# Report into COVID-19 AND GENERAL PRACTICE, *Insights from the first few weeks.*

**15th April, 2020.**

Central & Eastern Sydney Primary Health Network
South Western Sydney Primary Health Network
Gippsland Primary Health Network
Eastern Melbourne Primary Health Network
South Eastern Melbourne Primary Health Network

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## Preamble

POLAR GP has been producing daily reports for direct planning and resource allocation through their respective practices. These reports are an initiative of the Primary Health Networks listed below. More information about the POLAR GP can be found here polargp.org.au. PHN data contributing to this report is provided by Central & Eastern Sydney, South Western Sydney, Gippsland, Eastern Melbourne and South Eastern Melbourne.

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## Executive Summary

The greatest single factor in responding to any crisis is arguably the availability of high quality, up-to-date, information. Since mid-March POLAR has summarised the information from 1000 practices across NSW and Victoria, following GP activity in response to the most challenging health event of the last 100 years. The practices, supported by their PHNs, have shown an amazing capacity to transform their care model within a two to three-week time frame to deliver safe, appropriate care that protects patients and their own practice staff. These changes will have long lasting impact for patients and practitioners alike. GP practices have made proactive and agile decisions about, not only their interactions with patients, but their entire businesses. The availability of quality current primary care data has been a vital factor in driving an effective health response, reviewing patterns of health access and can be used as a basis for predicting future impacts.

This report shows the effects of 1000 individual practices making decisions about practice care and structure. We have no reason to believe that practices outside the POLAR network will be any different, recognising that the remote context is limited to the Gippsland region.

At the time of this report, the impact on the hospital system from an inpatient case load perspective has been relatively minor. Most hospital activity has focused on preparation, infection control and, in EDs or specialist clinics - COVID-19 testing.

The impact on general practice has been markedly different. In only a few weeks, the workforce has moved to a virtual model of care with primary health care at the front line of the COVID-19 impact. PHNs have been heavily involved in the distribution of PPE workforce and practice support issues. Through this work and an analysis of data PHNs have developed significant insights into the on-the-ground changes to care assumptions and practices. From this come a number of recommendations for your consideration.

What we offer here are some initial insights to inform policy and to support other organisations involved in primary care change management. This represents an early analysis of available data in a novel health context. We recognise the limitations of this early data and the brief investigation of the data contained in this report. While we understand that further data and analysis is required to provide a holistic picture of the current state, we believe that an iterative compilation and analysis of data is required at this time. Clearly more work could be undertaken with additional resourcing and support.

## Key learnings

1. Telehealth consultations about to overtake face to face consultations in general practice.

2. Overall GP contacts and prescriptions have remained steady; however, there is a massive drop in pathology and radiology prescribing that needs to be better understood. Initial conversations with GP referrers indicate that a complex set of factors are rapidly changing practice.
3. In order to better understand this data a more nuanced understanding of GP decision making regarding time sensitive GP presentations that are guiding triaging decisions is required
4. A lack of coding and technical standards make identifying and tracking COVID-19 patients unnecessarily difficult.
5. The barriers to uptake of video consultations need further consideration as well as the potential for clinical risk inherent in a move away from face to face consultations.

Data analysis

## 1: Telehealth

In an astounding demonstration of flexibility and responsiveness general practice is adopting telehealth at an amazing rate. The graph below shows the adoption rate for the past 28 days. This current trend suggests that it is likely that there will be more telehealth consultations than face to face in the post-Easter week.

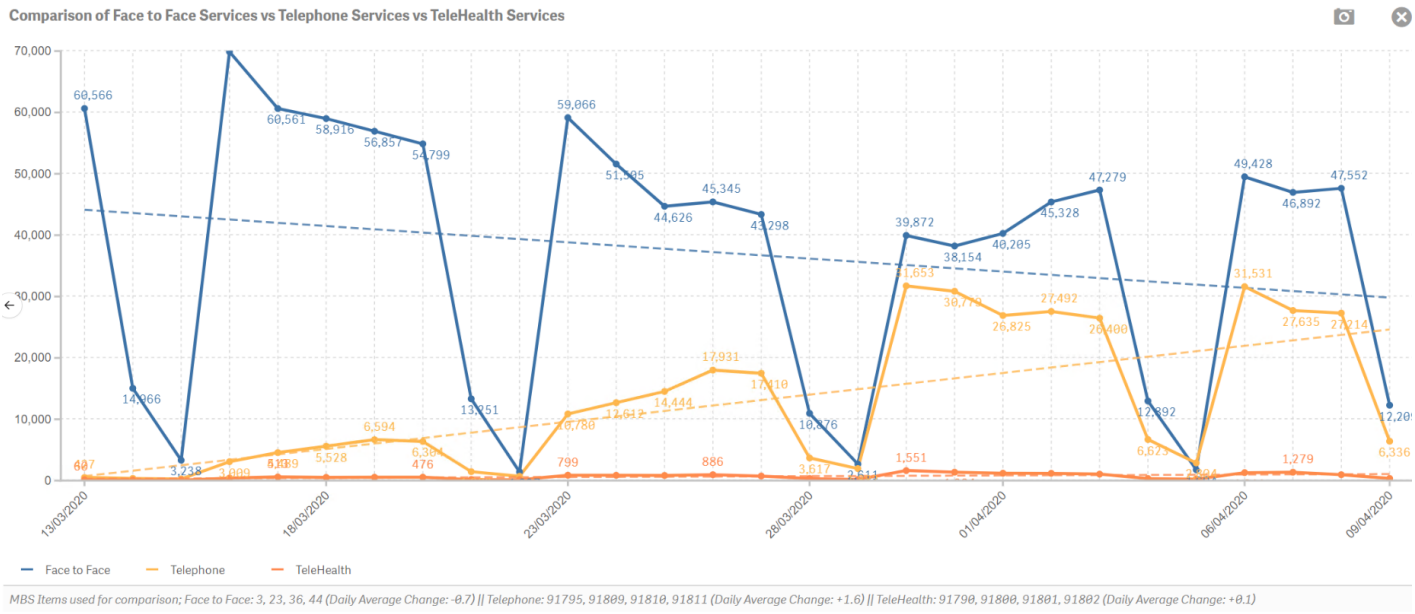


Figure 1 - Above, Mode of Consultation (last 28 days)

| Service | Existing Items *face to face* | Telehealth items *via video-conference* | Telephone items – *for when video-conferencing is not available* |
|---|---|---|---|
| **Standard GP Attendance** | | | |
| Attendance for an obvious problem | 3 | 91790 | 91795 |
| Attendance less than 20 minutes | 23 | 91800 | 91809 |
| Attendance at least 20 minutes | 36 | 91801 | 91810 |
| Attendance at least 40 minutes | 44 | 91802 | 91811 |

Table 1: MBS Items used in Figure 1.

Video consultations remain low. The use of video remains an unfamiliar approach for many GPs in the clinical consultation. It is can also challenging for patients who have cognitive, language or other communication disadvantages. Nevertheless, we believe that video should be encouraged and supported, for the extra clinical information and interpersonal engagement it has the potential to provide. Anecdotally the barriers around use of video consultation are reduced by platforms that use existing contact details either through being embedded or functioning as an add on to clinical software, or those platforms that are more publicly available such as Facetime or Whatsapp, rather than those that require knowing a user's unique details (Skype, Messenger, Zoom etc).

It seems that the mode of consultation has not affected contacts generally. Overall consultations have risen a small amount. Figure 2 is a straight year on year count comparison showing weeks of the year starting Jan 1 along the X axis. The dips are major holidays; for example, Week 4 corresponds with the Australia public holiday break, the Easter break coincides with week 15-17. Patients are seeing their GPs, though possibly more for COVID related reasons than usual care. GPs report high levels of anxiety with many patients and the drivers for usual presentations reduced. Mental health, influenza vaccination and other presentations related to the current context are keeping most practices busy. Those practices with a strong history of engagement in quality improvement activities are also proactively seeking out high risk patients and providing them with additional care.

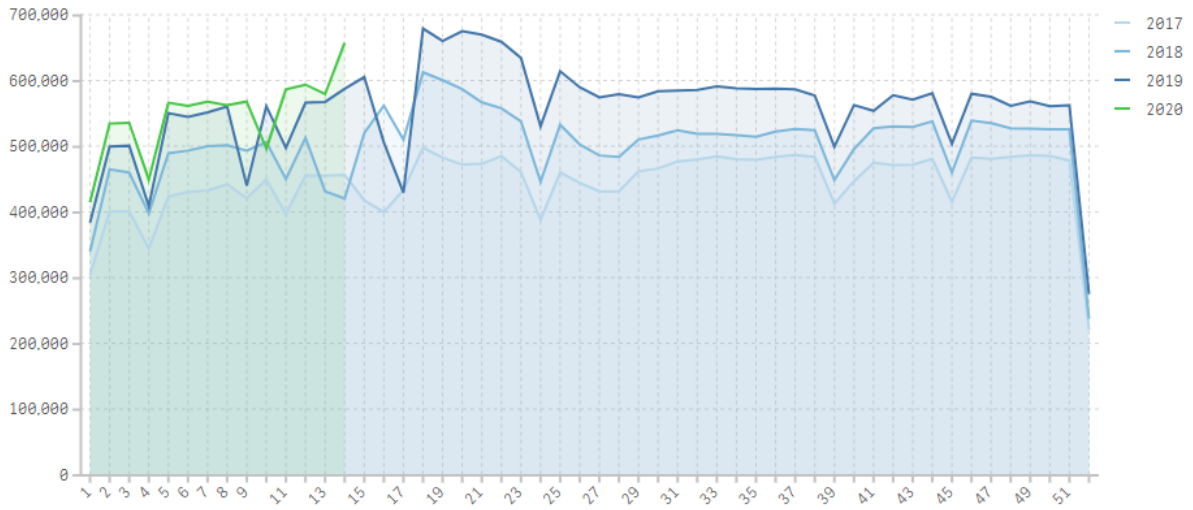


Figure 2 – Consultation Rates

## 2: Effects on other activities

Figure 3 demonstrates the cumulative increases of testing for COVID-19. As expected, we see a steady increase in the numbers over time. The curve is impacted with changes to government policy.

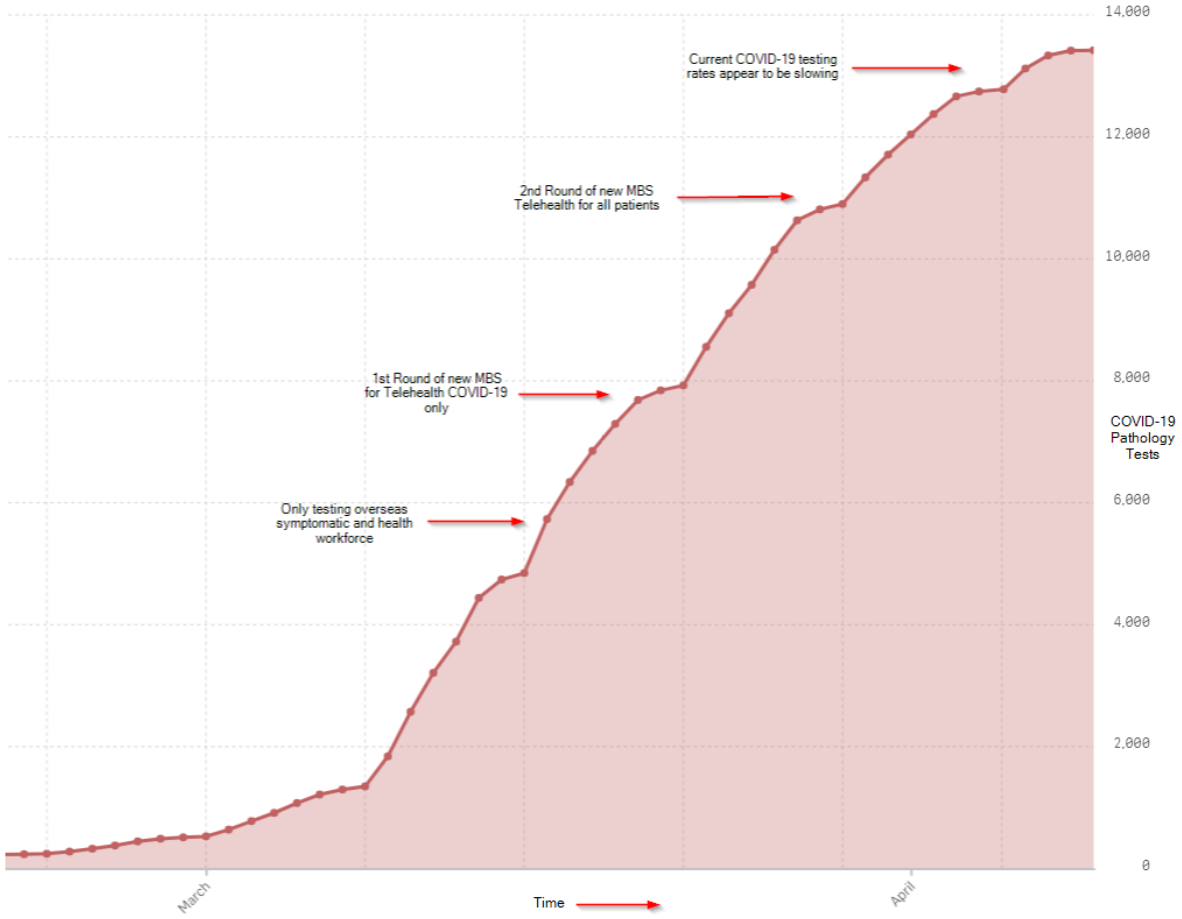


Figure 3 – Cumulative COVID-19 testing numbers

The first change matches the timing of a restriction to the testing criteria, the second to the introduction of telehealth items that related to suspect COVID-19 only, and the third to the widening of the telehealth items. These slowing rates seems counter intuitive when case numbers in general are rising. We theorised that it may be either due to significant testing being done through government centres, or due to the difficulties of getting test requests to patients when the consultation is conducted remotely. There have been barriers to improving and streamlining E-Requesting processes in the past. A national and seamless workflow is now urgently required.

To test these hypotheses, we looked at general radiology and pathology test ordering over the same time – this is seen in Figures 4 and 5 (scale is in weeks – representing first half of the year).

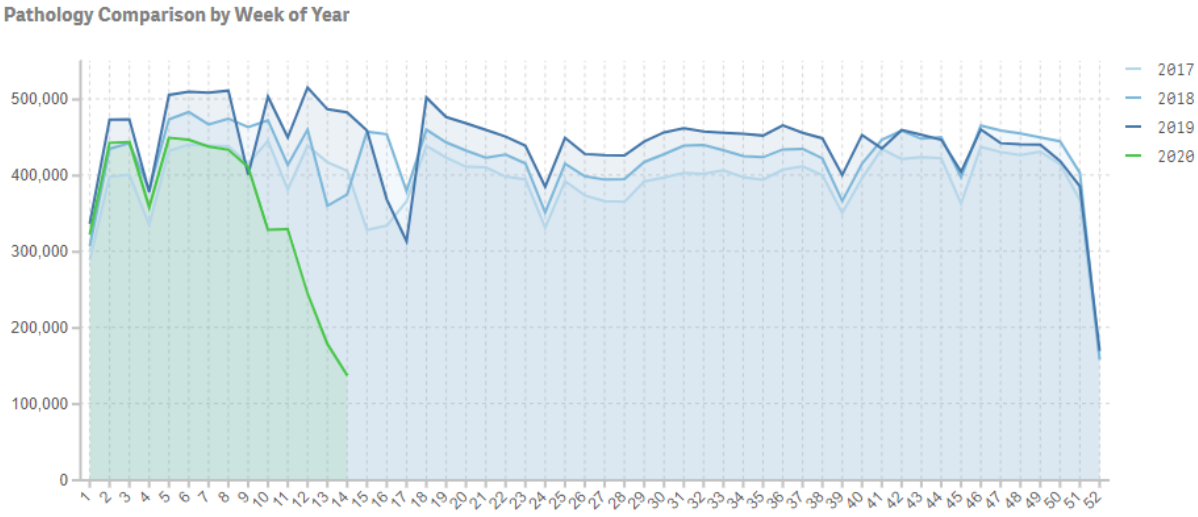


Figure 4 – Pathology Test Ordering

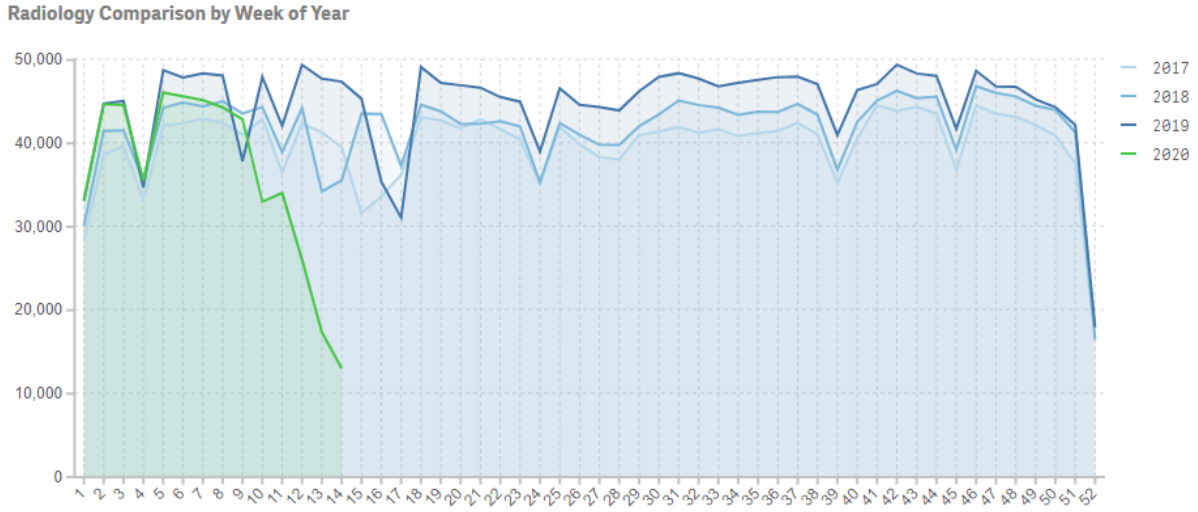


Figure 5 – Radiology Test Ordering

Figures 4 and 5 show that test ordering has seen a major and significant decline. Whether this is a temporary change is yet to be seen as both clinicians and clients adjust to new work flows. If this trend does not revert it will have significant downstream effects as the physical distancing restrictions extend into weeks and months. It is interesting to note that this trend has not extended to prescribing. Much more effort has been placed on electronic forms of prescribing, and e-prescribing is due to commence soon. A careful consideration of the social, technological and other factors that are reshaping practice is needed now to understand what the short, medium and long term impacts of these changes might be.

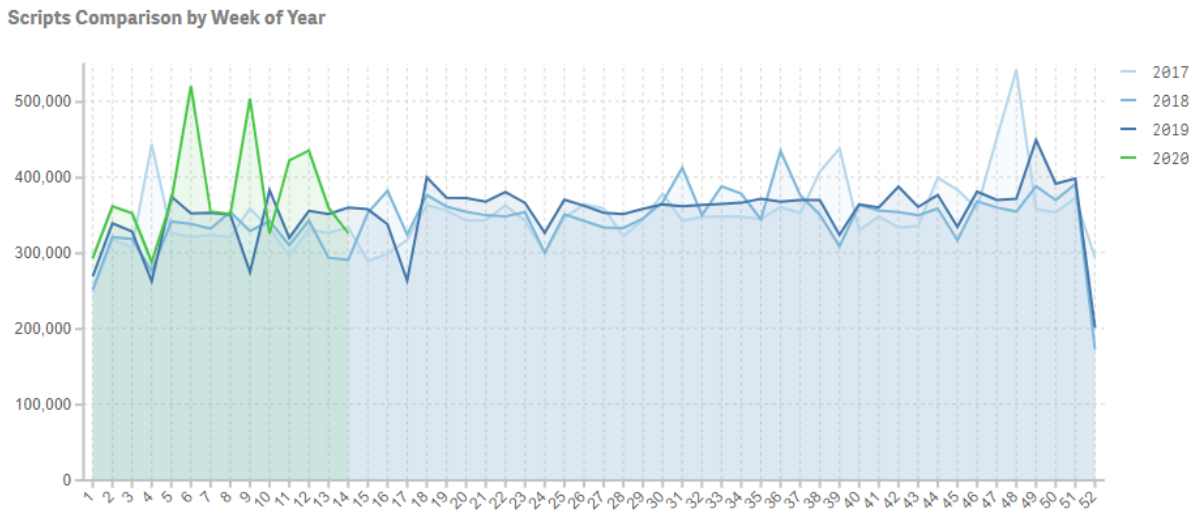


Figure 6 – Total Prescriptions

Our current view is that the fall off in COVID-19 testing noted above is likely to be related to the general fall in overall testing> If this is the case it raises the importance of a government focus on the development of policies and processes around delivering test orders in parallel to the prescribing initiatives.

We have noticed a few trends in prescribing patterns of individual drugs; the next Figures show marked increases in Ventolin and Hydroxychloroquine prescribing. Despite overseas concerns about the impact of ACE inhibitor drugs in disease progression we have not seen any decrease in prescribing.

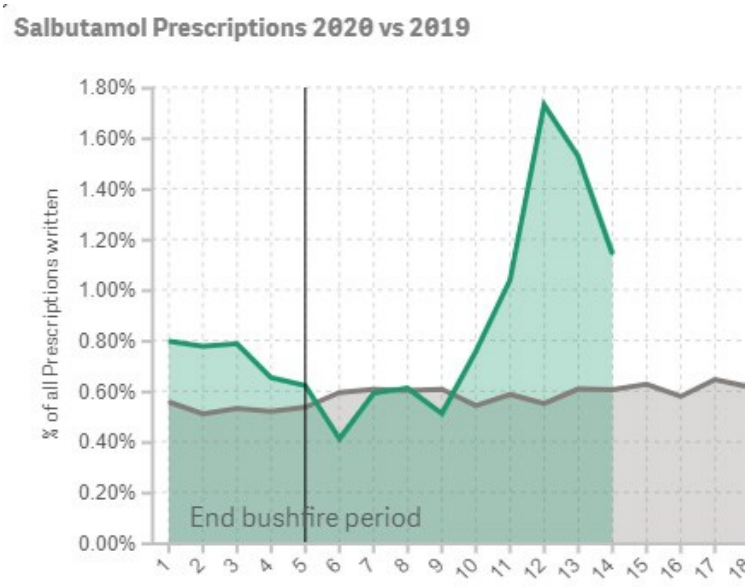


Figure 7 – Ventolin prescribing

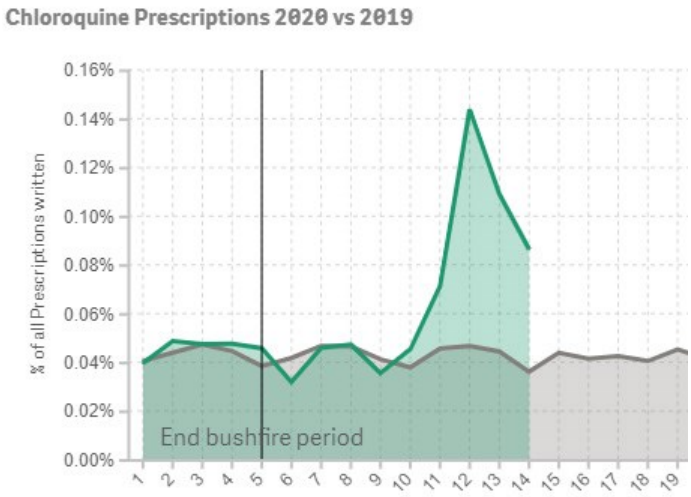


Figure 8 - Hydroxychloroquine prescribing

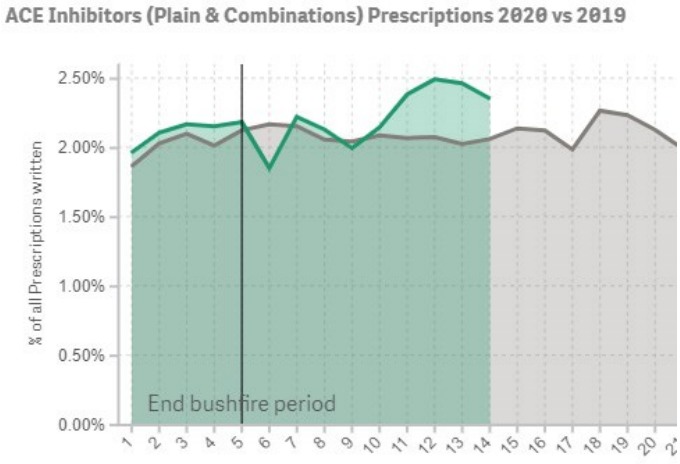


Figure 9 – ACE inhibitors

## 3: Coding and Diagnosis issues

Creating and developing these insights has involved a great deal of work to interpret GP diagnoses in the context of COVID-19. We are in the process of working to map diagnoses in a more meaningful way to develop insights. At the moment:

- Each clinical system vendor has released a different set of 'standard drop down lists' for coding COVID19. These are not consistent and are not SNOMED codes, which also have limitations for coding all types of presentations now being seen in general practice environments.
- Because of the above – GPs are often overwriting the supplied codes and using free text.
- We are looking at running counts against free text 'progress notes' and 'reason for visit' where we pull back a count of numbers of 'COVID' 'Corona*v' mentions. But, as with everyone else, our resources are limited for this extra activity.

We are, as an initial pattern, seeing significant uncoded counts of key words in the diagnosis field. These are significantly mental health or social circumstance related. So: 'Concern, Advice, Worry, Anxiety, Panic, Stress, Anxiety, Depression' and 'unemployed' or 'facing unemployment' are appearing repeatedly. Anecdotally via PHNs, as noted above GPs are also reporting extraordinary levels of anxiety in their usual patients.

Encouraging coding and a rapidly devolved set of standard codes across all clinical vendors would be immensely useful. Rapid deployment of natural language tools to capture extra data would provide an extra dimension.

The telehealth item numbers have been outstandingly successful, but the transformation of the item number for COVID-19 to all, instead of introducing new items, is a missed opportunity. As a result, we can no longer track COVID related consultations, which makes identifying and tracking hotspots more difficult. We would suggest a new set of numbers specifically for COVID-19 either F2F or Telehealth.

Tracking pathology electronically now and in the ongoing weeks will also be problematical. Pathology results are coming back as free text, without an electronic flag for positive/negative or indeterminate meaning in most cases they need to be 'human interpreted'. We need effective electronic reporting systems for tracking and research as the pandemic progresses in the coming weeks and months.

## Next steps and recommendations:

We plan to explore through the data these key issues in the coming weeks:

- The financial effects on GPs, many of whom are seeing their incomes collapse as the telehealth activity does not compensate for loss of other activities (procedures, private billing)
- The nature of patient presentations, and their related co-morbidities being managed by telehealth – acute vs chronic
- The shadow effects of COVID 19 – what kinds of expected presentations and populations are no longer presenting to general practice
- Any increases in non-hospital COVID-19 morbidity.

## Identified opportunities for collaboration:

- Develop a more nuanced understanding of GP decision making regarding time sensitive GP presentations that are guiding triaging decisions
- Support general practice to facilitate the adoption of video consultations in the coming weeks to increase the utility of telehealth through the implementation of a significant change management program
- Rigorously examine the effects on chronic disease management as the high risk population (>70 and/or multiple morbidities) elect to stay in isolation rather than attend their GP
- The significant burden to the community will include the after effects of COVID-19: mental health issues, etc. PHNs should be tasked to deliver programs through their general practices to deal with this significant developing morbidity

- Use design thinking to solve issues related to digital test ordering in pathology and radiology
- Design a national approach to coding and electronic data collection
- Quantify the impact of COVID-19 on both general practice staff and the general practice model of care, considering the impact on the long term sustainability of an already fragile GP workforce.

## Conclusion

In summary, through a rapid interpretation of quality GP data we have developed what is effectively a real-time system for monitoring some of the key impacts of COVID-19 within the primary care context. With more resources and support, additional work could be completed; for example, the development of COVID risk calculators and more fine grained monitoring of the impact of post COVID-19 diagnoses. We encourage all health system decision-makers to consider these early insights and work with their PHNs to facilitate the changes needed to further enhance the primary care response to the current pandemic situation.

*Acknowledgments and thanks to the practices that contribute data and for their commitment to quality improvement*.

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