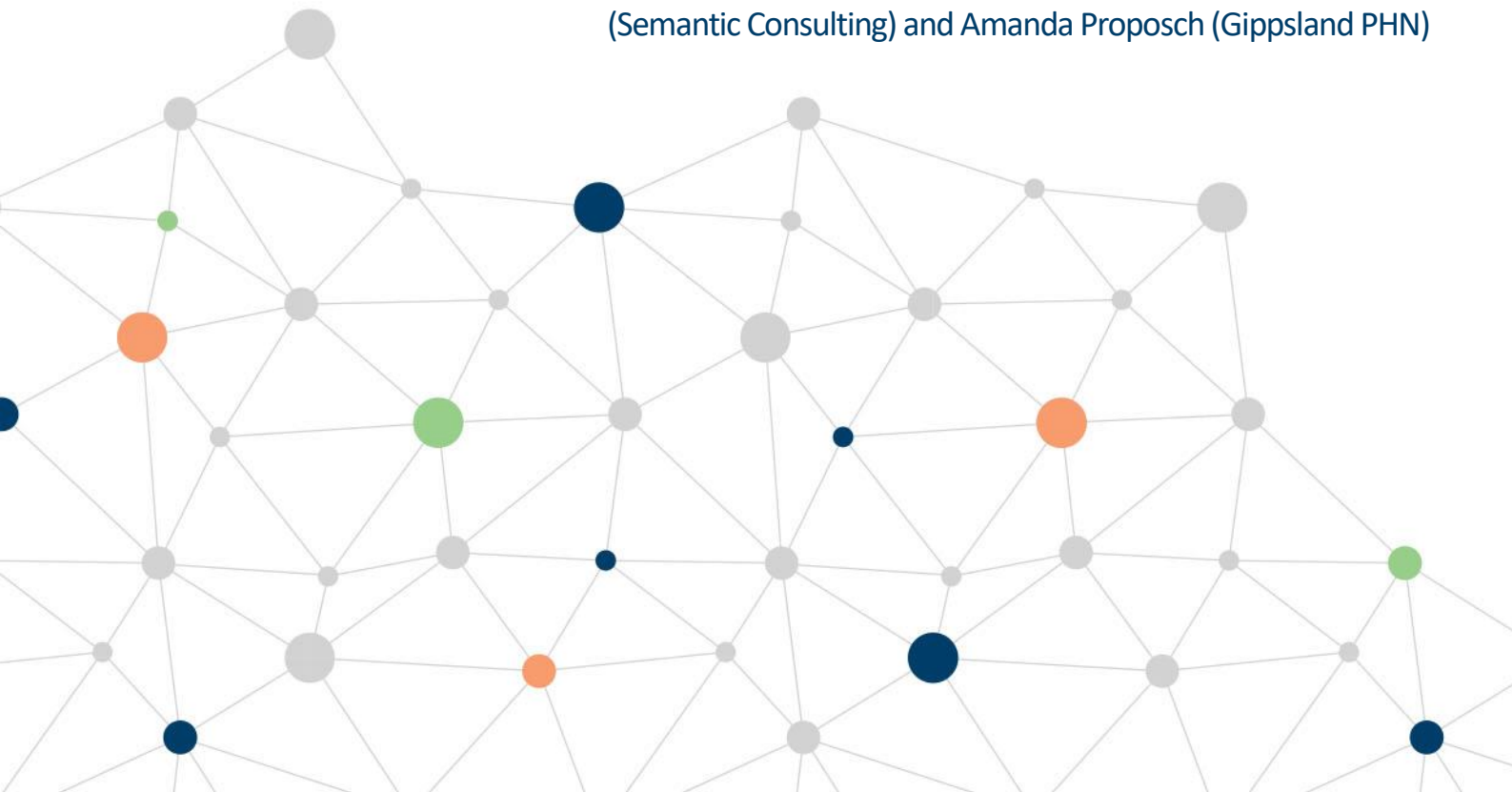


A Digital Health Maturity Assessment for General Practice

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Authors: Denise Azar (Gippsland PHN), Alyce Cuman (Gippsland PHN), Tim Blake
(Semantic Consulting) and Amanda Proposch (Gippsland PHN)





Executive Summary

The “One Good Community” General Practice Program was developed to encourage general practices to develop capability and utilise digital tools and technologies. Gippsland Primary Health Network (PHN) undertook a digital health maturity assessment to identify current state ahead of implementing the “One Good Community” general practice program.

The objective of the digital health maturity assessment was to understand the technical, cultural and change readiness of general practices across the Gippsland region. In order to provide tailored digital health assistance to general practices, an understanding of their digital infrastructure, capabilities and willingness to implement innovative models of care was required.

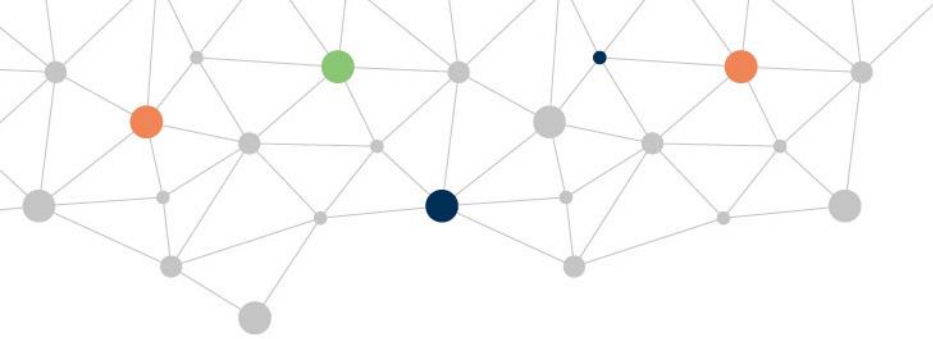
The assessments were completed online by Gippsland PHN staff with Practice Managers during their quarterly practice visit in March 2020. It contained 47 questions, covering a range of topics including practice context, infrastructure, capabilities, readiness to change and willingness to adopt new models of care. An analytic dashboard was developed to automate the process of analysing scores and allocating general practices into maturity tiers. General practices were placed into a maturity level based on their overall score; Level 1 – Foundational, Level 2 – Intermediate or Level 3 – Advanced.

A total of 74 practices from a possible 81 participated in the digital health maturity assessment, representing a 91.4% participation rate. There was an average score of 65.1 out of 100 and practices scored the highest on the infrastructure category (74.5) and lowest on capabilities (52.0).

Some of the key findings include:

- Several deeply embedded technology usage patterns within clinical cultures that represent barriers to further digital maturity (e.g. High use of fax machines)
- Telehealth usage remained immature
- Self-assessed “progressive culture” did not necessarily translate into the use of digital health platforms
- The My Health Record was being used widely, but not deeply
- The Quality Improvement (QI) Practice Incentive Payment (PIP) seemed to have had a deeper impact than the digital health PIP
- General practices had a strong level of interest in implementing new digitally-enabled models of care

The insights and conclusions gained through the digital health maturity assessment will enable Gippsland PHN to provide tailored support to general practices in utilising digital tools and technologies. This assessment should be undertaken ever 6-12 months to monitor digital health maturity progress.



Background

The “One Good Community” General Practice Program builds on recent innovative approaches to caring for people through the “One Good Street – Connected Communities Reducing Hospitalisations”¹ project highlighted at the Wild Health Summit in Sydney 2019, led by Matiu Bush and started as a Victorian Department of Premier and Cabinet Project. The “One Good Street” project recognises the potential impact connected communities can have on health and wellbeing.

The “One Good Community” General Practice Program has been developed to encourage general practices to develop capability and utilise digital tools and technologies. The “One Good Community” program will embed the use of digital health tools and technologies in general practice and support general practice to implement new or improve existing models of care. This improvement aims to impact positively on the health and wellbeing of community, carers and family who care for people living with chronic, complex health and mental health.

The “One Good Community” program proposes to commission Gippsland general practices to:

- Establish models of care that enable comprehensive, better coordinated, integrated and team-based care inclusive of social prescribing and remote monitoring and involving established circles of care from people’s family members, their carers and community;
- Increase capacity of general practice to implement models of care for patients at low, moderate and high risk of hospitalisation, or have or are at risk of having a chronic, complex including mental health condition; and
- Increase opportunity for general practitioners and their practice teams to provide preventive care, early diagnosis and early treatment of these health conditions.

It should be noted, however, that general practice across Australia, Victoria and the Gippsland region has varying levels of digital health literacy and maturity. A lack of detailed understanding of this variation has traditionally resulted in an over-reliance upon a small number of practices and continues to present the risk of the implementation of digital health programs at general practices which are not technically or culturally ready to drive successful digital change.

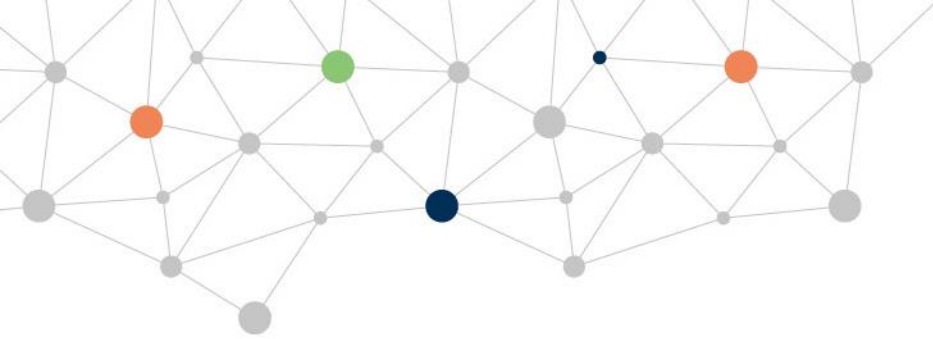
Therefore, Gippsland Primary Health Network (PHN) undertook a digital health maturity assessment to identify current state ahead of implementing the “One Good Community” general practice program.

The objective of the digital health maturity assessment was to understand the technical, cultural and change readiness of general practices across the Gippsland region. This understanding was required to support the successful delivery of the “One Good Community” general practice program by exploring appropriate models of care with general practices who are technically and culturally ready to do so, as well as providing tailored assistance to general practices across the spectrum of capability.

By assessing key technical, cultural and change factors through a quantitative scoring process, general practices were placed into one of the “foundational”, “intermediate” or “advanced” tiers, signifying their current level of digital health maturity.

Classifying general practices in this manner allows Gippsland Primary Health Network (PHN) to provide targeted assistance to practices based on their current capabilities and ensure that any new digital health solutions or models of care implemented by the PHN can be undertaken with the appropriate level of support to make them successful.

Further, an assessment of digital health maturity ensures that there is no attempt to implement advanced models of care at general practices which are not technically or culturally ready to do so.



Method

A web-based version of the digital health maturity assessment was developed using the SurveyMonkey¹ tool and distributed to Practice Managers via Gippsland PHN's Regional Services Officers (RSOs).

Assessments were completed by RSOs who sat with Practice Managers during their quarterly practice visit in March 2020 (although some data collection also occurred during April due to the disruption caused by COVID-19). If the assessment was not completed during the practice visit, then it was subsequently finished by the Practice Manager and sent to the RSO.

The digital health maturity assessment contained 47 questions, covering a range of topics including practice context, infrastructure, capabilities, readiness to change and willingness to adopt new models of care.

The questions were divided into several categories, which can be defined as follows:

Practice Context – Questions regarding practice location, longevity of operation, bulk billing practices and practice management system usage. These questions were not scored.

Infrastructure – Questions regarding the technology foundations in place to support digital health, including use of fax machines, secure messaging, paper records and third-party appointment booking services.

Capabilities – Questions regarding the ability of the practice to make use of the digital health infrastructure available, including current usage of the My Health Record, telehealth, Gippsland HealthPathways and the Digital Health Guide.

Readiness – Questions regarding the practice's readiness to adopt various new digital health technologies and models of care.

Willingness – Questions regarding the practice's willingness to adopt various new digital health technologies and models of care.

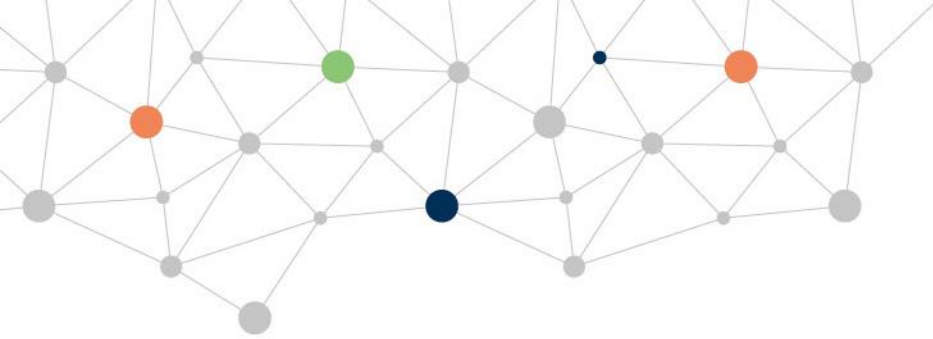
Questions were completed mainly through self-assessment. However, to provide further context to the self-assessed, subjective *readiness to change* criterion completed by Practice Managers, RSOs were asked to complete the same questions from their own perspective.

Each question was allocated to one of the categories listed above and, where appropriate, allocated a maximum score. Not all questions (e.g., practice context) were scored, as these sought to establish context or use of practice management system for baseline statistics.

Scores for each practice were totalled across sub-categories. These sub-category scores were then evenly weighted, combined and normalised to give an overall score out of 100.

An analytic dashboard was developed to automate the process of analysing scores and allocating general practices into maturity tiers. This dashboard also supports the comparison of individual general practice scores against aggregated and averaged regional scores and supports the production of individual general practice reports.

¹ <https://www.surveymonkey.com/>



Maturity level cut offs (i.e., foundational, intermediate and advanced) were defined as the mean score of all general practices + or – (standard deviation * 0.75). General practices were then placed into a maturity level based on their overall score.

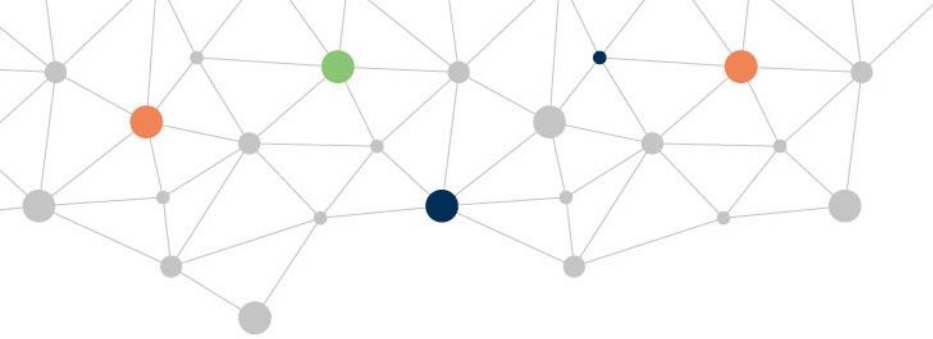
The definitions for each of the digital health maturity levels, including the scores that represent the cut-offs between levels is described in Table 1.

Table 1 – Digital health maturity level definitions

Digital Health Maturity Level	Score	Description
Level 1 – Foundational	< 56.9	<p>General practices are at a foundational level of digital health maturity.</p> <p>Practices have demonstrated a limited level of digital health infrastructure and capability and / or readiness and willingness to change.</p> <p>Work with general practices at the foundational level will focus on the availability of basic digital health infrastructure such as secure messaging, Gippsland HealthPathways and the My Health Record, as well as the capability to effectively use these digital technologies. This will include further discussions about the value proposition for these technologies, and honest conversations about impediments to adoption.</p>
Level 2 – Intermediate	57.0 – 73.2	<p>General practices are at an intermediate level of digital health maturity.</p> <p>Practices have demonstrated a moderate level of digital health infrastructure and capability and / or readiness and willingness to change.</p> <p>Work with general practices at the intermediate level will focus on improving the usage of digital health capabilities such as the My Health Record, telehealth, Gippsland HealthPathways and the Digital Health Guide, and where willingness is good, the adoption of new models of care.</p>
Level 3 – Advanced	> 73.2	<p>General practices are at an advanced level of digital health maturity.</p> <p>Practices have demonstrated a strong level of digital health infrastructure and capability and / or readiness and willingness to change.</p> <p>Work with general practices at the advanced level will focus on the implementation of new digitally-enabled models of care for remote monitoring of patients with chronic disease, social prescribing and mental health.</p>

It was decided that maturity levels would be defined based on relative scores (i.e., mean +/- standard deviation), rather than using “hard” definitions (i.e., all general practices with an overall score of 78 or over are “advanced”). This is due to the difficulty in understanding what “advanced” might look like without historical data to support this argument.

Once general practices were allocated to maturity levels, these were then reviewed based on what is known about practices, to ensure that results were in line with expectations.



Results

A total of 75 (of a possible 82) Gippsland general practices chose to participate in the digital health maturity assessment. One of the participating practices closed shortly after data collection and was removed from the data set, resulting in 74 practices from a possible 81, representing a participation rate of 91.4%.

The analytics dashboard enables the production of visual charts showing aggregate survey question responses.

Across the 74 practices there was an average overall score of 65.1 out of 100, with a standard deviation of 10.5. Scores followed a normal distribution with a slight skew towards lower scores. The distribution of overall scores across all general practices is illustrated in Figure 1.

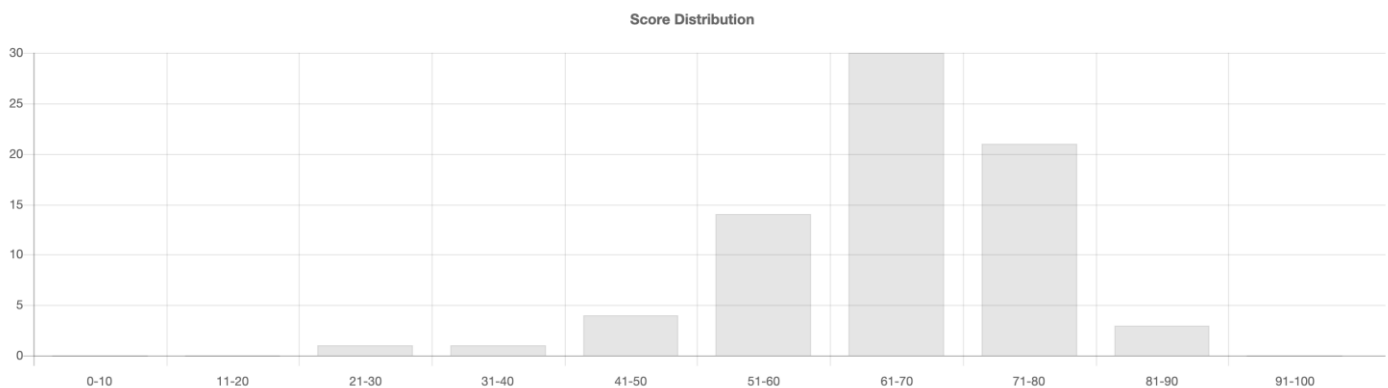


Figure 1 – Total score distribution across all general practices

There were 13 practices assessed at level 1 (Foundational), 45 at level 2 (Intermediate) and 16 at level 3 (Advanced). The number of Gippsland general practices at each of the digital maturity levels is defined in Table 2.

Table 2 – Number of practices at different digital health maturity

Foundational (Level 1) < 56.9	Intermediate (Level 2) 57.0 - 73.2	Advanced (Level 3) > 73.2
13 practices	45 practices	16 practices



The average (normalised) category scores were:

- Infrastructure – **74.5**
- Capabilities – **52.0**
- Readiness (Self-Assessed) – **73.0**
- Readiness (PHN-Assessed) – **72.4**
- Willingness – **61.1**

The average scores (across all general practices) for each of the categories that make up the total score, where the score for each category is normalised to be out of 100, are illustrated in Figure 2.

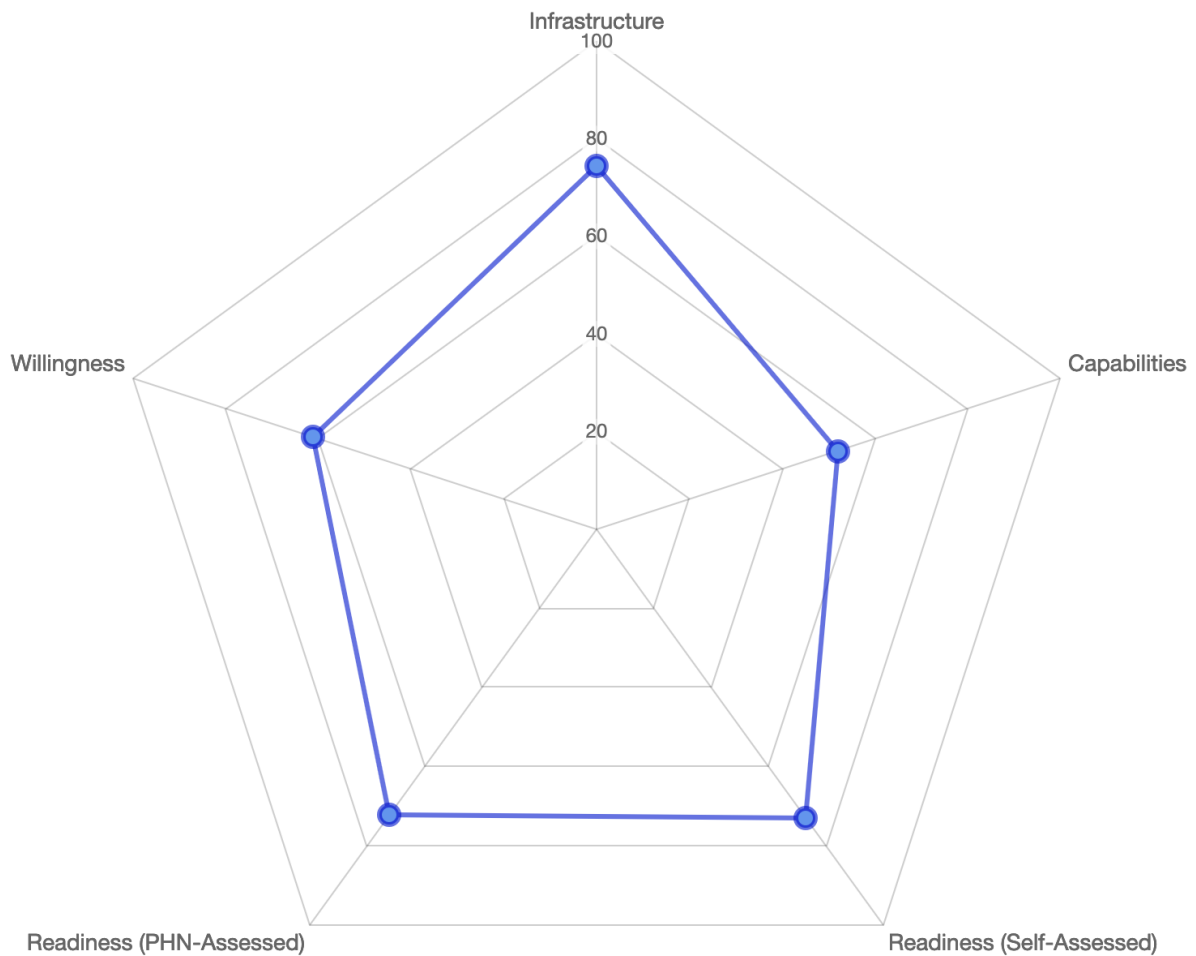


Figure 2 – Average category scores

These averages can then be used to benchmark individual general practices. The orange line, as represented in Figure 3, shows the category scores for an individual general practice, overlaid against the average category scores for all practices.

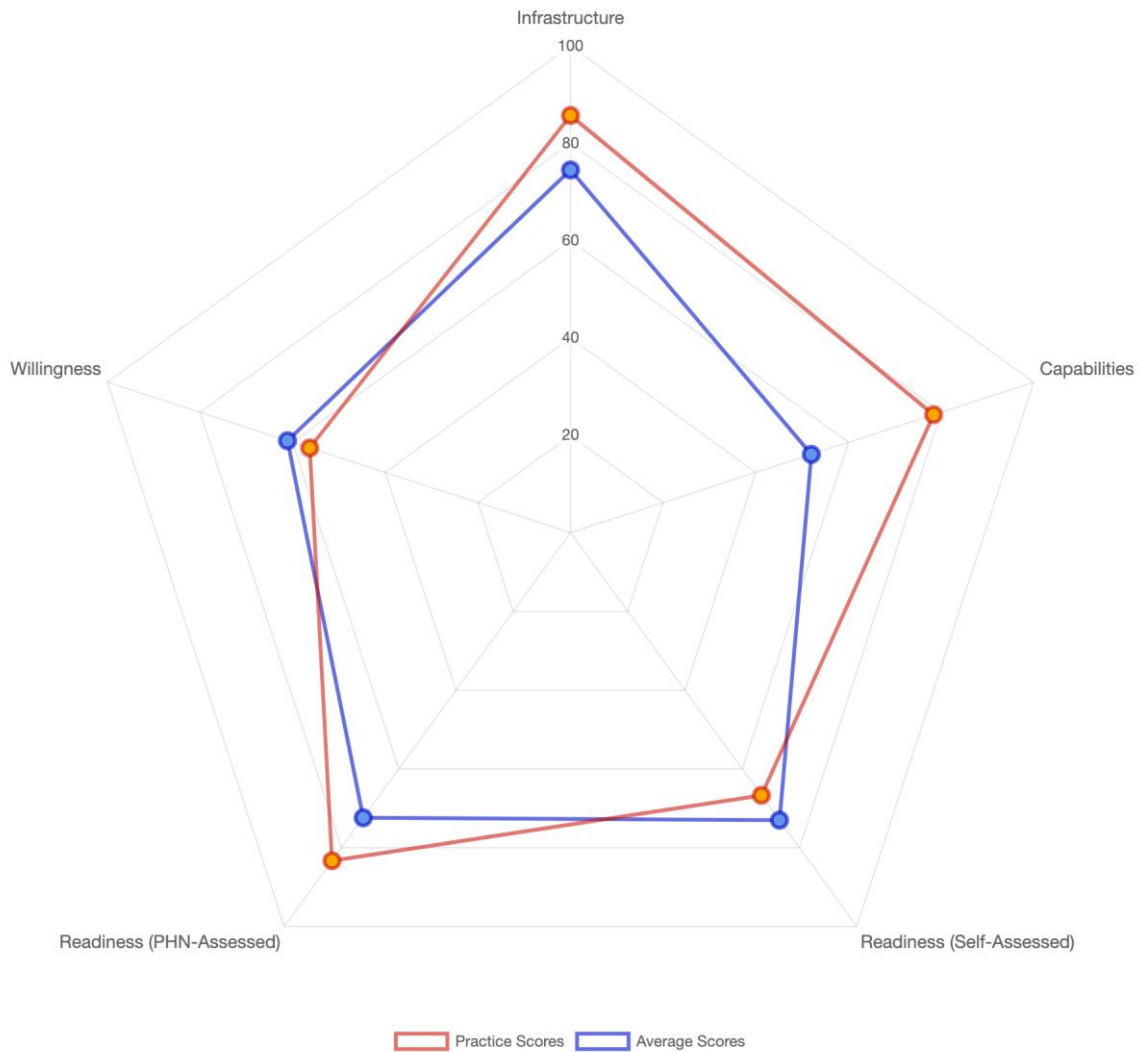
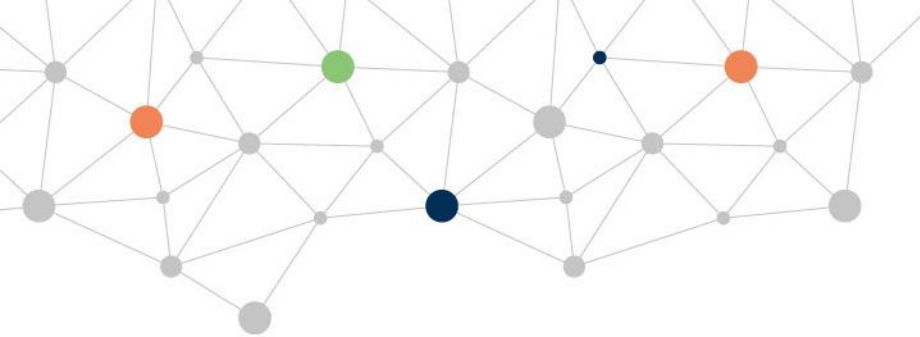


Figure 3 – An individual general practice benchmarked against average category scores

The location of the general practices in Gippsland is illustrated in Figure 4. Most practices were located in Latrobe (31%) and Baw Baw (23%), followed by East Gippsland (16%), Wellington (11%), Bass Coast (9%) and South Gippsland (9%).



In which region is your practice located?

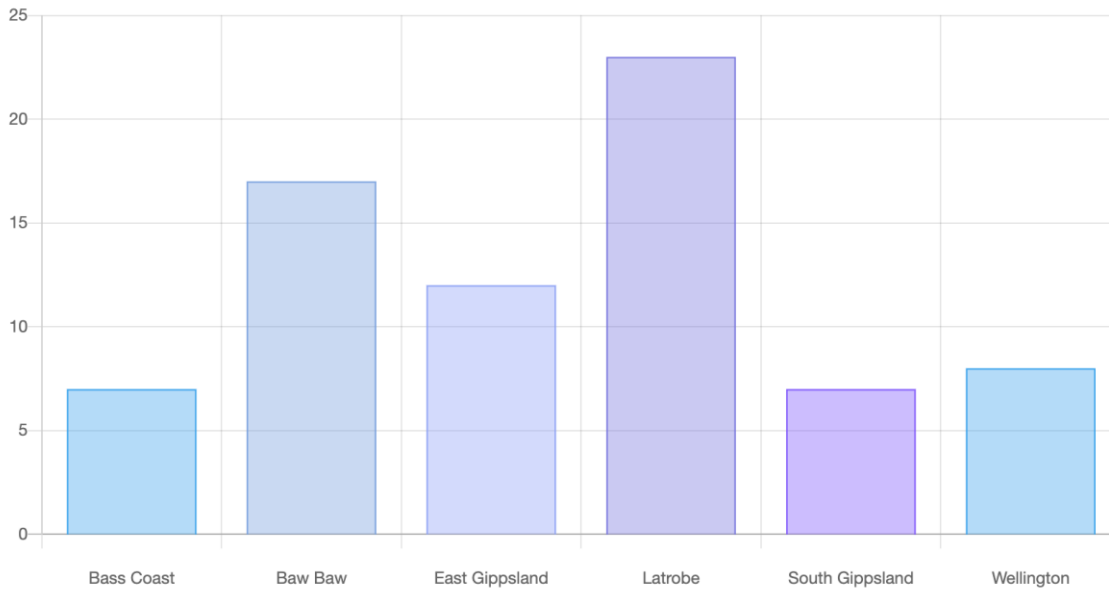


Figure 4 – General practice region

The practice management system used by participating general practices is presented in Figure 5. Best Practice (42%) and Medical Director (36%) were used by the majority of practices, while Zedmed (11%) and Genie (7%) were less commonly used.

Which practice management system do you use?

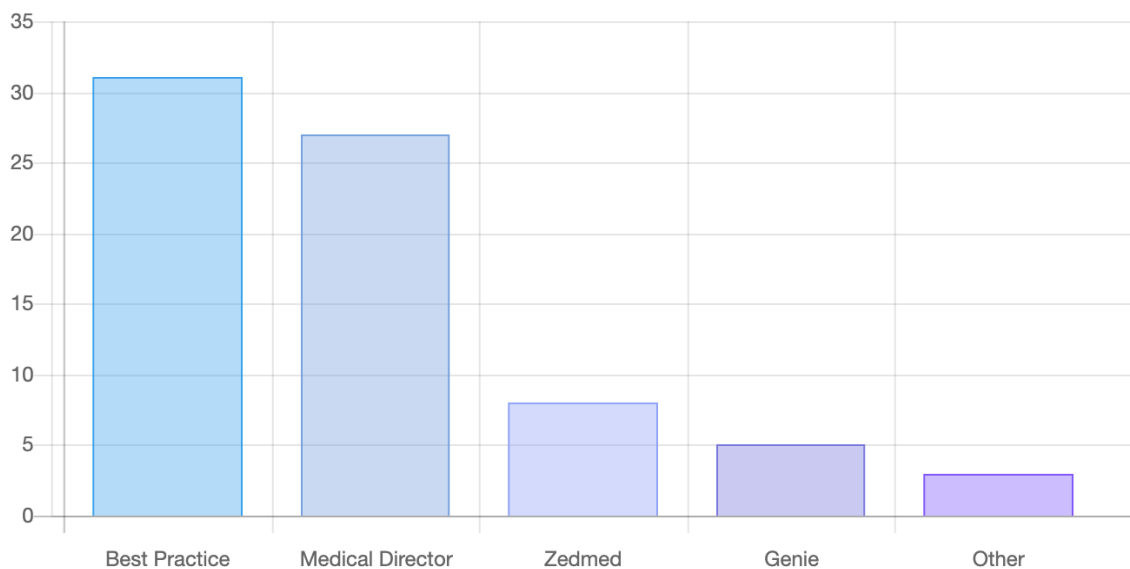


Figure 5 – Practice management system usage



66 general practices (89%) were using fax machines, while 8 practices (11%) were not.

Figure 6 shows the secure messaging solutions in use across general practices. Argus (Telstra) was used by more than half of the sample (54%) and Healthlink was another popular solution (37%).

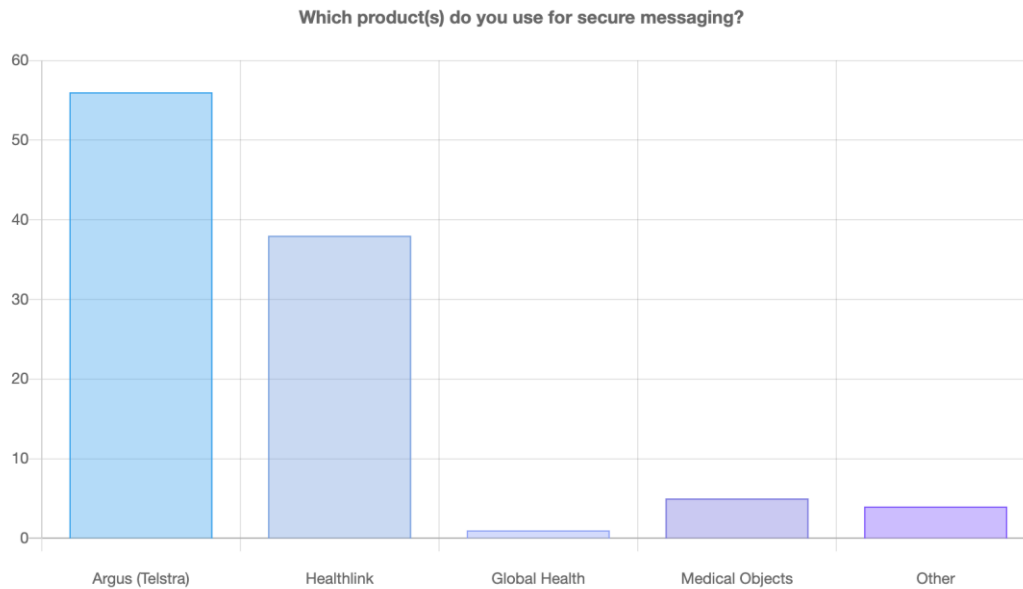


Figure 6 – Secure messaging solutions

The following diagram shows the percentage of GPs actively using the My Health Record in each practice (Figure 7). Almost half the practices (45%) reported 0-25% of their GPs using My Health Record, however 29% were actively using it 75-100% of the time.

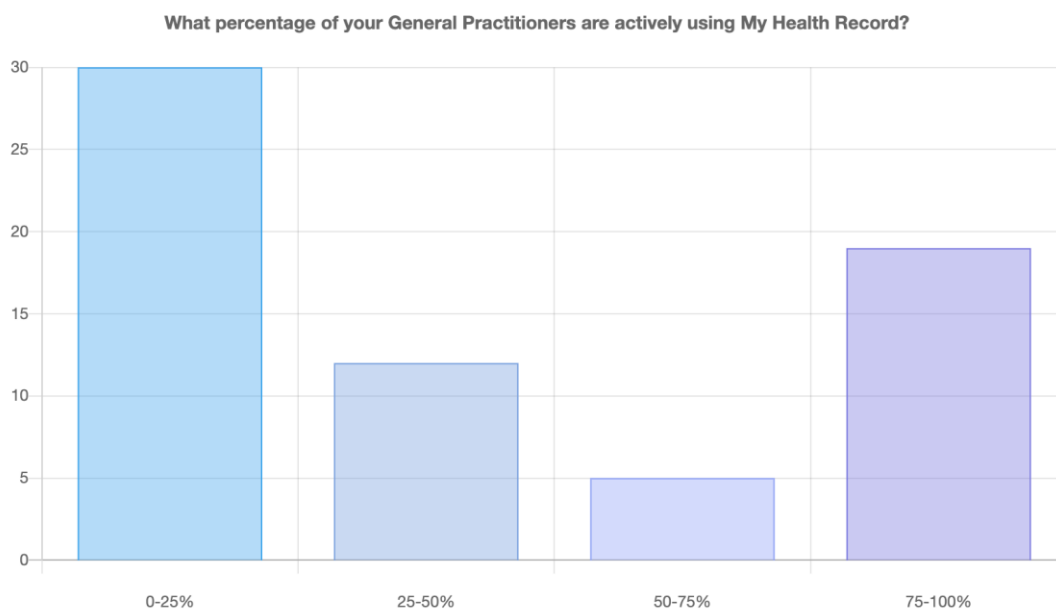


Figure 7 – Percentage of GPs using My Health Record

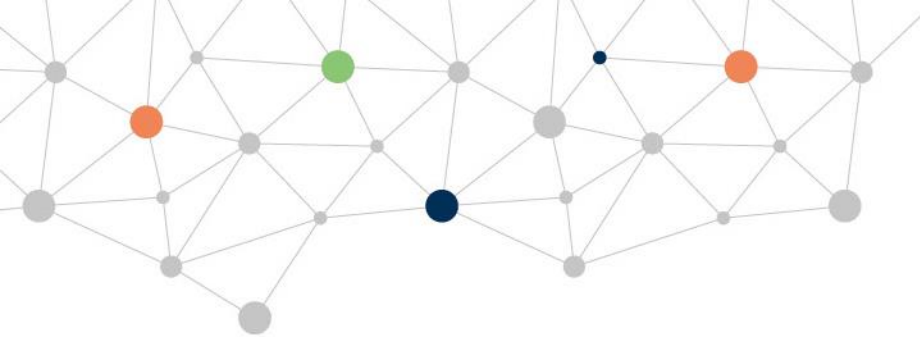


Figure 8 shows the readiness assessment for adopting new digitally-enabled models of care (self-assessed – colour vs PHN-assessed – grey). Practices reported more confidence in their skills to embark on new digital models of care than from the RSO’s perspective.

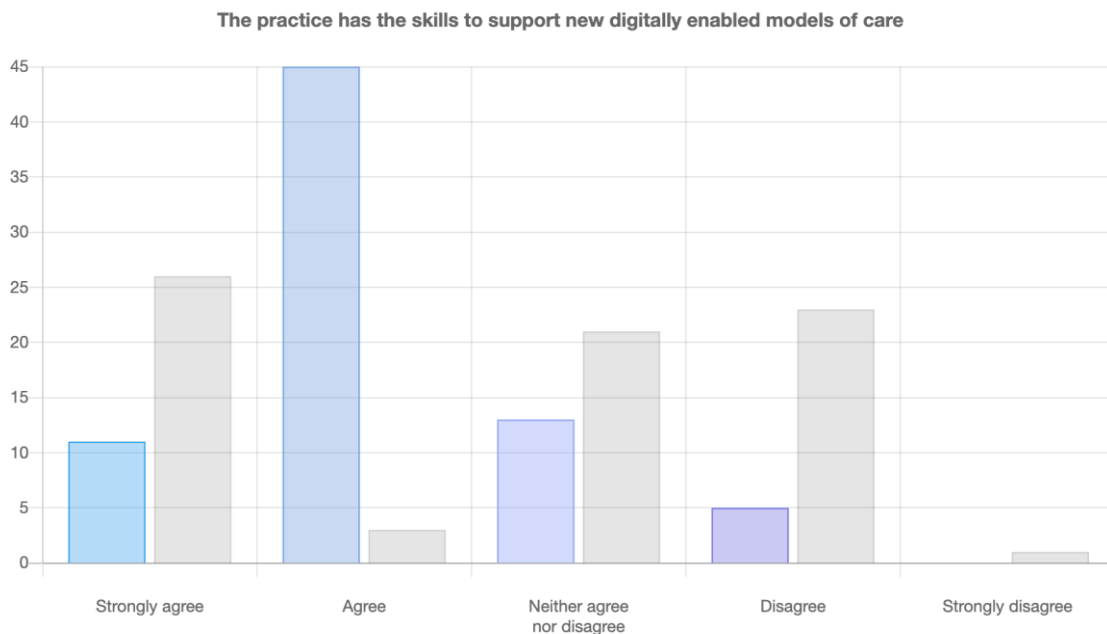


Figure 8 – Readiness to adopt new models of care

The diagram below shows which new models of care the general practices were interested in (Figure 9). More than a third of practices were interested in implementing chronic disease management (38%) and mental health (37%) models of care, while a quarter were interested in social prescribing (24%).

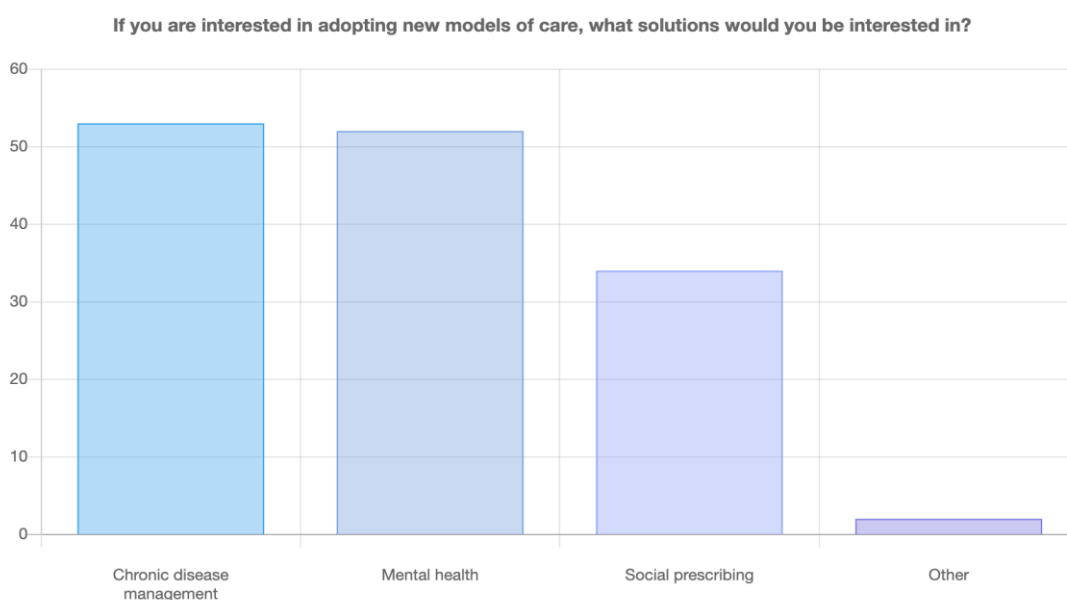


Figure 9 – Interest in new models of care

Findings

The aggregated data from the digital health maturity assessment has informed the following conclusions.

There remain several deeply embedded technology usage patterns within clinical cultures that represent barriers to further digital maturity

- Most general practices used fax machines (66 of 74 – 89.2%).
- Many general practices received discharge summaries via fax despite having secure messaging software installed (36 of 74 – 48.6%).
- Usage of the My Health Record has not become embedded in clinical workflow across most general practices (42 practices report 0-50% of General Practitioner’s (GPs) using the My Health Record).

Telehealth usage remains immature

- Most general practices reported the use of telehealth solutions that were not designed for usage in healthcare (63 of 74 – 85.1% of general practices reported using Skype).

Self-assessed “progressive culture” did not always translate into the use of digital health platforms

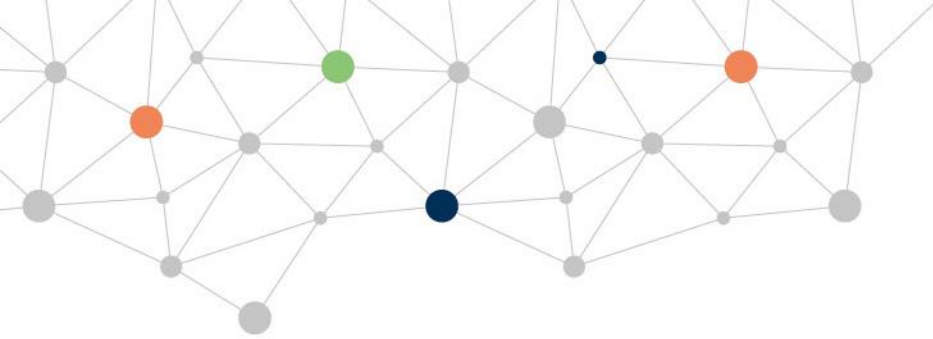
- Most (60) of general practices claimed to have a progressive culture (strongly agree or agree), but many of these were not making use of available digital health platform such as the Digital Health Guide and Gippsland HealthPathways.

The My Health Record was being used widely, but not deeply

- Usage of the My Health Record was not deeply embedded in clinical workflow across most general practices (42 practices reported 0-50% of GPs using the My Health Record). It appeared that (in most cases) usage was more about receiving the digital health **Practice Incentive Payment (PIP)** than significantly changed behaviour.

The Quality Improvement (QI) PIP seemed to have had a deeper impact than the digital health PIP

- 64 general practices (86%) were claiming the QI PIP, versus 59 general practices (80%) claiming the digital health PIP.
- 51 general practices (79%) had between 50-100% of staff involved in supporting the QI PIP, versus 37 general practices (62%) with between 50-100% of staff involved in supporting the digital health PIP.



General practices had a strong level of interest in implementing new digitally-enabled models of care

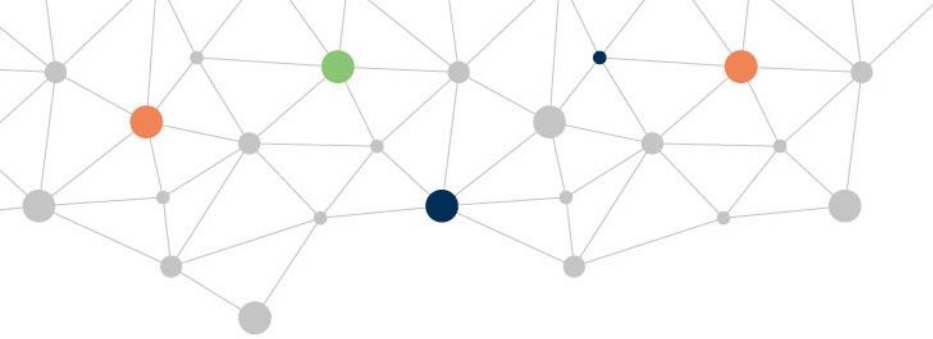
- 71.6% of general practices were interested in implementing new models of care for chronic disease management.
- 70.3% of general practices were interested in implementing new models of care for mental health.
- 45.9% of general practices were interested in implementing new models of care for social prescribing.

Other notable results included:

- 4 general practices (5%) claimed to receive no discharge summaries from hospitals.
- 2 general practices (3%) had GPs who still used paper record keeping.
- 21 general practices (28.4%) did not provide an after-hours model.
- GPs in 52 general practices (70%) were making use of Gippsland HealthPathways.
- 36 general practices (49%) “Strongly agreed” or “Agreed” that they would like to learn more about digital health.
- 58 general practices (78%) “Strongly agreed” or “Agreed” that they currently provided additional care to patients outside of claimable Medical Benefits Schedule (MBS) items.

In addition to these conclusions, several lessons have been learned from undertaking this digital health maturity assessment. These include:

- Use of a dedicated assessment and analytics platform, which was developed during the digital health maturity assessment (rather than before it) will greatly reduce the work required to analyse responses.
- It would be useful to re-run this assessment every 6-12 months, to monitor digital health maturity progress.
- Additional questions are required regarding the digital health literacy of health providers, which anecdotally appear to be more of an issue than previously assumed.
- Additional questions regarding the emerging use of electronic prescriptions.
- Additional questions are required regarding the use of phones as part of telehealth, as assessment on a national level shows that GPs are using phone for telehealth more than any other technology.



Implications

The insights and conclusions gained through the digital health maturity assessment will enable Gippsland PHN to provide tailored support to general practices in utilising digital tools and technologies to implement:

- **Quality and safety** – Engaging patients in the care they need using digital technologies in an accessible, safe and effective manner.
- **Quality improvement** – Drive quality improvement using digital tools and technologies to promote optimal patient experience and outcomes.
- **Digital advancement** – Through the introduction and maintenance of innovative digital and population health resources and tools to support general practices advance to the next digital health maturity level.
- **Sustainability** – Driven by achieving long term sustainable improvements by establishing new workflows and a workforce that has the digital skills and knowledge.
- **Patient-centred care that addresses social determinants of health** – By offering patient-centred goals setting and care coordination that facilitates service access and monitoring of activities between providers to facilitate self-management, appropriate care, health outcomes and greater efficiency.