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1 FOREWARD

I’m pleased to introduce this review. I am sure that there will be interesting aspects of this work to many audiences. For the software vendors it provides them an opportunity to benchmark their support services against their peers and to help identify areas where they excel and areas where their customers may benefit from alternative approaches. For the sector it will provide helpful insights into how they engage with their vendors to better tailor their services to their needs.

The scale of the review has been much larger than we first anticipated. We made a decision to follow the original remit to be true to the intent of the exercise and maintain its integrity. We have delayed the delivery of this report to try and avoid PMS review processes being undertaken by some networks; although it has become clear that we won’t be able to avoid these as new ones begin before existing ones have concluded and we have now taken the decision to release this review regardless of these. We expect that many of the vendors have progressed in the way in which they provide support since we surveyed practices approximately 12 months ago but it is important to us to present these findings and results that will provide a baseline for the future.

Since we’ve undertaken the review survey there have been some changes in the General Practice PMS vendor landscape. One product was sold to a new company and the associated change in processes are likely to have impacts on aspects of how support is provided to their customers. We present those results pertaining to the previous vendor. There has also been the recent introduction of a new vendor and product with their support processes and services as yet unclear.

Now that we have a baseline we anticipate undertaking a regular review of key support metrics and questions we’ve identified from this work. This will act to provide feedback to the sector and vendors on how they are performing with their support services and provide insight from changes including the new vendors operating in the General Practice space. We expect these subsequent reviews to be much smaller and focus only on key high level indicators with less analysis and commentary than seen in this report. Consequently we will be able to deliver these updates in an agile and timely manner.

I would like to thank all those involved in the review process, not least of which are the software vendors, Houston, Intrahealth, Medtech, and myPractice who have co-operated fully in this process. Many general practices, IT providers and PHOs have given their time to complete the responses without which a review of this type would be impossible. Jess White has led this review and undertaken the vast majority of work and writing of the report and her commitment to finishing what at times was a difficult piece of work is greatly appreciated.

We hope that this report provides another avenue to continue to develop strong and healthy relationships between the sector and GP PMS software vendors.

Jayden MacRae, CEO, Patients First
2 EXECUTIVE SUMMARY

Practice Management Systems (PMSs) are an integral part of providing high quality clinical care in a fast moving and responsive primary care environment. They also provide the basis for financial accounts for general practices in terms of invoicing and claiming. General practices rely heavily on the accuracy of their PMSs every day and therefore they need reliable support from their vendors to resolve any issues that arise quickly and efficiently.

The objective of this report is to review the support service provided by the four PMS vendors that have a stake in the New Zealand general practice environment and includes Houston*, Intrahealth, Medtech Global (Medtech) and myPractice. We distributed a survey to three key audiences; general practices, Primary Health Organisations (PHOs) and IT Support Providers to gather their specific feedback on their support experiences. Each of these three parties uses support slightly differently but all have a customer relationship with the vendors.

We received a good cross section of survey responses from general practices, PHOs and ICT support providers (ITSPs). They reflected both large and small general practices and PHOs with a variety of geographical spread. Four of the large PHO networks chose not to distribute the survey’s directly to their practices although some practices within these networks responded through other channels.

Four key performance metrics for support services were analysed:

- utilisation of the support channels;
- quality of the support channels;
- response and resolution turnaround times; and
- communication mechanisms.

This report also considers the release management process and training in terms of their impact on the support services. It then looks at the challenges faced by the PMS vendors to providing support services, and the final section covers future considerations for the support service model.

There was very little difference in the overall levels of satisfaction reported between the vendors. There was greater variation in the satisfaction reported by the three audiences of general practice, PHOs and IT providers.

The results show that for all four vendors’ telephone support still remains the most utilised support channel followed by email for the general practices. The general practice staff stated that they still prefer to stay on hold on the telephone so that they receive an immediate response from helpdesk personnel, which either allows for a quick resolution of the issue or further investigation and escalation to higher support tiers. Telephone support was reported by practices as having the highest quality of all support channels that vendors offered. It is often coupled with remote access

* Houston Medical has recently been purchased by Best Practice Software. At the time this review was initiated and survey completed Houston remained responsible for the operation of the support functions associated with their PMS. We have therefore continued to refer to Houston as the vendor within this report.
technology providing an ability for helpdesk staff to quickly diagnose and resolve issues as though they were onsite with the practice. It was reported as achieving immediate and effective resolution.

Email is starting to emerge as an option for accessing helpdesk services but is reported as the lowest quality channel currently. A significant number of the comments from the practice staff stated that the response rate from the vendors for emails is extremely poor. This deters customers from using this channel to report issues. Email should be a channel that vendors better encourage to allow the efficient logging of non-critical or time-insensitive issues.

Non-traditional forms of support are starting to emerge for general practices and PHOs with more online presence; with webinars, online tools and tutorials and instant messaging. Their use will grow as they are marketed more widely and their value is realised by customers.

There is variety in the way in which IT Support Providers (ITSPs) engage with vendors for support. Some contact the vendors quite regularly, where others reported that they never contact them. In most cases the amount that an ITSP uses a vendor is dependent on the scope of services offered by each ITSP and the knowledge and experience of their individual staff.

PHOs reported the use of online tools and websites as the best quality support channel offered. This is in contrast to the preference of practices for the use of telephone support. It may signal the different problems encountered or the different skill level of staff resolving issues. Staff in PHOs are more likely to be technical rather than clinical or administrative as they would be in general practice.

The quality of the technical advice was rated most frequently as good by the general practices and PHOs for the four PMS vendors, and the ITSPs rated the technical advice as good to moderate.

Response and resolution times are two key performance metrics within a support service that can be easily measured and compared across the vendors. The results show that the general practices, PHOs and ITSPs all identified that most responses are always received within a working day of their being raised. This is the same for achieving resolution of issues. Medtech was the only vendor where resolution could be 1 week or greater. It was stated that this usually occurred if email was used as the support channel for raising the issue within the helpdesk.

Communication is the foundation for all quality helpdesk services. General practices rated the quality of the communication in terms of updates, fixes, issues and information on new products and services as moderate for Houston and Intrahealth, and good for Medtech and myPractice. The PHOs also rated the quality of the PMS vendor’s communication as good, while ITSPs rated Medtech’s communication the best of the vendors. The majority of the ITSPs stated that Medtech kept them well updated.

In terms of who the practices would contact first when they experience an issue with their PMS results showed that the Houston and myPractice users would contact the PMS vendor first. Medtech customers would tend to contact their ITSP first and
Intrahealth customers would contact their ITSP for general issues but their vendor after a version release. This demonstrates how many practices are reliant on more than one source for support. Overall there is a network of support mechanisms available to the general practices, and it requires tapping into the right one for the individual practice based on the issue at hand.

Release management is not directly related to providing support services but it was identified as part of the review that “pushing out releases” by the PMS vendors causes general practices the substantial problems and requires a significant amount of support resource to resolve when things go wrong. This resource includes not only practice staff but also the ITSPs, and the helpdesk staff within the PMS vendors.

The feedback surrounding release management has been some of the most contentious provided by the three survey audiences, and was consistent across all the vendors. This feedback included that many practices are holding off on upgrading to new software versions when they are first released and wait until other practices upgrade. This is so they can determine if there are any bugs, and then wait for the patch to be released to minimise the impacts on their business. Delaying upgrading to new software versions has a number of consequences as it could mean that practices can become outdated with legislation and compliance particularly when it has consequences for the patients in regards to funding, and more importantly it can adversely affect the clinical care of patients if there are changes to pharmaceuticals, and the immunisation schedules.

Training is another important component of support that can heavily impact the support services. Training is not being undertaken adequately by both general practice and PHO staff. They identified that they would like more training for their staff but the cost, location and access to the training was a major barrier. Delivering training via new channels like the Medtech webinars and myPractice online tutorials needs to be investigated further, as the greatest benefit of these online training tools is that they can help train practice staff remotely, in their own time, and at minimal costs; removing most of the barriers identified.

If practices and PHOs were to invest in more regular training for staff on the PMSs it would reduce the dependence on the helpdesk support services generally. On-going training is essential for all practices to keep up to date with the new features available within the PMSs, and to keep up to date with system integration and changes.

Not only did the sector identify challenges with regards to the support services they access, but as part of this report the vendors were also given the opportunity to identify a number of challenges that they face delivering the service. Currently though the PMS vendors are experiencing a heavy workload than ever before, as they are being required to advance their software to keep up with current legislation and compliance, as well as national projects that are requiring greater system integration. Many of the PMS vendors are probably experiencing a fork in the road at the moment with investing resources into keeping up with the new workload, and managing and delivering to tight timeframes, and just maintaining what services and products they have included in their support service. The vendors are attempting to deal with a major balancing act in which they have to manage customer and stakeholder
expectations, along with delivering good services, and ensuring excellent software performance.

Now may be a prime time however for the vendors to review their support service to see if there are opportunities to streamline processes, and become more efficient with their support systems. For example a better triaging process via email, and improved response times would allow for more effective prioritisation and greater customer satisfaction if email became the main support channel, as it is less resource intensive for all those involved.

Improved relationship management with the PHOs and the ITSPs would hopefully mean that the practices would benefit by these parties being more updated and informed of bugs and solutions faster, which would then reduce the pressure on the support services downstream.

Regular proactive communication and training are always two areas where improvement can occur, and can have some of the greatest impacts on reducing demand on support services. However practices have to also be more committed to reading this communication, and also being more responsible for undertaking and increasing uptake of the training.

It is also timely based on the feedback that each vendor completes a review of their release management process, as this is where the biggest gains could be made in terms of customer satisfaction, and reducing support service demand. Each vendor would have their own release management process in place, so each vendor would need to determine where the improvements could be made.

This report provides a baseline measurement and benchmarking for the quality of the support services provided by the PMS vendors across the performance areas identified, which is a first of its kind that compares all four vendors’ support services.
3 KEY RECOMMENDATIONS

The intent of these key recommendations is to present the beginning of a framework that will help vendors identify the support needs of customers and how they meet those needs. A number of the recommendations we present here may already be implemented by vendors but we have included them for completeness and to acknowledge that vendors currently provide a level of support that satisfies a large proportion of their customers.

3.1 Service Levels

- Vendors should have well defined service level agreements (SLA) with customers.
- A service level agreement should define at least three levels of issue severity.
- A service level agreement should define the levels of support available and recommended escalation times to each level for unresolved issues.
- A service level agreement should identify response and resolution times and a target percentage of calls to fall within this timeframe.
- Vendors should publish to their customers their performance against SLAs on a regular basis.

3.2 Response

- All support requests should be assigned a unique identifier, regardless of channel used.
- Customers should always be supplied with a support request unique identifier when registering support requests, regardless of the channel they use to issue them.
- Customers should either be able to view the status of their support requests on demand or be supplied a regular report outlining the status of their requests on a regular basis.
- Customers should always be notified when a support request is closed.
- Vendors should have a mechanism by which to notify their customers if there are widespread known issues that may be affecting them.

3.3 ITSPs

- Vendors should have a way to objectively certify technicians that can support their software.
- Vendors should provide a mechanism by which certified technicians can escalate support requests beyond level 1 in an expedited manner.
- ITSPs (certified or registered?) are given easier access to Level 2 (or 3) support.
3.4 Channels

- Vendors should have an ability to allow practices to speak to a helpdesk support member without having to email or leave a message first for urgent requests.
- Vendors should supply an ability to log appropriate issues via email as an integrated support channel.
- Customers should be given guidance on what is appropriate to log via different channels (e.g. urgent or complex issues by phone, others by email or web-portal).
- Vendors should commit to service level measures for responding to support by all channels.
- Vendors should promote face-to-face and workshop opportunities to customers.
- Vendors should provide preferential continuity of support staff where possible to build and foster practice relationships.
- Vendors should support self-directed learning materials to improve end-user effectiveness in the use of software but also reduce their need for training related support.

3.5 Release Management

- Vendors should have a regular software release cycle that is published and made aware to customers so that forward planning can be completed around this.
- Vendors should engaged ITSPs during software updates and roll-outs to leverage the technical support they provide to practices.

3.6 General

- Vendors should support practices in moving to hosted environments through certifying ITSPs or hosting providers for their products.
- Vendors should offer extended hours of support to allow practices that operate out of usual business hours to resolve issues easily; particularly past 5:30pm on weekdays and on weekends for general practices that operate A&M clinics.
- Vendors should use a recognised support methodology or framework.
- Vendors should support user forums that allows the user community to post issues and answer them amongst themselves.
4 VENDOR COMMENTARY AND FEEDBACK

Vendors were provided an opportunity to supply feedback on the draft report. We asked each vendor to identify any errors in fact relating to their products and services and asked them to provide up to a 450 word commentary. Vendors were given a three week period in which to review the draft and supply their commentary.

We gave the vendors basic guidelines for what we wanted them to include in their commentary. We asked them to put the findings into some context for each of them and to provide insight into what may have changed with regard to their situation and support services in the intervening months between the survey and the release of the report.

We invited Best Practice to provide review and commentary as the new owners of the Houston VIP software. As the software was purchased by Best Practice and the old company no longer existed we felt that this was the best way to gain some insights into how the transition may have impacted on their customers since the transition.

Three vendors responded, and we have presented the commentary in the chronological order in which it was returned to us. myPractice did not respond by the time of publication of this report and consequently we have included no commentary from them.
4.1 Best Practice

The assets and IP of Houston Medical were sold in April 2015 to Best Practice Software, and all former Houston staff and customers using VIP Gold and VIP.net have transferred to the new vendor. The Best Practice Software group is now one of the foremost medical software firms in Australasia, employing 104 people in Software Development, Software Support, Commercial Enterprise and Infrastructure Support streams across its four offices, located in Bundaberg, Brisbane, Hamilton (NZ) and Sydney. It develops and supports clinical and practice management software used by over 12,000 GPs, several hundred specialist doctors (including one third of Ophthalmology specialists) and a growing number of allied health practitioners across Australia and New Zealand.

Best Practice Software New Zealand Ltd is now a significant local business, based in Hamilton, New Zealand. Since the acquisition, the company has doubled its Software Support team and relocated its Hamilton Operations Centre to a new purpose-fit premises within the city, housing all development, support, commercial enterprise and infrastructure team members. New systems and procedures have been introduced including triaging of queries and measuring response times, resolution rates and service levels. The Best Practice help desk is ITIL principle based, and training services are provided through a variety of mechanisms (face-to-face, remote) and online resources for the VIP products are currently being redeveloped. Best Practice has used webinars, online forums and tutorials for more than 10 years in the Australian market and bring that experience and service level to their New Zealand customers.

New procedures and systems have been introduced as part of the SDLC of the VIP software – including more comprehensive Testing and Version Control protocols. The Best Practice Clinical Leadership Advisory Committee meets four times per year to advise the company on clinical issues surrounding the software. Best Practice proactively communicates with customers via regular email newsletters and a variety of other communication channels.

Best Practice has advised that it will be phasing out the VIP Gold application for GP sites by 2018 and is offering a transition path to its new “Bp Premier” application to existing and new GP customers across New Zealand.

The company is wholly committed to providing cutting-edge and industry-appropriate practice management software solutions that meet the clinical, business, regulatory and patient expectations in the contemporary Australasian health care sector.

Lorraine Pyefinch
Chief Relationship Officer, Owner & Founder
Best Practice Software
4.2 **Intrahealth**

Intrahealth is committed to providing quality support services. We are constantly measuring, monitoring and evolving our service to ensure we are meeting the needs of our customers. The concept of continuous improvement is well entrenched throughout our entire organisation.

As a part of our continuous improvement programme outcomes for 2015 Intrahealth has re-structured corporate support services to ensure better alignment, communication and education across support teams. This was done in March 2016. We now have additional level two Senior Support Analysts that have been embedded on the helpdesk for quicker turnaround times and to support hand over. We have implemented a revised support Quality Control Programme. This programme reports on 75 individual metrics and these are collated into 18 quality control measures. The report is broken down by region and product, along with aggregated data for all regions. This programme now measures quality across four teams (level one helpdesk, level two senior support analysts and level 3 Canadian, New Zealand and Australian system support analysts.

We note generally that the sample size of the survey is extremely small. In some cases, seven people were queried and only two responded. This may not be accurate or representative. The use of the term ‘Support’ is vague. In many cases, the PHO represents first line support. The report often identifies if the section is referring to Intrahealth Support Staff, but not always.

One of the key recommendations of this report is that users should ‘always’ be able to speak to a helpdesk support member. Intrahealth offer 24/7 support services but do not staff the helpdesk with live agents 24/7. After hours support is diverted to on-call agents.

Intrahealth now staff the helpdesk with seven level one helpdesk analysts and two senior support analysis managed by one manager based in Canada. We have seven Canadian based system support analysts under one manager based in Canada. We employ four New Zealand based analysts and three Australian based system support analysts with New Zealand experience under one manager based in New Zealand. We also provide a global and local pool of business analysts and developers as required.

Our current response to email support is good. Internal statistics from March and April 2016 report that 83% of tickets raised by email are reviewed and actioned within 24 hours.

_Craig Longstaff_

*General Manager – Asia Pacific*

_Intrahealth_
4.3 Medtech

Medtech is committed to providing high quality service for our products. We have a local team of 20+ staff dedicated to customer support based out of our Auckland office. Medtech aspires to support our customers to the highest professional standards and industry best practices and using the latest technologies.

Medtech is committed to quality systems and continuous improvement and is independently certified for ISO9001 - Quality Management Systems and ISO27001 - Information Security Management Systems. Medtech is also certified by Microsoft as a Gold Partner for Application Development.

Medtech is committed to continually improving our products and services. We offer comprehensive support services for our products covering multiple support channels - face to face, 0800 phone, fax, email, website, notification centre (built-into PMS) and web chat. We have invested in the best CRM technologies such as the Microsoft Dynamics CRM platform to enable our staff to deliver the best possible service to our customers.

Medtech’s efforts and on-going significant improvements to our products and services is reflected in our 2015 Medtech Annual Customer Satisfaction Survey. In this survey responded to by 310 customers, over half rated Medtech’s Customer Care team’s responsiveness as ‘Very Good’ or ‘Outstanding’ and providing a good level of quality services.

We also support our products via our live and pre-recorded webinars (very popular), Medtech master e-learning portal, user groups, in-house and on-site training; all of which are very well attended. We also actively engage our end users at all the major conferences – GP CME, RNZCGP, Rural GP, PMAANZ, Goodfellow Symposium, Healthcare Congress and HINZ.

Medtech has studied the findings of the PMS review including the results of the survey. We always welcome feedback and look for every opportunity for new learnings and to make improvements. We will take on board any feedback we can implement to further improve products and/or support services.

Medtech is concerned about a number of aspects of the PMS Review Survey conducted by Patients First. They key concerns we wish to highlight are:

a) This survey response rate is too low in our opinion to derive any meaningful observations from the data.

b) We question the statistical validity and the possible presence of statistical bias in the results and suitability for comparison given that the four large PHO networks choose not to distribute the surveys directly to their practices. (Although some practices within these networks responded through other channels). It would seem unusual to extrapolate the findings to the entire population when a large majority did not even participate.

c) The validity and usefulness of survey results that are more than 12 months old.

Sanjeeva Samaraweera
Head of Solutions Sales
Medtech Global
5 INTRODUCTION

Patients First has led an independent process to review Practice Management Systems (PMSs) currently available to New Zealand general practice’s. It is an ongoing programme of work, with each report focusing on a different area of interest to the sector. This report assesses the support of their software products which are fundamental to the operation of general practice.

The output of each review is published openly to the market to provide a level of transparency, independent comparison and feedback to the PMS vendors as to areas where product offerings or services are solid, or could be improved. It is also intended to be an educational resource for the primary care sector*, but also provides vendors with insights for quality improvement and benchmarking.

The current tranche of reports has focused on four areas of functionality or features that are relevant to current activity or interest. The areas of review in this round are:

- Prescribing functionality
- Hosting and cloud technology
- Portals (patient and clinical)
- Support services

This general practice management system support service review concentrates on the support service provided by the four PMS vendors; Houston, Intrahealth, Medtech and myPractice. Good support services provide an experience that helps customers of information systems use products to their fullest capabilities, efficiently and effectively. Ultimately a good support service benefits patients through efficient retrieval and use of clinical information to provide them the best care possible.

This report reviewed the support service of the PMS vendors only. It avoided looking into the reliability and usability of PMSs.

This report covers four key performance areas within a support service, but also looks at release management and training in terms of their impact on the support services. Firstly the report provides a brief introduction on the generic support components or features within a support service, and how these can be structured. The report then summarises the specific details and of the four PMS vendors support services that was provided as part of the RFI process. Each vendor’s full support service response from the RFI process is outlined in Appendix 2.

The performance areas are divided into different sections within the report, and each was reviewed by the general practices, PHOs and ITSPs separately. The first section included: utilisation; this looked at the support channels most frequently used by the different PMS users.

The next section reviews the quality of each support channel. Included was which support feature was reported most frequently by the survey respondents as being of

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* Primary care sector refers to a wider community or health care setting and includes general practices, PHOs and the IT Support Providers that work with the general practices in this setting.
the highest and lowest quality. The report then showcases the perception of quality of the technical advice, and identifies the overall satisfaction levels of the users with their vendors support service.

The levels of responsiveness and resolution of the PMS vendors are two key performance metrics within a support service as they can be both measured and compared across the vendors. It also has an influence on driving the overall satisfaction levels with customers.

The fourth section covered the critical area of communication; this section of the report covers who the general practices and PHOs would contact first when they have an issue with their PMS, and then after a version release. The options included their PMS vendor, the PHO, their IT Support Provider, Healthlink or other.

The communication section also rated the level of helpdesk staff communication and phone skills, and lastly looked at the quality of the communication provided by the vendors in regards to updates, fixes, issues and information on new products and services.

Release management is the section that covered some of the most critical feedback from the primary care sector, as it is the process that provides the most frustration in customers, and requires the most support assistance. While this section did not critically analyse the actual release management process for each vendor it focused on covering the feedback from the sector on how they are supported with completing new releases, and when issues arise with them.

The next section focused on training and looked at it from the perspective of upskilling practice staff in the technical requirements of the PMSs as part of their professional development. It is particularly vital for Practice Managers and Administrators as they would spend 90% of their day on the PMSs. Training is also crucial for clinical staff as it assists them to provide best practice with their patient care. It did not cover the training of the vendor’s helpdesk staff.

The report then provides a synopsis of the challenges as identified by the PMS vendors; this provides an additional perspective, and context to some of the results within the report.

The final piece of the report provides some future considerations for the PMS vendors that outlines some key areas of improvement, which can be digested and considered by the vendors if they want to improve their support service.
SURVEY RESPONSE OVERVIEW

Surveys were distributed to three different audiences; general practices; primary health organisations; and third party ICT support providers (ITSPs). Each survey was designed with these specific audiences in mind and contained questions forming part of a core set of question and questions specific to each. Cognitive testing with a small group was undertaken to aide clarity in the surveys prior to them being distributed to the wider primary care sector. Vendors were also provided an opportunity to feedback on the survey content.

PHOs were supplied with both a PHO version of the survey for them to complete themselves and a general practice version of the survey that they were asked to distribute to their affiliated practices. The Practice Managers and Administrators Association of New Zealand (PMAANZ) were asked to distribute the general practice survey to their general practice members also. A third version of the survey was sent to the ITSPs. These providers were identified by those known to Patients First as well as those identified within survey responses from general practices.

Figure 6-1 provides a schematic of the distribution methodology for the survey to the different audiences within the primary care sector.

6.1 General Practices

Patients First received 179 general practice survey responses. This is over 17% of practices nationally. General practices rely on support services from their vendors to ensure that their systems and businesses operate efficiently and effectively. This survey provided practices with a chance to assess the services offered by their vendor and to have a consolidated voice in these views. Our response rate is lower than we would have expected given this opportunity.

The main mechanism for distributing surveys was through PHOs and because four of the largest PHOs in New Zealand chose to not distribute the surveys only 50 – 60% of all practices received the survey. We estimate that the response rate for those receiving surveys was closer to 30%, which is closer to that which we expected. PHOs that chose not to distribute surveys to their practices cited concerns in confusing general practices with questions similar to those being presented as part of internal PHO review processes being undertaken at a similar time to this survey. Some
practices within these PHOs completed survey’s however as they received the surveys through other mechanisms including directly from Patients First at their request, or through PMAANZ.

Practice Managers were the main role represented in those completing surveys for general practice. The composition of the respondents (Figure 6-2) has Practice Managers and Administrators responsible for completing 84% of the surveys, 12% by GPs, and 4% by Practice Nurses. Practice Managers and Administrators are more likely to require support assistance from their PMS vendors, as they are more likely to manage the IT requirements for their practice, and carry this responsibility within their job descriptions.

![Figure 6-2 Respondent role within general practice.](Image)

The size of practices appears to be related to both the type of provider responding to the survey and also the vendor the practice uses. Size is determined by the self-reported number of licenses each practice has. General Practitioners responding to this survey came from smaller practices (Figure 6-3), as did practice nurses and administrators. This is likely a reflection of the less specialised roles that people play in smaller general practice structures. In larger general practices a dedicated practice manager role may be more likely to exist. In smaller practices GPs are likely to be business owners who fulfil practice management roles as well as a clinical roles. The requirements of a General Practitioner and Practice Nurse will be slightly different to that of a Practice Manager and Administrator as they will have insight into clinical aspects of the software more than a specialist practice manager might. Clinical staff may have different demands on their time which impacts their availability and willingness to interact with helpdesk and support services. They may have greater all round expectations of the PMS support services. Care must therefore be taken in comparing the results of survey responses between vendors.
It also appears as though there is some relationship between the size of practice reported and the vendor used by the practices (Figure 6-4). The rationale for this may be explained by any different licensing models the vendors have which may impact the comparability of reported licenses as a proxy for practice size. The differences are only small however, with Medtech represented more in the larger practices closely followed by myPractice and then Houston and lastly Intrahealth.

If there are true relationships between the size of practices and the vendors that are being used by those practices then some care needs to be taken in interpreting survey results comparatively. Practice size may change the expectations practices place on support services.

Internal analysis within Patients First suggests that Medtech has the vast majority of the general practice PMS market share (87%). MyPractice is the second largest segment of the market on 7%, slightly ahead of Houston and Intrahealth on 1 and 4% respectively.
Medtech was slightly under-represented in survey responses from practices while the other three vendors were all over-represented (Figure 6-5). The majority of responses came from those that used Medtech but this was lower than the estimated market share in practice, PHOs and ITSPs. The low number of respondents for Intrahealth and Houston overall have made it hard to draw many comparative results for these two vendors.

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**Figure 6-4** Practice size as a function of PMS license count compared to vendor used by respondents showing median, inter-quartile range and range (outliers excluded).

**Figure 6-5** Proportion of general practice respondents (solid blue bar) by vendor compared with estimated market share (vertical red line).
6.2 PHOs

PHOs had a response rate that was different from the estimated market share (Figure 6-6). This can be explained by the nature of the reporting from these respondents. The market share is calculated on individual practices, but PHOs have a mix of many vendors within their portfolios. A PHO respondent reported use of a vendor regardless of the number of practices or systems they were responsible for from that vendor. This has had the net effect of closing the differential response rate between the vendors. It is an indicator that in the respondents of our survey that vendors used are not evenly distributed amongst PHOs; likely having some geographical variation. It is therefore unlikely to be a true reflection of an unrepresentative sample.

![Software Vendor used by PHO Respondents (n = 24)](image)

Figure 6-6 PMS Vendor used by PHO respondents (proportion of respondents with multiple responses by respondents allowed).

Many of the PHOs use the PMSs for internal use with their clinical staff, but also many provide additional support to their practices. This is usually done either through their dedicated General Practice Liaison or IT Teams. The type of support offered to practices sometimes focuses on the local variation in the way that the systems are used to support local and regional programmes as well as to support the configuration of 3rd party software that is used in conjunction with the main PMS products.

There was a good cross section of PHOs that responded; with a total of twenty PHOs, which represents 63% of PHOs nationally. The four largest PHOs (Midlands Health Network, Compass Health, Pegasus, and Procare) decided not to disseminate our survey to their general practices, as they were undertaking their own PMS review at the time, so while the overall objective of these reviews were different they did not want to confuse the two processes.

Medtech was the prominent PMS vendor that PHOs responded about, followed by myPractice, Intrahealth and then Houston. This followed a similar trend to that of the general practices’ response rate, in terms of total number of surveys returned. It is important to note that a number of PHOs answered one questionnaire for a number
of the PMS vendors that they use (although instructions were to complete a response per vendor that they used very few of them did this). This meant that their comments were more generic across the board, rather than specific feedback about one vendor’s support service. Therefore, the PHO feedback within the report is not split out into the different vendors it was kept general across all four support services.

6.3 Third Party Support

The general practice IT Support Providers (ITSPs) are a third party that provide technical support to the general practices with their PMS. Many of these providers are used for the provisioning of IT services and ongoing maintenance of a practice’s hardware and infrastructure. Practices may also contract them to provide additional support services which includes directly liaising with the PMS vendor on their behalf for specific issues and concerns with the software. They also provide maintenance tasks such as completing PMS database back up, restores and software upgrades.

The ITSPs come in many shapes and sizes; some PHOs act as ITSPs; some IT support businesses specialise in providing support to general practices and other health facilities; and some IT support businesses provide services to a range of non-health businesses. A handful of the larger PHOs have created ITSP arms independent of their PHO core business. The advantages of an ITSP model developed by the primary care sector means that they understand the software and the general practice environment in which it operates including the requirements of national legislation and compliance.

A survey was sent to a number of the different ITSPs that were identified by the being known to Patients First or by general practices in their survey responses. Fourteen responded who supported 132 general practices, equating to 13% of the general practices nationally. Figure 6-7 below shows that Medtech had the majority of ITSP respondents, followed by Houston, myPractice and Intrahealth respectively. The ITSPs specifically identified the PMS vendors that they supported within the survey and all response questions were vendor specific so the results are able to be shown at a specific PMS vendor level.

A substantial proportion of practices use ITSPs to provide support to their practice in some form (Figure 6-8). Mid-size to large practices are likely to be complex environments and may require specialist IT services to support their environments. Only very large practices are likely to justify having specialist internal resource for this.

Houston has the highest proportion of external resource (80%) reported. The other vendors have proportions of external providers in the same order as their relative mean practice sizes. This relationship could be explained by the increasing complexity of IT requirements as practice size increases. This does not explain why Houston has such a large proportion of ITSPs compared with the other vendors as their practice size is generally lower.
Medtech and myPractice offer certification courses for technicians so that these providers can become specifically trained in the software. This is an advantage to practices that use these providers as these technicians will have in-depth knowledge and experience with the software, in terms of installation, maintenance of the PMS and underlying database technologies. They will be able to answer a large proportion of practice queries, and fix a number of issues without accessing the vendor’s helpdesk. A well planned and maintained certification regime run by PMS vendors has the potential to provide practices with insight into which ITSPs may be able to supply specific support for their highly specialised products.
Certifying ITSPs may have benefits to PMS vendors. Having technicians with specialist knowledge of their products may alleviate some helpdesk burden. It may also provide vendors with a communication directory directly to those responsible for supporting technical aspects of their products and the environments in which they work. Such certifications may also enable vendors to encourage their users to move to hosted environments, providing a pool of technical expertise that could facilitate a fast uptake of such decisions.

Many of the practices have formally retained ITSPs rather than using them in an ad-hoc fashion. Retainer contracts are generally beneficial for practices as they are designed to encourage ITSPs to maintain practice system configurations well and minimise disruption and inconvenience to the practices. Well maintained systems will result in fewer support requests particularly related to hardware or operating environment issues that impact software functions.
7 BACKGROUND

Software support services can vary widely in terms of the channels offered and quality of services, the functionality available, and the level of expertise and technical guidance within the service. They can be dependent on the company size and process maturity. As a company grows it will often rely on processes to ensure a consistency of approach and overall service strategy to its customers. In the service realm, processes however are important for both large and small operations. Large companies will have likely have a much higher overall number of staff that turnover and such staff will need constant induction into the way in which the organisations handles support. Well documented, structured and process drive support can help with this. In a small organisation, while total staff turnover will be lower (assuming similar rates of staff turnover in an operation) when a support staff member leaves, there is a proportionately greater loss of institutional and product knowledge. In this instance, processes and well documented support services can help to encapsulate the inherent knowledge a more experienced support operator may have, thereby helping to reduce the burden of any loss.

There are multiple facets of a support service that not only involve issue resolution but also components of training, and proactive and reactive communication to customers to provide regular updated information.

7.1 Helpdesk Services

Support services usually provide issue resolution via a helpdesk (or a more modern term is “service desk”); this is a resource intended to provide the customer or end user with information and support related to a company’s products and services. The purpose of a helpdesk is usually to troubleshoot problems, or provide guidance about the software or products within the system. Helpdesk support can be provided through synchronous channels such as telephone via a 0800 number, or new platforms such as instant messaging or live chat as they can occur as a continuous stream, and responses are instant. Whereas asynchronous support channels include email, websites, knowledge management platforms; as responses occur at irregular intervals, and are less resource intensive than synchronous channels.

Large helpdesks are often structured into different levels or tiers to handle different types of questions. The responsibility of the first level support is to register and classify received incidents and to undertake an immediate effort in order to restore or resolve the issue. A first-level helpdesk will usually be prepared to answer questions or provide information commonly found among the frequently asked questions (FAQs) or in a knowledge base. They also process service requests and keep customers informed about the status of their issue at agreed intervals. If the issue is not resolved at the first level, it is usually forwarded to a second level tier with resources qualified to handle more complex issues.

There can also be a third level tier of support to deal with software-specific needs, such as updates and bug fixes. These are usually dealt with by the company’s software
developers* or technical staff. As outlined each tier will normally tend to involve progressively more technical staff, therefore, hourly costs at each level tend to increase.

Large helpdesks have a person or team responsible for managing the incoming requests; they are commonly called queue managers or queue supervisors. The queue manager is responsible for the issue queues, which can be set up in various ways depending on the helpdesk size or structure. Typically, large helpdesks have several teams that are experienced in working on different issues. The queue manager (automatic or manual) will assign an issue to one of the specialised teams based on the type of issue raised. Some helpdesks may have invested in infrastructure; ensuring their telephone systems have automatic call distributors (ACD splits), which allow calls about specific topics to be automatically be put through to the appropriate helpdesk staff member with the requisite experience or knowledge. Different service desk frameworks have different terminology, but the overarching principles remain the same.

A number of these large helpdesks have strict rosters; where time is set aside for staff to perform tasks such as following up on problems, returning telephone calls, and answering questions via email. This roster system ensures that all helpdesk staff members have enough time to follow up on calls and also ensures that someone is always available to take incoming telephone calls. As the incoming telephone calls are random in nature, mature helpdesks run schedules that are maintained using an Erlang C calculation†.

The four GP PMS vendors have some level of helpdesk functionality. This report looks at the different channels and quality as rated by the end-users of these support services and how they vary between them.

### 7.2 Service Priority Matrix

Helpdesk calls are usually allocated a priority; this priority will determine how quickly a call can be expected to be actioned and resolved. In the primary care sector if a system failure severity is classed as a high or emergency it is usually allocated an urgent turnaround response time, as patient care can be compromised if a system is completely unavailable or unusable.

Once the priority of a query is determined, customers will be informed of the maximum response time that can be expected to wait for the query to be actioned. The target time frames for priorities is usually defined in a priority matrix.

The four PMS vendors all have a unique priority matrix system which are defined in the next section and in more detail in Appendix 2.

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† is a dimensionless unit that is used in telephony as a measure of offered load or carried load on service-providing elements such as telephone circuits or telephone switching equipment
8 PMS VENDOR SUPPORT SERVICES

Table 8-1 shows a summary comparison of metrics outlining the support services offered by each vendor. The information in this table is primarily based on information supplied as part of the request for information (RFI) submitted to each vendor. Full RFI responses are provided in Appendix 2.

We use the metric of market share to report the significance of the vendor in the general practice sector in New Zealand but it is not necessarily a good measure of the size of the company offering support services. This report is focused on general practice PMSs and the support offered to those using these systems. The four vendors that form the basis of this review offer their software products into other care settings such as specialist medicine, physiotherapy and podiatry clinics. Some of the vendors also supply software products into markets outside New Zealand. In this respect, our subjective assessment is that both Intrahealth and Medtech are significantly sized software operations operating outside of Australasia and significantly across other care settings, while both Houston and myPractice are smaller operations, with Houston operating across a significant number of other care settings. The scale of an operation can affect the ways in which support services are offered.

All vendors reported that they used a support framework or helpdesk methodology. Having such a framework in place is important to provide a structure and consistency of approach to support services. A framework provides guidance to vendors in the establishment of processes and practices and helps to define terminology to ease communication and understanding between parties around the processes. This becomes increasingly important as a vendor increases in size and their support services scale appropriately.

The hours in which the vendors operate their telephone support services varied. All vendors stated that they provided 24 hours a day, seven days a week coverage. Medtech and Intrahealth had extended usual operating hours with the remaining two operating relatively standard normal business operating hours. The hours in which telephone support services operate are most important for the resolution of critical or urgent needs. General Practices can operate outside of standard business hours, with some general practices operating into the early evening and some on weekends as accident and medical centres. Having access to support services during these operating hours may be important if a practice runs into issues that affect patient safety or accurate record keeping.

Medtech and Intrahealth offer greater usual operating hours of telephone support. The scale of their operations are such that their customer base may extend to sufficient clinics that work extended business hours to justify such resourcing; or they may leverage their global workforce in other countries and in different time-zones to extend such hours.
Table 8-1 Comparison table of vendor support metrics.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Houston</th>
<th>Intrahealth</th>
<th>Medtech</th>
<th>myPractice</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Practices</td>
<td>13</td>
<td>44</td>
<td>868</td>
<td>70</td>
</tr>
<tr>
<td>Market Share (%)</td>
<td>1</td>
<td>4</td>
<td>87</td>
<td>7</td>
</tr>
<tr>
<td>Normal Hours</td>
<td>8:00 - 17:30</td>
<td>18 hours / day</td>
<td>8:00 - 17:00</td>
<td>8:30 - 17:30</td>
</tr>
<tr>
<td>Weekend Hours</td>
<td>24/7</td>
<td>24/7</td>
<td>17:00 – 21:00 (week days)</td>
<td>24/7</td>
</tr>
<tr>
<td>After Hours</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Telephone</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Email</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Face-to-Face</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Web based tools</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Support Tiers</td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Priority Levels</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Response Severity 1*</td>
<td>1 hour</td>
<td>1 hour</td>
<td>1 hour</td>
<td></td>
</tr>
<tr>
<td>Resolution Severity 1</td>
<td>4 hours @ 90%</td>
<td>8 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Response Severity 3†</td>
<td>20 business days</td>
<td>3 business days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resolution Severity 3</td>
<td>1 month @ 90%</td>
<td>Next release</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technician Certification</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* Highest priority as defined by the vendor.
† Lowest priority as defined by the vendor.
While all vendors offered after hours support three had a theme that after hours support was offered for only critical issues. Medtech offered after hours support by arrangement only; indicating that their after-hours support was for planned purposes; but it must be noted that this vendor offered extended usual support hours during the week and also on the weekend. The offering that would be most useful for a practice will ultimate depend on how a particular practice operates and how much convenience they want around the usual hours of telephone support.

All vendors reported that they supplied telephone, email and face-to-face support services. Medtech and Intrahealth indicated that they supplied web-based tools as additional support channels. The use of telephone, email and face-to-face (training) are fundamentally important aspects of any mature support service offering. The use of web-tools is not critical but can be convenient for some, particularly where those tools can be used outside of the usual operating hours of telephone support and where they provide self-service functionality.

Only Medtech and Intrahealth supplied information on the different tiers of support that they offer. Offering tiers of support is a standard approach in the IT industry. Staff with skills in using the product and solving common issues are generally more numerous, easier to employ and cost less than more technical staff. Support tiers offer a structure in which a vendor can offer a balance between cost of the service to the customer and speed with which problems can be responded to and resolved. Vendors with smaller support structures may not need support tiers as the size of their operations may mean that their technical staff provide both front-line helpdesk and support services. Intrahealth and Medtech both have similar tier structures offering three and four levels respectively.

All vendors have a similar system of categorising the priority of issues raised with their support services. Houston and Intrahealth both identified five different categories of issue priority, with Medtech identifying four and myPractice three. It is useful that all vendors identify priorities by a numbering system and all numbering systems used indicate that the highest priority is that with the lowest number. Houston uses a index with a base of zero (zero being the most urgent priority issue), while the other three vendors use an index starting at 1. For ease of comparison we refer to Severity 1 issues to identify the highest priority items, and Severity 3 issues to identify the lowest priority items regardless of the number of priority levels the vendor has identified.

Response and resolution times are metrics often used in helpdesk services to identify how quickly a vendor responds and fixes issues. A response time is usually the period between the time an issue is raised with the vendor to the time that the vendor begins investigating or resolving the problem. A resolution time is usually the period between the time an issue is raised with the vendor to the time the customer no longer has the issue. The way in which vendors measure and define response and resolution can differ. Drawing direct comparisons between vendors if they use different ways of measuring and defining these metrics can therefore be difficult without delving into these definitions. Using a framework with clear definitions can help clarify such differences.

Only Intrahealth and myPractice provided details on their response and resolution targets. It is useful for practices to know the timeframes in which their vendors are
aiming to have issues resolved within based on the priority of the issues themselves. The way in which these vendors report their response and resolution of the highest priority issues is similar. There is a substantial difference in the reported response and resolution times between the vendors for the lowest priority issues. The response time for Intrahealth is 20 days compared with myPractice’s 3 days however Intrahealth aim to resolve 90% of their lowest priority issues within a month, where myPractice target their next major release which they state can occurs usually every 2-3 months.

8.1 Houston

Houston provided a very short RFI response with a brief synopsis of their support features. This made it difficult to assess the support features in any depth. Houston was a small vendor in the general practice market which makes it more difficult to complete a time intensive RFI process. The advantages of a small vendor in terms of providing support is that their customers commented that they receive a very prompt and personalised service, as they frequently speak with the same support staff to resolve their issues.

Houston do not follow a standard or recognised support service methodology or framework. They have their own in-house support methodology. They have provided no further detail on the methodology or framework itself.

Houston offers what we would consider the minimum hours of phone support being Monday to Friday from 8:00am until 5:30pm. They offer after-hours phone support for critical issues. They define critical issues as critical bugs and faults.

Houston have provided no further detail on how they prioritise issues from 1-4.

8.2 Intrahealth

Intrahealth provided a comprehensive RFI response in regards to their support services. Such a response should be commended and it provides a level of detail that can aide in transparency of the services offered.

Intrahealth are ISO 13485 certified. This certification pertains to the manufacture of medical devices. While it may have some indirect bearing on support services wrapped around software within the manufacturing process, it appears to pertain more directly to the quality processes around manufacture of the product (software in this case). This review is not intended to consider the manufacture quality of the PMSs but rather those services for supplying support to customers using the product itself. A well manufactured product may be less likely to contain defects and consequently result in fewer issues for end-users which in turn may unburden support services or require a lesser support service response. It doesn't however provide a framework in which the support service works to define processes, practices and terms so that those services are clear to customers.

Intrahealth offers extended usual telephone support service hours. They operate their helpdesk service up to 18 hours per day. It was not clear if this extended into the weekends. Survey feedback from general practice identified some comments that the helpdesk was supplied using Canadian support staff, although nothing in the
Intrahealth RFI response identified this specifically. Using offshore support staff in this manner illustrates the advantages of a software vendor with global presence, being able to offer such extended hours of telephone support. A disadvantage of this model is that some survey respondents commented that the support staff lacked some local knowledge of the wider health system which made explaining and resolving some issues more difficult than they expected. The respondents attributed this to the support staff being off-shore.

Intrahealth offers web-based support solutions, including an online forum and ability to log and track support issues. The ability to easily track the status of support issues without contacting the helpdesk directly is a useful feature for many practices.

Intrahealth have clearly defined their support tiers; with level 1 support being supplied by helpdesk analysts. Intrahealth state that the helpdesk analysts have 1-4 years experience using the software with technical, helpdesk or industry backgrounds. Helpdesk level roles are often entry-level IT roles. The level at which Intrahealth employ their helpdesk staff would likely be higher than that usually found in the IT industry. The second level of support have 2-6 years of experience with the software and generally have a more technical IT background. Level three support staff are software developers and software architects with 3-15 years of experience with the software and are degree qualified.

Intrahealth have a clear way of classifying their support priorities. Any issue that affects patient safety has the highest priority along with anything that is adversely impacting the business and service operation. Anything that is impacting the efficiency of use of the system is classified as a level two priority. Those issues where some minor functionality is not available is classed as level three. Level four priorities are those that fall into level three but have work-arounds in place. This prioritisation appears appropriate and sensible for general practice.

8.3 Medtech

Medtech provided a comprehensive RFI response which outlined all their support methodology and support channels. The comprehensive RFI response along with the vast amount of feedback received from Medtech customers allows a greater depth of analysis within this report.

Due to the size of Medtech’s New Zealand customer base and maturity of their company they are required to have a greater number of support staff working within their support services. Having well established processes and methodologies can aide in larger support operations in providing a consistent support experience for their customers.

8.4 MyPractice

myPractice identified in their RFI response recognised that they are at the point of reviewing how they can formalise a process of keeping customers better informed about the resolution of their issues. This is indicative of a company that is growing their customer base, so the maturity of their support structures and processes need to grow with them. The survey responses from the myPractice respondents reflected that there are advantages to a smaller PMS vendor in terms of their support services,
as they tend to have closer relationships with their practices. Customers commented that they are speaking with the same people every time they have an issue, so the support staff become very familiar with their practice and how it operates, and the setup of their IT infrastructure.
9 USE OF SUPPORT CHANNELS

Telephone is the main channel used by practices to initiate support, with almost 50% of practices always using it (Figure 9-1). Respondents cited this preference because it either allows for a quick resolution of the issue or further investigation and escalation to higher support tiers. Practice staff would prefer to stay on hold on the telephone so that they receive an immediate response and know that their issue is being dealt with immediately.

Phone support is a resource intensive channel to provide for vendors. It requires a one-to-one relationship with practice staff and support staff. Because it is synchronous it must be scaled to meet peak demand. Modern telephony solutions can allow support providers to more dynamically scale their support workforce by geodispersing resources and utilising on-call and at-home staff more readily.

Where vendors are not able to scale support the resultant delay in receiving service is perceived negatively by customers.

Figure 9-1 Frequency of use of support channels by general practice.

Email appears to be a popular secondary option with approximately 75% of respondents using it always or sometimes. Email is an asynchronous communication channel and as such is most appropriate for non-urgent queries or issues. Because of its asynchronous nature and a lower threshold for customers to expect an immediate response it does not suffer from the same resource peak demands as telephony. Email has advantages to customers by removing the need for them to wait during peak times where support demand outweighs operator supply.

Survey comments stated that the response rate from the vendors for emails is extremely poor deterring them from using this channel to report issues. The utilisation on this support channel will always be limited if the response rates do not improve. A key message for vendors should be to further encourage the use of this support channel for appropriate queries.
All support emails sent to a vendor should be responded to in the same way as a telephone call. Customers should be educated as to what is appropriate to log through a telephone call versus email. We would suggest that phone support should be kept for urgent or complex matters and all other issues should be encouraged to be logged through email or another asynchronous mechanism.

Some respondents have noted that email responses depend on the person that they email being available. This appears to be a burden for customers to identify particular support staff to contact and may be contributing to poor response rates or response times using this channel. If all email support requests do not go through a single gateway it is difficult for a vendor to monitor such requests. Vendors should supply a dedicated support email address (e.g. support@vendor.com) to facilitate the ease for customers of logging support emails. Customers should be discouraged from emailing support staff directly outside of this mechanism (much in the same way that customers are discouraged from phoning support staff directly on their mobile phones to log jobs perhaps). It would be preferable for an integrated email / phone system to be used so that those logging support emails are given appropriate ticket numbers.

Vendors should also be clear on of their support level agreements or key metrics for responding to support and include email as a channel in this.

Face-to-face and workshops are infrequently used. Such support channels are the most resource intensive for vendors to provide and consequently the coverage and frequency of such opportunities is limited. This is confirmed by the many comments that stated that face-to-face or workshop sessions are available in the large city centres only.

Our findings contradict some of the survey comments with some vendors offering workshops more widely than respondents stated. At least one vendor advertises that they provide sessions and workshops in the smaller geographical regions. Some of these are at a cost which may discourage use, but some are provided as part of relationship management with the PHOs, and then opened up to practices. It is possible that practices are not aware of these sessions and this may illustrate a need for further marketing and promotion of such activities by the vendors, PHOs and ITSPs.

The use of website based support appears to be low, with only 20% of respondents reporting that they sometimes use it. Online support can be used to deliver mechanisms for logging issues or for providing on-demand training material to end customers. The two largest vendors by market share both have web-based material that allow their customers to learn about their software. Providing online training material may represent an initial upfront investment by vendors but over the longer term it may help to keep customers happy and reduce overall need for support. Customers that can access online training material can undertake training when it suits them, they will become more empowered as customers and they can later act as resource to others within their practices. Over time this may reduce the resource required for vendors to supply synchronous support channels.

A number of respondents commented on the use of ‘chat’ functionality provided by their vendor (Medtech). This type of interaction is semi-synchronous, with some features similar to phone support and some to email support. It potentially provides
an ability to resolve issues immediately or efficiently draft support into urgent or complex queues and divert customers to phone or email in appropriate circumstances. Customers highlighted their preference to have support issues dealt with at the time that they are logged. This response however likely comes from lower response rates or resolution times than the customer would like.

The use of remote access into the general practices systems was commented on in a positive light by many respondents. Remote access allows issues to be fixed on the spot and resolution to be immediate even in complex situations. It alleviates the need for customers to describe what they are seeing and to be guided through a complex list of instructions. Support staff can simply take control of a general practice desktop and see what the practice is seeing and undertake tasks to resolve any issues immediately.

9.1 Houston

Houston had a higher rate of email support than other vendors, with 60% using it always and another 20% some of the time (Figure 9-2).

Practice respondents reported that they receive a personalised service over the telephone. A key feature of the comments included the consistency of the support personnel. Many reported that they speak with the same support person often, which allows the support team to intimately know the practice set up and environment. This contributes to an overall rapport but also because of the specific practice knowledge the perception of increased ability to quickly resolve issues.

There are two key elements which a vendor requires in order to have continuity of support staff. The first element is retention of staff which is at times recognised as difficult in the ICT industry. Support desk roles are often seen as entry level IT positions and organisations likely need retention strategies in place to reduce staff turnover. The second element is increasing the continuity of support staff to customer
relationships is to have support staff assigned to ‘usual’ customers and to have a mechanism in place to direct customers to their appropriate support staff member where possible. This is much easier to achieve in smaller operations where there may only be a few support staff, where the chances of drawing a regular support staff member are much higher. Larger operations may use sophisticated customer relationship management systems to deal with this appropriately. There are significant issues for large operators however in creating such relationships, as it further exacerbates peak demand resourcing issues and may contribute to a higher turnover in the most effective support staff.

9.2 Intrahealth

A substantial proportion of practices that use Intrahealth as a vendor use their PHO as their primary source of support for their systems. Intrahealth have a small market share of the general practice market in New Zealand and they have a major cluster of users within the Rotorua Area Primary Health Services PHO. The practices within this PHO stated that they do not frequently utilise the support channels through the PMS vendor instead they use the PHO IT support services for help with their PMS.

Phone support was still the most commonly used channel with approximately 50% using it always or sometimes. (Figure 9-3). Email was the second most frequently used support channel with one respondent stating “that it was necessary to email first with the problem to provide some background, and even screen shots, and then they usually followed up by phoning the helpdesk 12 to 24 hours later.” Sessions and workshops and the website came in at 13% and 12% utilisation respectively.

![Support Channels Used by Practice Intrahealth Respondents (n = 11)](image)

*Figure 9-3 Support channels used for respondents using Intrahealth.*

The use of email in conjunction with phone is one potential way in which a vendor may be able to improve the resolution time of their support desk and to minimise the amount of time a helpdesk support operator is on the phone. Receiving information ahead of a phone call may enable the support desk to investigate the issue or identify
commonality of issues among several customers providing a faster and more effective resolution.

9.3 Medtech

Phone support is used by close to 90% of respondents identifying Medtech as their vendor (Figure 9-4). Respondents commented that they would prefer to stay on the telephone for a long period of time than leave a voice message or use email; a number of reasons were cited for this. A significant number of practice respondents reported that the response time after sending email or leaving voicemail was not uncommon to be up to ten working days.

![Support Channels Used by Practice Medtech Respondents (n = 136)]

Figure 9-4 Support channels used by respondents with Medtech as a vendor.

Practice staff indicated a preference to talk to someone at the time that an issue arises in order to get an answer or for it, or for it to be escalated. A commonly given reason for the preference of telephone support was the association practices have between telephone support and support staff being able to remote access the system. Remote access was perceived to be of high value and helped resolve issues for practices quickly.

Email remains to be an option of choice for some users despite the reports of poor response times for this channel.

Only 1% of respondents reported always using the website as a support channel. A number of practice staff stated that the website is hard to navigate around, and finding information on it is difficult. There would be advantages for both users and likely the vendor in moving more customers through a web-based support channel. A more user friendly knowledge management platform is something Medtech could investigate.

Medtech provides a new support channel through instant messaging called “chat with us”. Some practice staff stated that this service was really useful but it is possible that
more customers need to be made aware of it and use it. Better marketing of this channel would help to increase its visibility and usage.

Medtech’s webinars were highly regarded. Many commented that they had used these for training rather than as a support tool for staff. The concept of support encompasses both the identification and resolution of problems with the software, but should also address issues arising due to a lack of training or knowledge of a product. We see that webinars are a positive support offering but respondent comments highlight a need to associate a more system-capable workforce that is more familiar with software with a reduction in the need for support. Some respondents provided comment that additional marketing and information on the webinars that are available would be useful.

Sessions and workshops were infrequently utilised by customers at 3%. Practice staff stated these were only being delivered in the larger city centres, so they did not experience any benefit from them, or any face to face availability of the vendor staff, which was rated at 5% utilisation. On further investigation the Medtech website stated that there are general user group sessions being held in the smaller geographical regions, so maybe the advertising and marketing of these sessions could be improved. These sessions are an important part of the relationship management process between Medtech and their customers. These should be highlighted as a major advantage of the vendor, and should be promoted as Medtech providing an opportunity to listen to their end users and their needs.

Medtech outlined within their RFI response that they have end-user support groups established and run monthly sessions that provide them with advice and guidance including:

- a Practice Managers Group: meets quarterly and provides and gathers feedback from this important user group on any aspect of the application;
- a Clinical Reference Group: meets twice per year and gathers and provides feedback on the clinical application of the software; and
- a General user groups: held within different geographic regions on a monthly basis, and gathers and provides feedback from a range of Medtech customers on any aspect of the application.

## 9.4 myPractice

Telephone support is the dominant channel used by myPractice respondents with 73% reporting that they always use this for support. The remaining respondents reported that they use this channel sometimes. Use of email (20%) and the website (7%) as channels always used by respondents is in line with responses from those using other vendors. The myPractice respondents commented that when using the telephone, they usually spoke with the same support staff member resulting in a personalised service. Many respondents also commented that they almost always had to leave a message when phoning the helpdesk. After leaving a message the helpdesk would phone them back at a later time. Such a mechanism is not suitable for many people within a general practice environment requiring urgent assistance as many expect or require a quick resolution so that the system can resume normal
functionality with minimal disruption and without compromising patient care. This has an implication for the vendor in needing to address peak demand with higher resourcing or lower response times.

Figure 9-5 Use of channels by respondents using myPractice.

### 9.5 PHO Findings

PHOs appear to contact software vendors less frequently than general practice. Most use their own internal IT resources as a first line of support to solve issues with their PMS first rather than use the PMS vendor. Most PHO Internal IT resources have a high level of knowledge and understanding of how the PMSs operate including how they are used including any specialised operating environments outside of usual general practice use. We therefore expect PHOs to use helpdesk support services less for education and training related support and more for the logging of software issues and bugs.

Telephone and email are the most common support channels used equally. This is in contrast to use reported by general practices where phone support was used more. This change in the way in which support channels are used is likely due to the nature of the problems that vendors engaged on in PHOs. Because PHOs have internal IT resource it is likely that issues that they encounter are not simply training queries and may be more complex system issues. More complex issues may be more easily explained and documented by email than over the telephone; or this may also represent a difference in the level at which PHOs operate with helpdesk support within a vendor, possibly contacting level 2 support via email rather than level 1 through the telephone.

PHOs also use more face to face visits, from the vendors compared to the general practices. This would be part of the relationship management process with the PHOs, and is also probably due to the scale and size of the PHOs, and that the PHOs can then distribute the information to their practices.
The frequency with which the ITSPs reported using vendor support services was slightly less frequently than reported by PHOs. No ICT support providers reported using vendor support regularly with the majority reporting that they used the vendor support services sometimes.

The reasons for third party ICT support providers seeking support from vendors less frequently than reported by third general practice users is likely similar to the reasons seen for PHOs having a less frequency use. Most third party ICT support providers are likely to seek support from vendors only when their initial attempts at resolving issues are unsuccessful. Support requests are unlikely to include much, if any, training.
related queries. Vendors are also likely to be able to resolve recurrent issues across multiple sites without subsequent intervention by the software support vendor. This is supported in comments by the respondents who stated that usually only contact the vendor when they cannot solve the issue themselves first.

One respondent reported the frequency with which they contacted three different vendors, where each frequency varied. Houston was reported as the most contacted with an indication that they were always contacted, while Medtech was contacted sometimes and myPractice very rarely. It is difficult to draw any meaningful conclusions from such information given the lower sample number (n=1) and no further indication as to the reasons for the difference in the frequency between the vendors.

The frequency which an ITSP would contact the vendor would depend on their individual level of knowledge and experience. Those providers new to supporting general practices or new to supporting another PMS may need to access these services more frequently until their knowledge increases about the software.

Some ITSPs responded that they never use vendors support services. This seems like a strange result. This response may have been explained by ITSP responses for vendors that they don’t support; but cross-referencing this answer to the answer indicating those practices that ITSP support suggests that this is not the case. Another explanation for such a response is that the ITSP passes all vendor interaction back to their practices and they act as an ‘invisible’ third party in the transaction.

Figure 9-8 Third party ICT frequency of use of vendor services.
10 QUALITY OF SUPPORT SERVICES

We asked survey respondents to categories the quality of the support channels that each vendor provided based on their experiences. We asked them to rate the overall quality of each channel; to rate the quality of the technical advice they were given by vendor staff; and to rate the overall satisfaction that they had with the support provided by the vendor. Although it is a subjective measure it does provide an insight into whether each channel meets customer expectation. Respondents were asked to put the support channels offered by their vendors into either a high, medium or low quality category. Respondents were free to put as many or few support channels into each category as they saw fit.

They were also asked to rate the quality of the technical advice that they received into one of four categories, and then rate their overall satisfaction of the support service they received into one of three categories. Each of these was rates only once per respondent.

The major theme from respondents across for all four vendors was that quality of each channel was dependent on the issue needing to be addressed by the customer, and in the case of interactions with vendor’s staff, dependent on the staff member answering each query.

![Respondent Satisfaction with Vendor Support](image)

*Figure 10-1 General Practice respondent satisfaction with vendor support (red bars indicate 95% confidence intervals).*

The apparent difference between vendors reported by general practice respondents is not statistically significant (Figure 10-1). Application of 95% confidence intervals* show that there are overlaps of the likely real range of satisfaction between each vendor. The very low number of respondents and no variability of response from those respondents has not allowed us to calculation a confidence interval for Houston. This

* Calculated using a bootstrap with a sample size of 1,000 responses with replacement over 1,000 rounds.
means that there are no real differences in reported levels of satisfaction between the vendors. This analysis highlights the care that must be taken in comparing results between vendors with low response numbers.

### 10.1 Houston

Telephone and email were both identified most frequently as the highest quality support channel. All respondents rates both email and telephone channels supplied by Houston to be high. Written, workshops and websites all fell into the medium quality category. No respondents reported that any of the Houston channels were of low quality.

Respondents commenting on Houston’s telephone support reported a common theme of a personalised and intimate service. Practices reported that it was always easy to get hold of a staff member on the helpdesk by telephone and that they often dealt with the same people within the organisation on a frequent basis. This allowed for a personalised service and good knowledge of their practice by the support staff. The ability for helpdesk staff to gain remote access to practices while on the telephone contributed to the perceived high quality of this channel.

Houston do not appear to provide any web based support channel. Why this was rated by one respondent was not clear.

![Figure 10.2 Quality of support channels for Houston.](image)

The quality of Houston’s technical advice was rated as good by 75% of the respondents and 25% rated it as excellent (Figure 10.3).
Respondents stated that the major advantages of Houston was that they had a number of long-term staff with minimal turnover resulting in the majority of staff having excellent product knowledge. Such institutional knowledge of a system is invaluable. Overall the respondents that used Houston were satisfied with the support service that they receive (Figure 10-4).

**10.2 Intrahealth**

Telephone support was reported as having the highest proportion of respondents that rated it as high (Figure 10-5). Email had the smallest proportion of respondents that rated it as high at only 25%. The website was the only channel that received a rating of low, however the other two respondents rates it as high and medium respectively.
The quality of Intrahealth’s technical advice was rated by half of the respondents as good with an even split between excellent and moderate for the remainder (Figure 10-6). There were only four respondents that answered this question. Some respondents provided comments that showed that they were not happy with the ability of the level one and two support tiers to resolve issues. This likely contributed to a lower rating in this question. Although one respondent provided a suggestion that the vendor should remove level one and two support tiers a more practical way to address this criticism could be to upskill the first and second level of support to some degree.

Particular comments were made complimenting Intrahealth’s helpdesk staff, stating that the staff are always available via telephone and that they are very courteous and
hospitable. Respondents liked Intrahealth’s use of remote access technology to fix problems. Availability of helpdesk staff is a highly regarded aspect for a support service by our respondents. The feedback shows that the majority of practice staff want an immediate response, usually of the personalised nature that leads to quick and effective resolution of problems.

Forty-three percent of Intrahealth respondents reported that they were satisfied with Intrahealth’s support service (Figure 10-7). Another 28% were neutral, leaving 29% that were not satisfied.

There was a common theme among respondents that associated Intrahealth’s helpdesk being located in Canada and a perceived lack of local primary care knowledge for level one support staff. This lack of understanding was cited as contributing to difficulty in assisting with many of the issues raised. Some respondents indicated that they relied heavily on their PHO for support particular with matters related to national or local issues.

![Figure 10-7 Respondent satisfaction with Intrahealth’s support service.](image)

**10.3 Medtech**

Face-to-face support had the highest proportion of respondents that rated it highly (Figure 10-8) for Medtech. This support channel can be time consuming and expensive for the vendor but clearly offers a more personalised service that is perceived to have aspects practices associate with quality service. Face-to-face support is more likely to be delivered for training or relationship purposes rather than the more traditional issues which may contribute to the way in which respondents rates this support channel.

Telephone support had the next highest proportion rated as high quality but this was close to the proportions seen in email, and similar to the proportions seen in the other channels. The majority of respondents rated all these supports channels as being of medium quality. Respondents commented that email and voicemail was of lower
quality due to a perception of long response times through these channels. Telephone was preferred because of the immediacy of the response.

Written support appears to have been rated with the lowest quality profile, with approximately a quarter of respondents rating this as low; the greatest of any support channel.

![Figure 10-8 Quality of support channels for Medtech.](image)

The majority of respondents (48%) rated the quality of the technical advice provided by Medtech as good (Figure 10-9). The feedback specified that the support staff who have been with Medtech for an extended period and were known to the practices from their years of dealing with had good knowledge of the system. They found queries put to these staff were answered faster and more efficiently compared to less experienced helpdesk staff.

Respondents had concerns when they encountered helpdesk staff with lower levels of system knowledge or lacking in general practice environment understanding. Several respondents made comments that they lacked faith in helpdesk staff as often the respondents themselves felt that they had better knowledge of the system than the vendor staff they were dealing with. General practice can pose a particular challenge in this regard as it has a number of staff that have worked with the software for years and in some cases for decades. This can be exacerbated by inevitable staff turnover. Staff new to the software system need to learn in some way but can provide levels of service lower than expected when encountering experienced customers.

Some respondents commented that at times they could find the solution and fix the issue before Medtech responds to their registered issue. Such self-service should be encouraged and approached in such a way as to foster it rather than have it seen as a negative.
Another common theme arising from respondents was a lack of solutions communicated in terminology that they understood. They stated that often solutions would be relayed to them in technical terminology that they did not comprehend or could not follow.

A number of Medtech customers stated they were happy with the quality of the support provided by Medtech. The hours that the helpdesk are available and the perception that most issues were solved immediately were all common comments from respondents that were generally happy with their service. The use of remote access technology was a popular feature.

Some respondents made comments that the quality of support provided by Medtech had diminished in value over time. The value of the support services is out of scope of this review as is the assessment of support services supplied over time. Such comments however are important to note as they may contribute to how customers view the state of current services. Such comments could be attributed to the substantial increase in the size and maturity of Medtech as a company. As the organisation has grown it may have been forced to become less personalised through employing more support staff, and less timely due to the different support lever tiers.

The majority of Medtech respondents were satisfied with their support service (Figure 10-10). Approximately 16% indicated that they were dissatisfied. There is significant room for improvement in satisfaction to customers by converting some of those customers who are neutral or dissatisfied across to the satisfied category. Many respondents provide ideas as to how their satisfaction with the support service could be improved.
Advice to the vendor included the theme of keeping customers informed around timeframes for issues. This was identified particularly for issues which were going to take longer than expected. Customers said that they had a preference for receiving emails with updates on job progress and timeframes.

Another common theme revolved around improving the communication to practices both reactively and proactively. Respondents wanted more frequent interactions with practice advisors, at least quarterly; which they also cited would help the vendor to identify common themes and issues at the coal-face. Customers felt that there could be more use made of advisory emails when there were issues affecting large numbers of users. A more pro-active approach to newsletters and common tips was also called for. The use of groups such as PMAANZ may also prove useful to vendors in engaging at practice manager level.

10.4 myPractice

Face-to-face support had the highest proportion of respondents rating it as high quality (Figure 10-11). This was very closely followed by telephone support. Workshops, website and written channels then followed in decreasing order.

Respondent feedback indicated that myPractice does a lot of face-to-face work with the set-up and configuration of the practice system as it is highly adaptable to individual customisation. This could explain why face-to-face visits rated so highly in this result. One respondent commented that this high degree of individual practice customisation of the system leads to an increased need for good support; potentially making the task for helpdesk staff more difficult in the long run.

Other comments stated that the helpdesk staff are always very helpful, and customers were satisfied once they got hold of them. A criticism was that emails to the support service were often not replied to.
The majority of myPractice respondents rated the technical quality as good (Figure 10-12). No respondents rated the quality of the advice as poor. There were no specific comments directly related to myPractice’s technical advice.

The myPractice respondents reported that the main advantages of myPractice’s support service were that they were always accessible and fast at responding. Their remote assistance was identified as being invaluable and is used to get a resolution to problems quickly. One of the respondents commented that a significant advantage of myPractice was that the director and developer of myPractice is a General Practitioner so has a good understanding of any issues that arise. Another respondent commented that the helpdesk know them as customers personally with myPractice staff visiting
their site regularly as well as the practice staff visiting myPractice to access training on a monthly basis.

The majority of respondents were satisfied with the support they received from myPractice (Figure 10-13). There is room for improvement in this figure however with only 53% of respondents being satisfied. There were a number of improvements suggested by respondents.

Respondents identified a theme of wanting improvement in timeliness in answering telephone calls and also in responding to emails. There were also some requests to have dedicated helpdesk staff to facilitate the support process.

The request for more dedicated helpdesk staff is in contrast to those respondents from other vendors who identified that they wanted few helpdesk support tiers and more direct access to more technical staff. This perhaps illustrates the dichotomy of software vendors trying to find a balance between providing direct access to technical staff to facilitate immediately resolution of issues and providing sufficient staff focused on helpdesk processes and able to answer calls and emails in a timely fashion.

Figure 10-13 Satisfaction with myPractice support.

10.5 PHO Findings

PHO respondents rated face-to-face support in the largest proportion of high quality support channels across all vendors (Figure 10-14). The website, workshops and written channels appear to be the next most popular with phone and email both with the largest proportion of respondents who rated it low.

The comments include that even though face to face visits are normally of a high quality; the delivery of agreed action items is always disappointing, and they are rarely delivered in a timeframe that works. Other comments surrounding the face to face visits includes that while the knowledge gained is useful, the PHOs did not come for a
'sales pitch' and their valuable time could have been used more productively. This is something that could be easily amended by all PMS vendors visiting the PHOs.

Phone support was rated as low quality by PHOs frequently in contrast to how practices generally saw this support channel. The PHOs would experience the same response times as the general practices for email and telephone responses and many expressed their frustration at the lack of urgency to respond through these. Many PHOs stated that by the time the vendor had returned their telephone call or email they had usually solved the problem themselves. One PHO stated that rather than use telephone or email due to the lengthy delays they prefer to use the vendor’s e-learning modules for any user queries. This response may indicate that the expectations of PHOs are different to practices.

Some PHOs provide support to their practices and require assistance while they are on-site in those practices. It was reported that Medtech previously had a separate PHO telephone helpline to deal with this situation, but this has since been closed. Such a solution may help to balance the differing expectations of PHOs compared with general practices.

![Support Channel Quality for PHOs](image)

*Figure 10-14 Quality of support channels for PHOs.*

Most PHO respondents rated the quality of the technical advice received from vendors as moderate to good (Figure 10-15). Many PHOs stated that the first level support was good in regards to providing simple advice around operational user issues, and product knowledge. More complex issues were a problem dealing with support at this level as it required knowledge of the database and the user interface interactions which most level one support staff appeared to lack. Time to escalate the issue was cited as taking too long in most complex cases The PHOs reported that feedback on progress of issues was poor and some issues remain unresolved for extended periods of time.
Some of the PHOs made specific mention that myPractice helpdesk staff seemed knowledgeable, well informed, very responsive, were good communicators and were able to action changes efficiently. It was noted that this vendor’s helpdesk appeared very busy and this was associated with heavy delays that were experienced at times.

It was identified that Medtech helpdesk staff had good communication skills, responded immediately with someone always available on the telephone, and while issues could be discussed intelligently at lower levels many of the issues needed escalating to other support tiers.

The PHOs stated the main reasons that they utilise the PMS vendors’ support services were for technical error resolution and product change requests. The support service appears also to have been used by the PHOs extensively during initial set ups and configuration of new systems. A common observation made by respondents was that PHOs have highly expert knowledge of the PMS software and in a number of cases this knowledge exceeds that found at the lower support levels. This situation can lead to frustrations for some PHOs in the perception of wasted time dealing with lower support levels for highly complex or contextual issues.

PHO respondents indicated that they use the vendors support service for second level support queries and higher. They comment that most first level support questions are solved internally within the PHO. A common issue cited was trying to relay issues related to reporting of data, where complex interactions from the user interface of the system were represented in unexpected ways in data or reports. The amount of time taken to explain such issues at lower support levels was cited as being unreasonable and provide a level of frustration.

While approximately 1/3 of PHO respondents indicated that they were satisfied with the vendor support services that they used, a quarter were dissatisfied (Figure 10-16). This level of dissatisfaction is much higher than the overall level of satisfaction indicated by practices. This is possibly a reflection of the common theme of frustration.

Figure 10-15 Quality of technical advice to PHOs.
of dealing with low level support for complex issues for which PHOs report that they deal with a higher proportion of than practices.

A number of PHO respondents made comment that they felt that the support services offered by vendors were improving, including in the variety of support channels that were being offered.

PHO respondents made a number of suggestions in the ways in which they felt that helpdesk services could be improved upon by vendors. These could be classified into four main themes; improve communication about job status and escalation; expedite support escalation for appropriate customers; upskill lower levels of support staff particular in contextualising how vendor software is used; and continue to develop self-help materials and channels.

PHO respondents indicated that they at times are not aware of the priority or timelines that have been assigned to issues that they have raised. In order to ensure that all customers can query the status of their issues, all channels into vendor support services should assign a unique issue identifier (often called a ticket number). Such an identifier should then be encouraged to be used in all communications about a particular issue. The establishment of clear service level agreements and issue prioritisation may also help customers to understand the likely time in which they can expect to have their issue responded to and resolved.

Dealing with the lower level support is clearly a frustration for PHOs. They have suggested that this could be approached more usefully by providing an expedited process when PHOs call. Such a process may involve directly bypassing level one support or providing clear guidance to level one support on a reduced timeline in understanding and trying to resolve the issues logged at these levels. Developing a closer working relationship between the PHO staff and vendor staff may also help to establish better working rapport.
It may be possible to provide lower level support staff with more context to the software they support to help them understand more complex issues that are raised. PHOs respondents have suggested that having some support staff spend time in practise and PHO environments to understand how they systems are used and the impacts different issue have may address some of the situational aspects of providing support.

PHOs have indicated that they make extensive use of self-help material and channels provided by vendors. Further development of this material for use by PHOs would be welcomed by this group of customers. Many respondents mentioned that webinars provided by Medtech have been well received and useful and act as a good first line of support by allowing them to direct practices with queries to these webinars where appropriate. Such self-help mechanisms alleviate helpdesk calls in the longer-term.

10.6 IT Support Providers

It is very difficult to draw any conclusions from the quantitative data provided by ITSPs because of the low number of responses for all vendors but Medtech. The comments themselves are more useful to provide general themes.

A regular comment in the ITSP respondents was that the quality of the support provided by the vendors was highly variable dependent on who you were dealing with. This indicates that not all staff provide similar levels of support quality.

The themes shared in common with the general practices and PHOs were that response times could be improved and email as a support channel needed to have a clear and reliable process. It would be useful to have communications which outlined known issues and bugs and possible resolutions to avoid having to log calls as well as having better communication around software updates and when they are available. ITSPs also identified that a higher level of training for level one support would help expedite a number of calls to be elevated appropriately.

The ITSPs reported a mixed reaction to their satisfaction with vendors, being almost evenly distributed between being satisfied, neutral and dissatisfied.
11 RESPONSIVENESS AND RESOLUTION

Two questions within the survey covered the performance metrics that involve reviewing the level of responsiveness of the support service, and also the level of resolution. We define response time as the period between an issue being registered and when that issue is first investigated. Different vendors applied different metrics and definitions. We would not generally include any generic responses such as through an automated ticketing system as a response (although issuing such information we would consider best-practice). An automated ticket system within a helpdesk allows vendors to provide their customers a quick indication that their issue has been registered and this would usually provide them with a unique identification number for that issue. It is possible for some ticketing to provide an estimation of time to resolution.

A number of respondents stated that they received automated tickets or responses upon registering their issue. There was a common theme however that indicated that they seldom received updates on the progress of their issues until the issue was resolved. It would be appropriate to update customers on the progress of issues where they were long running or exceeded the expected time for resolution.

Resolution is the period between registering an issue and when the customer no longer experiences the issue or its impacts. Again the definition can vary widely and some vendors will measure resolution time as the amount of between the issue being responded to and resolved. We prefer the former handling of the metrics as it represents the period of time a customer is inconvenienced, where the former provides a downward bias in this metric for vendors with poor response times.

It is considered good practice to establish appropriate service levels for support with customers that outline appropriate response and resolution times and targets dependent on the priority of an issue. Such information is usually contained in a service level agreement (SLA). These agreements may be applied with different terms and metrics dependent on the level of support purchased or type of customer.

It must be noted that the question we asked in the survey asked for a typical timeframe. We acknowledge that this likely represents level one support for practices and high level support for PHOs and ITSPs due to the nature of the requests that they field. The question and responses are intended to be used as a guide to responsiveness and ability to resolve issues rather than assessment of performance to any SLA that a vendor may provide.

11.1 Houston

The predominant view from respondents was that Houston usually responded within less than a day (Figure 11-1) and usually resolved issues within 2-4 days (Figure 11-2). It is usual for resolution timeframes to be higher than response timeframes and this shift seems reasonable.
11.2 Intrahealth

Intrahealth appears to have an excellence response time with respondents reporting a large proportion of typical responses in less than a day and within 2-4 days. One respondent reported that Intrahealth’s response times were always greater than a week but this went against the general trend.
The resolution timeframes were generally well reported. Intrahealth appears to usually resolve issues within 1-4 days. Some respondents reported that some resolutions took longer than a week.

It is typical for vendors to take longer to solve some issues. Intrahealth has clearly defined service level targets with both timeframes and percentage of issues they aim to meet such timeframes. They set a target to meet their service level timeframes 90% of the time. The survey results reported would be consistent with this target.

**Figure 11-3 Typical responsiveness of Intrahealth.**

**Figure 11-4 Typical resolution by Intrahealth.**

### 11.3 Medtech
Respondents reported that Medtech usually responds within 1-4 days and sometimes within a week (Figure 11-5). Less than 20% of respondents reported that they always or usually took greater than a week to respond.

Figure 11-5 Typical response time for Medtech.

Medtech's resolution times were slightly higher than their response times but followed a similar pattern. Most respondents reported that Medtech resolved issues always or usually within 1-4 days. The frequency with which a week or more was reported was slightly higher than the response times.

Figure 11-6 Typical resolution times for Medtech.

The large variation in the reported response and resolution times (with respondents stating always or usually from less than a day to greater than a week) may be a reflection on the typical nature of problems for which different users use the Medtech
helpdesk. Some respondents commented that the timeframes were very dependent on the specific issue or question being raised. Straight forward issues were often resolved quickly but the more complex issues took a week or more particularly if they required software changes. The variation in resolution time may be accounted for across practices by variation in the different abilities of staff within practices. A practice that is able to solve a high proportion of their own issues without involving the vendor helpdesk will then typically only use the helpdesk for more complex issues. In such a situation the typical resolution for such customers according to the observation of respondents would likely be longer than if they raised a higher proportion of non-complex issues.

Several respondents commented that resolutions to some of their issues had never been found and no feedback had been provided on these. Customers were clearly frustrated about such cases.

Some practices noted that they tended to log their issues with both the software vendor and their ITSP simultaneously in the hope that one party will resolve their issue quickly. Although this approach may work in some situations it may contribute to confusion in communication and apparent lack of response back to practices directly by vendors (where the vendor may be communicating with the ITSP). Pathways into support should be clear to all parties involved including vendors, practices, PHOs and ITSPs. Such agreed pathways may be covered within an appropriate SLA.

### 11.4 myPractice

Respondents using myPractice identified that most of their queries receive a response within one working day (Figure 11-7). The resolution timeframes were slightly longer than this (Figure 11-8). Having resolution timeframes slightly longer than response times is expected.

Respondents commented that remote access helped to have a substantial number of issues resolved immediately. They also identified that issues that required software updates tended to take longer. These comments may explain the apparent change in response time in both the 2-4 day and >1 week resolution which may represent resolution of less and more complex problems respectively.

The vendor commented in their RFI:

> “now we are growing in size we are reviewing how we can formalise a process of keeping customers informed about progress on their issues”

Customers who are well informed as to the progress of their issues may perceive the wait time for response and resolution to be less. Ensuring good communications may not reduce resolution time but may change the customer’s perception of it (which is what is reported in this survey).
11.5 PHO Findings

The PHOs involved in this survey stated that the PMS vendor’s response times were variable but that the majority of queries were acknowledged within one working day (Figure 11-9).
A distinctive feature of the PHO responses for resolution time was that no respondent stated that vendors always responded within a day (Figure 11-10). This would be consistent with comments received in practices that noted that resolution for more complex issues took longer. If most queries that arise from PHOs are complex then this type of response is to be expected.

Specific PHO comments noted that although vendors had automated generic acknowledgements when issues were logged, actual follow-up could at times take several days. For PHOs the time to resolution can take longer than for the practices, as most issues escalated to the helpdesk are “out of the ordinary” complex issues that the majority of the time require second level or greater support.
11.6 IT Support Providers

Both Medtech and myPractice were reported as responding quickly within a day by ITSPs. Houston and Intrahealth were reported as typically responding within 2-4 days.

One comment stated that email tended to result in a much slower response and therefore resolution than telephone support. It was noted that the difference was typically less than a day for telephone support and more than a week for email.

Resolution times were reported as being remarkably similar to response times.
12 COMMUNICATION MECHANISMS

Communicating effectively with customers is a crucial component of a support service. Regular communication with customers over and above the helpdesk support and release notes keeps customers updated and knowledgeable about the product and services. It ensures the proactive sharing of information and not just the reactive notification to practices when bugs and fixes are identified. If communication is undertaken appropriately and effectively this can reduce the volume of incoming and outgoing helpdesk calls.

Communication within the helpdesk environment is an important two-way channel, and it is essential that good communication is the foundation through all helpdesk channels. A helpdesk staff member must gain a user’s trust and confidence. They must show respect to the user in terms of not making the user feel inferior with their issue, and that they are their priority at that point in time. The user must feel listened to, and must be adequately supported to help resolve the issue.

Ideally the user completes the query feeling like there is progress towards finding the solution, or satisfied that it is resolved. Expectations need to be set right from the outset, so that if the query needs escalating then this is explained to the customer and the reasoning behind it. If the user completes the experience with the helpdesk feeling satisfied or confident that their issue will be resolved efficiently, then their perception of the service and even the product as a whole remains positive and intact.

The use of online portals that provide customers insight into support can be extremely helpful. Figure 12-1 shows a screenshot of one such system in use by a New Zealand IT services company. Although the information is basic it gives the user an idea of how busy the support service is overall, and when they may typically receive a response from the vendor.

![Support Queue Snapshot](image)

*Figure 12-1 Example of basic real-time online information of support demand and response.*

It is also possible to publish more detailed metrics for those customers that are interested (Figure 12-2).
12.1 Houston

Within the survey responses there were no specific comments about Houston’s proactive communication mechanisms for their users, nor was it covered in their RFI response so it is difficult to determine if and what communication methods they use to communicate with their customers over and above their traditional support service channels of telephone and email.

One of the survey questions covered the quality of the communication customers receive about updates, fixes, issues, and information on new products and services. Eighty percent of the Houston respondents rated the communication as moderate, and 20% rated it as good.

Helpdesk phone skills was rated by the PHOs as being evenly split between sometimes, regularly and always having good communication skills on the phone.

The majority of Houston respondents (75%) contact their PMS Vendor’s support service first if they have an issue or query with their PMS. ITSPs were are contacted first by 25% of respondents.
12.2 Intrahealth

Two Intrahealth respondents rated the quality of the communication they receive in terms of updates, fixes, issues, and information on new products and services as moderate.

The frequency of good communication skills being encountered on the phone from helpdesk staff was relatively evenly spread between sometimes and always. Slightly more respondents indicated that the Intrahealth helpdesk staff always displayed good communication skills than the other two categories.

Half of the respondents indicated that they contacted their ITSP first with general PMS related issues. Only 22% contacted Intrahealth first. This reflects the reliance and importance of ITSPs in the support process. After a new software released 80% of respondents said that they contact Intrahealth first.
12.3 Medtech

The survey feedback identified that Medtech communicates to their customers via a number of proactive mechanisms including regular communication via emailed newsletters, faxes, and through their website. One of the survey questions covered the quality of the communication customers receive about updates, fixes, issues, and information on new products and services.

The majority of respondents stated that Medtech’s communication quality was either excellent or good. Ten percent rated the quality of their communication as being poor. Many comments stated that communication was regular but they felt that the newsletters and faxes had dropped off recently.

Other comments noted that general practices weren’t being notified of software fixes and questioned whether these were being channelled through other channels such as ITSPs or PHOs (and then not being passed onto practices). Respondents showed a preference to have general PMS related communications coming directly to them rather than going through other parties.
The frequency with which respondents encountered good communication skills by helpdesk staff was reported by almost all respondents as ranging from sometimes to always. There was a theme from respondents that although the communication skills were generally good, the helpfulness of support staff was diminished because of a perception that they often lacked the ability to resolve problems.

Half of respondents indicated that they contact their ITSP in the first instance when they experience general PMS issues. Only a third cited the vendor as their first point of contact. Ten percent of respondents said that they contacted their PHO first.

When dealing with issues after a software release, two-thirds of respondents indicated that they contact their ITSP in the first instance, with a subsequent drop to approximately a quarter who contact Medtech. This further reinforces the importance of the vendor in engaging ITSPs to help support their product. General practices clearly have a dependence on ITSPs to provide their front-line support.

### 12.4 myPractice

Respondents rated myPractice communication from excellent to moderate with most responding in the good category. The frequency with which respondents reported good communication and phone skills from the myPractice helpdesk ranged from sometimes to always, with most responses falling into the regularly and always categories.

The vast majority (80%) of respondents reported that they contact their PMS vendor for general issues in the first instance with the figure (82%) being about the same for issues relating to new software releases. ITSPs are used by respondents as first-contacts only 13% of the time.
The PHO responses were more varied than general practice with the responses on the quality of the communication provided by the vendors as ranging from poor to excellent. Over a quarter of the PHO respondents rated the vendor communication as being poor; much higher than the practice responses. Over half rated the communication as good.

The difference in the way in which PHOs rated the vendors may be related to the different needs of PHOs compared to general practices. The information that PHOs may want in communications may differ from that which a practice wants. The level at which the communications are pitched may also be different between practices and PHOs.

PHOs rated the frequency of good communication skills experienced with helpdesk staff to be the same overall as practices rated their experience.

### 12.6 IT Support Providers

The ITSPs in general rated Medtech as having a communication quality slightly higher than Intrahealth or myPractice. No ITSP provided a rating or comment on Houston’s communication quality. Overall the ratings from ITSPs were lower than that seen in both general practice and PHOs. This may also be explained by ITSPs requiring different types of communication to support their practices than the practices themselves or the PHOs.

Vendors could make use of the significant amount of work that ITSPs do to support the environments and systems of general practice. In order to do this they may need to tailor their communication to this audience more specifically.
13 RELEASE MANAGEMENT

Release management is the process of managing software releases from the development stage to delivery of the software to the customer in an operational environment. Release management should be an integral part of the work programme for the PMS vendors. There is significant risk associated with delivering releases into a live environment as it can potentially interfere with daily operations if issues arise; and ultimately could impact on the quality of patient care patients. Releases may be made on a regular or planned schedule or completed in a responsive or more ad-hoc fashion.

New software releases have been identified as a time when the use of support services by customers is essential. A significant amount of support is sometimes required to resolve issues relating to new software releases. There is often coordination required at the time of releases between the software vendors, practice, ITSPs and at times PHOs.

Practices see the installation of updated PMS software as an activity that represents high risk. Updates are seen to consume a large amount of internal resource and time and therefore are costly. Many of the releases are required to be run after hours due to the need for a backup and restore process. There is also a perception that updates frequently require patches and fixes to correct new problems that they introduce. This further compounds the perceived problem, with patches and fixes themselves being susceptible to the same issues as the updates that they are designed to correct.

It is normal for practices to backup their environment, data and systems prior to installing software updates. Survey respondents noted that this was usually a time-consuming exercise that required specialist technical resource (usually an ITSP) and therefore incurred real costs for the practice. The common perception is that releases often contain bugs that require subsequent updates to correct newly introduced issues.

Many survey respondents indicated that they had little faith in the testing of software before it was released to customers. Such comments were often made in close proximity to comments that relayed the perception that software releases often required patches and fixes.

Practices indicated that they delay the installation of software updates because of the risks and costs associated with them. Their perception is that if they delay installing updates, they will be able to undertake the update and subsequent patches in one go, minimising disruption and overall cost. This contributes ultimately to slow uptake of new software releases.

Delaying upgrading to new software versions has a number of consequences. It could mean that practices can become outdated with legislation and compliance. This in turn can impact patients with regard to funding. It can also adversely affect the clinical care of patients if there are changes to pharmaceutical or immunisation schedules within the releases.

Many practices report contracting ITSPs to complete releases. This provides some efficiency, where problems with any particularly release are encountered, the lessons
learned can be translated more efficiently by the ITSP to subsequent practices they are performing updates to. Engaging ITSPs effectively around software updates could help software vendors improve customer experience.

One PHO reported acting as a ‘trial site’ for practices for updates. The PHO will run the updates against their own PMS first and advise practices if they encounter any problems.

Practices that do not keep up to date with PMS releases place a burden on support services. It means practices are using different versions of the software which may behave differently or have different capabilities. This increases the cognitive load on helpdesk staff, having to remember the operation of more than one major software version at a time. The helpdesk staff could save considerable effort if all practices were on the same up to date version of the software within a small window of time.

Releases have also previously caused problems with third party applications. Such third-party applications are used for a number of key functions within general practice, including electronic referrals and clinical calculations.

Impacts on third party applications further complicate vendor support. It is labour intensive for helpdesk staff to try and disentangle issues with the releases and the effects they have on third party applications.

Customers would like to see more information on the improvements and modifications that are made in each software release.
14 TRAINING

Respondents identified that training is an area that vendors could broaden and improve their offering more generally. Comments suggest that most training on PMSs is done by the practice with existing practice staff. Training is usually only delivered when new staff start.

Continuous or regular training was rarely identified and many respondents commented that they would like more training for their staff. Cost and limited locations where training was offered were cited as major barriers. Many PHOs supply training to their practices. This is popular with practices as it is free or low cost and is more run locally.

Most PHOs provide internal training to their own staff. This is usually delivered by their own IT or Practice Liaison teams. One PHO stated that Medtech sometimes offers training to the PHO, which is opened up to practice staff as well. MyPractice also train staff with new implementation and set ups but feedback stated that this was then not on-going.

Providing self-help resources so that people can undertake training in a convenient way is becoming more popular with some vendors. Medtech provides webinars, myPractice have online forums and online tutorials so that users have a mechanism to help each other. Both of these mechanisms received substantial positive feedback. Although these types of materials have a high up-front development cost, they can potentially reach a broader range of customers and in the longer run can be more cost effective. Ultimately well trained staff are likely to generate fewer helpdesk issues as training related interactions will be eliminated or vastly reduced in time or complexity.
15 CHALLENGES FOR PMS VENDORS

The PMS vendors provided feedback as part of the RFI process on the challenges they experience providing support services. Customers have some responsibilities in the support relationship that they share with their vendors. This question provided vendors with a chance to highlight those areas that they identify as important. The issues identified can impact on how a user views both the software and the support service.

Vendors find it difficult at times to gain remote access to practice servers. They find the use of remote support tools to be very helpful. This mirrors the experience of general practice. Remote support tools allow vendors to quickly and easily access systems as though they were present within a practice. Most remote support tools require a user to intervene to allow the vendor access to the system. Where a user must access the server this can at times be difficult. Additional training within practices to help staff understand how to access the practice server and authorise the software vendors to have access to them may help expedite some support issues.

Vendors report providing support for software running on often old, underspec and poorly configured hardware. Software is only as good as the hardware and environment in which it runs and that which runs in an environment that is less than ideal will experience problems more frequently. This situation can increase the down-time for practices, it can increase the amount they pay for ITSP services and it increases the burden on software vendors. For the vendors it is often a variable that is out of their control. Vendors should strive to produce realistic hardware specifications that clearly state a minimum and recommended level. They could work with ITSPs more closely to establish an understanding of those sites that have ongoing hardware issues that are impacting software performance.

Some ITSPs are not familiar with the software that general practice use to run their businesses and this can negatively impact upon the vendors support services. The skill level of ITSPs varies significantly. Some ITSPs specialise in providing support to general practice and know the PMSs and how they operate and are configured well. Others operate more general ITSP services. Vendors could encourage the use of skilled ITSPs by establishing a continual certification programmes of individuals and organisations (not once off). Such ITSPs could be given preferential access to vendor support services. The use of such ITSPs could be encouraged through incentives in reduction of support costs for those practices using such services.

Vendors find the support of third party integration into their software challenging because cause and responsibility are not always clear. A substantial eco-system has developed around the PMSs with additional tools that help practices operate. These tools often provide functionality that doesn’t exist with the PMS. In many circumstances they have become important for general practice to operate. Tools that do a good job of seamlessly integrating with the PMS can at times cause confusion for the end-user, who may not be clear where the PMS core software ends, and the third party tool begins.
16 FUTURE CONSIDERATIONS

There is clearly a need to advance the quality and responsiveness of support provided by all the current GP PMS vendors. This review provides some insight into areas that may have the most impact on customer perception of the support that they receive.

General practices report that they are requiring increasing levels of support from their ITSPs. There is a growing demand for the support model in which these practices pay a maintenance fee to the ITSPs who deliver helpdesk support across the whole practice’s IT operation. This has advantages for practices where they do not have to liaise with their PMS vendors support service their ITSP does most of this on their behalf. It also provides an advantage for practices having to interact with only one service providers, with the ITSPs working with hardware, GP PMS and secure messaging vendors as appropriate.

Such support agreements usually involve a premium contract for the practices with their ITSPs, and the cost for this magnitude of support is growing. Some practices have reported the cost to be roughly equivalent to that which they pay their PMS vendor for license and support fees.

Some PHOs have reported using their management fees to employ staff that provide support to practices on general use of PMSs and more specialist support in the use of PMSs in relation to local and regional programmes. Most practices are not directly charged for this type of service.

The GP PMS vendors may need to look at their support models and how they work in synergy with the other areas of support that practices use. The ITSPs normally provide services to a number of the general practices and therefore they have scale and represent an efficient channel of communication for general practice. Survey respondents have suggested particular approaches that would improve the support for practices overall.

An option the vendors could also consider is to only provide access to these advanced support routes described above for the practices that have PMS certified technicians as an incentive to increase the uptake of these courses, and boost certification numbers. Alternatively it may be possible to extend the certified technician concept to certify support companies in supporting their PMSs.

In terms of improving responsiveness and resolution all PMS vendors need to work on improving the basic turnaround times to their customers. In particular, with emails, as email would then become the preferred communication mechanism rather than time and resource intensive telephone calls by all those involved. Greater utilisation of email would also allow for more effective and robust triaging of issues, and prioritisation by the vendors.

A few of the PMS vendors are investing resources both operational and capital into developing new non-traditional forms of support such as the instant messaging option to meet the support demand, while this is showing innovation, and attempts to keep up with new technology mediums for the different audiences. The question needs to asked if this is the most appropriate investment, as the survey results show that the traditional forms of support are still not hitting the mark completely in terms of
quality, and response and resolution rates. Maybe further investment could be better balanced by also improving the traditional support mechanisms already in place such as telephone, written material, and in particular email.

Communication is another avenue that is open to improvement, while a lot of communication by the vendors is now done via release notes (a few of the PMS vendors also have regular email newsletters) the ability to work closer with the PHOs and Ministry of Health would assist with the development of this communication. For example, the Ministry of Health needs to provide more contribution to the development of the release notes, as these notes usually guide the general practices on the changes, not only from a software perspective but also provides the background to the new legislation or projects to justify the changes to the software. These organisations need to be a joint contact point for questions raised by general practice staff. Currently the helpdesk support staff can get bombarded with non-software specific questions in regards to the changes. The helpdesk staff then receive the brunt of the frustration when staff do not understand the new changes being introduced.

Based on the feedback on release management across the four vendors, it is suggested that a full internal review is completed by each vendor on their release management process. Including the interaction and requirements with the external organisations involved in assigning and funding some of the releases. Any improvements identified and applied in this area would be greatly appreciated by the primary care sector, and would contribute to a reduction in frustration that occurs not only about the support service but the entire software as a product.

While utilising the available training is a major responsibility of the general practices, a large success factor in this area has been the development and availability of the webinars and online tutorials developed by Medtech and myPractice. The biggest advantage identified is that they can be accessed from any location, and are free of charge. There is a great opportunity for these to become more comprehensive training modules, and cover more training topics particularly for new staff, and regular updates for more experienced staff. Practices may then be more willing to access these for their staff at a very small charge, as this would save them time and resource when training new staff, and prevent the possibility of passing on bad habits or workarounds that have accrued over the years. It would also allow for the regular up-skilling of current staff.
17 CONCLUSION

While all vendors provide aspects of their support services that are appreciated by their customers there is however a substantial amount of room for them to improve their overall satisfaction levels. The size of each vendor appears to shape the way in which they provide their services to some degree and while the majority of respondents prefer a personal touch when it comes to support it is acknowledged that as vendors scale in size this may not always be the most efficient or effective way to provide support.

The emergence of email as a way to log support jobs has many advantages but the majority of vendors need to ensure that it is treated with equal reverence to ensure that practices are comfortable in using it. Presently the feedback suggests that email is a second line support channel and does not have the usual rigor that normal phone support would have when coming to processes that ensure reasonable response and resolution times.

An increasing emphasis on training appears to be a good long term strategy to up-skill the workforce. Each vendor must of course determine the right balance between face-to-face and online training that they offer. Ultimately a workforce well trained in the software products that they use will require less support over time.

The way each audience (practice, PHO, ITSP) rates the vendors’ abilities to deliver support services varies considerably. This may be an indicator that the traditional support model established for practices does not suit either PHOs or ITSPs well. The needs of the later appear to require expedited access to level 2 and 3 support tiers. Achieving this in a sustainable and appropriate way for each vendor will help to improve the experience for all audiences as PHOs and ITSPs continue to provide increasing amounts of support to the software-vendors’ customers.

There is a large reliance on ITSPs, and they are being used increasingly to navigate the general practices’ support requirements on their behalf. This could be for a myriad of reasons:

- it is too time intensive for practices and they are busy enough as it is
- they are not confident technically to communicate with the support staff
- they feel that the providers receive better outcomes, or
- they have become unsatisfied with the level of customer service that they receive from their vendor support service

Changes or improvements to the support models currently provided may need to be seriously considered and applied by the PMS vendors so that the level of frustration experienced by some of their customers can be reduced. The level of frustration experienced with a helpdesk service can taint the perception of the software and its performance. A helpdesk can be the only point of contact for customers in which they get to interact with a software company on a personal level so inherently the helpdesk becomes the face of the company.

The vendors are attempting to deal with a major balancing act in which they have to manage customer and stakeholder expectations, along with delivering good services, and ensuring excellent software performance. However, general practices and PHOs
are pay support fees, so expect a support service for this investment that is fit-for-purpose. While we acknowledge that this is not an easy task at times becomes of the competing demands that they all face; we also believe that they can continue to strive to improve the services that they currently offer.

We have compiled a list of recommendations that if followed should begin to address a number of the issues raised by customers as a part of this review. We would like to see vendors consider these recommendations and work towards achieving them in the coming months.
18 APPENDIX 1

The following section is an extract from the Request for Information process completed by each of the four individual PMS Vendors, in response to the section on support services.

18.1 Houston

<table>
<thead>
<tr>
<th>Support</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What processes do you have in place for your help desk</td>
<td>Helpdesk staff receive phone calls, faxes and e-mails. Where necessary on-site visits are taken</td>
</tr>
<tr>
<td>2. Outline what levels of support you offer</td>
<td>Available from 0800 to 1730 5 days a week and unlimited after hours for emergencies.</td>
</tr>
<tr>
<td>3. Do you follow any specific support methodology?</td>
<td>Our own designed in-house</td>
</tr>
<tr>
<td>4. What tools and techniques do you use for release management?</td>
<td>Our own designed in-house. All tasks are recorded, priority is given and projects assigned to the appropriate people.</td>
</tr>
<tr>
<td>5. Describe what tools and systems you have for support management and call tracking?</td>
<td>Our own system designed in-house which records all phone calls, faxes and e-mails and the response given to the question. Alerts are automatic if a follow-up has not been made in the appropriate time.</td>
</tr>
<tr>
<td>6. What end-user support groups do you have? How frequently do they meet and what do they cover?</td>
<td>We have found that personal visits are more useful than user groups.</td>
</tr>
<tr>
<td>7. What hours of support do you cover?</td>
<td>As above</td>
</tr>
<tr>
<td>8. What are your targeted turnaround times for a. Critical faults and bugs b. Other categories of bugs and faults</td>
<td>Critical faults and bugs deserve immediate attention and given the category of zero. Other categories are given an assignment of 1 to 4 and are worked through on the number of individual requests for each task in each category</td>
</tr>
<tr>
<td></td>
<td>Support</td>
</tr>
<tr>
<td>---</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>9.</td>
<td>What is your standard release frequency</td>
</tr>
<tr>
<td></td>
<td>a. for patches?</td>
</tr>
<tr>
<td></td>
<td>b. for version releases?</td>
</tr>
<tr>
<td></td>
<td>For patches as required. For version releases usually three per year.</td>
</tr>
<tr>
<td>10.</td>
<td>Describe how your updates are distributed to your users</td>
</tr>
<tr>
<td></td>
<td>Updates are distributed via the Internet unless a disc is specifically</td>
</tr>
<tr>
<td></td>
<td>requested</td>
</tr>
<tr>
<td>11.</td>
<td>What challenges do you face in providing support?</td>
</tr>
<tr>
<td></td>
<td>Only the usual! Managing staff and living up to customer expectations.</td>
</tr>
<tr>
<td>12.</td>
<td>Is there anything else you would like to add?</td>
</tr>
<tr>
<td></td>
<td>I think you have covered at all</td>
</tr>
</tbody>
</table>
## 18.2 Intrahealth

<table>
<thead>
<tr>
<th>Support</th>
<th>Intrahealth is certified to ISO 13485. As part of this certification Intrahealth has processes in place around our Help Desk.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What processes do you have in place for your help desk</td>
<td>The support centre is staffed 18 hours per day with afterhours support provided for severity 1 items. Intrahealth offers standard help desk services, through our support centre. Currently staffed with 10 support centre analysts and 1 support manager, we address and grow this team based on the number of clients we have. Support centre analysts assign a ticket to every call received, which is tracked in our tracker system for follow up. They assign severity and priority and classification, answer how to questions, and escalate to level 2 support as required. We have 3 levels of support: Level 1: Help Desk support analysts. Level 2: Application analysts: Investigate and resolve break fix incidents, and develop workarounds. Level 3: Developers and System Architects. Investigate and develop code break fixes. Staff Qualifications: Level 1 helpdesk staff ranges from 1-4 years’ experience using our software. They are generally hired with some relevant previous experience – either technical, help desk, or industry related. Level 2 Application Analysts range from 2 to 6 years using our software, and are generally hired with a more technical background or range of experience. Level 3 (BA and Development) range from 3 to 15 years of experience with our software and generally have both a degree and experience in their perspective fields. Intrahealth offers support via the following: Telephone Remote On-site Web based forum support for logging and tracking logged events</td>
</tr>
<tr>
<td>2. Outline what levels of support you offer</td>
<td></td>
</tr>
<tr>
<td>3. Do you follow any specific support methodology?</td>
<td>Intrahealth is ISO13485 certified, a standard specific to medical technology and much more stringent than the 9000 series. It covers sales, development, support and all aspects of sustaining the customer in a safe,</td>
</tr>
</tbody>
</table>
4. What tools and techniques do you use for release management?

Intrahealth has a systematic and process driven approach to release management. Once again these have been ISO 13485 Certified and meet all the requirements for that standard. We have now been certified for 3 years.

5. Describe what tools and systems you have for support management and call tracking?

Every Support Call/E-Mail is assigned a unique incident number. This is created by the support analyst, or automatically created and E-mailed to the client if the incident is e-Mailed, or sent via the Self Service Center.

Incidents are managed and tracked in our “Tracker” software system, specifically designed for professional help desk services. Any contact is then tracked against the unique incident, with status updated. The client may at any time call for an update, or log into the Self Service Center (introduced below) to see updated associated statuses or events.

Classification: Types of request are classified as follows by the Intrahealth Support Team:

a. Query – This is a ticket related to the use of the application (E.g. How to question ticket).

b. Incident – This is a ticket where the Intrahealth application has a problem/error. (E.g. Break-fix incident)

c. Enhancement – This is a user suggested enhancement ticket that is prioritized/voted on for change annually by the Profile user community.

d. Communication – This is a ticket identifying a user specific notification/information communication.

e. Service Request - This ticket is for custom paid work. (E.g. Macros and Find Object Queries)

f. Regulatory Requirement – Government Mandated Change Severities and Queries are assigned a Priority

Intrahealth Support Team according to the following tables:
<table>
<thead>
<tr>
<th>Priority 1 Patient Safety – High</th>
<th>Patient health safety is directly affected by the incident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority 1 – High</td>
<td>A critical impact on your system; the problem requires an immediate solution that is already available</td>
</tr>
<tr>
<td>Priority 2</td>
<td>You can use the programme, but is severely restricted</td>
</tr>
<tr>
<td>Priority 3</td>
<td>Minor functionality is not working, however it is not critical to overall operation</td>
</tr>
<tr>
<td>Priority 4</td>
<td>A workaround has been identified to circumvent the problem but a fix is still required for the programme to work properly</td>
</tr>
</tbody>
</table>

6. What end-user support groups do you have? How frequently do they meet and what do they cover?

   Every jurisdiction has access to an online forum. We also run formal annual user conferences that include workshops and sessions in jurisdictions where we have a significant user base (British Columbia), and regular training/forum events for all jurisdictions.

7. What hours of support do you cover?

   24x7

8. What are your targeted turnaround times for
   a. Critical faults and bugs
   b. Other categories of bugs and faults

   See below response times

9. What is your standard release frequency

   A. Minor updates / patches typically occur 3-6 monthly (This excludes Formulary, billing or other content which is considered an import process)
<table>
<thead>
<tr>
<th><strong>Support</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| a. for patches?  
b. for version releases? | B. Versions are typically released every 12-18 months |
| 10. Describe how your updates are distributed to your users | They are made available on Intrahealth “Self Service Centre” for download. Where they are on a hosted solution Intrahealth undertakes the upgrade through an automated process. |
| 11. What challenges do you face in providing support? | Varying levels of sophistication within the organisation Varying sizes and complexities of organisations that we deal with. Maintaining a good understanding of the organisation to facilitate providing the right type of answer. |
| 12. Is there anything else you would like to add? | The Integrated Intrahealth Platform includes the following:  
- Profile  
- HCC (Case Management)  
- P4I (Mobility solution)  
- Deployed mode  
- Maestro (messaging and integration broker)  
- Accession (Patient Portal)  
- Accession Provider (web interface for the GP)  
- Accession External provider (Portal for other health professionals)  
- My Health Plan (Shared Care Plan)  
- InSync (Population health and clinical network manager)  

Largest single site is 4000 concurrent users  
NZ’s largest ASP provider to GPs (but not in New Zealand)  
HL7 2.x and 3.x support  
Open interface through COM and Web Services (does not rely on an API). All documented in code, in the embedded Type Library Explorer  
Single integrated platform, which means each country benefits from the improvements driven by other health systems |
# 18.2.1 RESPONSE TIMES

<table>
<thead>
<tr>
<th>Incident Severity Level</th>
<th>Description</th>
<th>Hours of Service and Max Response Time</th>
<th>Response</th>
<th>Target Incident Resolution Time</th>
<th>Target Software Change Control (if required)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Severity 1 - Emergency</strong></td>
<td>Incident that causes an emergency situation in which the covered software becomes inoperable, compromise data integrity or fails catastrophically causing risk of harm to the customer's clients or mission critical work.</td>
<td>Business hours 1 hour Or extended hours 2 hours</td>
<td>Within the response time perimeters, a qualified staff member begins diagnosis to deliver a resolution within the response time perimeters. Resolution will be delivered as a non-software fix, a workaround or an emergency software fix. If ICL delivers an acceptable work-around priority classification will drop to severity 2.</td>
<td>Within 4 hours 90% of the time</td>
<td>Within 4 hours 90% of the time</td>
</tr>
<tr>
<td><strong>Severity 2 - High</strong></td>
<td>Incident that produces a detrimental situation in which performance (throughput or response) of the covered software degrades substantially under reasonable loads, such that there is a server impact on use; the covered Software is usable but materially incomplete; one or more mainline functions or commands is inoperable; or the use is otherwise significantly impacted.</td>
<td>Business hours Or extended hours next business day</td>
<td>Within the response time perimeters, a qualified staff member begins diagnosis to deliver a resolution. Resolution will be delivered in the same manner as a severity 1. If ICL delivers an acceptable work-around priority drop classification to severity 3</td>
<td>By end of business day 90% of the time</td>
<td>Within 5 working days 90% of the time</td>
</tr>
<tr>
<td><strong>Severity 3 - Medium</strong></td>
<td>Incident that produces a disruptive situation in which the covered software is usable, but does not provide</td>
<td>Business hours 3 business days</td>
<td>Within the response time perimeters, a qualified staff member begins diagnosis to deliver a resolution. Resolution will be delivered in the same manner as a severity</td>
<td>Within 20 working days 90% of the time</td>
<td>Within 90 working days 90% of the time</td>
</tr>
</tbody>
</table>
a function in the most convenient or expeditious manner. The user suffers significant impact and the disruption can be accommodated for a limited time period.

| Severity 4 - Low | Incident that produces an inconvenient situation in which the covered software is usable, but does not provide a function in the most convenient or expeditious manner. The user suffers little or no significant impact. | Business hours 20 business days | Within the response time perimeters, a qualified staff member begins diagnosis to deliver a resolution. Resolution will be delivered as a non-software fix or a workaround. If warranted a software change request will be re-initiated. | Within 1 month 90% of the time | Best efforts to resolve in the next major release |

1. If ICL delivers an acceptable workaround priority drop classification to severity 4

18.3 Medtech

<table>
<thead>
<tr>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What processes do you have in place for your help desk</td>
</tr>
<tr>
<td>Support</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Support request review (weekly),</td>
</tr>
<tr>
<td>Data handling and security,</td>
</tr>
<tr>
<td>Customer feedback,</td>
</tr>
<tr>
<td>Complaints,</td>
</tr>
<tr>
<td>Quality assurance (regular review of calls and cases by Customer Care Manager),</td>
</tr>
<tr>
<td>Customer communication,</td>
</tr>
<tr>
<td>Data analysis,</td>
</tr>
<tr>
<td>Knowledge base,</td>
</tr>
<tr>
<td>Support boundaries.</td>
</tr>
</tbody>
</table>

2. Outline what levels of support you offer

Medtech offers multiple levels of support depending on the nature of the support request:

Level 1 inbound team: take and respond to all inbound calls aim for first encounter resolution rate of 85%+

Level 1 queue one team: deal with cases received through Support Box (includes notification centre and voicemails),

Level 2 team technical support team: deal with P1 cases and technical or complex issues,

Level 3 software department: senior development team providing support for technical or complex issues.

3. Do you follow any specific support methodology?

Medtech’s support methodology is based on the Knowledge Centred Support Practices Guide developed by the Consortium for Service Innovation.

This approach defines basic principles for creating knowledge resources with the full range of potential audiences in mind.
<table>
<thead>
<tr>
<th>Support</th>
</tr>
</thead>
</table>
| defines a structure for creating and maintaining content  
| describes methods to enable individuals and teams to test, confirm and communicate issues and solutions  
| provides a framework for continuous validation and improvement  
| The methodology has been adopted by companies such as HP, Verisign, Avaya etc  
| 4. What tools and techniques do you use for release management?  
| Medtech uses an Application Lifecycle Management tool (ALM) to manage releases for MT32 and other products.  
| Weekly case review meetings with the release planning team ensure that prioritisation takes into account customer needs/requirements.  
| 5. Describe what tools and systems you have for support management and call tracking?  
| Medtech uses Microsoft Dynamics Customer Relationship Management software to manage all support requests and track calls.  
| For example:  
| Cases are created for each support request and a reference number is provided to all customers.  
| All communication and work regarding the case is documented and emails, voice messages etc are attached. This case is linked with application lifecycle management (ALM) where cases are escalated to software to be part of an upcoming release.  
| Once the issue is resolved, the case is closed (after consultation with customer) and a survey is sent to the customer for feedback on the support provided.  
| 6. What end-user support groups do you have? How frequently do they meet and what do they cover?  
| Practice Managers group – meets quarterly and provides and gathers feedback from this important user group on any aspect of the application.  
| General User Groups – Different geographic regions on a monthly basis and gathers and provides feedback from a range of Medtech users and any aspect of the application.  
| Clinical Reference Group – meets twice per year and gathers and provides feedback on clinical application of the software.  
|
### Support

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Webinars</strong> – Are held monthly on a range of topics and allow any Medtech user to access free training and provide feedback on the product and our service.</td>
<td></td>
</tr>
<tr>
<td><strong>7. What hours of support do you cover?</strong></td>
<td>The Customer Service Desk is open from 8am to 5pm Monday to Friday and is closed on public holidays. A pager service is available from 5:00pm-9pm Weekdays, 9am-5pm Weekends, not available on public holidays. Support can be provided outside these hours by arrangement.</td>
</tr>
<tr>
<td><strong>8. What are your targeted turnaround times for</strong></td>
<td>Critical faults and bugs: These are considered as P1 cases and acted upon with immediate priority. Based on the complexity of the issue, the timeline to reach optimal resolution may vary. Other categories of bugs and faults: These are consider P2, P3 or P4 where they go through regular triage and get prioritise for resolution based on criticality and complexity</td>
</tr>
<tr>
<td>a. Critical faults and bugs</td>
<td></td>
</tr>
<tr>
<td>b. Other categories of bugs and faults</td>
<td></td>
</tr>
<tr>
<td><strong>9. What is your standard release frequency</strong></td>
<td>Medtech generally release two new versions annually with patches released as required.</td>
</tr>
<tr>
<td>a. for patches?</td>
<td></td>
</tr>
<tr>
<td>b. for version releases?</td>
<td></td>
</tr>
<tr>
<td><strong>10. Describe how your updates are distributed to your users</strong></td>
<td>Updates are distributed to users via our Website (if a general release) or directly to customers, if part of a staggered release process.</td>
</tr>
<tr>
<td><strong>11. What challenges do you face in providing support?</strong></td>
<td>Third party software integration with Medtech can create challenges around support boundaries Poor Database maintenance by some customers Old Customer hardware (e.g. servers) and operating systems Technical skills of third party contractors of customers.</td>
</tr>
<tr>
<td><strong>12. Is there anything else you would like to add?</strong></td>
<td></td>
</tr>
</tbody>
</table>
# 18.4 myPractice

<table>
<thead>
<tr>
<th>Support</th>
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<tbody>
<tr>
<td><strong>1. What processes do you have in place for your help desk</strong></td>
</tr>
<tr>
<td><strong>2. Outline what levels of support you offer</strong></td>
</tr>
<tr>
<td><strong>3. Do you follow any specific support methodology?</strong></td>
</tr>
<tr>
<td><strong>4. What tools and techniques do you use for release management?</strong></td>
</tr>
<tr>
<td><strong>5. Describe what tools and systems you have for support management and call tracking?</strong></td>
</tr>
<tr>
<td>Support</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>6. What end-user support groups do you have? How frequently do they meet and what do they cover?</td>
</tr>
<tr>
<td>7. What hours of support do you cover?</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>8. What are your targeted turnaround times for: a. Critical faults and bugs b. Other categories of bugs and faults</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
| | **P 1 - High** | Due to a Fault there is:  
- a total failure of the Application; or  
- any other failure or malfunctioning causing a critical level of impact or  
- any threat to the safety of any person or property. | **Within 1 hour** | **Within 4 hours** | **Within 8 hours** |
| | **P 2 - Medium** | Due to a Fault there is:  
- a partial or intermittent failure of the Application  
- any other failure or malfunctioning causing a critical level of impact or  
- any threat to the safety of any person or property. | **Within 4 hours** | **Within 1 business day** | **Within 2 business days** |
<table>
<thead>
<tr>
<th>9. What is your standard release frequency</th>
<th>Patches as required to fix P1 and P2 faults and legislated changes that need to be done before the next scheduled release</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. for patches?</td>
<td>Major releases every two to Three months.</td>
</tr>
<tr>
<td>b. for version releases?</td>
<td></td>
</tr>
<tr>
<td>10. Describe how your updates are distributed to your users</td>
<td>The help desk will remote into each site and run the update routine for the practice.</td>
</tr>
<tr>
<td>11. What challenges do you face in</td>
<td>Getting sufficient access to the practice server to provide remote support.</td>
</tr>
<tr>
<td></td>
<td>Support</td>
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<tr>
<td>---</td>
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</tr>
<tr>
<td>providing support?</td>
<td></td>
</tr>
<tr>
<td>12. Is there anything else you would like to add?</td>
<td>Now we are growing in size we are reviewing how we can formalise a process of keeping customers informed about progress on their issues.</td>
</tr>
</tbody>
</table>
NOTES ON TERMINOLOGY

General Practice is the term that is used within this document to represent medical centres providing services to enrolled populations. It is used distinctly from the term Primary Care which we use to more widely indicate other health providers working within a community setting such as community pharmacy, physiotherapy and podiatry services. We have made this distinction because of the significant differences in each group in the vendors that they use and the historic focus of the Patient First PMS reviews on vendors supplying products to general practice.

We use the term IT Support Providers (ITSPs) to identify those business that provide services to general practice to support their ICT operations. These are distinct from any PMS vendor. By nature they are a third party provider and this is a reference to the relationship they have with the practice (first party) and the PMS vendor (second party). We use the abbreviation (ITSP) to refer to these providers for brevity and to aide reading. There is no agreed term within the sector to consistently refer to this class of service or business and each practice or region may use different terminology to refer to services provided in this manner.

We use the term Support Channel as a term to refer to the way in which support is sought from vendors. It refers to the method by which communication is undertaken. We also separate support channels into two classes of synchronous and asynchronous. Synchronous support channels are those in which communication happens effectively in real-time with little delay between parties contribution to the wider communication. Asynchronous communication is characterised by a one-way mechanism or with significant delays between responses of the parties involved.