APP Activity data

February 2020-September 2021

January 2022

Contents

Background

The Advanced Paramedic Practitioners (APPs) have recorded activity data for project purposes since Cohort I first started their Primary Care rotation June 2019. This report provides a summary of data from February 2020 to September 2021.

Methods

In February 2020, the data collection document was updated to gather information on a per patient basis rather than per shift. APPs were consulted before the document was implemented, and changes have been kept to a minimum to ensure consistent reporting across the data collection period. The document fulfils Primary Care elements of the evaluation framework. It received approval from BCUHB Information Governance department and the project team have ensured the collection and reporting of data has been undertaken within the remit of a service evaluation.

The decision was taken to stop collecting activity data before the end of the project to allow sufficient time to collate, cleanse, and report the data. Also, to give the APPs an opportunity to work in Primary Care on a business as usual basis, without project demands such as activity data collection.

Results

Using the updated data collection tool, there have been 5429 documented consultations across the 20 months the data spanned. The true number is thought to be higher, as there have been technical and practical difficulties which meant some APPs were not able to return data to the project team. In addition, most APPs have undertaken work in Covid-19 Local Assessment Centres and Mass Vaccination Centres as part of their Primary Care role which was not captured. Activity has also been affected by sickness, maternity and paternity leave.

There were 2565 consultations documented up to January 2020 using the previous data collection method. Therefore, APPs have recorded a total of 7994 consultations across the course of the Pacesetter. This chapter will focus on the results using the updated data collection tool only.
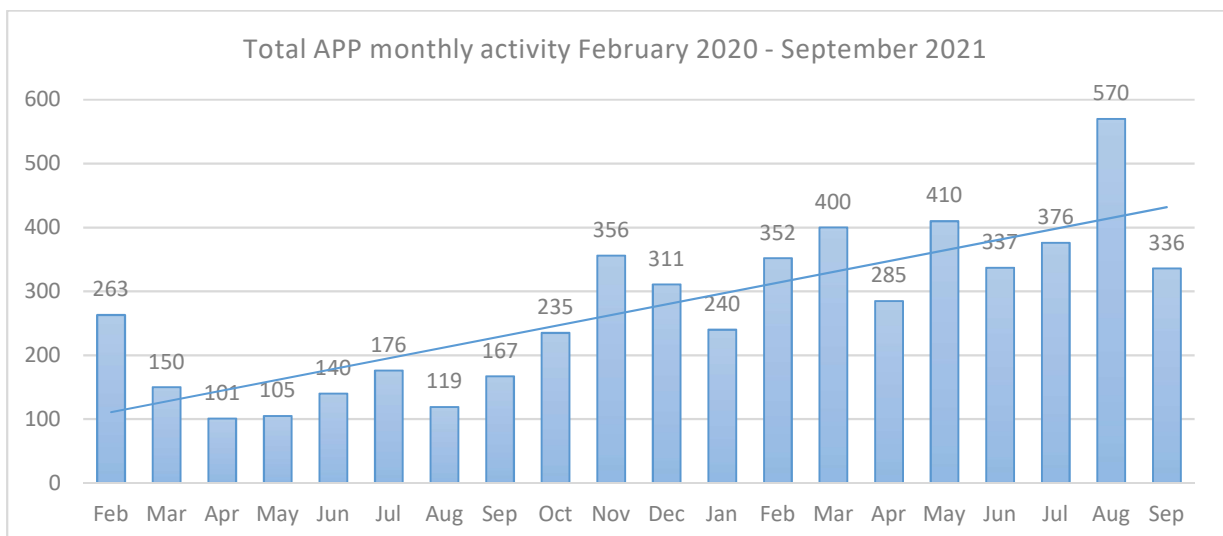
Activity by APP

The breakdown of activity per APP is listed below. The average number of consultations across all APPs was 500.

APP pseudonym	Phase I - total consultations	Phase II - total consultations	Total	Number of Months of data available June 2019-Jan 2020	Number of Months of data available Feb 2020-Sep 2021
A	385	649	1034	8	18
B	395	579	974	8	20
C	360	573	933	8	20
D	127	635	762	4	11
E	218	436	654	7	19
F	320	283	603	8	15
G	318	224	542	6	13
H	N/A	475	475	N/A	12

I	345	42	387	8	2
J	N/A	347	347	N/A	10
K	N/A	317	317	N/A	7
L	N/A	239	239	N/A	12
M	N/A	227	227	N/A	7
N	N/A	224	224	N/A	11
O	N/A	154	154	N/A	4
P	97	25	122	3	2

The activity data per month is displayed in the two graphs below. The month with the highest combined patient consultation activity was August 2021 (570), and the lowest April 2020 (101) which coincided with the start of the Covid-19 pandemic. The mean average was 271 over the 20 months the data spanned.

Phase II started in October 2020, there have since been five months where the activity from Cohort II has exceeded that of Cohort I. There is an increasing trend overall for both Cohorts.

APP total monthly activity February 2020 - September 2021

Total APP monthly activity February 2020 - September 2021
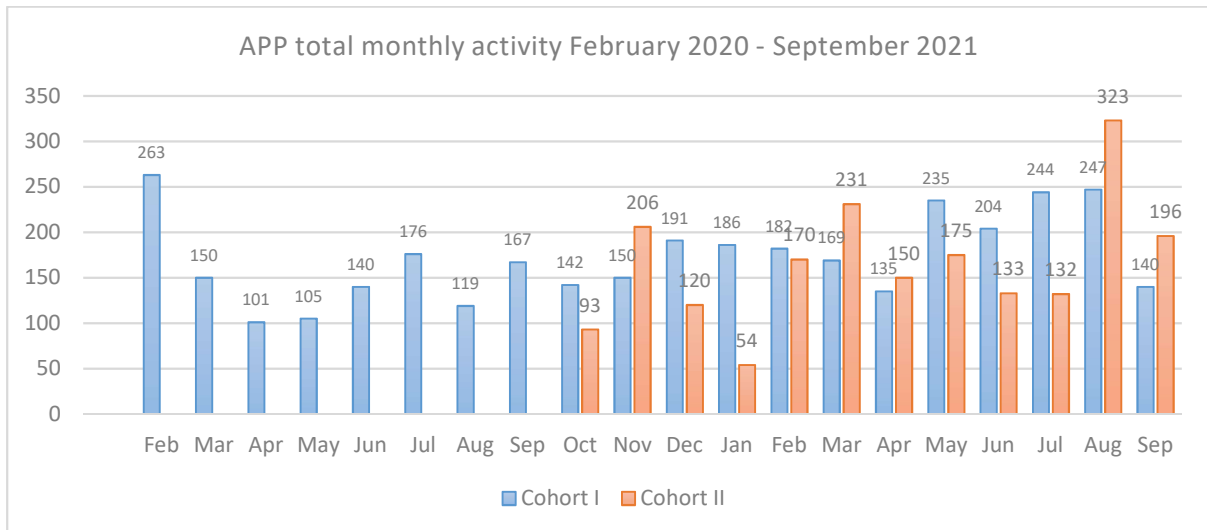
Consultation time

The length of patient consultation was documented for 3560 (65.57%) cases. The range was from 2 minutes (patient enquiring where their prescription was) to 80 minutes, with a mean average of 23:37 minutes.

Travel time

The length of travel time was documented 1471 times (72.07% out of surgery visits), and ranged from 0 minutes (for example between seeing multiple patients in the same nursing home) to 50 minutes. The mean average was 15:39 minutes. There were only three Clusters where travel time exceeded 25 minutes; Arfon, Dwyfor and North West Wrexham.

Location

In total, the APPs worked across 29 practices in seven Clusters. There had been five Primary Care Clusters for Phase I, and a further two joined the project during Phase II.

There were fixed options for consultation location; eConsult, Telephone consultation, surgery clinic, Nursing/Residential home and patient home. Location was documented for 5249 (96.68%) of consultations. The chart below displays the split between virtual consultations (eConsult and telephone), visits outside the surgery (Nursing/Residential home and patient home), and surgery clinics. Across the twenty months of data, almost half of consultations have been undertaken virtually (46%), followed by out of surgery visiting (39%) and surgery clinics (15%).

Location of consultation with an APP

- 2041, 39% — Out of surgery visits
- 814, 15% — Surgery Clinic
- 2394, 46% — Virtual
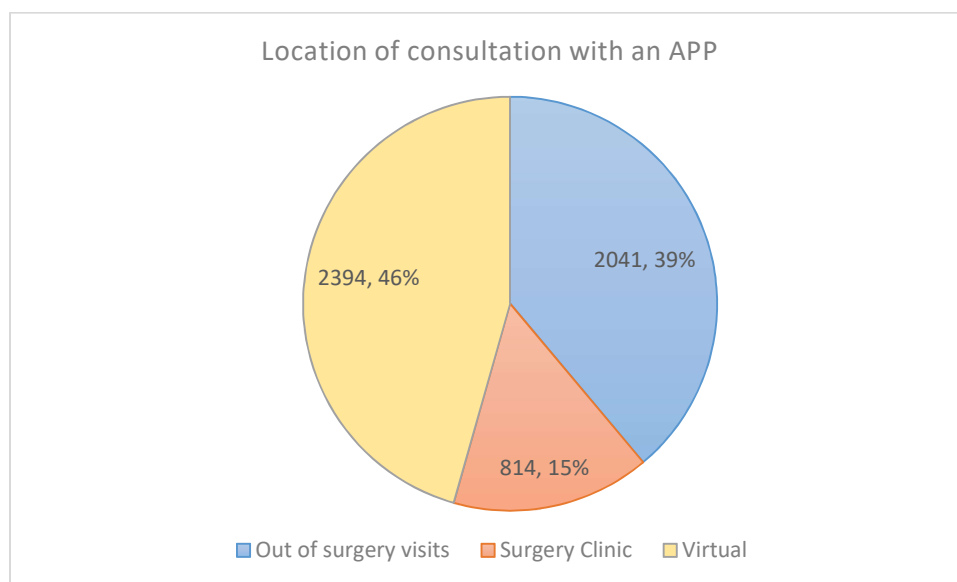
The data collection captured shift that occurred before and during the Covid-19 pandemic. As shown below, there has been a particularly large increase in the number of virtual consultations. Face-to-face surgery clinic appointments decreased at the start of the pandemic but have since increased, particularly during summer 2021, and are still undertaken when clinically indicated.

Despite the increase in the number of APPs since the start of Cohort II in October 2020, there is a decreasing trend for patient visits out of surgery.

Location of consultation with an APP
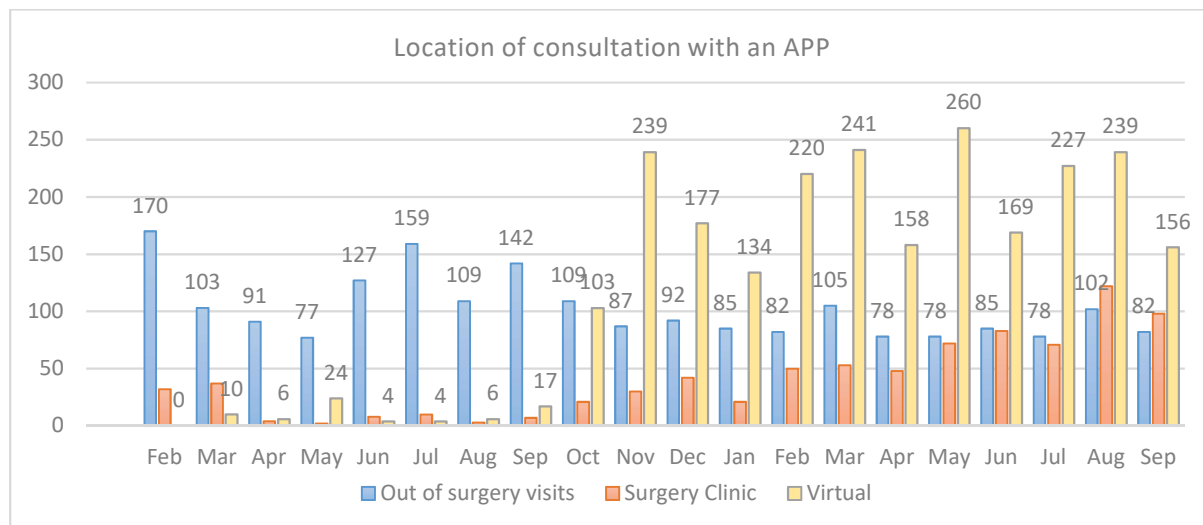
New/Review consultations

There were three fixed options; new, review and DNA (Did Not Attend). The status was documented for 4734 (87.20%) of consultations, and showed that over 85% were new presentations.

Proportion of new versus review APP consultations

- 74, 1%
- 600, 13%
- 4060, 86%

New Review Did Not Attend
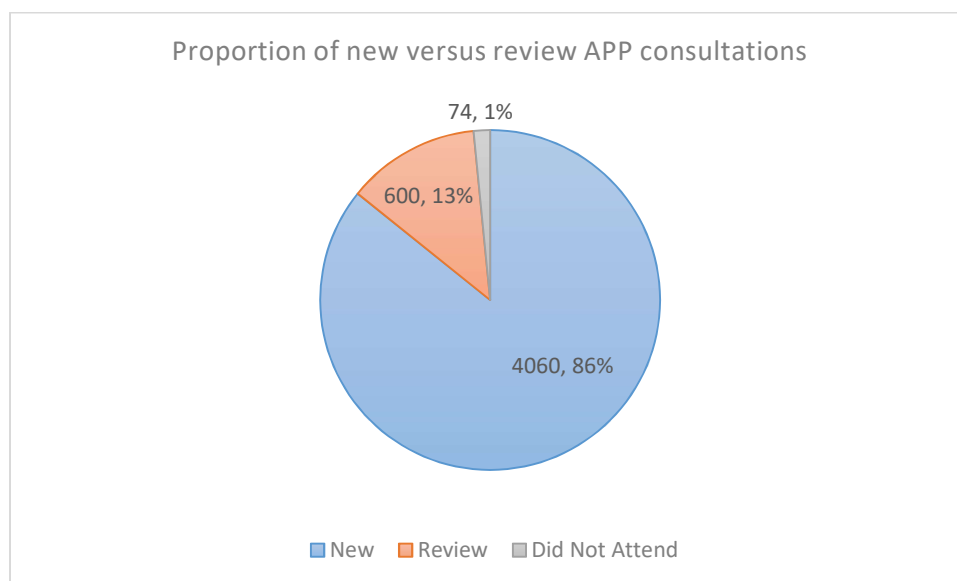
There were 74 documented instances of DNA in total and the breakdown is provided below. Most (71.62%) were virtual consultations for example telephone consultations.

Did Not Attend	
Telephone consult	51
eConsult review	2
Nursing/Residential Home	1
Patient Home	10
Surgery Clinic	10

The graph below displays the new/review/DNA as a percentage of the monthly total. It would be reasonable to expect more reviews over time as the APPs become an integrated member of the Primary Care practice team. However, there was no particular change in the trend. The highest proportion of reviews was in August 2020 (26%), and the lowest in February 2020 (5%), and the average was 13% across all months.

Proportion of new versus review APP consultations
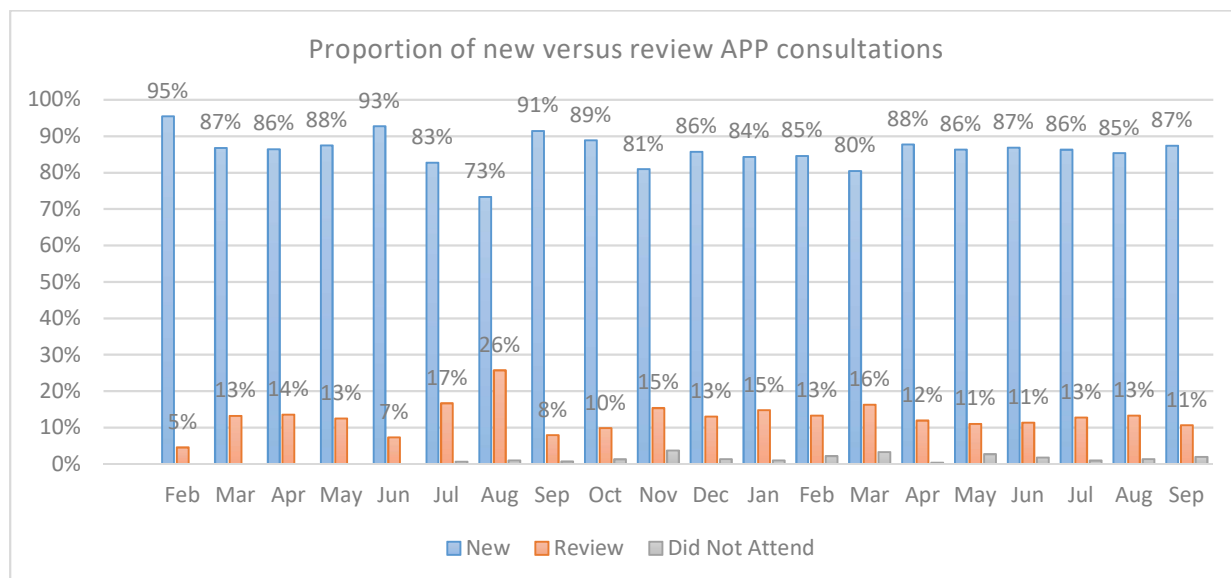
Patient categorisation following APP Consultation

There were four fixed options that the APPs used to categorise the patient following the consultation:

- Complex / difficult patient requiring senior discussion / direct supervision
- Sick patient requiring escalation of care to secondary care for admission
- Unwell patient but fit for management at home
- Well patient requiring reassurance / self-care advice

In addition APPs documented 9 visits to verify a patient death.

The patient outcome was recorded for 2908 (46.44%) of consultations and is outlined below.

|	Count	As a percentage of cases documented
Well patient requiring reassurance / self-care advice	1322	45.46%
Unwell patient but fit for management at home	1307	44.94%
Sick patient requiring escalation of care to secondary care for admission	140	4.81%
Complex / difficult patient requiring senior discussion / direct supervision	130	4.47%
RIP	9	0.31%

Just over 90% of the cases documented fell into the lowest two acuity categories providing an indication of the types of presentation the APPs were managing in Primary Care.

Despite recognising patients were sick and required additional care or investigations in hospital, APPs documented several cases where the patient refused an admission, with some citing fears around COVID-19 as the reason.

The outcome was reviewed in more detail with regards to appointment location – this was available for 2904 consultations. For the well, and unwell patients, 57.58% and 62.71% respectively were consulted virtually. For the complex patients, almost an equal split were either consulted virtually or an APP visit to usual place of residence (42.31% and 40%), and 63.31% of patients categorised as sick were consulted out of surgery in their usual place of residence.

	Virtual	Out of surgery	Surgery Clinic
Well patient requiring reassurance / self-care advice	57.58%	29.92%	12.50%
Unwell patient but fit for management at home	62.71%	25.27%	12.02%
Sick patient requiring escalation of care to 2ndry care for admission	25.18%	63.31%	11.51%
Complex / difficult patient requiring senior discussion / direct supervision	42.31%	40.00%	17.69%
RIP	-	100.00%	-

The same data is represented visually below by location. This highlights an almost equal split between the categories of patients consulted in surgery clinics. It also indicates good utilisation of virtual consultations for low acuity presentations, and home visiting for sick patients.
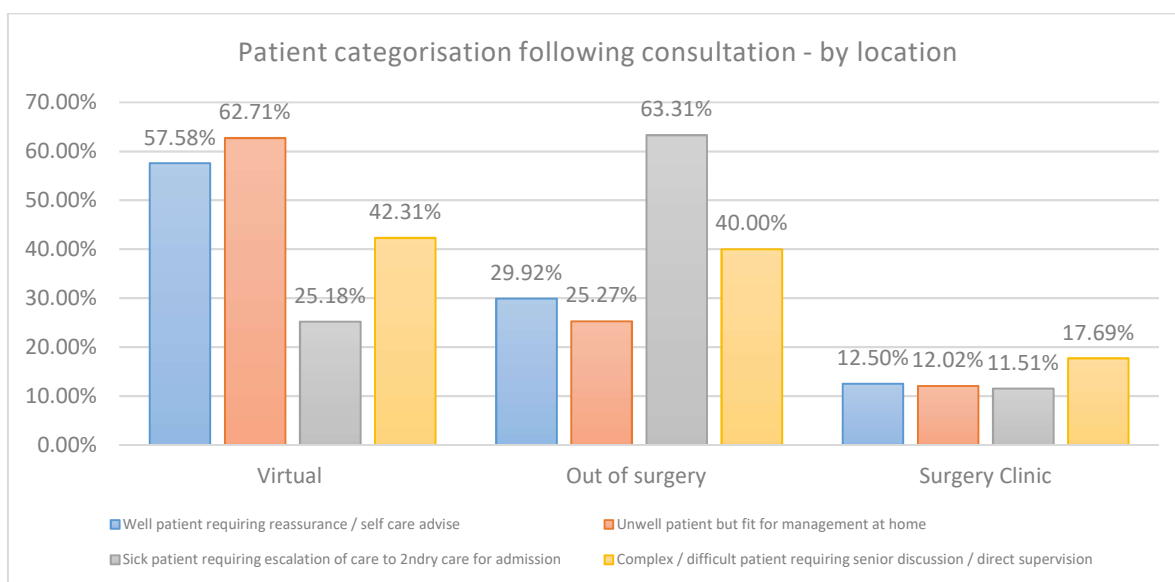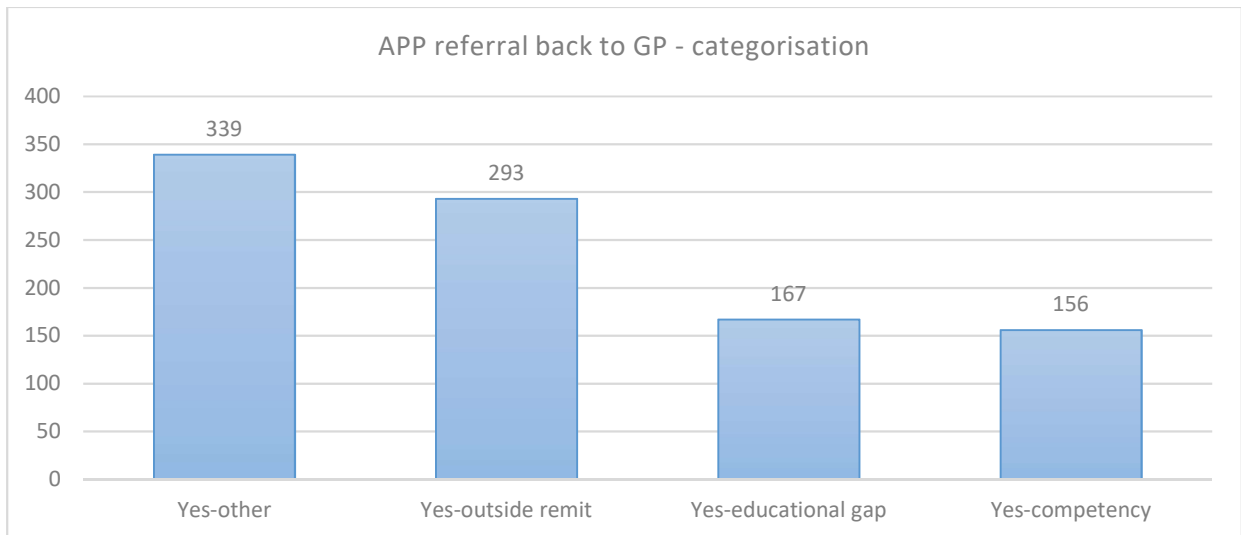

Referral back to GP
The data collection document captured whether a patient was referred to a GP following the APP consultation. The response options were

- No
- Yes - competency
- Yes - educational gap
- Yes - outside remit
- Yes - other

The number of cases was recorded d for 4198 (77.33%) of consultations and overall 77% of those documented were managed by the APP and did not require referral to a GP.
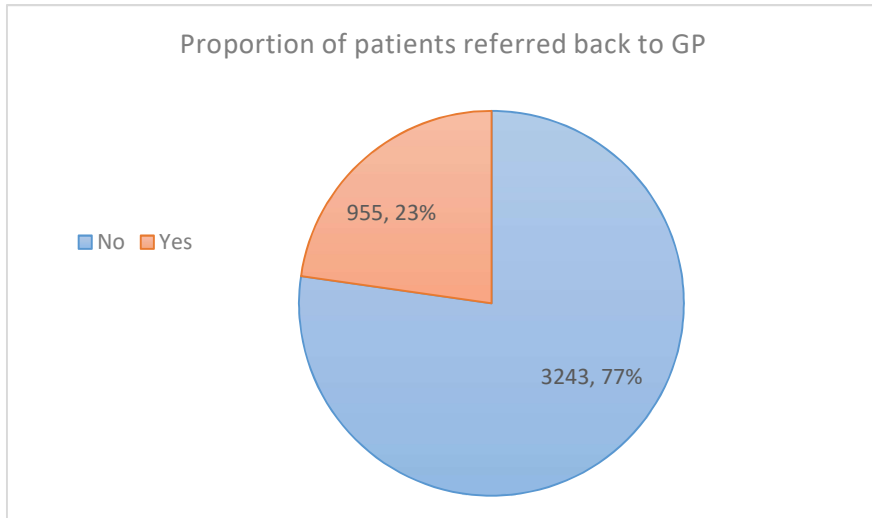
Of those referred back to the GP, most were classified as 'other' or 'outside APP remit', there were fewest classified as competency and educational gaps. Some of the educational gaps have been explored in other data collection for the Pacesetter evaluation where there were consistent recommendations for further learning such as interpreting blood results, musculoskeletal, dermatology, men/women's health, care of the elderly, and paediatrics.

As with other measures it may be expected that referrals back to GP decrease over time, as APPs become established in Primary Care. Referrals back to GP were highest in April 2020 (39%) which could

have been due to challenges around the pandemic. They were lowest in September 2021 (13%) and there is a general decreasing trend over time.
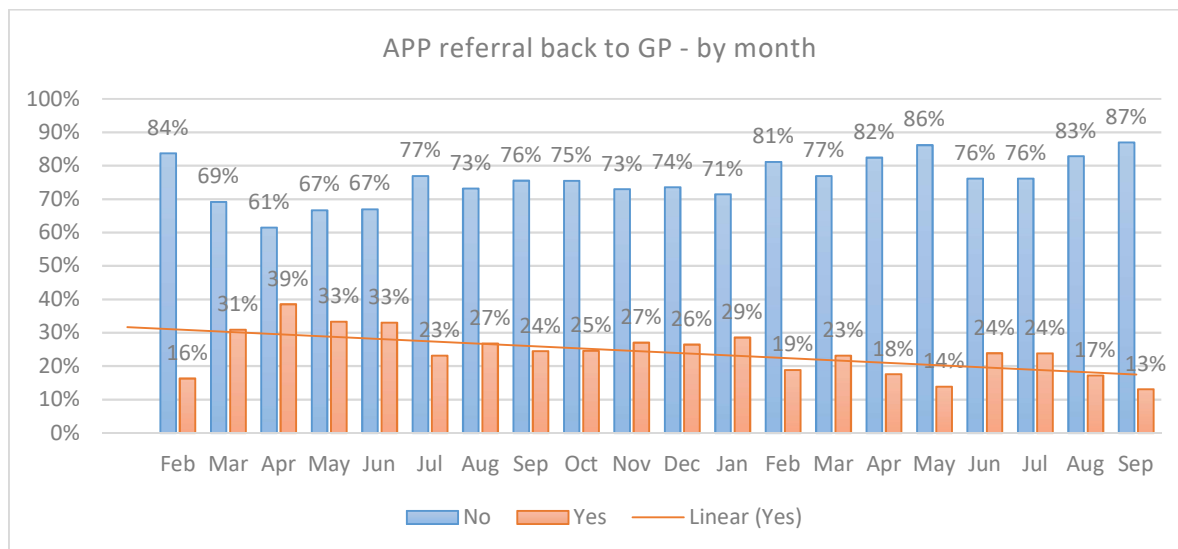
Prescriptions

Prescription requirements were documented for 4338 (79.90%) of consultations, and overall 46% needed a prescription and 54% did not.
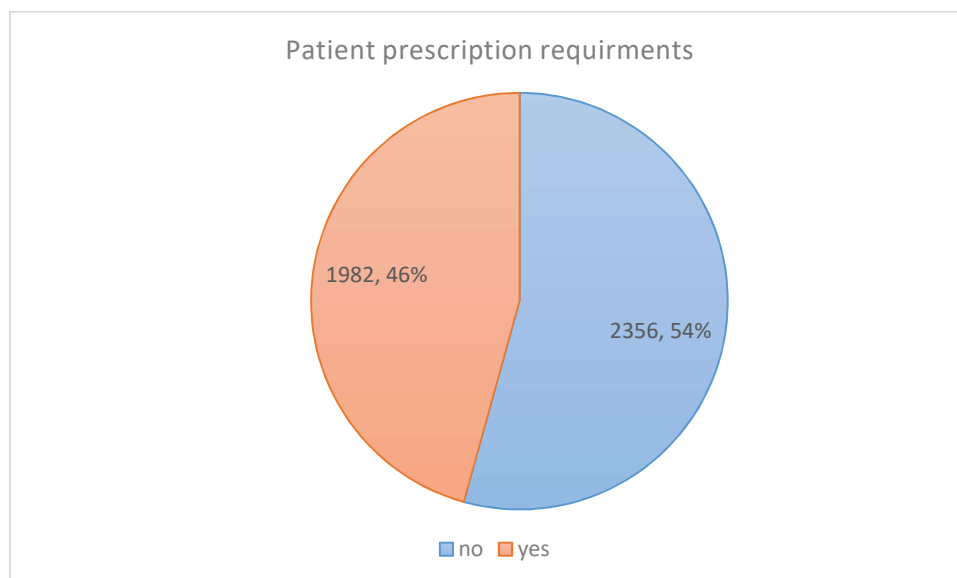
June 2021 saw the lowest percentage of patients needing a prescription (39%), and March 2020 saw the highest (53%). Only two of the 20 months, the number needing a prescription was higher than those who did not (March 2020 and July 2021). The trend line indicates a small decrease in prescription requirements over time.

Patient prescription requirments - by month
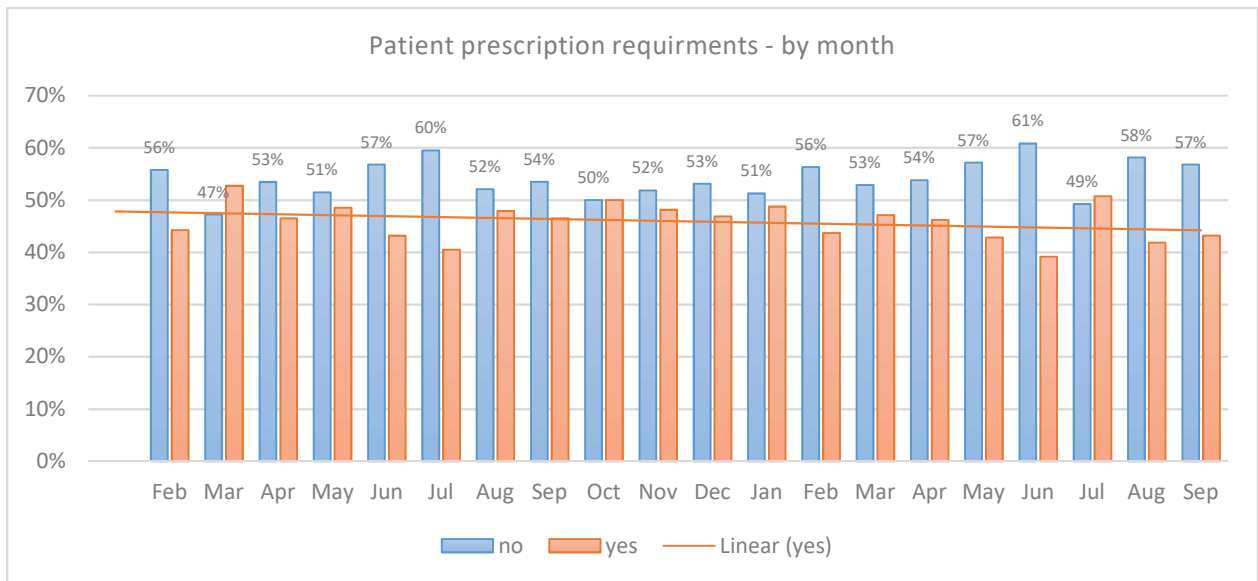
There was location detail for 4268 of the consultations where the prescription provision was documented.

	Virtual	Out of surgery visits	Surgery Clinic
no	980	1006	331
yes	913	797	241

As seen below in percentages, there was little variation by location of consultation. Virtual consultations were associated with a slightly higher percentage of prescriptions (48.23%) compared with consultations in the patient home and surgery clinics (44.20% and 42.13% respectively).

Patient prescription requirments - by location
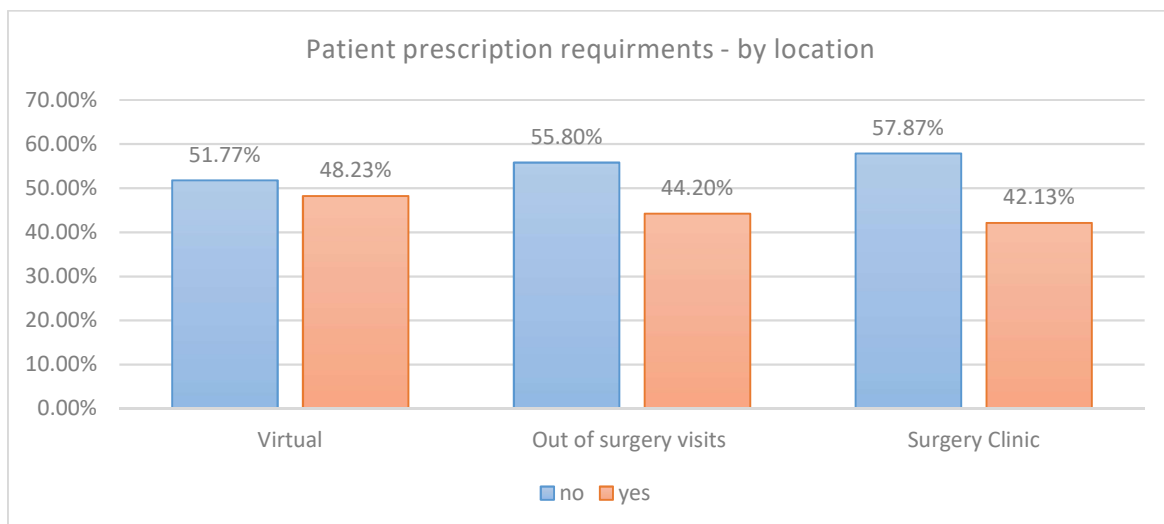
There was greater variation in prescription needs when compared alongside patient outcomes. The prescription and outcome status was only documented for 2610 patients, but indicates that for the most sick patients, only 11% needed a prescription. It is likely this is because the most unwell patients were referred to secondary care. Just 25% of well patients needed a prescription, indicating most were

provided with self-care advice or reassurance. In contrast 52.88% of complex patients, and 70.24% of unwell but able to be managed at home needed prescriptions.
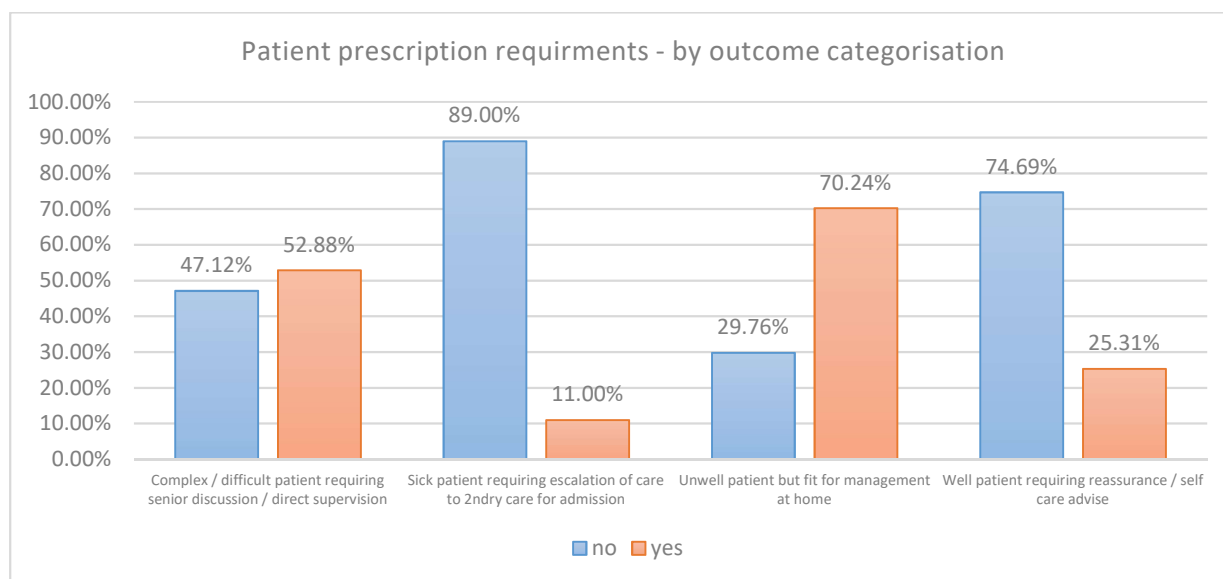
Investigations

There were 1290 documented investigations instigated for 795 (14.64%) patients. The most common requests were blood sample and blood pressure.

Investigation	Count
Blood sample	535
Blood pressure	213
Urine	170
Radiology	150
ECG	67
Type not documented	58
Stool sample	39
Swab	39
Sputum	14
Spirometry	3
Podiatric	2

Community referrals

There were 229 documented referrals, representing 4.22% of consultations. The highest number of referrals was to District Nurses, then Physiotherapy, and the lowest to smoking cessation.

Service	Number of referrals
District Nurse	83
Physiotherapy	48
Specialist Nurse	34
Social Services	18

Mental Health	13
Falls	10
Occupational Therapy	9
Audiology	8
Podiatry	4
Smoking cessation	2

In addition, some APPs documented recommendations to self-refer to services such as Physiotherapy and substance misuse.

Secondary Care referrals

Secondary care referrals were recorded for 416 consultations (7.70%) of consultations. The most common referral was to ED or MAU.

Almost half of the most urgent destinations were patients categorised as being the sickest and needing urgent care (45/109 ED, 26/66 MAU, 14/25 admission, 11/25 day unit).

Destination	Number of patients
ED	109
MAU	66
Admission (department not specified)	25
Day Unit	25
Ward	21
SAU	20
ENT	16
Dermatology	13
DVT clinic	13
WECS	12
cardiology	10
MIU	9
Gastro	8
SALT	7
Neurology	6
Surgical ref	6
Paeds	5
Gynae	4
HF clinic	4
Orthopaedics	4
Chest pain clinic	4
Sexual health	4
Vascular	4
Respiratory	3
Urology	3
ACU	2

Dietetics	2
Haem	2
SDEC	2
Breast	1
Colonoscopy	1
Geriatrician	1
Renal	1
TIA clinic	1
Endocrinology	1
MaxFax	1

In addition to the numbers documented above, there were multiple cases where the APP had annotated that the patient declined admission, sometimes related to fears over COVID-19.

Presentations

The patient presentation was documented for 4913 (90.50%) of consultations.

Although there were no formal options for management of palliative patients, the annotations on the data collection document was able to capture some of the work the APPs undertook such as end of life care discussions, complete documentation for DNACPR and provision of anticipatory medication.

As indicated in the word cloud, the most common presentations were coughs, infections, chest and back problems, and UTI (represented in red). The annotations by some APPs were also able to capture some of the less frequent presentations (displayed peripherally in the word cloud) which were higher acuity or complex cases such as palliative care and DVT management.

Conclusions

The activity data has been able to evidence the significant contribution APPs have made to Primary Care since the start of Pacesetter, with almost 8000 documented consultations and additional undocumented consultations. Qualitative data collected for the project has indicated the Primary Care rotation was particularly valued during the COVID 19 pandemic when healthcare services experienced unprecedented demand and staffing pressures, and APPs have been able to draw on their advanced clinical practice skills and flexible approach, to support Primary Care and ease pressure in practice.

The per APP data shows large disparity in the activity, even between APPs from the same Cohort. The model of APP deployment varied between the seven Clusters and those areas focusing on home visiting for example, particularly in rural Clusters tended to have lower levels of activity than those delivering virtual consultations. Some APPs also took periods of long term absence from the rotation for example change of role, maternity or paternity leave, and sickness. For Phase II, some of the APPs from Cohort II joined the Pacesetter with considerable Primary Care experience, and were therefore able to work at faster pace and see more patients from the outset.

The average length of consultation across the course of data collection was just over 20 minutes and includes the induction period where APPs would have been working at a slower pace. It was acknowledged that this was acceptable for APPs new to Primary Care, but beyond the Pacesetter, APPs would be expected to reduce consultation time to align with that of other Primary Care staff seeing similar patients, such as Advanced Nurse Practitioners, or practice nurses.

Average travel time was just over 15 minutes and only more rural Clusters reported travel exceeding 25 minutes. These Clusters tended to utilise APPs to deliver the home visiting service which was particularly valued, as it has the potential to relieve pressure on surgery and release GP time to focus on complex patients.

The location data was able to capture some of the changes associated with COVID-19, particularly the low numbers of consultations from March to May 2020 at the start of the outbreak. Prior to the pandemic there were minimal virtual consultations, however, the data indicates that overall they represent almost half of the total Pacesetter activity data. This is efficient use of time, as there is minimal travel, and low acuity presentations can be suitably managed using this method. In contrast, the number of home visits has decreased steadily since the start of Pacesetter activity data collection. It is possible that where appropriate, some presentations consulted outside the practice can now be resolved using telephone or virtual methods. However, some consideration needs to be given to access requirements for the online and virtual services, particularly for elderly or vulnerable patients.

In total, 85% of consultations represented new presentations, and there was no real change in this trend over the period the data covered. There is no public data available to indicate whether these figures are representative of other professionals or Primary Care as a whole. In qualitative data collection, APPs and other healthcare professionals have spoken of the importance of continuity of care, both to follow the patient journey and for those with chronic conditions. The limited time that APPs spend in Primary Care on the Pacesetter rotation may affect their ability to provide this.

The data indicated that just over 90% of patient consultations fell into the two lowest acuity categories (well and unwell). This may be due to triaging of patients prior to consultation by an APP. The data was examined with respect to location of appointment. For the well and unwell patients, around 60% for each were able to consult an APP virtually, whereas 63.31% of sick patients received a home visit.

This indicates that increasing use of virtual consultations (where appropriate) is an efficient means to manage low acuity patients, which freed time for home visits and face-to-face appointments for those most in need.

Across all months of data 77% of consultations were able to be managed by the APP without GP input. In addition, there was a decreasing trend between in the proportion of cases that required GP input over the period of data collection. APPs have described themselves as 'novice' in Primary Care at the start of the rotation, therefore the change could be representative of improved Primary Care knowledge and skills. A point for consideration is that despite improvements, APPs will always need access to GP or colleagues for discussion and supervision of certain presentations or cases.

Throughout the Pacesetter data collection, there has been some debate around the need for Primary Care APPs to prescribe. The data indicated that as an overall average, 46% of consultations required a prescription, and 54% did not, and the trend line indicated a decreasing trend in patients needing prescription items. The benefits of prescribing APPs can be recognised by colleagues in Primary Care such as rounded approach to care, however it also represents a significant investment for training and pay uplift and will need further exploration around the cost and benefits of offering the course to large numbers of APPs.

The word cloud visually represents the presentations documented by APPs and showed that the most common presentations were urinary tract infection, cough, back and chest complaints, and infections. This aligns with the earlier findings that the majority of APP Primary Care workload is managing lower acuity presentations in Primary Care.

The final few columns of the data collection tool recorded investigations, community and secondary care referrals. The APPs documented reasonably low numbers, but it is not known whether this was due to omissions in data or true figures. For example there were 83 reported referrals to district nurses, but over 2,000 home visits (to those who are elderly or most unwell) and the expected figure may be higher. In addition, there are thought to be some options missed off the drop down list which have therefore not been documented such as palliative care referrals.

The APPs collected a huge amount of activity data, however several limitations have been recognised. Firstly, there is little comparable national data to understand whether the trends reported here are specific to APPs, or Primary Care more generally. Secondly, quantitative data is not able to capture nuances between individuals and their interpretation and reporting of activity data. Lastly, it was fortunate that the data collection was able to capture some of the changes that arose as a result of the covid-19 pandemic, however, it did represent an extraordinary period in healthcare.