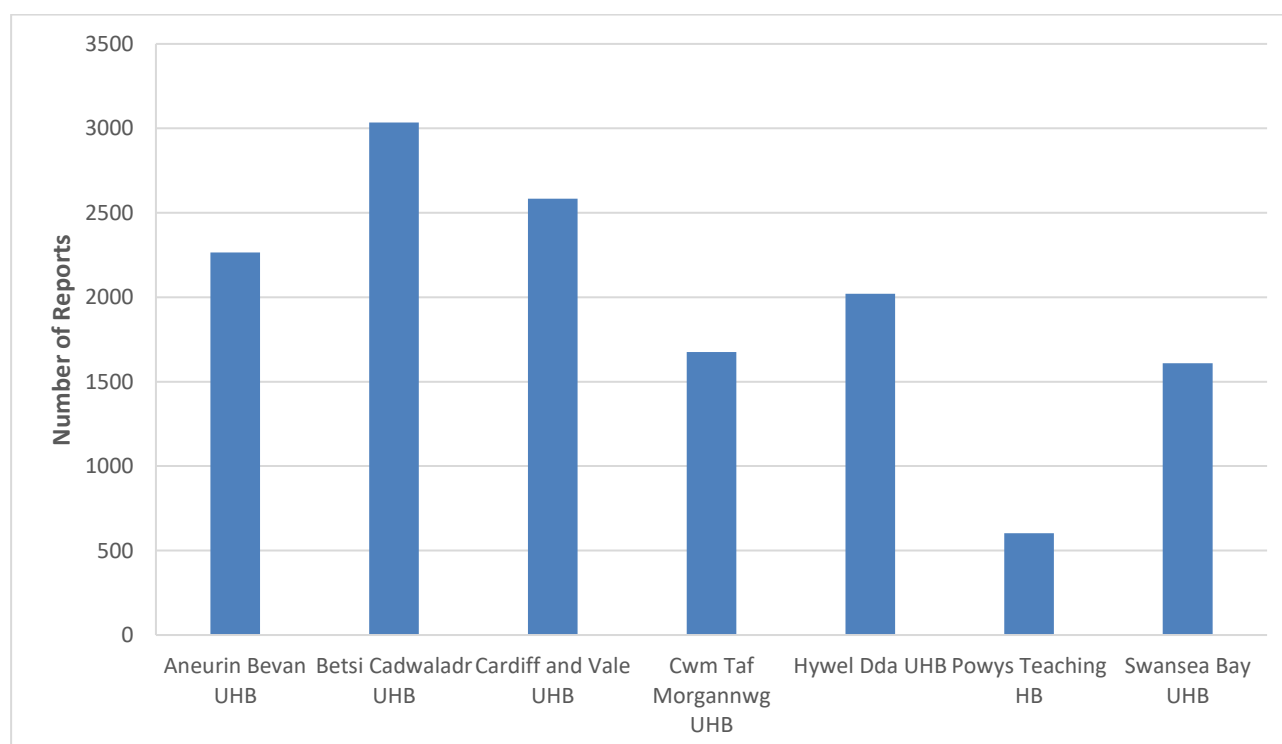
Sex of individual experiencing suspected ADR

| Sex | Dec 2020 – Mar 2021 | Apr 2021 – Mar 2022 |
|--------------|---------------------|---------------------|
| Female | 5493 | 9560 |
| Male | 1639 | 3493 |
| Unknown | 308 | 737 |
| Total | 7440 | 13790 |

Age breakdown

| Sex | Dec 2020 – Mar 2021 | Apr 2021 – Mar 2022 |
|--------------|---------------------|---------------------|
| Under 18 | 68 | 194 |
| 18-24 | 362 | 884 |
| 25-34 | 1048 | 2363 |
| 35-44 | 1103 | 2780 |
| 45-54 | 1143 | 2544 |
| 55-64 | 1325 | 1793 |
| 65-74 | 1157 | 975 |
| 75-84 | 451 | 368 |
| 85+ | 137 | 76 |
| Unknown | 646 | 1813 |
| Total | 7440 | 13790 |

Health board breakdown



*Number of COVID-19 vaccination reports submitted by health board April 2021- March 22
Please note: Health board level data is unavailable for 2020-21*



YCC Wales

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Canolfan Cerdyn Melyn Cymru

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