



**Patients First**

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# **Practice Management System Requirements (PMS) Project**

## **Executive Summary – Findings and Recommendations**

Prepared for the National Health IT Board

29 October 2010  
Version 1.1

## Patients First - PMS Requirements Project

### Context

The context of health care delivery is changing from transactional care to on-going responsibility for a patient with shared care where required. This needs to be supported by health information systems including practice management systems that are responsive to emerging clinical and health pathway needs.

The Primary Care Practice Management Systems (PMS) Requirements Project was commissioned by the National Health IT Board to define and prioritise the desired functional and non-functional requirements required from a PMS, together with maps of the required information sharing / interoperability needs of a PMS within the broader eco-system (beyond the traditional walls of the practice). It outlines an evaluation framework to enable an objective assessment of progress by vendors towards systems that can support delivery of quality care both today and in the future.

The project was undertaken by the Patients First Programme and considered the following questions:

1. Does something need to be done (is it broken)?
2. What needs to be done?
3. What are the challenges?
4. What are the benefits?

and the hardest questions – where do you start and how do you manage it?

In 2005, Standards New Zealand released the PAS8170:2005 “Primary Healthcare Practice Management Systems” document – which was outlined as a publically available (voluntary) specification guideline. While this pointed at some overall hygiene factors for Patient Administration Systems – it did not go so far as to call itself a “standard” and provided a “point in time” set of compliance requirements for the New Zealand market along with a checklist of useful considerations. The document rapidly became obsolete as further compliance requirements were added to the New Zealand health information landscape.

This example illustrates some useful points – how do you set a context that is enduring?; how do you evolve the framework and retain it as a living set of requirements?; how do you measure and incentivise (or enforce) against that set of requirements?; and who governs it?

A Discussion Document on PMS Requirements was issued to the Sector on 21 June 2010, with copies to the principal PMS Vendors and the New Zealand Health IT Cluster. The volume of responses was disappointing with generally very limited comment on detailed requirements. The most significant feedback received was that much greater time is needed for consideration of the detailed requirements.

Feedback we did receive indicated a level of frustration about fragmentation, vendor un-responsiveness and lack of focus on clinical usability. From our review there is an issue to be resolved being that current functionality and market behaviour (by vendors and funders) is not aligned to a healthy market for primary healthcare information systems.

On reflection and with further targeted discussion it became apparent that gaining a single, homogenous primary sector view of detailed PMS requirements was not a realistic goal. This will take time to evolve. We revised our approach and sought themes of issues from the consultation then sought to validate these with various forums. Forums included PCIMG, Primary Care Network IS Managers and clinical leaders of information. This was supplemented with a brief/high level peer review and validation by the National Institute of Health Innovation (NIHI) and a parallel review of balancing incentives with requirements conducted by LECG.

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The message we received from our consultation with the sector was

*“Start with a small though strategic list of requirements and an effective governance process and mandate and evolve from that point”*

We distilled the feedback down to five recurring and consistent themes and present these as the five highest areas of need or functional focus. These are:

### **The High Five**

1. Published (standards based) APIs
2. Structured data within the PMS, moving towards semantic interoperability (LOINC etc.)
3. Support for interoperability standards, with e-Discharge and e-Referral the priorities
4. Information security, access and privacy
5. Developing consensus on usability guidelines including managing alert fatigue

If we could make one positive “sea change” in the PMS space it is to create an environment of information sharing. The health environment is broad and disparate in nature and the information and corresponding PMS and information systems landscape reflects that. The phrase we continually hear is the need to “join the dots”. At one level, information should be agnostic to the underlying systems that serve it up and others that consume and interpret it. The information needs to be current, relevant, accurate and useful in serving patient care as well as presented in a usable way.

The top recommendation of requiring PMS products to comply with published standards based API's (that are part of the standard product and standard maintenance fee) will “unlock” the market and de-couple the clinical information from a specific reliance on specific vendor systems. That will create more of a market driven choice and level playing field.

This sounds simple but there are some fundamental challenges we face with the current environment:

### **Challenges**

- We have a small market (<4000 GPs) which has a high cost of entry for new PMS players
- We have a market dominant player (MedTech has >80% of the market share) with a small number (3) other players (Houston, IntraHealth and MyPractice)
- We have some central agencies exhibiting anti-competitive behaviour by funding one vendor (the dominant market player) for compliance requirements and not other vendors
- Vendors are primarily funded for compliance rather than clinical functionality
- Vendors use proprietary approaches to making information available to the broader eco-system
- The sector operational investment (license and maintenance fees) in PMS in New Zealand is low in international comparative terms and not a sustainable business model for vendors (which also creates a high barrier to entry for new players)
- Those who directly interact with the systems are not necessarily those who benefit the most from the currently funded development activity
- There is no cohesive or powerful voice (incentive) for clinical functionality in PMS systems

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### Response

We have identified the “high five” as key focus areas. The most critical factor for creating any substantial change in the quality of clinical PMS functionality relates to the economic model for PMS development and adoption. This is followed closely by the consequential governance framework to deliver the changes.

### Incentives and alignment

*There is a need to find common ground between funders, end-users and vendors.*

Good information should be a by-product of clinical workflow. If information is valued in clinical use and interaction with a patient, rather than an administrative or compliance adjunct, it is likely to be more relevant, timely and accurate. We need to explore the incentives of encouraging compliance and reporting as a by-product of clinical workflow practice.

Funders (particularly central agencies e.g. ACC, DHBNZ, MoH and Pharmac) are major influencers in the market and in systems development. Compliance reporting requirements are currently set by these central agencies according to each agencies specific needs rather than in a strategic and coordinated way.

This has engendered a “fund for compliance” rather than “fund for quality improvement” focus. When central agencies fund a dominant vendor and not others, it creates an un-level playing field where it becomes difficult for smaller players to participate in the market. This also creates a capacity issue for the dominant vendor.

The PMS market has limited growth potential in New Zealand. Despite New Zealand’s near universal utilisation of PMS system in primary care (95%), there is little room for market growth, so smaller or new players have to either “steal” market share from the dominant vendor or look to other markets abroad.

There is a misalignment between investment and direct benefit for users. The General Practitioner who pays for the system does not directly capture the benefit of better clinical coding or population reporting. The value of the information often grows when aggregated which is useful for funding and population health outcome analysis but does not accrue directly to the “person signing the cheque”.

PMS vendors follow the money which is largely derived from compliance reporting and development and may be perceived as a cost rather than a benefit to clinical management.

Quality drivers for development are changing. Some in the sector are advocating for a move from a “pay for performance” to a “pay for participation” model in terms of quality improvement. The “pay for participation” involves quality indicators for benchmarking and publishes quality measures. The current “pay for performance” model appeals to GPs extrinsic motivation – getting paid for achieving a minimum target. This is not necessarily desirable or sustainable. A “pay for participation” model appeals to GPs intrinsic motivation – addressing quality issues because it is useful and correct to do so and engenders a continuous quality improvement culture. This focuses on improving performance through benchmarking and peer review.

This raises the broader context of a more equitable and sustainable funding model. It does not resolve the questions but at least poses them for further discussion and debate.

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### Governance and Management

We recommend the governance framework for PMS evolution should operate as a sub-committee of the Patients First governance structure, augmented as appropriate with additional co-opted sub-committee members to the extent that is necessary to appropriately represent non-vendor stakeholders. We see this as being a cross section of:

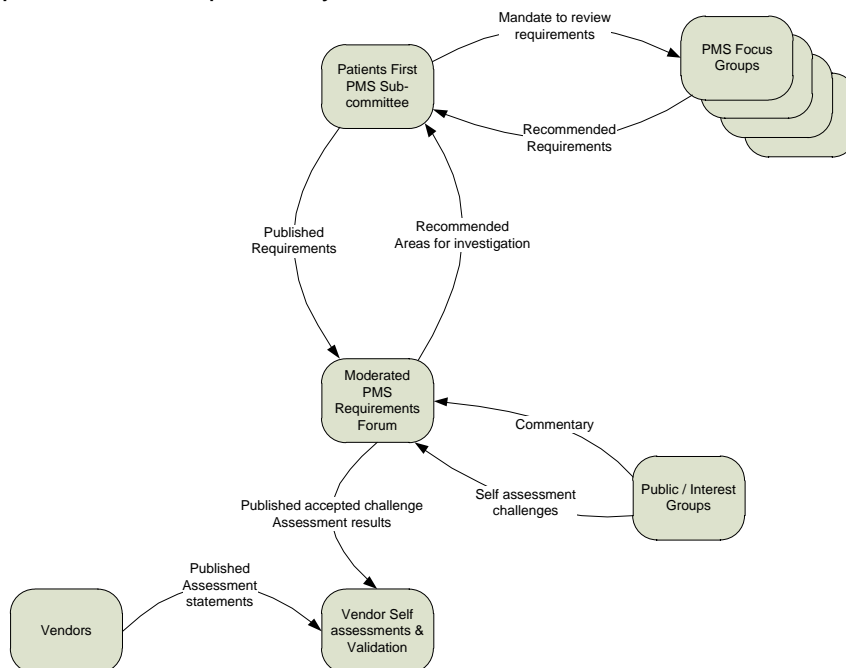
- Central agencies
- General Practitioners
- Practice Nurses
- Practice Managers
- Population Health analyst

*Funders could pass all initiatives through a review process. This process would be a sector governance initiative with funders, vendors and, most importantly, user (general practice) representation. The process would ensure that rules were developed and applied to funding. The rules would need to be competitively neutral, yield value for money and would ensure that full clinical benefit was extracted from each proposed change.*

Given one of the goals of such a change as is envisaged is to ensure appropriate PMS functionality moves to being significantly driven by the primary sector clinical representatives, we do not consider voting membership on the sub-committee by vendor representatives is appropriate although non-voting participation by invitation is desirable.

We recommend that the sub-committee be empowered to form additional PMS functionality focus groups to drive evolution of the detailed PMS requirements with appropriate clinical involvement at a pace the clinicians are comfortable with. It is desirable to get the “high five” completed within 6 months and next tranche identified and underway within the following 6 months (i.e. rolling 12 month radar of focus areas).

We recommend the proposed Evaluation Framework be pragmatic and cost effective for all parties with a matrix of approaches, focusing initially on vendor self-assessment against key published requirements, independently validated as needed.



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### Certification/Validation

Our expectation is that vendor self-assessment includes publication in a central (moderated) repository available to the market for information. This repository would include the list of requirements, including most up-to-date compliance requirements depending on what part of the eco-system the relevant products are positioned (i.e. provides vendors with a definitive and up-to-date list of “certification” and compliance requirements).

Given the detailed PMS requirements are still evolutionary the goal will be to identify subsets of requirements (such as the “high five” e.g. privacy, security and information sharing first) to provide a way of easing into the process, but with a goal of expanding that as requirements are agreed.

With their role in supporting several recent national systems evaluations, we consider the National Institute of Health Innovation (NIHI) to be the natural manager and moderator of the repository, under contract to the supplier of the requirements, the Patients First PMS sub-committee.

### Key Recommendations

1. Create the governance group and process.
2. Create a baseline assessment of the vendors against the High 5 list of functional issues.
3. Implement the High Five within the next 6 months.
4. Bring the central agencies together in a single forum for compliance requirements – channelled through the single governance vehicle.
5. Review appropriate funding models.

### Spill-over recommendations

While the following recommendations do not directly relate to PMS requirements, they relate to the broader eco-system view and we recommend that these be considered by the National Health IT Board and relevant parties in the context of a “joined-up ecosystem”.

1. Consideration of implementing a published API standard across secondary and primary care systems
2. A move to a standards based PHR/EHR in terms of data
3. Common principles and framework for security, privacy and data governance for Healthcare Information (i.e. applicable across all settings of care)

### Benefits

If the recommended actions are undertaken, the resultant benefits are envisaged as:

- laying the foundation for a “joined-up” eco-system (including paving the way for e-referral, e-discharge and easier access to data for reporting)
- creating a clinical voice of influence around functional requirements
- breaking the cycle of silo’d compliance reporting/overhead requirements by central agencies by taking a strategic and aligned view of quality reporting that is a by-product of clinical workflow
- reducing administration overhead for clinicians and frees up vendors to focus on clinical functionality
- removing the anti-competitive behaviours that perpetuate the current monopoly in the market
- creating an evolving and “living” process to work toward continuous quality improvement and better health outcomes

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### Post Script - illustrating some current barriers and opportunities

#### *Example 1*

##### **Public funding spent on vendor swap-out without search/selection process**

One of the five PMS vendors (MedCen) has recently pulled-out of the market. In a region where the majority of the GPs were using that PMS system, the local DHB funded the wholesale swap-out from the MedCen system to MedTech for the GPs in the region. There was no tender process and, due to the funding being within the delegated authority of the DHB, there was no national visibility of this transaction.

#### *Example2*

##### **Central Agency/public funding spent on single vendor compliance development**

One central agency has developed a set of specifications for the market dominant PMS vendor to adapt the PMS product to meet compliance requirements and make the system more usable for medications management. While this appears, at face value, to be a pragmatic way of reaching and influencing a high number of end-users, it is arguably anti-competitive and creates an environment where smaller competing vendors need to self-fund to keep up with equivalent requirements.

#### *Balanced with a good-news story*

#### *Example3*

##### **Co-opetition – (competing) vendors sharing development cost/resource in GP2GP**

Recently an unusual (some would say unprecedented) event occurred during design and development of GP2GP.

A component was required for GP2GP. The API for translation and transport of messages was a component that required a common design specification. The four PMS vendors clubbed together and agreed to contract one party to develop a common API that each would contribute to the design and development costs for a shared/open-source library.

*“What were the conditions that existed to allow this to happen and acted as a catalyst for the (competing) vendors to come up with the suggestion?”*

## Related Documents

There are four documents in this series.

<b>PMS Requirements - Exec Summaryv1.1</b>	(This document) A standalone summary document covering key findings and recommendations.
PMS Requirements Final Report - v1.1	The detailed report regarding background, recommendations and approach.  This focuses on the key prioritised set of requirements (the “high 5”) and corresponding rationale.
PMS Requirements Final Report - Appendix - Detailed Requirements v1.0.doc	A supplementary document outlining the updated version of the full requirements set and context maps that were used for the consultation and should be used as a reference point for future requirements consideration.
GP PMS - Aligning Incentives with Requirements - Preliminary view LECG 29 Sept	A supplementary document - available on request from Patients First. Provides some commentary on the current state of the incentives and market factors for PMS vendors, funders and users in NZ.