OUTCOME HEALTH

# Insights Paper No.3

## COVID-19 and Australian General Practice

## A preliminary analysis of changes due to telehealth use

5th May, 2020

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

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# Contents

## Preamble

This is the third in a series of papers which considers the impact of COVID-19 on Australian General Practice and the broader healthcare community:
Paper 1.  Report into COVID-19 AND GENERAL PRACTICE, Insights from the first few weeks.
Paper 2.  COVID-19 and General Practice, Insights Paper no. 2 – A predictive impact model for the healthcare sector.

Through the COVID-19 outbreak, Outcome Health has been producing daily reports and dashboards via the POLAR GP tool for Primary Health Networks (PHNs) to allow direct planning and resource allocation through their respective practices. These insight reports are an initiative of the following PHNs – Central and Eastern Sydney, South Western Sydney, Gippsland, Eastern Melbourne and South Eastern Melbourne.

More information about POLAR can be found here polargp.org.au.

## Key Learnings

Since the recent COVID-19 introduction of telehealth MBS item numbers, telehealth has been enthusiastically embraced by general practice.  In addition to the current COVID-19 infection control requirement, we believe there is significant pent-up demand for the provision of remote (offsite) services. For a number of years, general practitioners and other primary care clinicians have used a variety of telehealth options be they telephone, SMS or a range of clinical system based and standalone video chat systems, however, this work has not generally attracted a Medicare rebate, and therefore not been billed.

There is a great deal of interest in how health care is being transformed quickly though the new context of clinical practice that COVID 19 has created. Governments, vendors, clinicians and the community are all expressing views on how it should be used, each often from their own position and clearly representing their own best interests. The stark need for a broad and practical framework for the uptake of digital health across Australia has never been more urgent nor necessary.

Historically, both patients and GPs have largely embraced the increased use of digital communications, in particular where this adds convenience for the patient and clinical safety for the clinician.  Post the current COVID-19 period we can, and should, expect that there will be widespread support for the retention of telehealth in primary care in some form.  What shape telehealth takes post-COVID19 will depend on evidence of a positive impact on community health and wellbeing. This paper aims to begin to unpack early evidence and discuss preliminary ramifications of the sudden increase in use of telehealth in general practice.

Widespread adoption of telehealth has and will have significant implications for clinical practice. Practices will need to build telehealth into their existing clinical governance processes, telehealth does not feature in current practice accreditation standards. Similarly, effective processes are not in place for assessing and monitoring the quality and safety of telehealth. Two professional colleges (Australian College of Rural and Remote Medicine [1] , and Royal Australian College of General

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[1] <https://www.acrrm.org.au/resources/college/digital-health>

Practitioners[2]) have resources available, but these were not created for an environment where telehealth is a 'business as usual' part of clinical practice.

## Recommendations

- Urgent work needs to be done to inform the format of retaining telehealth item numbers for rural, urban and specialist practitioners (including all members of the care team).
- New standards for clinical governance and the more flexible use of video consultations need to be developed, along with capacity building in good clinical practice to encourage their use.
- Telemonitoring, remote health coaching and other modes of technology should be considered along with the standard telephone and video chat.
- Set a target of 50% of telehealth consultations to use video by 2021.
- Social determinants will impact on uptake across all cohorts and we encourage evaluation of this increase to carefully consider the health implications of the digital divide.
- There will be some members of community whose health status will require a very cautious entry into a more social daily life. For these community members models of health care that use technology in place of face-to-face contact where possible will need to be developed.
- A framework for the regular monitoring health outcomes be established so that the we can measure the impact of a shift to telehealth has on the health of the community.
- EMR providers need to be assisted to develop a common strategy to structure their products to support a fully electronic service.

## Telehealth

Our first paper highlighted the astounding adoption of telehealth by Australian general practice. Telehealth[3] has been part of the landscape of rural general practice for many years, but subject to significant restrictions, with the Medicare rules favouring face to face (F2F) consultations. With the beginning of the pandemic, there was considerable pressure to allow health care workers to use non-face to face methods to deliver care, given the need to enforce physical distancing to curb the spread and the current shortage of PPE. This began on the 13th March 2020 with the initial introduction of item numbers to allow telephone and video consultations for patients with suspected COVID-19 infection and were required to be bulk-billed.

On the 29th of March 2020 these restrictions were lifted, allowing a much wider range of consultations to be delivered by telehealth, including standard consultations, care plans, and other consultation types, making it possible for practices to pivot to an extensive telehealth model of care[4] - although they must still be bulk billed for Commonwealth concession card holders, children under 16

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[2] <https://www.racgp.org.au/running-a-practice/practice-management/business-operations/providing-patient-care-during-covid-19-telehealth>

[3] A note on terminology. Traditionally, telehealth was an overarching term for any non face-to-face delivery of health care, and included telephone, video, and remote monitoring. The government item numbers differentiate telephone and 'telehealth' by which they mean video. We are using telehealth in the generic sense, and will note differences in the report.

[4] A full list of the item numbers (and their F2F equivalents) can be found here:
< http://www.mbsonline.gov.au/internet/mbsonline/publishing.nsf/Content/news-2020-03-29-latest-news-March>

years of age, and patients who are designated as more vulnerable to COVID-19 (see Appendix 1) . These item numbers are in place until September 30th 2020, when they will be reviewed.

For this third paper, we are examining in more detail the changes to consultation and disease patterns during the COVID-19 period, to start developing insights around demographics and clinical issues with a look to future policy frameworks. Our experience is that there is great diversity in how practices across our network are implementing telehealth. Some are requiring all first contacts to be by telephone, other practices (and practitioners) are not offering telehealth options at all. Practitioners are using technologies as disparate as HealthDirect Video and ZoomHealth (dedicated platforms), through to Apple Facetime and Google Hangouts.

While these current changes are ensuring access to primary health care at this important time, we need to move beyond the adoption of telehealth as a chat only response where social media channels are seen as the solution to health communication during the pandemic. A broader policy and use framework must be developed, with telehealth to become an integrated part of the healthcare landscape. There is much more work yet to be done.

## Consultation rates

Having predicted in the first paper that the number of telehealth would overtake face to face (F2F) consultations in the week after Easter (week 13, 14) – we were wrong. Figure 1 shows the overall consultation rates. The level of consultations stabilises around week 14, and is maintained with telehealth representing approximately 40% of consultations overall.



**General Consults**
Face to Face Item Numbers 23, 3, 36, 44 || Telehealth Item Numbers 91790, 91800, 91801, 91802 || Telephone Item Numbers 91795, 91809, 91810, 91811
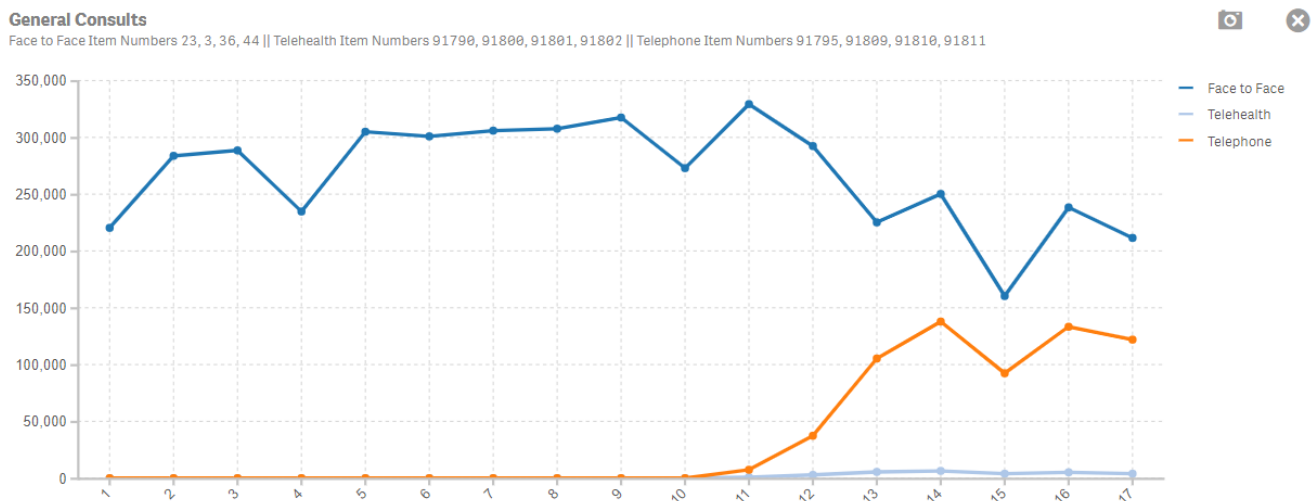
Figure 1 – Consultation Rates by Mode (X axis = weeks of the year)

Disappointingly, video consultation (telehealth according to the government Medicare designation) rates remain low compared to telephone, representing about five percent of telehealth consultations and, therefore, two percent of all consultations. The barriers of adoption to video consultations, especially when rapid uptake is required, include:

- lack of access to hardware, software, peripherals and connectivity (currently it is hard to source these items due to demand. If a practice did not have this telehealth capacity pre-COVID 19, it would currently be quite difficult to implement this change),
- user familiarity and expertise of the technology at both practitioner and patient levels,
- lack of clinical governance standards and training to ensure that these consultation options are used safely,
- current standards that do not encourage interoperability. They assume dedicated and standalone services (instead of seeing videoconferencing as one of many ways of interacting with patients in a days work),
- standards that are inconsistent with everyday usage.

Nevertheless, they show a similar pattern of adoption over time (See Figure 2, 3, 4 below) and we expect to see a steady increase in video consultations as a proportion of telehealth consultations as users become more familiar with both the technology and the potential use cases in clinical practice. In particular, as mentioned earlier, as providers refocus on the provision of integrated services for those with co-morbidities that leave them exposed to COVID19 (such as those with cystic fibrosis and severe asthma) video consultations and other digital health options will become integrated into usual care. Early mover GP clinical systems are increasingly announcing integrated telehealth solutions into their software, we expect this will become standard functionality across the majority of clinical systems.
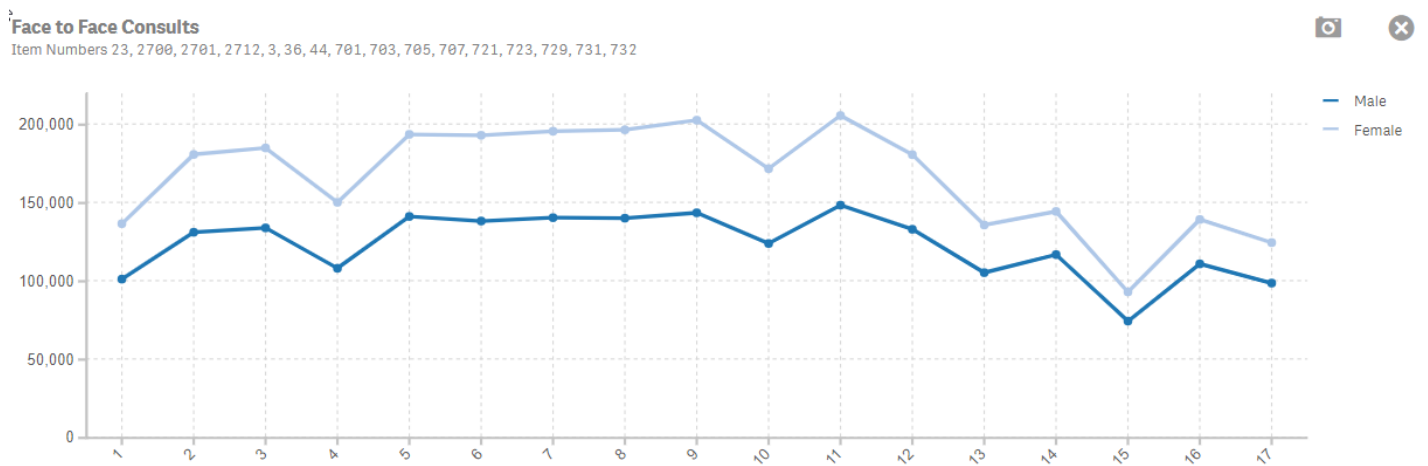


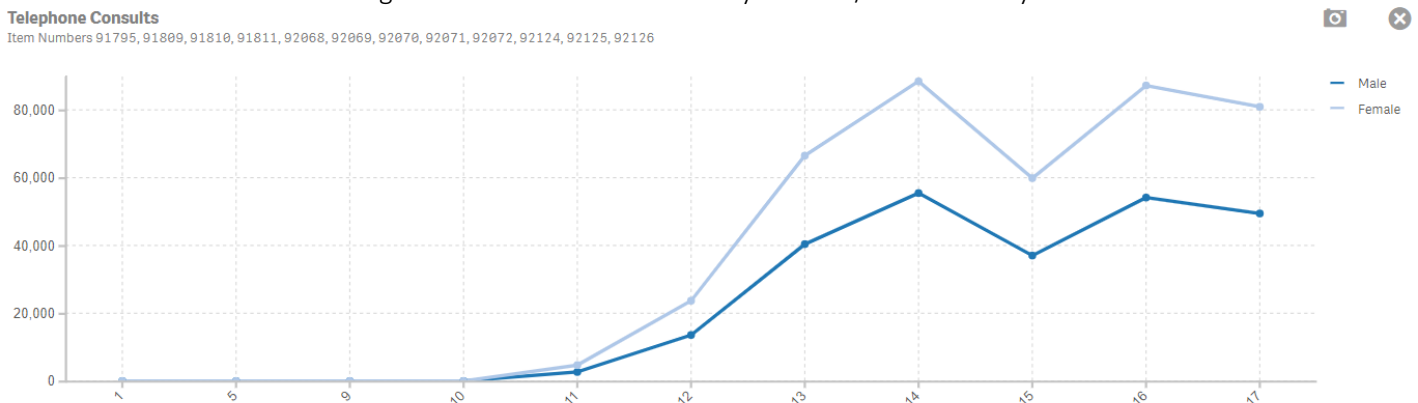Figure 2: Face to Face consults by Gender / week of the year



Figure 3: Telephone Consultations by Gender / week of the year

**Telehealth Consults**
Item Numbers 91790, 91800, 91801, 91802, 92024, 92025, 92026, 92027, 92028, 92112, 92113, 92114
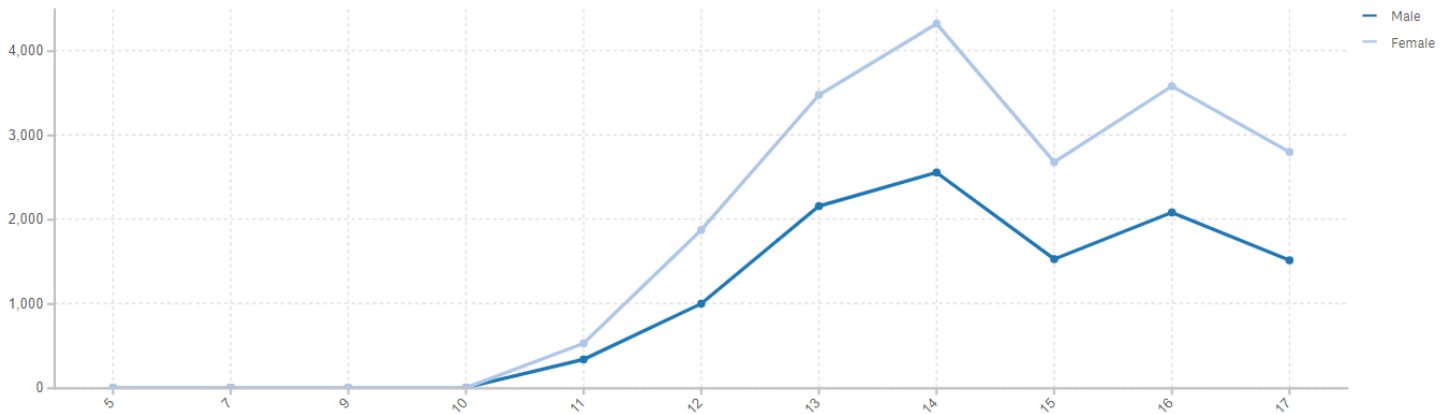


Figure 4: Video 'telehealth' Consultations by Gender/ week of the year

Generally, women are higher users of health services in general (in 2019, this was a F:M - 58%:42% split based on MBS services). The figures above, therefore, confirm the usual gender distribution of health services.  However, comparing modalities, the telephone and telehealth F:M ratio is much greater compared to F2F, i.e.; many more women by proportion are taking advantage of telehealth than men.  Given the higher risk for men in relation to COVID19 some thought may need to be given to strategies that engage men further at this time. In a study on health literacy undertaken by SEMPHN with Deakin University in 2016 [5], older men living alone were identified as those with the lowest health literacy in the south eastern region of Melbourne. Given what we know to date about the risk profile for COVID-19 more than ever it will be critical to build the health literacy of this cohort.

## Age Profiles

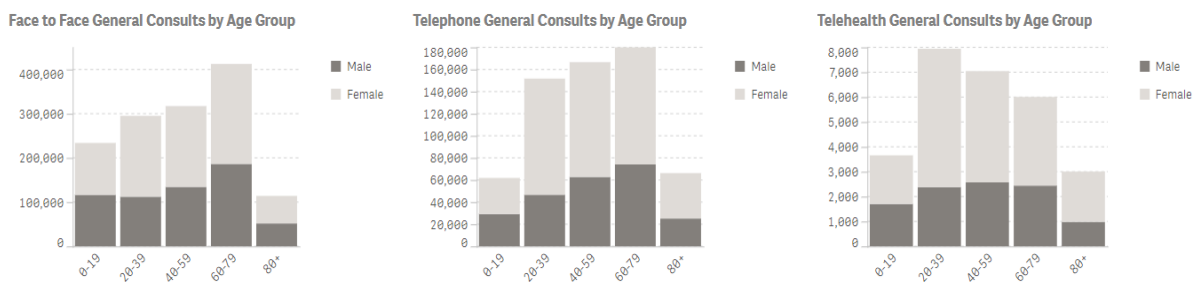Below in figure 5 are the age and gender breakdowns for all consultation types.



Figure 5: Age and Gender Breakdown (telehealth=videoconsulting).

The age profile of patients who regularly attend General Practice is normally skewed towards an older population.  For F2F currently this holds true with a steady rise as age increases and the highest group 60-79 year olds being almost 25% more than 40-49 year olds.

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[5] Beauchamp, O'Hara and Osborne, South East Melbourne Primary Health Network – Improving Health Literacy. Final Report. Nov 2016. Latrobe University.

For telephone this trend continues; however, the percentage difference between age groups is less defined. There is a less than 15% difference between the 20-39 group and the 60-79 group in telephone consultations. For video the trend is reversed, clearly a younger cohort is taking advantage of telehealth services, with the highest age group being the 20-39 group. Is it the younger age group initiating telehealth or the practices and practitioners targeting a younger age group? Or are young people more familiar with technologies that favour video? We don't yet know the answer to that question, but we can assume that there may be some age and cultural assumptions by health care staff that are guiding their decision-making in relation to the use of video in practice consultations.

## Conditions

We next looked at simple measures of chronic disease, Figure 6 shows the breakdown by care plans. Not surprisingly, Figure 4 shows rapid adoption of telehealth (both modes) for care plans in the 60-79 age group. The group is both most likely to have chronic disease, and the group that has been extensively encouraged to stay at home.
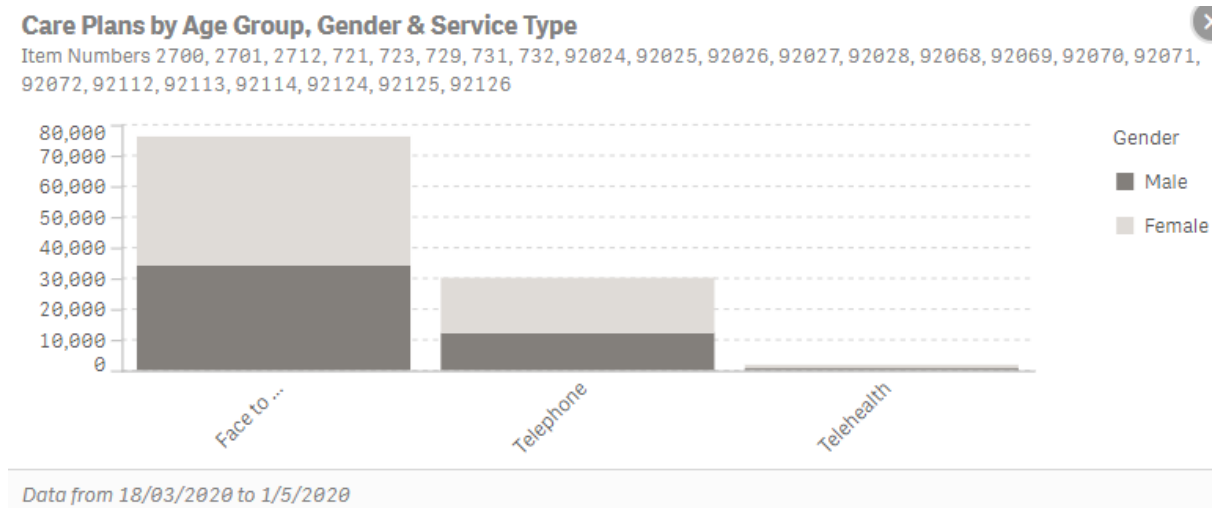


Figure 6 – Care Plans by Mode of Delivery.

Next we started to explore the take-up by three proxies of complex disease overall. Outcome Health has developed categorisation of chronic disease for use in its reporting to practices and PHNs [6]. We used that classification to see the relative proportions of consultation by modality. We also undertook the same analysis using those patients with five or more active diagnoses as well as taking five or more regular medications. The preliminary analysis is shown in Figures 7, 8 and 9.

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[6] Pearce C, McLeod A, Patrick J, Ferrigi J, Bainbridge MM, Rinehart N, et al. Coding and classifying GP data: the POLAR project. BMJ Health Care Inform. 2019;26(1).

The adoption of telehealth by general practice: initial insights.



**General Consults for Patients with a Chronic Disease**
Face to Face Item Numbers 23, 3, 36, 44 || Telehealth Item Numbers 91790, 91800, 91801, 91802 || Telephone Item Numbers 91795, 91809, 91810, 91811

Figure 7: Consultations by Mode for Patients with a Chronic Disease.



**General Consults for Patients with 5 or more Active Diagnoses**
Face to Face Item Numbers 23, 3, 36, 44 || Telehealth Item Numbers 91790, 91800, 91801, 91802 || Telephone Item Numbers 91795, 91809, 91810, 91811
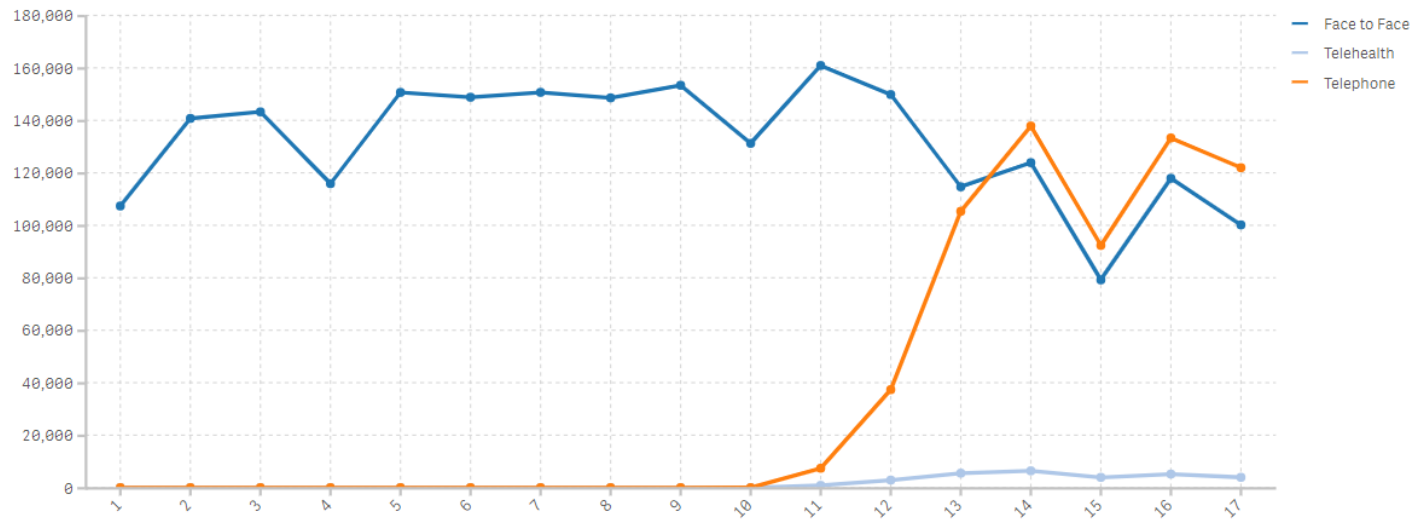
Figure 8: Consultations by Mode for Patients with 5 or more Active Diagnosis.

The adoption of telehealth by general practice: initial insights.

**General Consults for Patients with 5 or more Current Medications**
Face to Face Item Numbers 23, 3, 36, 44 || Telehealth Item Numbers 91790, 91800, 91801, 91802 || Telephone Item Numbers 91795, 91809, 91810, 91811
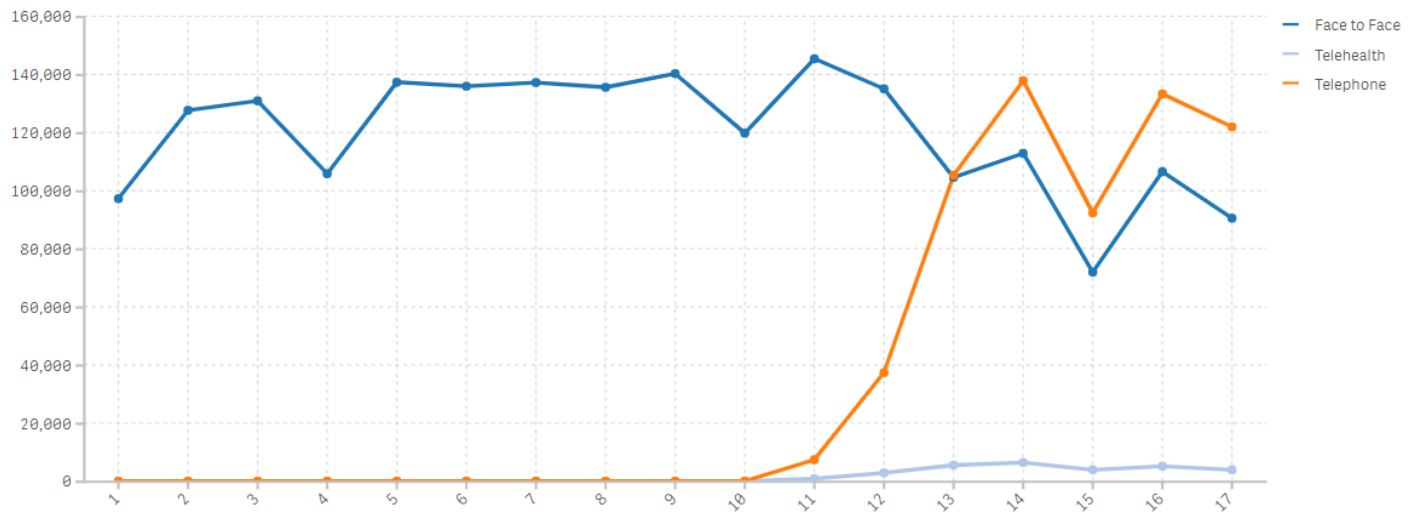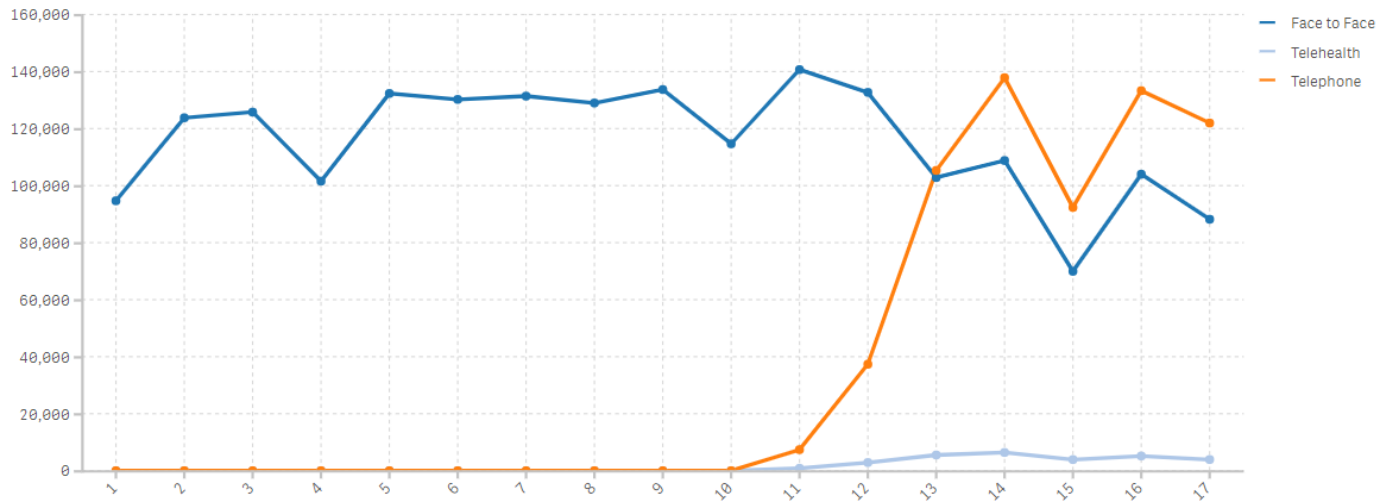


Figure 9: Consultations by Mode for patients with 5 or more Active Medications.

We can see that in each case, as different to the consultation rates as a whole, telehealth (and telephone on its own), did become the predominant mode of consultation. Given the increased mortality rates in these at risk (or vulnerable, by government definition) populations these differences are entirely appropriate and may increase over time as adoption increases. This does raise a significant question of what, if any, clinical or other benefits are gained when care planning is undertaken face to face and in what settings is telehealth potentially the preferred mode of consultation. Again, the pressing need for clinical governance frameworks that consider the quality and safety issues related to the use of telehealth is evident. While respiratory effort may be well assessed over a video link, there is other sensory evidence lost (the smell of a patient's breath, their ease of movement, and other key critical diagnostic elements) in this mode. How do practitioners mitigate these risks currently?

Similarly, we looked at how patients within Chronic Diseases groups are being seen, as displayed in figure 10. The three lowest F2F, and therefore highest telephone / telehealth groups were Mental Health, Alcohol & Other Drug (AoD) and Dementia/Alzheimer's Disease, with Dementia & Alzheimer's Disease group showing the highest videoconferencing numbers.

Some cohorts within those experiencing mental illness have always been comfortable with telehealth as is reconfirmed by the data. The high use of telephone and telehealth by the Dementia/Alzheimer's Disease group may well represent the use of telehealth by carers aware of the difficulties in transporting dementia patients to clinics. The highest rates of video consultations (telehealth COVID in figure 10) are for the Dementia group again, and Alcohol and Drug second. These numbers are small but significant and should be explored as to why.

| Chronic Disease | Face to Face COVID | Telephone COVID | Telehealth COVID |
|---|---|---|---|
| **Totals** | **64.82%** | **33.83%** | **1.36%** |
| AoD | 55.30% | 42.77% | 1.93% |
| Cancer | 63.90% | 34.86% | 1.24% |
| Cardiovascular | 65.57% | 33.21% | 1.23% |
| CKD | 61.88% | 36.43% | 1.69% |
| Dementia/Alzheimer's | 53.45% | 42.67% | 3.88% |
| Diabetes | 65.70% | 33.10% | 1.20% |
| Mental Health | 60.50% | 37.78% | 1.71% |
| Musculoskeletal | 64.28% | 34.36% | 1.36% |
| Oral | 61.30% | 37.24% | 1.47% |
| Respiratory | 64.46% | 34.12% | 1.42% |

Figure 10:  Mode of contact by Chronic Disease, as percentages.

Figure 11 highlights another key factor in maintaining the F2F numbers.  From the end of week 11 to now, significant numbers of F2F consultations have been related to influenza immunisation activity. While this is a positive, it can also mask the balance between modes as this is a seasonal, albeit COVID-19 related, activity. It is worth noting that with private billing significantly reduced and activities like influenza vaccinations making up a significant amount of general practice activity (up to 25%), on a cost recovery fee for service basis the ongoing viability of general practice is being significantly challenged. When the vaccinations are completed there may be a further re-distribution of the F2F versus telehealth consultations, although as PPE becomes more available and the clinical need for procedural and other face to face work increases the proportions may remain constant. WE will keep monitoring this activity.
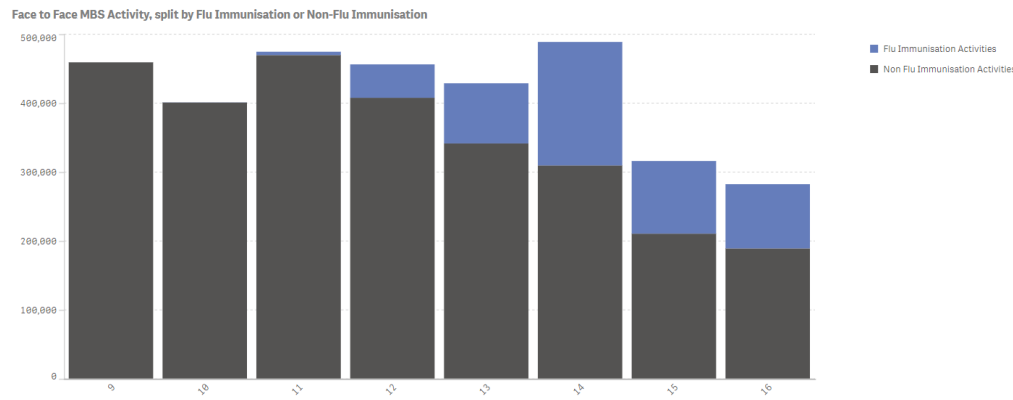


Figure 11: Face to Face consultations, highlighting Influenza immunisation activity.

## Conclusion

We can start to understand now the potential impacts on practice incomes by these changes. Whilst the biggest move (proportionally) to telehealth has been by patients with chronic disease, activities that are largely bulk-billed anyway, there remains a significant move to activities that would, under normal circumstance be billed (in practices that private bill). There is no set fee structure in general practice, so practices charge according to their own estimations of an appropriate fee. The Medicare rebate for a standard consultation, regardless of method, remains the same. Nevertheless, practices are by and large bulk-billing telehealth consultations. This applies not just to the fact that practices are not private billing consultations, but also there is a reduction in other activities that affect practice income. For instance, compared to the same period last year, practices are billing 60% less dermatology related procedural items (removal of malignant and non-malignant skin lesions, etc). Anecdotally practices report anything from a 25-75% reduction in income while costs have remained constant or increased, for example due to the high cost and use of PPE and other consumables.

Practices have moved away from the widespread issuing of accounts and having debts, streamlined processes around billing have been in place for Medicare claiming and simple POS credit card transactions for many years. The initial requirement that all telehealth consultations be bulk-billed, and legislated requirements for vulnerable patients now, mean practices have not adopted a process for maximising billing for telehealth. Therefore, those practices are forgoing a significant income.

This occurs at a time when the impacts on practice infrastructure and staff are also large. Each consultation now requires greater staff contact – several phone calls where under normal circumstances an on-line booking would suffice. Some standard current practice scenarios would be:

- For a telehealth consult – phone practice to arrange, booking made. Staff confirm phone number for contact and other details. Doctor then performs telehealth consult. Any actions from that then need to be administered – test request whether posted or picked up by drive through (arrive, ring practice, staff take out to car), prescription picked up or faxed to pharmacy by staff.
- For a F2F consult – phone practice for appointment. Staff perform COVID screening questions, arrange appointment. Patient arrives, parks in car park and rings practice, who record arrival. When ready, staff or doctor ring patient to come into consultation room (no or minimal waiting in waiting room).

At the same time, we need to consider that impacts on non-medical staff. Practice nurses have no access to telehealth items, unless through performing a care plan or health assessment. This means that the largest number of F2F contacts in practices may well be the nurses.  It also means disruptions to the team arrangements that exist in most practices creating a significant financial disincentive for practice nurses and allied health to work to the scope of their practice.

The transition highlights the current state of digital health, still mired in reflecting a paper-based world of the past.  While the majority of practices operate paperless internally, their interaction with the outside world has stubbornly remained paper based.  The lack of ability to electronically populate and transmit forms such as test requests and government forms (Centrelink, disabled parking as examples) mean not only workflow impacts, but also unnecessary physical contact. As we said in an earlier paper, the commitment to privacy and technical standards that do not reflect community activity have left us ill prepared for a world were GPs are photographing test results on their phones

and emailing them to patients. We would argue that patients are by and large accepting of non-encrypted email communication for most health activity.

For the benefits of telehealth to be realised, and supported by funding through Medicare, general practice needs to rethink workflows surrounding care models – what is appropriate for telehealth and why? Clearly, a follow-up after the initial appointment would be suitable. GPs have often 'checked in' on patients by phone, removing the disruptive requirement for a clinic appointment (which for patients can be several hours for a 10-minute consultation), and it is appropriate that this be remunerated. Similarly, the ability to review housebound elderly patients is a positive outcome, reducing the need for F2F (but not removing it).

Currently there are few professional standards to assist GPs in this regard, and this is needed to guide the profession into the future. These standards and workflow changes are then urgently needed to be built into the EMRs to support the workflow and supported by technical standards from the Australian Digital Health Agency.

## Limitations to our data:

This series of papers is being produced quickly to help guide early thinking about the impact of COVID19 on Australian General Practice. Given the speed of development, the limited resources available for analysis and other factors they should be understood as early thinking and appropriate caveats applied. In particular it should be noted that:

1. There is no reliable baseline data for previous use of telephone, video chat and other forms of telehealth in general practice. The data shows use of MBS billing numbers and will not be a full reflection of change in practice given much of previous use was not documented as there was no billing incentive or requirement in place.
2. Not all general practices opt in to each PHN's QI program. Accredited and general practitioner owned practices are over-represented in the data. Data from some corporate general practice, non-accredited general practices and 'paper only' general practice are not included, (the 'paper only' group now represents approximately 5% of general practice). Use trends from these groups may well be markedly different from this data set. Nevertheless, the sample represents the vast majority of practices.
3. Change is occurring rapidly: daily and weekly reports show snapshots of weekly activity that may not represent longer term trends. Hence our original assertion that telehealth would overtake F2f, which did not eventuate. Further long term analysis will be needed to understand the impact of this rapid change.
4. We acknowledge that the impacts on specialist practice are also marked, but we have no data for that. These should also be explored by other means. Specialists have pivoted to telehealth along with GPs, which has particular challenges for some specialties (orthopaedics, for example).

We encourage all health system decision-makers to consider these predicted impacts and early insights and to plan ahead, in particular working with their PHNs to facilitate the changes needed to further enhance the overall system response to the current pandemic situation.

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

## Next steps

We believe that the information contained here, and the ongoing monitoring we can do, will be of interest to policy makers and other PHNs. We encourage groups to engage with us on ongoing issues, and we look forward to being involved in policy discussions in the future.

We will be attempting to look at the data to derive more detail on the changes happening for specific conditions, such as mental health, and a fine grained look at prescribing.

In addition to the contacts below, if you have feedback and/or questions of the data – contact kgardner@outcomehealth.org.au. This activity remains a service provided by Outcome Health on behalf of the PHNs, as we feel it important to inform policy and planning. It is not funded in any other way.

## Contacts for more information

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Outcome Health is a Not-For-Profit providing innovative services to the Healthcare sector and Primary Health Networks in particular. The POLAR suite provides advanced data analytics and population health to GPs and PHNs, with an emphasis on delivering outcomes. Data is used to support patient care, population health and research. More information at www.outcomehealth.org.au.

Further detail about the POLAR program (Including technical, privacy and ethical aspects) has been published and is available at:  Pearce C, Mcleod A, Rinehart N, Ferrigi J, Shearer M. What does a comprehensive, integrated data strategy look like: The Population Level Analysis and Reporting (POLAR) program. Stud Health Technol Inform. 2019;264:303-7.

## Appendix 1 – definition of vulnerable

Vulnerable means a patient at risk of COVID-19, so a person who:

- is required to self-isolate or self-quarantine in accordance with guidance issued by the Australian Health Protection Principal Committee in relation to COVID-19; or
- is at least 70 years old; or
- if the person identifies as being of Aboriginal or Torres Strait Islander descent—is at least 50 years old; or
- is pregnant; or
- is the parent of a child aged under 12 months; or
- is being treated for a chronic health condition; or
- is immune compromised; or
- meets the current national triage protocol criteria for suspected COVID-19 infection.

A chronic health condition is medical condition that has been present (or is likely to be present) for at least six months or is terminal. The Department of Health website provides additional detail online: https://www.health.gov.au/health-topics/chronic-conditions/about-chronic-conditions. The diagnosis of immune compromised is a clinical decision made by the patient's treating doctor. Please note this is guidance only, and does not constitute MBS claiming advice.

Telehealth changes Reference:

11th March:
http://www.mbsonline.gov.au/internet/mbsonline/publishing.nsf/Content/Downloads-202003

29th March:
http://www.mbsonline.gov.au/internet/mbsonline/publishing.nsf/Content/Factsheet-TempBB

## Appendix 2 – Finish day of each week in the figures

Week 8 = 25th Feb
Week 9 = 3rd March
Week 10 = 10th March
Week 11 = 17th March
Week 12 = 24th March
Week 13 = 31st March
Week 14 = 7th April
Week 15 = 14th April
Week 16 = 21st April
Week 17 = 28th April