



COVID-19

CORONAVIRUS

GENERAL PRACTICE SNAPSHOT

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Since its identification in December 2019, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and its associated coronavirus disease (COVID-19) has had a devastating effect on communities around the world. Health systems have been forced to make rapid choices about how to prioritise care, manage infection control and maintain reserve capacity for future disease outbreaks. The interruption of normal patterns of health care and the suspension of services has meant that the pandemic has also had a major impact on the detection and treatment of many non-COVID-19 conditions. Electronic general practice data are a valuable resource which can be used to inform population and individual care decision-making.

This project is based on a collaborative relationship involving the Digital Health Cooperative Research Centre, Macquarie University, Outcome Health, Gippsland, Eastern Melbourne and South Eastern Melbourne Primary Health Networks (PHNs), and the Royal College of Pathologists of Australasia Quality Assurance Programs, with participation from Central and Eastern Sydney and South Western Sydney PHNs. It will use an innovative secure and comprehensive digital health platform, Population Level Analysis & Reporting (POLAR) to:

- Generate near real-time reports to identify emerging trends related to COVID-19, its diagnosis, treatment and medications prescribed, and its impact on patients.
- Monitor the impact of interventions/policy decisions.

Socioeconomic and demographic comparisons in the uptake of telehealth services during COVID-19

INTRODUCTION

In March 2020, the Australian Government Department of Health released a list of temporary Medicare Benefits Schedule (MBS) Telehealth Services item numbers¹ for out-of-hospital patients, with the aim to cover the gap in face-to-face visits through telephone and video consultations, and reduce risk of community transmission of COVID-19. Prior to the COVID-19 pandemic, telehealth use was limited to select populations such as rural² or remote communities^{3,4} or specialist care⁵. As part of the health system's response to COVID-19, there has been a rapid scaling up of telehealth services in areas where it has not previously been commonplace - including general practice.

In COVID-19 General Practice Snapshot Issue 1⁶, we reported that since the March release of temporary MBS item numbers¹, face-to-face (F2F) visits declined in both Victorian and New South Wales (NSW) PHNs. However, there was a subsequent rapid rise in telehealth consultations in general practice. This suggests that telehealth is helping to fill a gap in care during a time when visiting general practice in person is considered a risk and access has been limited. Overall, phone consultations were the most popular type of telehealth service from the start of the first wave of COVID-19, with the uptake of video consultations commencing a few weeks later⁶. It is important to consider differences in the utilisation of technology by

socioeconomic and demographic groups, as a means of identifying potential gaps in care. For example, a recent report published by Outcome Health⁷ showed preliminary data indicating that factors such as a patient's age may be important in the uptake of telehealth services.

The aim of this Snapshot was to determine if there were any differences in telehealth (phone and video) uptake based on demographic factors, including age, sex, socioeconomic status (SES), and regionality.

METHODS

The study population covers nearly 30% of the Australian population, including urban and rural/regional areas from approximately 800 general practices (454 from Victoria and 346 from NSW). The participating Primary Health Networks (PHNs) included two urban (Eastern Melbourne and South East Melbourne) PHNs and a predominantly rural (Gippsland) PHN from Victoria, and Central and Eastern Sydney (urban) and South Western Sydney (incorporating rural areas Wingello to Bundanoon) PHNs from New South Wales.

In our analysis, we included MBS items claimed by general practitioners (GPs) for category 1 Medicare items, professional attendance. MBS items including F2F and telehealth items

including video (videoconference) and telephone (audio-only service) were included in the analysis. Medicare items unable to be categorised as F2F or telephone were excluded. Our period of analysis covers from January 2019 to September 2020. The utilisation of telehealth (telephone and video) are measured as GP visits calculated on a weekly basis and presented as medians and proportions. The proportion is calculated as weekly encounters of F2F, video, or telephone MBS items divided by the total claims (per week) within each state, by sex, age-group, SES [based on the Index of Relative Socioeconomic Advantage and Disadvantage (IRSAD) SEIFA score], and regional structure

(major cities and regional/rural areas) for Victoria and NSW. SES and regionality were determined by patients' postcodes⁸. Outcome Health, as a data custodian, provides a secure and comprehensive digital health platform which collects data from the consenting general practices across participating PHNs. Ethics approval for the project has been approved by Macquarie University Human Research Ethics Committee (52020675617176). Ethics to collect and use general practice data has been obtained by the data custodians, granted by the RACGP ethics committee⁹.

RESULTS

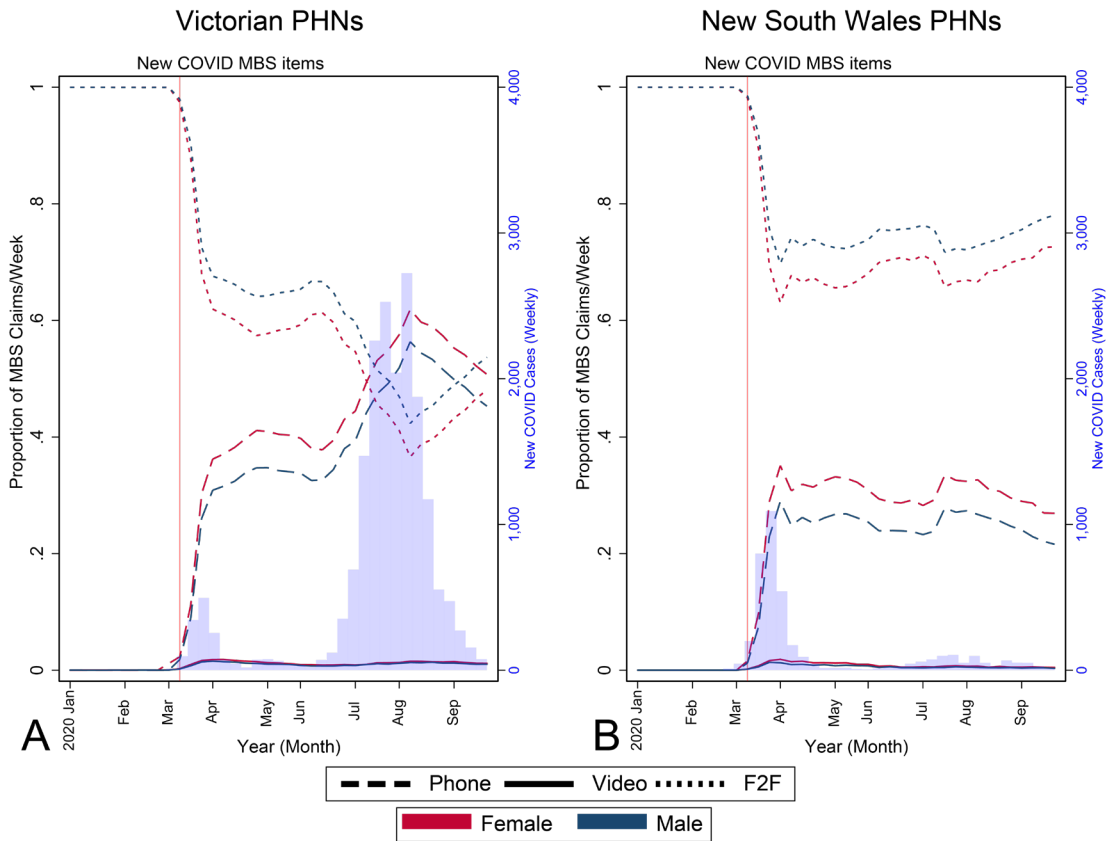


Figure 1: Comparison of consultation types by sex. (A) Victorian PHNs and (B) NSW PHNs (left y-axis). New COVID-19 cases are indicated by purple bars (right y-axis). Proportions calculated separately for females and males, with the denominator being all consultations within the gender category, per week.

Summary: In both states, females used telehealth consultations more and face-to-face consultations less compared to males. See [Supplemental Table 1](#) for further data.



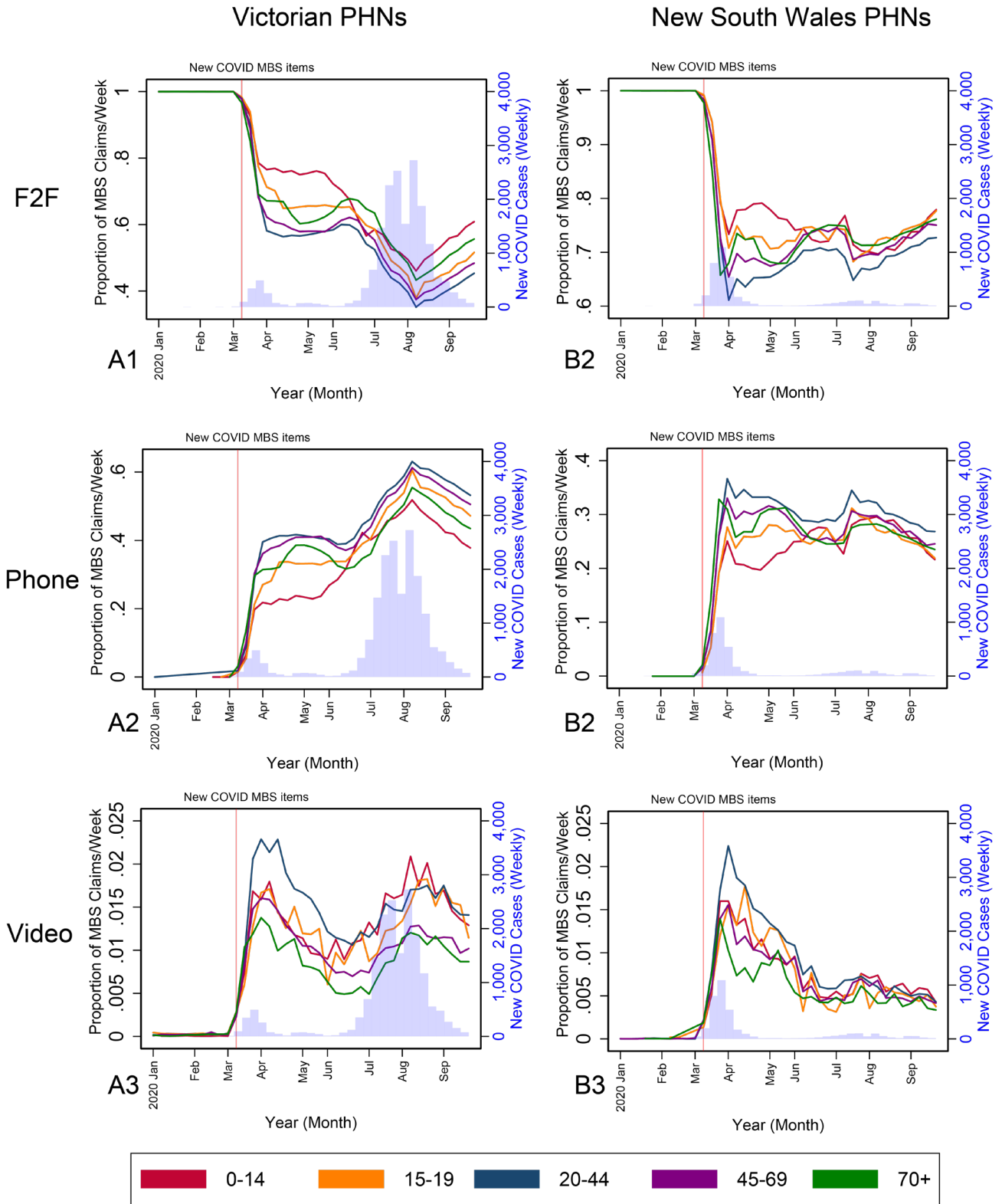


Figure 2: Comparison of consultation types by age group. (A) Victorian PHNs and (B) NSW PHNs (left y-axis) for (1) face-to-face (F2F), (2) telephone, and (3) video consultations. New COVID-19 cases are indicated by purple bars (right y-axis). Proportions calculated separately for each age category, with the denominator being all consultations within age category, per week.

Summary: Overall, phone consultations were used more than video. For both states, F2F consultations were used the most in the younger age brackets (0-19y), while telehealth including both phone and video was used more by adults. See [Supplemental Table 2](#) for further data.



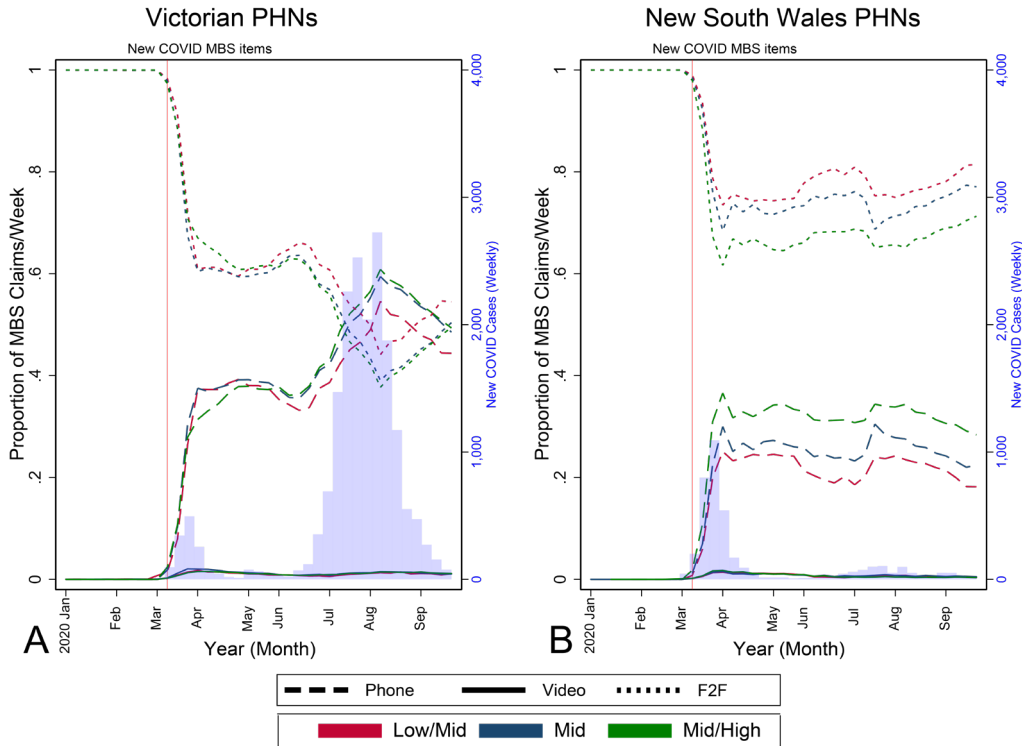


Figure 3: Comparison of consultation types by socioeconomic status (SES). (A) Victorian PHNs and (B) NSW PHNs (left y-axis). New COVID-19 cases are indicated by purple bars (right y-axis). Proportions calculated separately for each SES category, with the denominator being all consultations within SES category, per week.

Summary: For telehealth consultations, patients in lower SES postcodes used telehealth type consultations less compared to higher SES postcodes. Differences between SES were most apparent in NSW during the first wave, were most apparent in Victoria during the second wave. See [Supplemental Table 3](#) for further data.

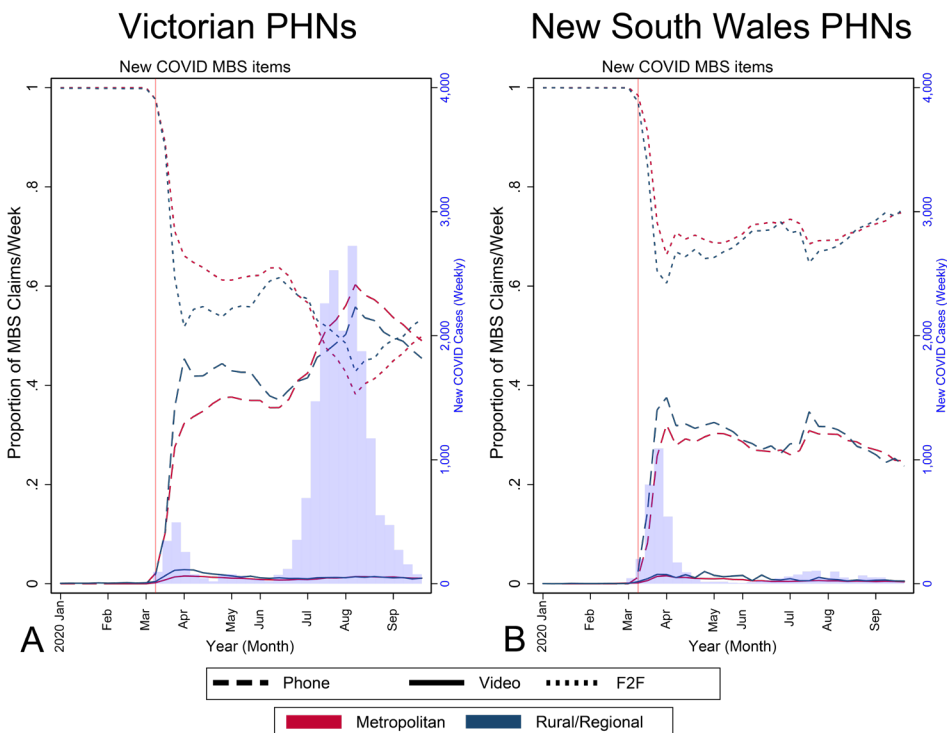


Figure 4: Comparison of consultation types by regionality. (A) Victorian PHNs and (B) NSW PHNs (left y-axis). New COVID-19 cases are indicated by purple bars (right y-axis). Proportions calculated separately for each region, with the denominator being all consultations within the region category, per week.

Summary: In NSW PHNs, telehealth and F2F consultations were used similarly by the two regional categories (metropolitan and rural/regional), although rural/regional areas utilised telehealth slightly more. In Victoria, the difference between regions was more apparent, with telehealth use higher in rural/regional areas compared to metropolitan areas during the first COVID-19 wave. During the second wave, however, the trend reversed, with telehealth use becoming higher in metropolitan areas compared to rural/regional areas. See [Supplemental Table 4](#) for details of the data.



IMPLICATIONS

Females had a greater proportion of their consultations via telehealth services than males

F2F was highest in children and adolescents

Telehealth uptake was lower in low/mid SES groups

- Females had a higher proportion of their overall consultations (total telehealth and F2F) via telehealth than males. There could be factors (such as the reason or nature of consultation) influencing females to utilise telehealth more compared to males. This warrants further study.
- The lowest utility of telehealth via video or phone consultations occurred in the youngest age groups. This could be driven by factors such as the primary caregivers' preferences, GPs' recommendations (e.g., practice procedures such as triage or the need for physical examination), or the nature of the consultation (eg., vaccination). More investigation into these reasons is necessary.
- Potential factors for the lower uptake of telehealth (especially video) in patients with a lower SES warrants further examination, particularly as it relates to:
 - Employment and home environment and their potential impact on ability to participate in telehealth (e.g., workers less able to work from home without the ability to take a private call or video conference while at work). Housing stability may also impact on access to telehealth.
 - The potential impact of language barriers and people's comprehension and understanding of social distancing requirements.
 - Disability, which has been shown to be linked to SES¹⁰, may hinder access to, or ability to use technology.
 - Perceived risk of attending F2F consultations may be lower for certain patient subsets.

- More severe chronic conditions better managed by F2F consultations. This justifies further analysis into which types of conditions were most often managed by F2F vs telehealth.
- Access to technology and reliable internet/phone services.
- Age analysis including lower telehealth uptake and technology use in older age categories raises questions for further investigation. For instance,
 - Whilst our figures show that older people did utilise telehealth services, there may be considerable potential for greater utilisation. We recommend further support to improve telehealth use for older patients.
 - Whether there are also differences in consultation types and access to GP care in residential aged care facilities (RACFs), where GP access can be challenging under usual circumstances. This will be the focus of further study in an upcoming Snapshot.

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