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Improving patient safety in primary care

Programme Evaluation

Counties Manukau Health

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Executive Summary

This report presents the findings from our review of the activities undertaken to develop and implement the Safety In Practice (SIP) programme, and to provide the associated recommendations to expand the programme to a national level.

Background

The SIP programme was initiated by Counties Manukau Health (CMH) as a small programme that was to be based on a similar programme that had been completed by NHS Scotland, with a view to:

- Increase the capacity of PHOs and general practices in patient safety methods and processes
- Promote a culture of safety
- Develop practice systems and processes to increase patient safety
- Prevent or reduce harm and improve the quality of care for patients with chronic conditions

This initiative was quickly expanded to include Auckland District Health Board (ADHB) and Waitemata District Health Board (WDHB), with the intention of proving the concept prior to being extended across the entire Auckland region, and potentially, across New Zealand.

CMH and subsequently ADHB and WDHB led the implementation of SIP, with programme management and improvement expertise provided by Ko Awatea.

The programme approach was based on the Institute for Healthcare Improvement Collaborative Approach, and actively involved a wide group of practices, Primary Health Organisations (PHO) and District Health Boards (DHB) in the development, deployment and evaluation of the programme.

The first year of the programme ran from March 2014 to March 2015, and involved 23 practices across 6 PHOs and all three Auckland DHBs.

At the outset of the programme, an evaluation of phase one was planned and PHOs and practices signed up to take part in the evaluation as part of their letter of agreement/contract. Initial discussions considered having an evaluator as part of the programme – to evaluate as it unfolded, but this didn't prove to be practical.

In January 2015 CMH issued a Request for Quotation (RFQ) and following assessment of applicants appointed PricewaterhouseCoopers to carry out the programme evaluation.

The evaluation was designed to provide an independent assessment of the SIP programme in order to identify any key lessons for future roll outs and the impact that phase one of the programme has had on the practices involved.

Evaluation Approach

The evaluation was completed via three main approaches:

Desktop evaluation of data and research

- A review of background information, together with early access to the Project Lead, Project Coordinator and Improvement Advisors to develop a detailed approach to workshops and an interview guide for the one on one interviews.
- Detailed analysis of the audit bundle indicator data provided by each practice on a monthly basis. The programme did not collect baseline data prior to starting the programme. This data therefore only explores changes during the programme roll out.

Fieldwork

- A number of workshops were undertaken, one with the Facilitators and the project team and a second with the newly formed Advisory Group. Workshops were an opportunity for all participants to provide open and honest feedback from their point of view in written form using a structured workbook. The facilitator session also provided the opportunity for the facilitators to work in pairs and both sessions included an open discussion section on what participants would do the same/differently if they were to implement the programme again. Participants were very engaged with the process and keen to provide their feedback, which included some rich quotes which have been included in this report.
- Ten practices were selected for formal interviews. Eight practices agreed to take part and one of these pulled out at short notice. The content from these interviews have been included in this evaluation.
- In addition to the practice interviews, one on one interviews with a number of programme stakeholders were held. The interviewees were chosen to ensure we had input at PHO, DHB and programme levels. Given the reasonably tight timeframe to complete the interviews and the interviewees being geographically dispersed, we conducted some of the interviews face to face and some by phone.

Survey

- A survey was sent to key contacts in each of the 23 practices for them to forward to others in the practice involved in the programme (i.e. practice champions) and they were given two weeks to respond. The response rate was extremely low at 20-30% with only 14 individuals responding. Given this low response rate we are not able to use any quantitative data reliably. Qualitative feedback did however support feedback we received during face to face discussions with practices and other stakeholders.

Key findings

The design and implementation of this programme is a very important step in the drive to expand the focus in continuous improvement to drive patient safety throughout the end to end health system.

Results from the interventions and from the anecdotal feedback received from participants highlighted that the Safety in Practice year one programme:

- Was mostly viewed as a success against each of the evaluation questions by the programme team, key stakeholders and programme participants
- Partially met each of the stated programme objectives

Assessment against evaluation requirements

Although it was not possible to use quantitative measures to evaluate the Safety in Practice Year One Programme it was generally viewed as a success against most of the evaluation questions by the programme team, key stakeholders and programme participants:

- *Evaluate the extent to which relevant health outcomes and patient experience have improved and the evidence on how those outcomes have been achieved so that they can benefit other health care organisations.*

  There is anecdotal feedback that improvements made have reduced risk and improved health outcomes. However, there was no reliable data or reporting generated in the programme regarding health outcomes and the patient experience.

  Feedback suggested that the lack of data was expected, mirroring the Scottish experience.

- *Analyse the process of implementation of a collaborative approach defining the benefits for each one of the parties involved. (General Practice, PHO and DHB.)*

  The delay in developing a comprehensive project plan resulted in a rushed start, and some confusion regarding programme activities and timelines. However , the collaborative approach was regarded as positive by all participants and stakeholders, with many practices highlighting the benefits of sharing and learning with other practices, both within their own bundle and across the wider programme.

- *Identify problems and constraints encountered along the implementation process as part of the Model for Improvement methodology.*

  The Model for Improvement methodology was not new to the practices because it is the same methodology that is used by the Cornerstone accreditation scheme. Feedback from the project team is that this methodology has previously been used for audit purposes rather than to test small incremental changes, and that practices need further understand the philosophy/way of thinking – rather than 'just being given the tools'.

- *Evaluate practices' perceptions of increased quality improvement capability including examples of growth.*

  Participants have all responded favourably, advising that their knowledge of improvement tools has increased. Previous capability was not base-lined; however the many anecdotal examples given demonstrate that a drive for continuous improvement for patient safety is becoming more of a focus for each of the practices.

Assessment against programme objectives

Quantitative data regarding the baseline or the progressive performance of the programme against initial objectives was not available. Qualitative data collated throughout the evaluation suggests that all four programme objectives have been partially met, which is consistent with the year one outcomes achieved in the Scottish Safety in Practice Programme:

- *Increase the capacity of PHOs and general practices in patient safety methods and processes*

  Practices have started to use the quality improvement methods and processes but the level to which these are embedded as "the way we do things" is variable as evidenced by the results reported by practices.

  The capacity and capability of Facilitators is variable with all of them doing this work on top of their "day job".

  While Facilitators have increased their knowledge and understanding of the methodology, some of them acknowledge that they are not all fully able to support the practices e.g. with the Trigger Tool.

- *Develop practice systems and processes to increase patient safety*

  All practices have been actively involved in reviewing their processes. However, process changes and the PDSA quality improvement methodology are not fully embedded in all practices, as can be seen from the variation in performance against the audit indicators for each bundle, particularly when the data is viewed on an individual practice basis.

- *Promote a culture of safety*

  There is no baseline data for the safety climate survey (the climate survey) to establish where practices started from and hence the extent of improvement.

  The climate survey results include only 11 out of the 23 practices as practices had the choice of doing either the survey or trigger tool.

  Average scores against the five climate survey questions ranged from 4.1 to 5.9 out of 7. This is a reasonable score but as this is for only 50% of the practices it cannot necessarily be seen as an overall endorsement.

- *Prevent or reduce harm and improve the quality of care for patients with chronic conditions*

  There is anecdotal evidence that the changes made by practices have reduced risk to patients and in some cases reduced harm. However, there is no conclusive evidence of the impact of the programme on patient safety outcomes.

  These findings are consistent with those from the Safety in Practice programme in Scotland where the programme has had a significant impact on warfarin patients, but no direct evidence in relation to results handling or medicine reconciliation.

As expected in the evaluation of a new programme, a number of areas for improvement were identified.

Detailed recommendations have been generated from the independent assessment of the year one Safety in Practice programme and PwC best practice, and are included in section 3 of this document.

Acknowledgements

PricewaterhouseCoopers wishes to acknowledge the considerable assistance and support of the programme team members and all those involved in evaluation of this project:

Ko Awatea, Alliance Health, Auckland PHO, East Health Trust, ProCARE, Manaia Health, National Hauora Coalition, Comprehensive Care, Waitemata PHO, Auckland District Health Board, Counties Manukau Health, Waitemata DHB and the Health Quality and Safety Commission.

1. Introduction

The drive to establish the Safety in Practice programme came from recognition, initially by Counties Manukau Health (CMH), that while there is significant focus on safety in the New Zealand Healthcare system, intervention in this area has been predominantly focused in the hospital setting to date.

The level of harm in primary care has been researched in New Zealand and two recent reports identify incidents in primary care occurring in a range of 1 incident per 1202 consultations[1] with more recent data suggesting rates of 7-10 incidents per 100 consultations[2].

A scan of 72 international research studies carried out by the Health Foundation in 2011 also found that:

"…about 1–2% of primary care consultations may include adverse events, with the most common errors relating to medication and communication" This report also found that the most common causes of harm in primary care are:

- Human factors such as teamwork, communication, stress and burnout
- Structural factors such as reporting systems, processes and the environment
- Clinical factors such as medication

In another of the studies scanned in this research, General Practitioners (GPs) in Australia, Canada, England, the Netherlands, New Zealand, and the USA anonymously reported errors in their practices over a seven-month period. Specific patient harm occurred in around 29% of errors reported.[3]

A programme to improve patient safety in healthcare was implemented in Scotland to address this gap and was presented by Neil Houston, Clinical Lead for Patient Safety in Primary Care, NHS Scotland, at the APAC conference in 2013. The conference was attended by the Chief Medical Advisor Primary Health for CMH.

As part of the Scottish programme, research was carried out by NHS Scotland in the hospital sector which identified a number of concerns impacting on patient safety and costs to the health system[4]:

- 12% of acute hospital admissions related to sub-optimal primary healthcare

In addition, adverse events in primary care caused:

- 1 in 20 deaths in hospital
- 4% of hospital bed capacity
- 5-17% of hospital admissions were linked to adverse reaction to medication

The research also found that 70% of these events were assessed as being preventable.

This risk of harm in primary care was also identified by the World Health Organisation (2008) which established a working group to identify the global priorities for research into patient safety. They identified 20 priorities for developed countries5. Of these, five are of direct relevance to primary care and are incorporated into the New Zealand programme's interventions:

- Communication and co-ordination across the health system

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[1] Sandars K, Esmail A. The frequency and nature of medical error in primary care: understanding the diversity across studies. Fam Pract. 2003; 20: 231-6

[2] 3 Eggleton K, Dovey S>M et al. Using triggers in primary care records to flag increased adverse event risk and measure patient safety at clinic level. NZMJ 2014; 127: 1390: 45-52

[3] Rosser W, Dovey S, Bordman R, White D, Crighton E, Drummond N. Medical errors in primary care: results of an international study of family practice. Can Fam Physician 2005; 51:386-7

[4] Presentation to SIPP by Neil Houston April 2014, National Clinical Lead, Healthcare Improvement Scotland

[5] WHO Global Priorities for Research in Patient Safety, The Research Priority Setting Working Group December 2008

- Poor safety culture and blame oriented processes
- Adverse events due to drugs and medication errors
- Patient adherence
- Lack of adequate test follow-up

New Zealand Context

New Zealand is facing similar problems in its healthcare system with significant pressure to do more with less.

Like most developed countries New Zealand's aged population is increasing. The number of people over 65 has doubled since 1980 and is expected to double again by 2036, at which time it is expected that 21-24% of the population will be over 65.

An ageing population means an increase in the number of people living with long term conditions.

A report by the National Health Committee in 2007 estimated that in New Zealand long term conditions account for 80% of early deaths and the Government's health targets are focused on reducing the impacts of such conditions on the health system by prevention or early detection of issues.

1.1 Safety in Practice Programme

Following the 2013 APAC conference, and after discussion across CMH, approval was sought to establish a small programme in the CMH area, based on the Scottish initiative. This was later extended to Auckland District Health Board (ADHB) and Waitemata District Health Board (WDHB)

The Safety in Practice (SIP) Programme links directly to the aims of the Government Health Targets by improving processes in primary care, and reducing the risk of the occurrence of adverse events which require additional medical intervention, reduce quality of life or result in significant patient harm.

The programme should also be viewed in the wider context of improvement programmes in primary care.

The GP practices involved in this programme are already involved in nationwide performance management and improvement programmes. While the SIP programme is complementary in that it provides a focus on quality improvement and also enables achievement of accreditation standards for Cornerstone, it is a completely separate initiative. The two key national quality improvement programmes are:

Cornerstone

This is a Royal New Zealand College of General Practitioners accreditation programme including both quality improvement and quality assurance against set standards. This programme is a voluntary one but there seemed to be widespread involvement in the programme by the practices we interviewed.

Integrated Performance and Incentive Framework (Ipif)

The Ipif was introduced by the Ministry of Health in July 2014 initially in the primary care sector but with the intention to extend it across the health system. The framework focuses on equity, safety, quality, access and cost of services and incorporates the national health targets. While not part of the initial roll out, there is also an expectation that funding to providers will, in the future, be re-aligned according to performance.

1.1.1 Programme objectives

The objectives identified for SIP programme were to:

- Increase the capacity of PHOs and general practices in patient safety methods and processes
- Promote a culture of safety
- Develop practice systems and processes to increase patient safety
- Prevent or reduce harm and improve the quality of care for patients with chronic conditions

1.1.2 Programme approach

CMH and subsequently ADHB and WDHB led the implementation of SIP, with programme management expertise provided by Ko Awatea. The approach to implementing the programme was designed to be collaborative and actively involve a wide group of practice, Primary Health Organisation (PHO) and District Health Board (DHB) stakeholders in the development, deployment and evaluation of the programme.

The programme was designed with the intention of proving the concept to extend it across the Auckland region and potentially across New Zealand.

The first phase, March 2014 to March 2015, involved 23 practices across 6 PHOs and the three Auckland DHBs.

1.1.3 Programme governance

The Steering Group comprised of 24 members. This included a mix of stakeholders with representatives from all participating PHO's and DHB's, including clinical leads and quality leads and one consumer representative and Project Team members:

The SIP Steering Group was comprised of:
CMH Chief Medical Advisor Primary Care
CMH Chief Nursing Advisor Primary Care
CMH Integration General Managers from their 4 localities, Otara/Mangere, Franklin, Manukau and Eastern
Ko Awatea Delivery Manager
Ko Awatea Clinical Lead Development & Delivery
Improvement Advisors from Ko Awatea and Waitemata DHBs
Ko Awatea Project Lead
ADHB/WDHB Planning and Funding Representative
ADHB/WDHB Clinical Director Primary Care
PHO Representatives
o Alliance Health Plus (AH+)
o East Health
o Procare
o Auckland PHO
o Waitemata PHO
o National Hauora Coalition (NHC)
o Manaia Health PHO
o Comprehensive Care
CMH Administration Support

The National Hauora Coalition representative received minutes only, given they only had one practice involved in the programme. East Health PHO nominated their facilitator, whose substantive role is Nurse Leader, to represent the PHO on the Steering Group.

The Steering Group held its first meeting on 24 February 2014.

Campbell Brebner, Chief Medical Advisor, Primary Care at CMH chaired the Steering Group. Terms of Reference for the group were established. This identified the membership, including Chairperson, programme objectives and deliverables, operation and role of the Steering Group:

"The Safety in Practice Steering Group provides guidance to the Safety in Practice Core Project Team, ensuring that the Safety in Practice project's objectives and key deliverables are achieved."

The Steering Group met on a monthly basis and all project team members were also present. During the initial stages Neil Houston was present in New Zealand and the steering group met more frequently while the programme planning took place with Neil in attendance to provide practical advice based on his Scottish experience.

1.1.4 Selection of participating practices

In early March 2014, CMH held a learning session to engage with PHOs, DHB staff and practices on the SIP initiative. The invitation to this session was sent out widely through PHOs, and other sector contacts of the Project Sponsor.

Following this session, an Expression of Interest (EOI) was issued to practices who had attended, inviting them to participate in the programme, with a requirement to respond 21 March 2014.

23 practices expressed an interest in participating and all of these were selected for the programme. Given no selection between practices was needed; criteria to select practices were not developed.

After EOIs were returned, agreement letters were sent out to GPs and PHOs, which specified what activities would be required by the programme, timelines for initial set up and training, and details of what benefits GPs and PHOs would receive.

The participating practices are listed in Appendix A.

1.1.5 Programme management

The programme was initially planned to be managed by CMH. However, once it was extended across the three Auckland DHBs it was recognised that a more formal project management approach and additional resources would be required.

Ko Awatea were approached and agreed to provide this capability and capacity in late February 2014.

Monique Davies was appointed as Project Lead, with Project Co-ordination support provided by Suz Heslop. While no formal project plan was developed for the project, the key activities were planned around the Learning Sessions held on a quarterly basis.

1.1.6 Engagement and communications

The SIP programme was designed to be collaborative between PHOs, GP's, the Auckland DHBs, Ko Awatea. A core part of this approach was to have a high level of engagement and communication.

A communication plan was developed by the Project Lead in May 2014, detailing the objectives, audience, narrative and tools to be used for communication throughout the programme. This plan did not identify specific activities or timing of communications. The plan was discussed and agreed by the Steering Group at their meeting on 27 May 2014

Key communication activities throughout the programme included:

- Safety in Practice website incorporating all materials from the learning sessions and training, as well as tools, videos and data
- Ad hoc campaign updates
- Monthly facilitator meetings to update facilitators on the programme and discuss issues
- Learning sessions – four held throughout the year

A key element of the learning sessions was time for practices to share what they had learned, where they succeeded and where they struggled, when working with their audit bundle between learning sessions. Facilitators and improvement advisors provided another opportunity for engagement, where practices could request assistance or training.

In addition, a core role for facilitators and improvement advisors was to visit and contact practices, to provide support and maintain practice engagement with the programme.

The establishment of a cross PHO, DHB, Ko Awatea Steering Group for the project also provided opportunity for the project team to communicate widely across stakeholder groups.

1.1.7 Programme support

A key role identified for PHOs was to provide Quality Improvement Facilitators to support practices throughout the programme. With the exception of the National Hauora Coalition (NHC), facilitators from each PHO were made available to practices for support and training. A resource was provided by CMH to support the NHC's one participating practice. The facilitators provided monthly reports on the practices' progress, for the project team to review.

Monthly meetings with facilitators incorporated a training element. In addition, a number of training sessions/workshops were held specifically for Facilitators to ensure that they had an understanding of the methodology and tools including more depth on the methodology, PDSA cycles and in process mapping. The goal articulated by the Steering Group was to ensure facilitators were one step ahead of the practices.

Improvement advisors were also made available throughout the programme. Multiple DHBs made some staff available to act as improvement advisors, who offered quality improvement expertise and support as needed. These advisors provided group training for facilitators in key improvement methodologies including process mapping and improvement cycles. The Improvement Advisors also provided direct assistance to PHOs and practices to help them develop skills and understanding of the methodology beyond the identified facilitators and practice champions.

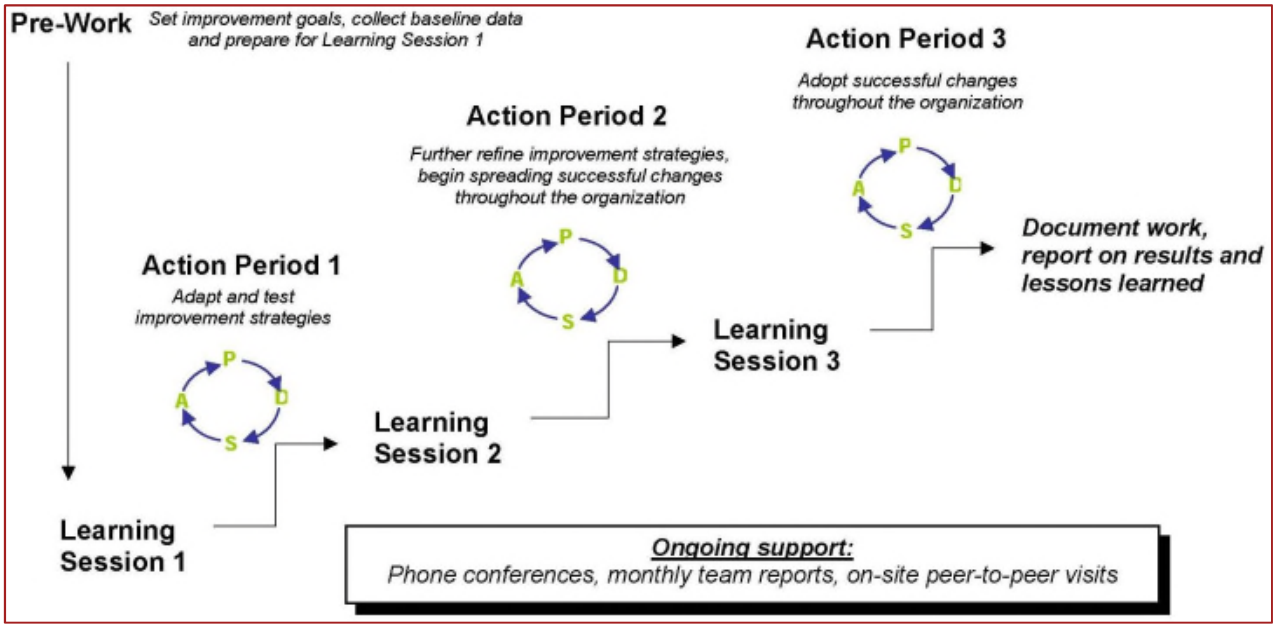
1.1.8 Methodologies

IHI Breakthrough Series

The Breakthrough Series was chosen as the foundational approach to structure the programme and to facilitate capability development within the Safety in Practice Programme.

The Safety in Practice Breakthrough Series Collaborative was a 12 month learning approach that sought to bring together a large number of teams from practices within the Auckland area to seek improvements regarding three intervention areas.

Each team typically sent two - three of its members to attend Learning Sessions (three face-to-face meetings over the course of the Collaborative), with additional members working on improvements in the local practice.



IHI The Breakthrough Series

The learning sessions were face-to-face meetings, bringing together multidisciplinary teams from each practice and the expert faculty - facilitators, improvement advisors and guest speakers to exchange ideas.

The first learning session (Learning Session 0) was a three hour session held from 6-9pm on 4 March 2014 at the Allenby Park Hotel in Papatoetoe. This was prior to the programme starting and is now referred to as the engagement session. It launched the Safety in Practice programme and provided a general introduction to safety and reliability in primary care, and the model for improvement. (See 1.1.4)Subsequent to this session the EOI was issued to practices.

Learning session 1, took place on 17 June 2014, from 6 - 9pm, at Ko Awatea. This session provided an opportunity for practices to share their successes and learnings from the programme. It also introduced the trigger tool, a structured method for reviewing medical records.

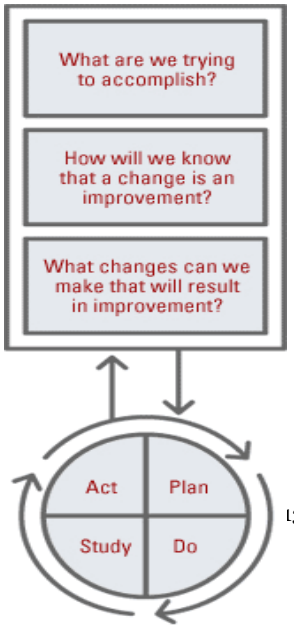
Learning session 2, took place on 4 November 2014, from 4 - 8pm, at Ko Awatea. In this session, participants were trained on how to use audit data, process mapping, and the trigger tool to identify gaps and areas of improvement in their practice. Participants were involved in sessions specific to their audit bundle, and received training on how to test changes and how to complete a PDSA cycle.

Learning session 3, took place on 17 March 2014, from 4 – 8 pm, at Ko Awatea. In this session, participants were again involved in sessions specific to their audit bundle, to share what they had learned. The session also went over the trigger tool and the safety climate survey, and detailed the value of these components.

Neil Houston attended the first session and November session in person and was present via video link at subsequent sessions.

The Model for Improvement

The Safety in Practice programme promoted the use of the model for improvement for practices to apply changes in their local settings. This methodology is simple and focuses on PDSA (Plan, Do, Study, Act) cycles which are small, rapid and frequent.



Through the collection and review of key indicator data each PDSA cycle:

- Tests which out of the elements proposed within the bundles and interventions will generate an improvement regarding patient safety; or
- Will reduce harm and improve the quality of care for patients with chronic conditions

- Provides an indication of elements that should be retained, adjusted or abandoned

Each PDSA cycle links to previous cycles and informs team and practice learning, influencing future cycles until the larger change has been implemented.

Key changes were then to be implemented in a cyclical fashion: practice teams were coached to thoroughly plan to test the change, taking into account cultural and organisational characteristics; do the work to make the change in their standard procedures, tracking their progress using quantitative measures; closely study the results of their work for insight on how to do better; and act to make the successful changes permanent or to adjust the changes that need more work.

1.1.9 Interventions

Audit bundles

The bundles used were initially developed by the Scottish SIP programme and were based on research regarding the causes of harm in the primary care environment.

During the programme design four audit bundles were initially selected, however feedback from participants during learning session 0 resulted in this being reduced to three:

- Warfarin

Twelve practices participated in the warfarin audit. The audit bundle consisted of five questions:

1. Is there evidence that the last advice on warfarin dosing given to patient followed current local guidelines or used computer assisted decision making?
2. Is the target INR and duration of treatment clearly documented in the notes?
3. Since the last blood test, has the patient been taking the correct dose as ordered by the treating GP?
4. Has the INR been taken within 7 days of the planned date?
5. Is it recorded that the patient has received education about warfarin in the last 12 months?

- Results Handling

Three practices participated in the results handling audit. Prior to January 2015, the audit bundle consisted of six questions:

1. Were the test results reviewed by a clinician within 1 working day of being received?
2. Was a definitive decision recorded by a clinician on ALL test results within 7 calendar days of being received?
3. Have the decisions for ALL test results been 'actioned' by the practice?
4. Was the patient informed as instructed?
5. During the past month, have you carried out a process to identify results which have not been returned to the practice?
6. Number of missing results.

Most of the participating practices did not answer questions 5 and 6.

After January 2015, the audit bundle was updated. The updated audit questions are:

1. Was a definitive decision recorded by a clinician on EACH test result within 7 calendar days of being received?
2. Have the decisions for EACH test result been 'actioned' by the practice including appropriate recalls and tracking of the actions? (if no actions are required, record as N/A)
3. Was the patient informed as instructed? (if no instruction, record as N/A)

- Medicine Reconciliation

Eight practices participated in the medicine reconciliation audit. Prior to January 2015, the audit bundle consisted of four questions:

1. Has the Electronic Discharge Summary (EDS) been viewed by a clinician within 24 hours of receipt?
2. Has medication reconciliation occurred within 2 working days of the EDS being received?
3. Has the patient's regular medication list been updated?
4. Is it documented that any medication changes have been discussed with the patient or their representative within 7 days of receipt?

Practices worked with the audit bundle, provided feedback, and discussed the audit indicators at the second learning session in November 2014. In January 2015, the audit bundle was updated to be more appropriate and feasible for practice use. The updated audit questions were:

1. Has medication reconciliation occurred within 7 calendar days of the EDS being received?
2. Has the patient's regular medication list been updated?
3. Is it documented that any medication changes have been discussed with the patient or their representative within 7 calendar days of receipt?

Participating practices were invited to select the bundle they wanted to implement. The most popular was Warfarin, followed by Medicine Reconciliation and Results Handling. Although the number of practices choosing Results Handling was small it was decided to retain this bundle for those who had expressed interest in working in this area.

Each of the bundles included a number of clinical interventions. The table below shows the interventions for each bundle:

Warfarin	Results Handling	Medicine Reconciliation
Provide advice on Warfarin dosing to the patient following current local guidelines or using computer assisted decision making		Electronic Discharge Summary (EDS) to be viewed by a clinician within 24 hours of receipt(Note – this indicator was dropped from January 2015)
Clearly document the target INR and duration of treatment in the notes	Clinician to record a definitive decision on ALL test results within 7 calendar days of being received	Medication Reconciliation to occur within 2 working days of the EDS being received
Check that since the last blood test the patient been taking the correct dose as ordered by the treating GP	All decisions for ALL test results to be 'actioned' by the practice	The patient's regular medication list to be updated?
Check that the INR has been taken within 7 days of the planned date	Patient to be informed of the test results	Medication changes to be discussed with the patient or their representative within 7 days of receipt
Provide education about warfarin to the patient (at least 12 monthly)		

As part of the programme contract, practices were required to submit monthly audit data on a random sample of 10 patients for their bundle. A query was written for each of the patient management systems used by practices which identified patients who have had a prescription for Warfarin, where an electronic discharge summary had been received or where tests had been ordered in the past three months.

Results were entered into a spreadsheet template which was sent to the Project Team.

Indicators

In each audit bundle, there are multiple indicator questions relating to the high-risk process. Practices were instructed to randomly select ten patients, and provide "yes", "no", or "N/A" answers to the questions for each of the ten patients. Overall compliance for each patient was calculated based on whether the practice had been compliant for all questions for that patient.

Indicators for the Safety in Practice programme in New Zealand were copied directly from the Scottish patient safety programme. The indicators don't measure patient outcomes; rather they measure compliance with a process/set of tasks.

In addition to the bundles two other tools were employed. While these were initially meant both to be completed by practices, due to feedback suggesting that this would take too much time, practices were given the option of completing one of them in year 1.

Trigger Tool

The trigger tool is a structured method of reviewing medical records. It was defined as one of the requirements in the agreement letters sent out to GPs and PHOs. Participating practices were introduced to the trigger tool in learning session 1, held in June 2014 and started using the tool from July 2014.

The trigger tool was developed as a way for practices to find areas for improvement across a wider set of risk areas than their chosen audit bundle and was also a way of embedding improvement thinking within practices.

The trigger tool, guidance notes and procedures specific to the My Practice and the Medtech 32 patient management systems were available on the Safety in Practice website.

The tool was adapted from the Scottish programme and tested by Kyle Eggleton, a Northland GP, and Beven Telfer in his Auckland practice.

Practice Climate Survey

In the Scottish safety in practice programme, the existence of a safety culture was identified as being a core driver of improved safety outcomes and harm reduction for patients. Participants in the Scottish programme identified a 75% improvement in the safety culture of their practice.

The Safety Climate Survey is a survey for practices to measure factors such as communication, leadership, and teamwork, based on 360 degree feedback from all practice staff. A report on the results was produced for each practice. The overall results across all practices who took the survey were benchmarked against the Scottish practices and this information was presented at learning session 3. The individual results for each practice were sent to them with accompanying guidelines on how to run a practice meeting post survey so that they could review and discuss the results as a team and identify any actions they needed to take.

The Safety in Practice programme aimed to use the outcomes of the climate survey as an additional catalyst for practices to change their processes and culture to promote greater safety. In year 1, 11 of the 23 practices completed the climate survey.

1.1.10 Programme reporting

There were three levels of formal reporting, in addition to the reporting by practices against the audit bundle indicators.

Practice monthly reporting

Practices provided their monthly audit report to the Project Coordinator. These were then collated for reporting to the Steering Group and at learning sessions by one of the Improvement Advisors.

Facilitator monthly reporting

Facilitator reports were produced monthly by facilitators for each practice that they were supporting. The report was designed to identify the support activities each facilitator had been involved in during the month and contained the following six questions:

1. What date was the monthly audit completed?
2. How many visits were made to the practice this month?
    - How many contacts were made with the practice this month?
3. How many PDSA cycles have been tested this month?
4. What is the highlight/lowlight/key learning from the PDSA(s) for this month?
5. How many visits were made to the practice this month by the improvement advisor or clinical lead?
    - Is any help required from the improvement advisor for this practice in the next month?
6. General comments.

Programme team monthly reporting

A monthly report was provided by the Project Lead to CMDHB's CPHAC (Community Primary Health Advisory Committee) as part of a wider DHB report to CPHAC. The report provided a brief commentary on the activities of the previous month and upcoming activities.

1.2 Programme Evaluation

At the outset of the programme, an evaluation of phase one was planned and PHOs and practices signed up to take part in the evaluation as part of their letter of agreement/contract. Initial discussions considered having an evaluator as part of the programme – to evaluate as it unfolded, but this didn't eventuate.

In January 2015 Counties Manukau Health issued a Request for Quotation (RFQ) and following assessment of applicants appointed PwC to carry out the programme evaluation.

The evaluation was designed to provide an independent assessment of the SIP programme in order to identify any key lessons for future roll outs and the impact phase one of the programme has had on the practices involved. Four objectives were identified along with a number of key questions for each. The RFQ also included a proposed methodology which identified a number of proposed approaches for the evaluation, including desktop analysis of data and other documents, focus groups and interviews.

1.2.1 Objectives

The evaluation's key objectives were to:

- Identify problems and constraints encountered along the implementation process as part of the Model for Improvement methodology
- Analyse the process of implementation of a collaborative approach defining the benefits for each one of the parties involved (General Practice, PHO, DHB)
- Evaluate the extent to which relevant health outcomes and patient experience have improved and the evidence on how those outcomes have been achieved so that they can benefit other health care organisations
- Evaluate practices' perceptions of increased quality improvement capability including examples of growth

1.2.2 Approach

Over an eight week period our approach involved a mix of formats to ensure that we could optimise the collation of information and feedback. This included:

- Desktop evaluation of data and research
- Fieldwork
- Practice survey

Desktop evaluation and research of data

We were provided with a number of key programme documents. Many of these were used to provide the evaluation team with general background on the programme, and others were used as a core part of our assessment. The documents we received can be grouped as follows:

- Programme participants and contact details – Steering Group, Project Group, Facilitators, practices
- Meeting agendas and minutes
- Steering Group/Advisory Group Terms of Reference
- Planning documents – Year 1 communications plan, Year 2 Campaign plan, strategy paper
- Presentations given at learning sessions
- Data – monthly audit data from practices, learning session evaluations

Our review of this background information, together with early access to the Project Lead, Project Coordinator and Improvement Advisors enabled us to develop our approach to the focus groups and our interview guide for the one on one interviews.

We carried out a detailed analysis of the audit bundle indicator data provided by each practice on a monthly basis. The compliance data across all practices was plotted as a run chart for each indicator to enable us to explore performance over the period of data collection.

The programme did not collect baseline data prior to starting the programme. This data therefore only explores changes during the programme roll out.

Fieldwork

Our fieldwork included three core elements:

- ***Workshops***

We facilitated two workshops, one with the Facilitators and the project team and a second with the newly formed Advisory Group. Recognising that there may be some reluctance for participants, who represented a number of different organisations, to speak freely in an open forum, we designed both of these sessions to make it easy for participants to give their own open and honest feedback from their point of view in written form using a structured workbook. This included a mix of questions requiring a rating and open ended questions. The facilitator session also provided the opportunity for the facilitators to work in pairs and both sessions included an open discussion section on what participants would do the same/differently if they were to implement the programme.

Key to our approach for both these sessions was that respondents were required to tell us how they felt about the programme, how the programme impacted them and what they would do the same/differently.

The questions asked were also carefully phrased so that they didn't portray any positive or negative bias about the project.

Workbooks were prepared in a format appropriate to the audience / users and in a manner designed to obtain maximum engagement.

Participants were very engaged with the process and keen to provide their feedback. We were also able to take some rich quotes which have been included in this report.

- ***Interviews with practices***

Through discussions with facilitators we identified a mix of practices to interview. We were keen to ensure a mix of:

- Small and large practices
- A number of practices from each bundle group
- A mix of engaged and less engaged practices

Ten practices were selected and facilitators were engaged to approach the practices and set up the interviews. Eight practices agreed to take part and one of these pulled out at short notice. The practices we interviewed are detailed in the table below.

We developed an interview guide for the practice interviews. These were designed to guide our discussion with the practice and ensure that we covered the key areas of discussion.

Practice Name	People interviewed
Apollo Medical	Dr Helen MacDonald
Avondale Family Health Centre	Dr Coral Fonseca Daniel Healey Sinead McIntyre
Highland Park Medical Centre	Bronwyn Mansfield Jocelyn Meynell
Leabank Health Centre	Dr Stephen Chang Robyn Giles
Marsden Medical Centre	Dr Jim Lello
Papakura Marae Health Clinic	Dr Hamid Al-Bahadly
Turuki Healthcare	Dr Lily Fraser Erena Tahere

While some practices we initially approached did not feel that they wanted to invest time in the evaluation, the practices we did interview were very engaged, open and on the whole positive about their practice being involved in the programme. We felt that they also appreciated being asked for their views about the programme.

- ***One on one interviews with key stakeholders***

In addition to our interviews with the practices, we also held one on one interviews with a number of programme stakeholders. The interviewees were chosen to ensure we had input at PHO, DHB and programme levels. The people interviewed were:

Name	Organisation	Role
Karyn Sangster	Primary Care, CMH	Chief Nursing Advisor
David Harrison	East Health Trust PHO	Nurse Leader
Nicki Brentnall	Procare PHO	Quality Coordinator
Campbell Brebner	Primary Care, CMH	Chief Medical Advisor
Stuart Jenkins	ADHB/WDHB	Clinical Director Primary Care
Tim Wood	ADHB/WDHB	Funding and Development Manager, Primary Care
Alan Moffitt	Procare PHO	Clinical Leader
Suz Heslop	Ko Awatea	Programme Coordinator
Monique Davies	Ko Awatea	Project Lead
Andrew Jones	WDHB	Improvement Advisor
Ian Hutchby	CMH	Improvement Advisor

Diana Dowdle	Ko Awatea	Delivery Manager
Neil Houston	NHS Scotland	Clinical Lead for Patient Safety in Primary Care

As with the practice interviews, an interview guide was developed and used. There was a reasonably tight timeframe to complete the interviews. Given this and the interviewees being geographically dispersed, we conducted some of the interviews face to face and some by phone.

Practice Survey

A survey was sent to all practices to ensure that all practices, whether or not we had interviewed them, were able to give their input to the evaluation.

The survey was sent to the identified key contact in each of the 23 practices for them to forward to others in the practice involved in the programme (i.e. practice champions) and they were given two weeks to respond. We expected to receive 2-3 responses per practice (between 46 and 69 in total).

Recognising the competing demands on practices, the survey was short and easy for them to complete in 10 minutes. The survey was anonymous, but in order to gauge if there was a difference in response we asked respondents to identify the size of their practice (GP numbers) and their role in the practice. The survey consisted of a number of positive statements e.g. *The expectations the programme had of us were well communicated from the start,* and respondents were asked to rate the question on a scale from '*Strongly Disagree' to 'Strongly Agree'*. There was a section at the end of the survey to enable respondents to provide any additional feedback in free text form.

Unfortunately the response rate was extremely low at 20-30% with only 14 individuals responding. Given this low response rate we are not able to use any quantitative data reliably. Qualitative feedback did however support feedback we received during face to face discussions with practices and other stakeholders.

2. Evaluation findings

2.1 Overall findings

We have assessed that the Safety in Practice year one programme:

- **Was mostly viewed as a success by the programme team, key stakeholders and programme participants.**
- **Partially met each of the stated programme objectives.**

It is key to note that it was not possible to use quantitative measures to evaluate the safety in practice year one programme. All findings have been generated from qualitative data gained from feedback and anecdotal insights from the programme team, key stakeholders and programme participants.

We understand that activities within the programme management approach did not include the establishment of baseline data or quantitative performance data regarding either the programmes objectives or the evaluation objectives, with only quantitative bundle compliance data collected from each of the participating practices on a monthly basis.

Please see section 2.5.2 for our analysis regarding bundle compliance

2.2 Evaluation objectives

Evaluate the extent to which relevant health outcomes and patient experience have improved and the evidence on how those outcomes have been achieved so that they can benefit other health care organisations.

- Anecdotal feedback suggests that improvements made within a number of practices have reduced risk and improved health outcomes. However, there was no reliable data or reporting generated in the programme regarding health outcomes or the patient experience.
- Feedback from the programme team highlighted that the lack of data was expected, mirroring the first year of the Scottish experience.

Analyse the process of implementation of a collaborative approach defining the benefits for each one of the parties involved (General Practice, PHO, DHB)

- The collaborative approach was regarded as positive by all participants and stakeholders, with many practices anecdotally highlighting the benefits of sharing and learning with other practices, both within their own bundle and across the wider programme.
- The delay in developing a comprehensive project plan and overall programme management approach resulted in a rushed start, confusion regarding programme activities and timelines and significant variation in the engagement approach experienced.
- Additionally a common theme throughout interviews with practices, one on one interviews and written feedback provided by the project team, facilitators and Advisory Group was that the speed of the implementation meant that there was little opportunity to think about how to embed changes into NZ setting or how any of the interventions would need to be adapted. Decisions were made as the programme developed and changes were made as the year progressed.
- While not described as such, the programme in effect was a prototype or proof of concept for further roll out within Auckland and potentially across other DHBs in New Zealand

Identify problems and constraints encountered along the implementation process as part of the Model for Improvement methodology

- The Model for Improvement methodology was not new to the practices through their previous experience with the Cornerstone accreditation scheme. Feedback from the project team is that this is

used for audit purposes rather than to test small incremental changes, and that practices need to further understand the philosophy/way of thinking – rather than 'just being given the tool

Evaluate practices' perceptions of increased quality improvement capability including examples of growth

- Participants have all responded favourably, advising that their knowledge of improvement tools has increased. Previous capability was not baselined; however the many anecdotal examples given demonstrate that a drive for continuous improvement for patient safety is becoming more of a focus for each of the practices

2.3 Programme objectives

Prevent or reduce harm and improve the quality of care for patients with chronic conditions

- There is no empirical evidence in New Zealand to confirm the impact of the programme on safety outcomes. However, we believe that there is enough evidence that the bundle areas are key areas of potential harm and that there is anecdotal evidence from practices to show that through this process they have picked up instances where harm may have been caused.
- There is anecdotal evidence that the changes made by practices have reduced risk to patients and in some cases reduced harm. However, there is no conclusive evidence of the impact of the programme on patient safety outcomes.
- These findings are consistent with those from the Safety in Practice programme in Scotland where the programme has had a significant impact on Warfarin patients but no direct evidence in relation to results handling or medicine reconciliation.

Increase the capacity of PHOs and general practices in patient safety methods and processes

- We note that there has been excellent progress, with feedback suggesting an observed change in most of the practices involved. This is still early for most practices in their journey to fully embedding the improvement mind-set in the way they work and think. This is to be expected and is mirrored in the Scottish experience. The range of practices and varying levels of engagement with the programme also means that we can't rate the objectives as being fully met.
- Practices have started to use the quality improvement methods and processes but the level to which these are embedded as "the way we do things" is variable as evidenced by the results reported by practices.
- The capacity and capability of Facilitators was variable with all of them doing this work on top of their "day job".
- While Facilitators have increased their knowledge and understanding of the methodology some of them acknowledge that they are not all fully able to support the practices e.g. with the Trigger Tool.

Promote a culture of safety

- There is no baseline data for the safety climate survey to establish where practices started from and hence the extent of improvement.
- Climate survey results include only 11 out of the 23 practices as practices had the choice of doing either the survey or trigger tool.
- Average scores against the five climate survey questions ranged from 4.1 to 5.9 out of 7. This is a reasonable score but as this is for only 50% of the practices it cannot necessarily be seen as an overall endorsement.

Develop practice systems and processes to increase patient safety

- All practices have been actively involved in reviewing their processes.

- However, process changes and the PDSA quality improvement methodology are not fully embedded in all practices as can be seen from the variation in performance against the audit indicators for each bundle, particularly when the data is viewed on an individual practice basis.

2.4 Additional findings:

2.4.1 Project Governance

- The number of participants within the Steering Group was too big to be an effective governance vehicle with a decision making role.
- A review of Steering Group minutes does show that there was a lot of discussion about what appeared to be operational matters – e.g. changes to PMS functionality, venue changes for learning sessions. It was agreed at the October meeting that the Data/progress reporting from practices would also be presented.
- Majority of the meetings appear to have involved updates to the team on what had already been done rather than the group having a strategic focus and being asked to make a decision about key project strategies.
- Membership was meant to be at Chief Executive level or their direct reports but also included facilitators as representatives from two of the PHOs. This sometimes made discussion about delivery difficult.
- The decision making and communication process was not documented within the ToR, and although Steering Group members generally felt that they did make the key decisions about the programme this was not done or communicated in a consistent manner.
- Feedback from a number of project team members was that the Consumer Representative on the group was not seen as effective in representing consumers in a broad sense, having more of a focus on the practice they had recently been working at than taking a wider consumer perspective.

2.4.2 Selection of practices

- The speed of the roll out and the late addition of WDHB and ADHB meant that there was an element of "shoulder tapping" of some practices in year 1. While practices didn't tell us this directly, we were told by the project team that this led to some practices feeling that they had got involved without the full knowledge of what they were signing up to.

2.4.3 Programme management

Programme planning

- This lack of a detailed programme plan stemmed largely from the fact that the project team at Ko Awatea only came on board two weeks before the first learning session held on the 4 March 2014 and so were running to catch up at the beginning.
- Without a plan it was not possible to identify key project milestones or assess whether these are being met throughout the programme.

Programme resourcing

- All the project team members were fully committed to the programme and while clearly enthusiastic, the programme was not their only focus. None of the project team members were allocated to the programme on a full time basis, meaning no-one had complete focus at a senior level on the project. While it is understandable that the project was set up like this for year 1, given only a relatively small number of practices, it may not be sustainable in year 2.
- There was some comment that it would have been good to have a facilitator on the project team to give a general practice perspective. The change for year 2 to create the Operational Group addresses this with

the monthly meeting involving facilitators shifting from a training focus, to discussion of the programme more generally.

- Project team structure mirrors usual project set up in Ko Awatea, however this programme has had more clinical lead involvement than usual, recognising the fact that not all project team members were familiar with working with primary care and utilising the skills and experience of Campbell and Beven in this respect. Having a practising GP as clinical lead (Beven and now his successor Vikas Sethi) has been good for securing engagement with GP practices.

Contracts with practices

- The contract that practices signed related to what activities had to fulfil to get the payments (attendance at learning sessions), however feedback has suggested that the contract did not clearly articulate that practices were required to complete other activities throughout the programme.
- On a number of occasions in year 1 it appears that the project team had to refer practices to their contract e.g. for not submitting data or completing the trigger tool to ensure compliance and completion.
- Despite the engagement of the practice site champions, the requirements of time and input that would be required of both site champions and other practice team members were not fully understood.

2.4.4 Engagement and communications

- Engagement with a multitude of private practices was difficult and feedback suggested that the additional PHO layer adds complexity – element of gatekeeping and initial resistance to Ko Awatea – feeling "done to"
- While some funding was provided to assist practices to participate in learning sessions, the programme activities are not linked to finance and there are always other competing programmes e.g. ARI
- We were told by GPs that this programme ticked a lot of the boxes for GPs – it was paid, there was some understanding of opportunity costs so meetings were in the evening and the ability to influence and choose the bundle groups meant it didn't feel like it was "imposed from on high"
- We were told by practices and a number of other stakeholders we interviewed that what was required of practices in return for the money was not clear at the beginning. The contract did specify completing PDSA improvement cycles, trigger tool and attending learning sessions but the section for practices to sign referred only to the learning sessions.
- Facilitators and project Team members told us that there was some confusion and protectionism about who could talk to practices initially. In the early stages project team communicated via PHOs but some key information didn't get passed to practices e.g. the need to complete a storyboard for learning session 1.
- In one on one interviews a number of people expressed the view that the speed of the set up meant that the depth of engagement may have been less than desirable – so practices less prepared for what they had to do. In year 2 the programme clinical lead and improvement advisor will visit every practice (new and existing) to discuss what they need to do, expectation etc. after learning session 1.
- A senior programme team member told us that engagement wider than DHBs/PHO/practices was not sustained throughout the programme e.g. HQSC
- Interviewees felt that the good stories were not always heard outside of participating practices or at senior levels in the DHBs and PHOs. For example, at the last learning session there were no senior PHO or DHB representatives.
- Varying levels of commitment from PHOs – to be effective programme needs commitment from all parties – DHB, PHO, Practices. Need to have clear roles and responsibilities between them all. Practices need to be held accountable and PHOs need to prioritise for it to be effective.

- Engagement of practices varied and lack of experience among facilitators to get resistant practices on board. Not all facilitators had relationships with practices prior to the programme.
- Communications were adhoc – no detailed plan – project plan developed for year 2 – needs to include comms who, what, when, why More clarity needed on who will communicate what, consistent messages needed. In the written feedback and one on one interviews, the phrase "mixed messages" was frequent.
- Some practices didn't fully engage across their organisation, they saw the champions as the "safety team". Practices we spoke to where this had initially been the case told us that they only really got traction once the whole team were on board. "It was a lot of extra work but if we want to improve patient care we need to do these things" – GP
- There has been no shared and clearly documented long term vision for the programme. One interviewee suggested that this is partly an issue resulting from 12 monthly funding cycles. There is no plan for what happens with the programme beyond the next 12 months. A strategy has been drafted and while this is an effort to get discussion going about the longer term future it does not provide a clear action plan to get there.
- When Facilitators and the Steering group were asked about the frequency, relevance, how easy to understand and how engaging the communications from the project team were there were a range of views with some scoring very positively/satisfied and others negatively/dissatisfied.

2.4.5 Project support

- It is clear that practice champions and facilitators value the role of Improvement Advisors (IAs) because they provide insight into a variety of improvement approaches without imposing an approach that may not meet the specific needs of the practice. There was some resistance from PHOs with respect to the involvement of IAs and this appears to be because PHOs feel that they should perform this role."
- The utilisation of facilitators and IAs varied between practices, this was largely dependent on the programme relevant skills and capacity within each practice.
- The project team and facilitators themselves told us that the facilitator group had varying levels of capability in quality improvement, despite being primarily selected because their "day job" had a quality or development focus. In year 2 all facilitators will be contractually required to attend methodology training and it is hoped that this will result in consistent quality improvement capability across all facilitators.
- In some cases, facilitators didn't have an existing relationship with the practices they were working with and it was necessary to spend time building relationships before it was possible to provide effective facilitation.
- The delivery of support by facilitators and IAs will need to be adapted in year two to accommodate more practices and practices with a varying amount of experience of this programme.
- Practices have many competing tasks and responsibilities and some practices were more willing to engage with the programme than others. Some facilitators acknowledged that they were uncertain how best to encourage practices to prioritise and engage with the programme.
- Awareness of the improvement methodology within PHOs was largely limited to the facilitator group; increasing awareness throughout PHOs will improve the level of support that PHOs can provide to practices.

2.4.6 Programme reporting

Facilitator reports

- The content of facilitator reports and guidance on how best to source the necessary data was not effectively communicated to the facilitator team. In some cases the required data could not be reliably

obtained. This issue could have been mitigated through more detailed consultation with facilitators prior to establishing the reporting requirements.

Steering Group/Advisory Board

- Indicator data was reported to the Steering Group from October 2014; however the indicators were only introduced to practices in at Learning Session 2 in June 2014 and this resulted in the data being produced retrospectively for the initial 3 month period or not being completed at all by some practices. The requirement to produce 3 months of data retrospectively proved to be time consuming and some practices had insufficient capacity to meet this requirement.
- Meeting notes and feedback from a number of interviewees confirm that Steering Group meetings were primarily operational rather than strategic. The creation of the Operational Group for year 2 and the members greater programme experience will help to refocus these meetings on strategic issues.

Other programme reporting

- A monthly report was prepared by the project team and provided to CMDHB and CPHAC. This was an update on programme activities in the previous month and effectively consolidated facilitator and project team reports with the minutes of the steering group meetings.

2.4.7 Collaborative Approach

- Feedback on the collaborative approach and the opportunity to learn and share with other practices was unanimously positive. Practices said it was the first time they had been able to work with other practices as they tend to work in quite an isolated environment.
- Having involvement of Neil Houston from Scotland was also seen as working very well, providing his knowledge and experience from the Scottish programme but also being able to talk clinician to clinician and ask the difficult questions to challenge practices and the project team and Steering Group.
- Similarly feedback was very positive about having the clinical lead in the project group with people expressing the view that the programme really took off when Beven came on board.

2.4.8 Training

- We were informed by interviewees that there wasn't good take up of the Facilitator training sessions by facilitators in year 1. There was a perception by the project team that facilitators thought they knew about improvement methodologies at the beginning of year 1, but that this has changed as the year has progressed and facilitators now "know what they don't know". Facilitators now keen to attend the training and seen as career development.
- Process mapping – one interviewee felt that the session for practices was too long (2 hours) and the one for facilitators could have been longer. These sessions were followed up by input from the Improvement Advisors who provided support to the facilitators and the practices.

2.4.9 Learning sessions

Enthusiasm and commitment to the programme

- Participants expressed definite motivation and enthusiasm for the programme. Feedback on presenters at the learning sessions was largely positive, with repeated mention of Dr Neil Houston and Dr Beven Telfer as inspiring participants.

Venue and housekeeping

- Venue was a common pain point for many participants. Practices based further north felt the venue was too far away and would have appreciated a more central location. Given the next phase is expected to have 50 practices participating in the programme; a different approach will need to be considered.

- Other reported issues were that the venue was hard to get to, it was too small (and presenters could not be seen or heard properly), and parking was difficult and expensive.

Timing of the sessions

- The time of the learning sessions was another common pain point. While we understand that the sessions were designed to be at the end of the day to minimise impact on practices and patients, feedback consistently indicated that the sessions were held too late. This is a difficult issue to solve, as some participants clearly felt the sessions were too late, but others were also aware that holding sessions any earlier would impact their work day.
- Smaller practices struggled to send staff to the learning sessions, as the number of staff they were contracted to send to the sessions would have meant half of their staff, if not more in some cases, meaning the practice would essentially be closed. The practice contracts required the two to three practice safety champions to attend the sessions to ensure the practices were eligible for payment. The contract is somewhat confusing in this respect as it says practices have to identify 2-3 practice champions but then refers to three champions being present to fulfil criteria for payment. There appears to have been some leeway in this and some practices only sent two champions.
- Some comments also received that the actual confirmed date of the meetings was often short notice i.e. they knew it would be in November but the actual date was confirmed quite near to the session.

Length of the sessions

- We understand that Ko Awatea's methodology for their campaigns included two full day learning sessions. Feedback provided at the beginning of the Safety in Practice programme was that this would have too great an impact on primary care practices and so the sessions were reduced to four hours (Note: the first session was three hours and ran from 6-9pm. Following feedback from participants the subsequent sessions started earlier in the afternoon and were extended to four hours). Despite this, a widely shared opinion by participants was that the learning sessions were too long. Consistent feedback from the project group on the other hand was that four hours was not enough for the sessions.
- Some participants suggested that for the next phase of the programme the learning sessions should be shorter for practices already involved with the programme.

Session content

- Participants we interviewed overwhelmingly told us that they got the most benefit from the discussions and sharing with other practices in their bundle, and that they would like more time in their specific audit bundle groups and more time for practice presentations. We also received some feedback that these sharing sessions were sometimes a little unfocused.
- Participants felt that the content of the learning sessions was often rushed and repetitive between learning sessions with too much focus being placed on the Scottish patient safety programme.
- The most relevant areas identified by participants were PDSA, care bundles, trigger tools, and discussion and sharing and networking with other practices. The collaborative sessions got people sharing and using the tools.
- Participants also expressed positive feedback about hearing about other practices, how they were performing, what their approach was, and what the fundamental problems were. Practices appreciated sharing information, being able to pick up what others were doing, and being inspired to question what they might be missing in their own practice or with their specific audit bundle.
- Interviewees also told us that while their primary focus was on the bundle they had chosen, hearing from other bundle groups about what they were doing inspired them to think about their wider practice and other changes they could be making.
- We understand that the project team have started to discuss how the future sessions will be structured to balance the need for practices new to the programme to receive all the information they need, and for existing practices to continue to be engaged and learn. One suggestion has been to have separate

sessions within the session – while new practices focus on the methodology, existing practices will focus on sustainability of the progress they have made.

- One interviewee told us that sessions could have been more prescriptive in terms of spelling out what was expected from practices between sessions – more goals and action plan to work to between sessions e.g. number of PDSA cycles, targets for audit

Learning session feedback was collected using a simple feedback form that contained eight questions:

- Participating in this learning session will improve my ability to lead change in my organisation?
- The overall quality of this session was excellent.
- How many new ideas did you learn as a result of participating in this programme?
- Did this learning session have the right mix of presentations, discussions and exercises?

The final four questions ("most relevant", "expectations", "specific presenter", and "additional comments") were free text and participants could provide any additional feedback

We have extracted a selection of verbatim feedback from learning session participants, representing common themes, which has been categorised as follows:

Programme

- "Looking forward to the journey"
- "Excellent, Formalising what we are attempting to do in practice excellence"
- "Concerned re getting time to do this properly"
- "Momentum to go to next level"

Content

- "Thanks Neil - very entertaining but learnt a lot"
- "Too many things in one session. Give enough time to practices to present. More time to present on next steps."
- "Some speakers need to slow down - better to say less more slowly than get through a whole lot quickly"
- "Root cause analysis?"
- "Too much talking by project team - would rather listen to practices and Neil"
- "The learning session was very well put together. It was a challenge to stay focussed for 3 hours at the end of a busy day, group work would be better earlier in night"

Collaborative approach

- "Networking, Great group - motivated and inspiring"
- "Feedback from other services - good to hear similar issues"
- "Not enough discussions/support sessions on audit topics"
- "Realisation most groups experiencing similar barriers and achievements"

Housekeeping

- "Better food would be appreciated. Is dinner time after all"
- "Venue too small for the number of people that attended"
- "Overall learning sessions are far too long. A shorter session would be better"

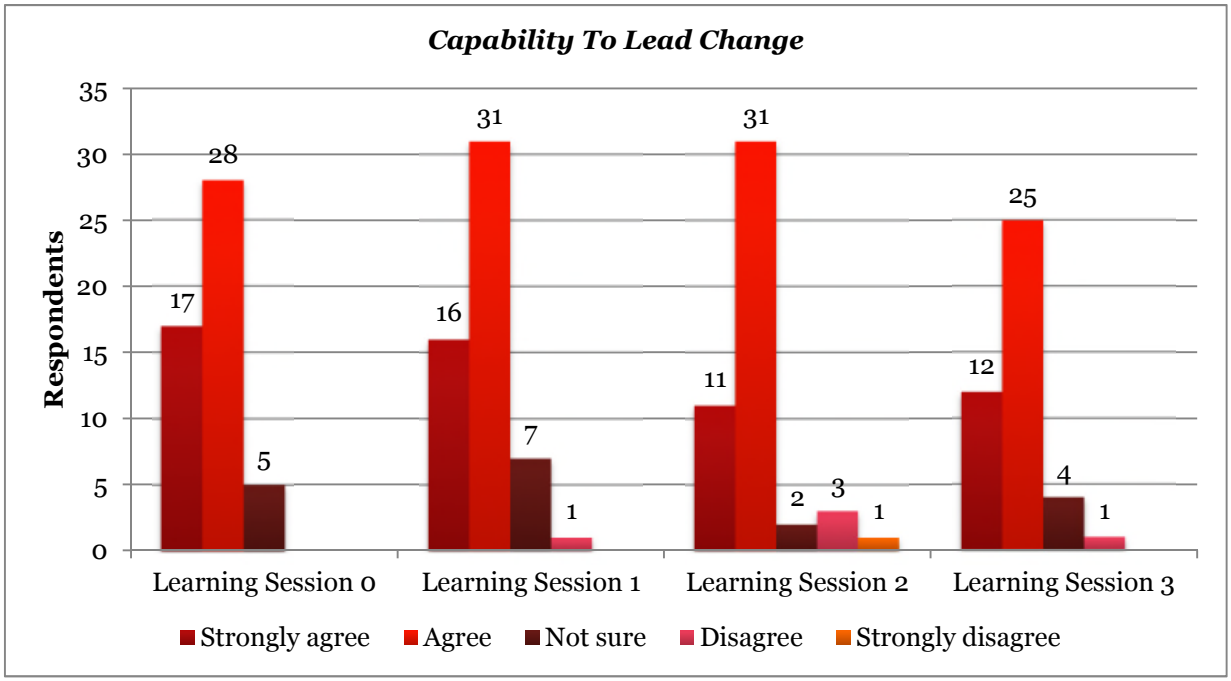
While it is acknowledged by the review team that it is not possible to fully satisfy all participants in sessions such as these, the feedback received is consistent with and supports the review team's findings and feedback during workshops and interviews. The programme team were clearly responsive in terms of some of the housekeeping type issues. While length of the sessions continued as a theme across all workshops,

the issue of food quantity and quality was not raised as an issue by participants in the session feedback after Learning Session 1.

The following graphs provide a summary of the responses to the feedback questionnaires from each of the four learning sessions:

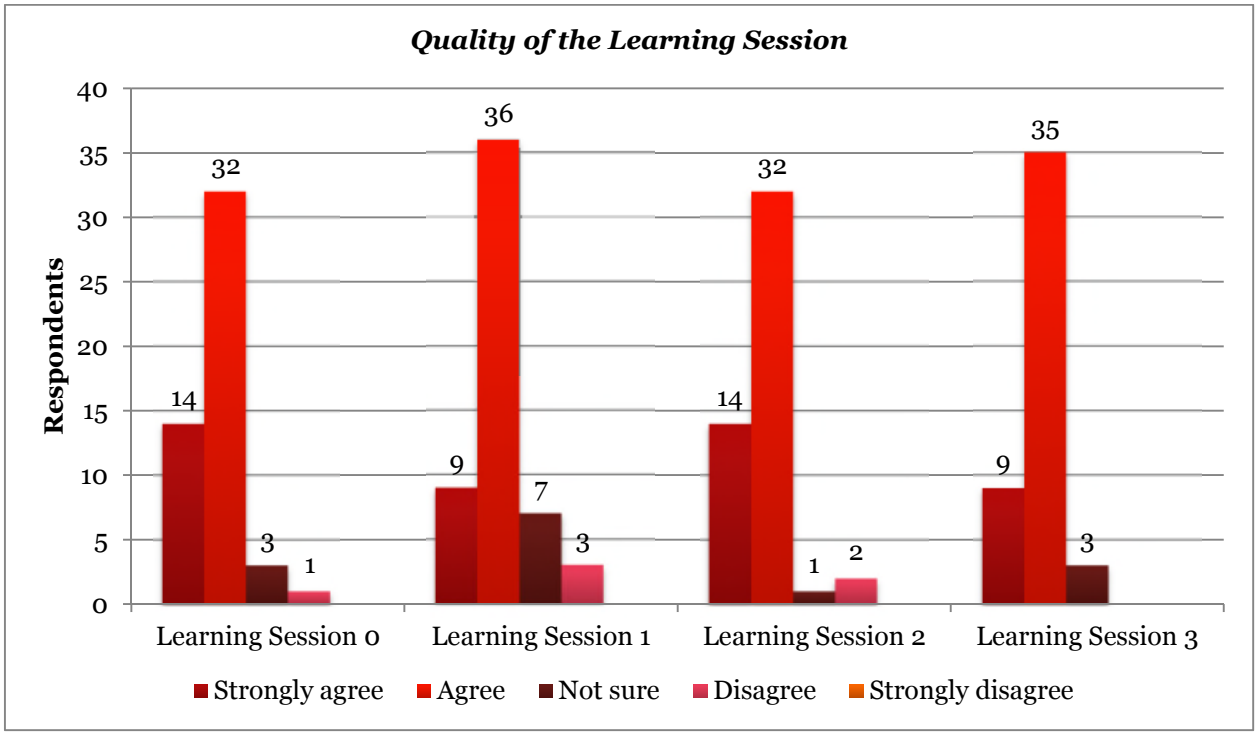
Capability to lead change

Over 80% of respondents agreed that the learning sessions would improve their ability to lead change in their organisation, for all three learning sessions.



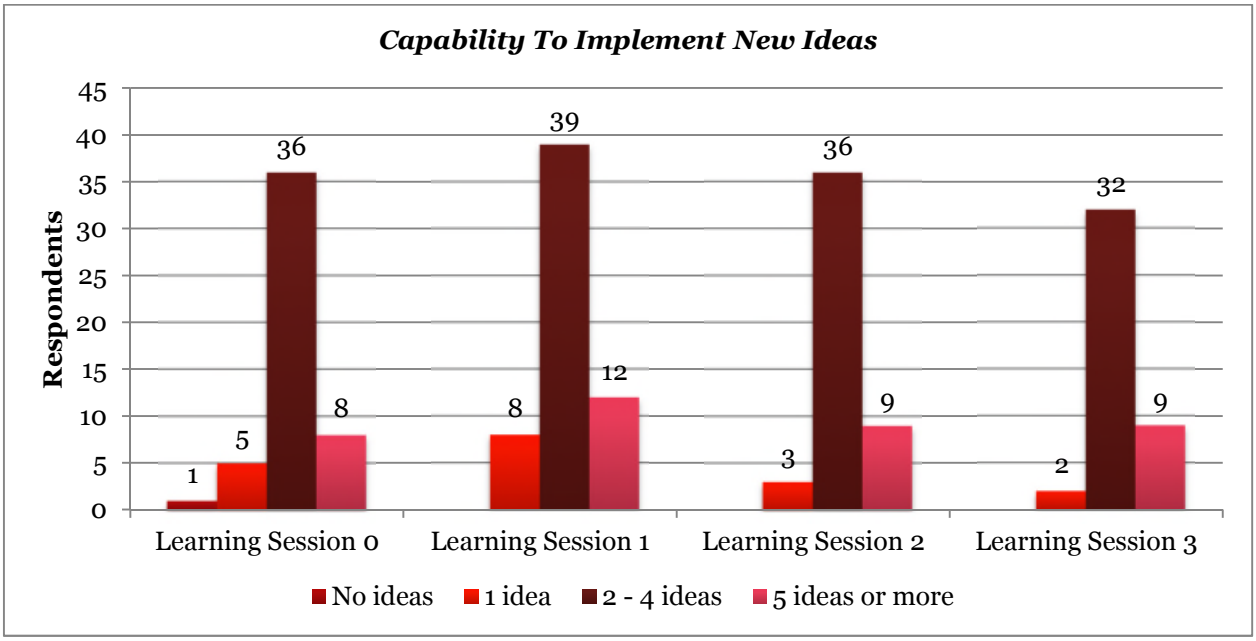
Quality of the Learning Session

Respondents were similarly agreed on the quality of the learning sessions: for all three learning sessions, over 80% of respondents agreed or strongly agreed that the quality of the learning session was excellent.



Capability to implement new ideas

All practice staff and other stakeholders consistently told us that the learning sessions were effective in enabling them to meet, share and discuss ideas around their practice. This is clear from the 70% of respondents that came away from all learning sessions with 2 – 4 ideas and is backed up by the post session feedback given. Participants were widely inspired by the learning sessions, with only one respondent having no ideas after participating in the programme.

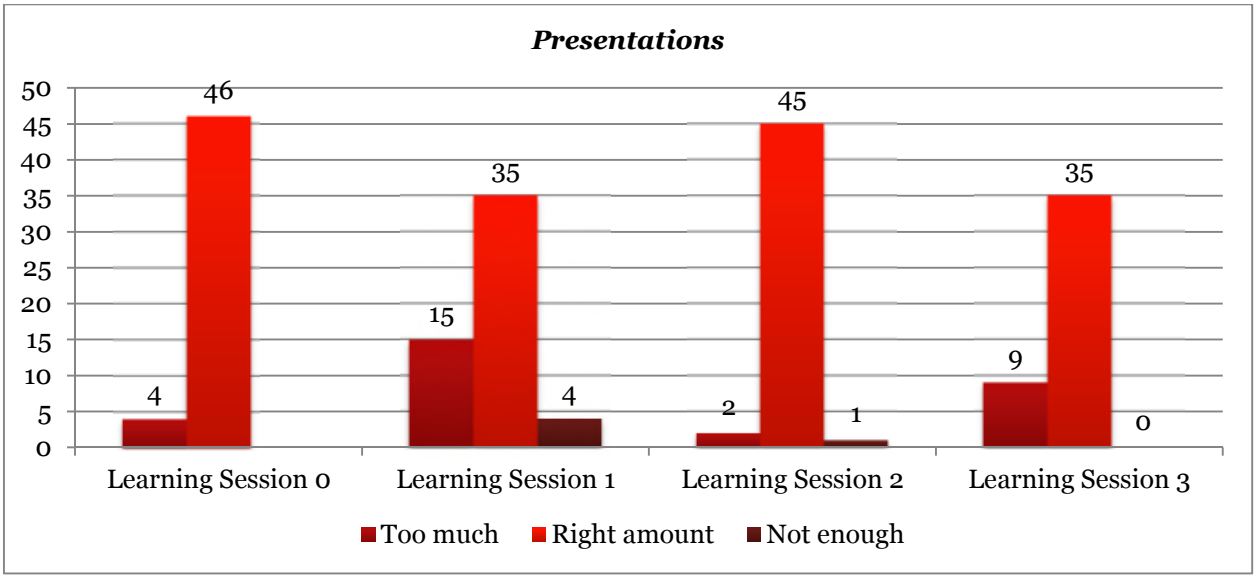


Across all four learning sessions, the majority of participants agreed that there was the right mix of presentations, exercises and discussions.

Presentations

The majority of participants agreed that the learning sessions had the right amount of presentations, discussions, and exercises. For learning session 0, 81% of participants felt the learning session had the right mix of content. For learning session 1, this fell to 65% of participants. For learning session 2, 84% of participants felt the learning session had the right mix.

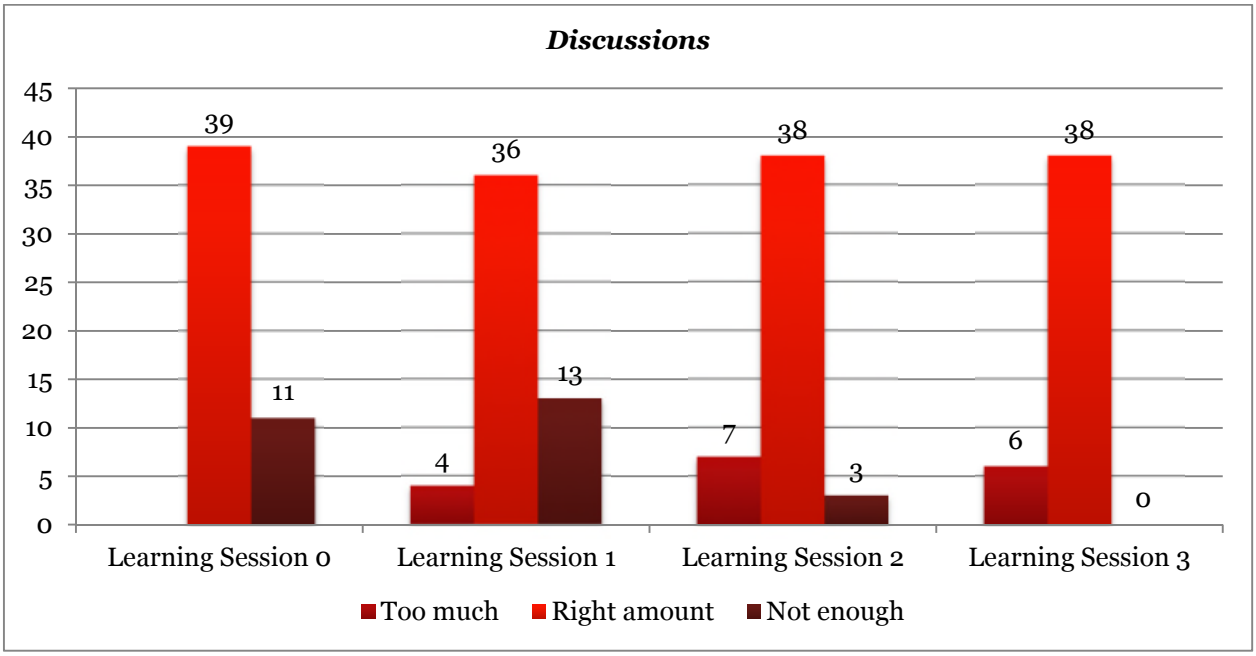
This number did slip slightly in Learning Session 3 and may have been related to the fact that this session was slightly longer being the final session for year 2. Only 5 respondents across the four learning sessions felt that the material presented was 'not enough'.



Discussions

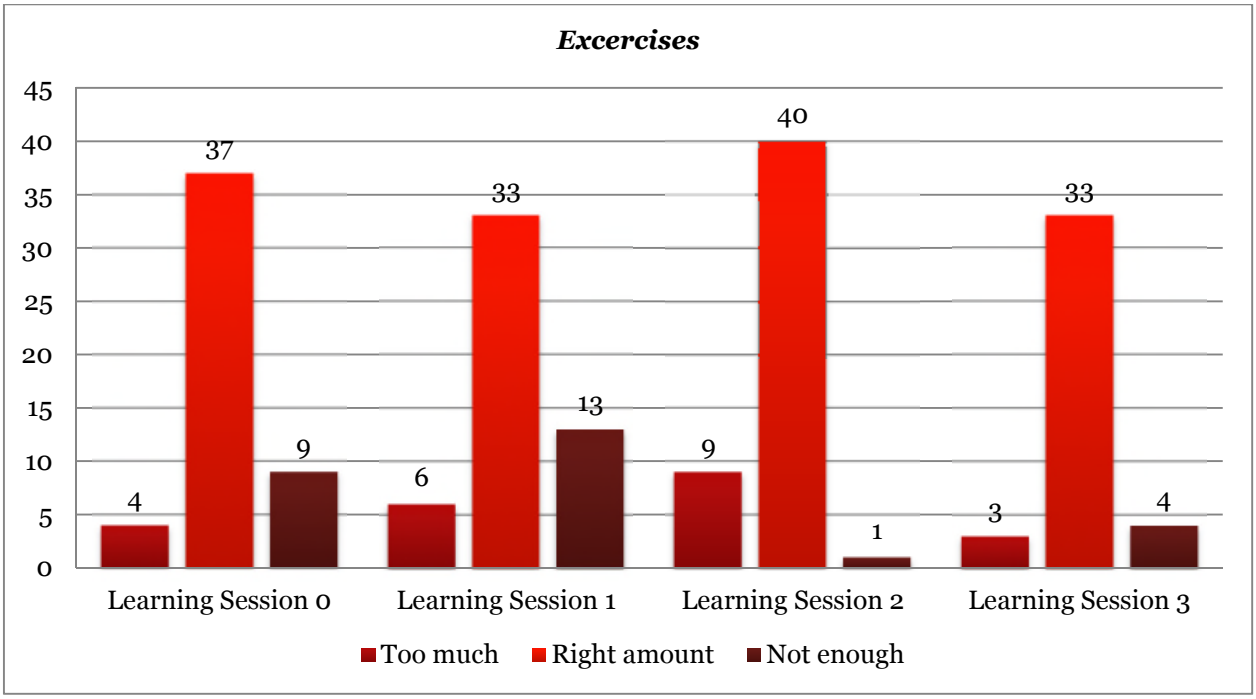
The data shows that over 65% of all participants felt that the level of discussion was at the right level for each of the learning sessions, with learning session 3 achieving the highest score of 86%.

Learning session 1 was the lowest scoring session, with 32% of all participants suggesting that the discussion level was either too high or too low.



Exercises

As with presentations the project team clearly took on board feedback that there weren't enough exercises in Learning Session 1. The number of people who thought there were too many exercises increased slightly. Again, satisfaction dropped in Learning Session 3. This is also likely to be due to the fact it was the last session for the year 1 programme and therefore less likely to involve exercises to show participants how to use tools and so on.



2.4.10 Methodologies

- Practices are familiar with the PDSA incremental change methodology (described on page 10) through the Cornerstone accreditation programme. Some practices appear to have been introduced to the PDSA toolkit without properly understanding the philosophy behind the methodology. A key role for facilitators is to instil the PDSA methodology not only amongst practice champions, but more generally throughout practices. Once the PDSA methodology is properly embedded within the practices taking part in the programme, it is much more likely that these practices will proactively instigate safety improvements in response to the data generated by this programme.
- A generic approach to introducing the PDSA methodology as part of the programme was adopted. It is likely that a greater level of understanding of the PDSA methodology may have been achieved if the introduction process had taken account of the variation in practices at the outset and tailored the approach to best meet the specific practices needs.
- The involvement of patients in the programme was not specifically required as part of the programme and was minimal in year 1. Practices should be encouraged to collaborate not only within their team and with other practices, but also with patients in relation to all safety improvements to ensure that the patient perspective is fully considered and addressed by the potential improvements.

2.4.11 Interventions

Audit Bundles

- Practices were engaged in Learning Session 0 to determine what bundles would be included in the programme.
- Feedback we received was that the bundles were the right ones and that the need to improve practice in these areas resonates well with practices.

Indicators

- The indicators used for each of the bundles were those used in the Scottish Safety in Practice programme. They are not patient outcomes but they measure the outcome of processes e.g. medication changes have been discussed with a patient. Implicit in the indicators is an assumption that compliance with each (or all) of the indicators will lead to a better outcome for patients.

- The indicators were introduced to participants at Learning session 1 in July 2014 which meant the practices had already been in the programme for several months. Some practices retrospectively completed their data, but for others the data for the first months of the programme is missing.
- The practices were not required to provide any baseline data for the programme which makes it hard to establish what improvements have been made as a result of the programme.
- Practices worked with the indicators between learning session 1 and 2. Many provided feedback via Facilitators and their PHO that not all indicators were appropriate for New Zealand. They were discussed at learning session 2 in November and changes were agreed so that they better reflected New Zealand practice e.g. in the medicine reconciliation bundle there was an indicator "% EDS viewed by a clinician within 24 hours". This wasn't aligned to how NZ discharges are processed and so was cut. The changes were effective from January 2015 and the input spreadsheet was updated and available on the website at the end of January. While practices had been involved in the decision to change the indicators at the learning session in November, a review of the returns from practices post January shows that many practices carried on using the old spreadsheet and therefore attempting to provide the data for indicators which had been changed or deleted.
- One of the medicine reconciliation indicators "% medication reconciliation within 2 days" was changed to 7 days to reflect the fact that GPs may only work 1 day a week. A new indicator wasn't created to reflect this change. This meant that data was misleading, showing a spike in meeting the target due to the target being changed. Given confidence levels in the data weren't high this reduced confidence further.
- Practices told us that through this process they felt that they were listened to by the project team and appreciated the indicators being changed to make them more relevant to NZ.
- Ideally indicators would have been discussed with practices before being implemented e.g. at learning session 0 or learning session 1 when they were introduced to practices. This would have potentially meant that they had more buy in to providing the returns and using the data within their practice.

Trigger Tool

- While not specifically linked to the bundle areas, the trigger tool encourages practices to look at other areas of their practice and further reinforces the quality and safety mind-set.
- Participants agreed it was a good tool, but some practices thought it wasn't easy to use and took a lot longer than the 20 minutes estimated by the project team.
- The trigger tool seemed to come unexpectedly to most practices, with many telling us the requirement wasn't in the contract (it was). There were presentations on it at the learning sessions but practices weren't expecting to actually have to do it.
- Some practices said they would have liked more support in doing the trigger tool, and not all facilitators felt able to support practices in the use of the tool as they are not all familiar with the PMSs.

Practice Climate Survey

- No baseline data was prepared so that practices could see how they had changed / improved throughout the programme.
- Seen as useful as it challenges communication processes across all levels in the practice
- Facilitators knew about survey but practices may not have. The contract didn't specifically say they had to do a survey, more generic "Reflect on how best to establish and nurture an enhanced Patient Safety Culture within the practice"
- Practices haven't yet acted on the results of the survey
- As with trigger tool seems to have not been sold as an integral part of changing culture and behaviours around managing risks
- The original intention had been that practices should complete both the trigger tool and the climate survey. However, at learning session 2 practices were told that they should try and do one of them.

Feedback advised that the participants were advised that a 'senior' person made this decision, however we are not able to find confirmation that this was initiated or endorsed by either the project team or Steering Group

2.4.12 Data collection and reporting

The Safety in Practice programme used three audit bundles: medication reconciliation following discharge, test results handling systems, and prescribing and monitoring of warfarin. Practices collected data relevant to their audit bundle and submitted it to the project team and improvement advisors.

Some common themes appeared from the analysis of the audit bundle data:

- The audit packs sent out were detailed and comprehensive, containing relevant information and instructions. Audit packs contained instructions on collecting audit data, a list of audit indicator questions and the reasoning behind each question, a template for printing and collecting audit data, and an audit spreadsheet. The audit spreadsheet contained instructions, a data collection form, the same paper form, charts, a form for audit reflection and improvement, and a PDSA cycle form.
- Practices collected data using varying and inconsistent methods. The audit packs contained detailed instructions on how practices were to collect data. However, practices commonly misunderstood or made mistakes. One audit pack instructed practices to randomly select a sample of ten patients, but practices did not seem to know what this meant; one practice used systematic sampling and may have overlooked patterns in their patient data. Similarly, the data collection form provided cases for each of three answers: yes, no, or not applicable. Practices often answered no to a question, when the answer should have been not applicable. One practice in the medicine reconciliation bundle told us they initially used to spend around 4 hours going through patients pulled up by the query to find those with changed medication.
- The value and purpose of the audit data was not clear. In their data collection forms, some practices made notes, stating that the audit was occurring too soon for them to see any noticeable difference. Other practices, particularly smaller practices, noted that the audit was occurring too often, and felt that they did not have enough patients to justify collecting data so often. In addition, many practices had other competing priorities and were simply unable to collect audit data every month. Audit data was to be collected monthly to show the effects of incremental changes made as part of a PDSA cycle. Practices did not seem to clearly understand the link between a PDSA cycle, an incremental improvement, and the audit data that was intended to measure the improvement (or lack thereof). GPs are used to collecting data for others external to their practice. The need to be encouraged to see it as their data – theirs to do something with. From the Scottish experience it can take time for this to be understood and for the mind-set to change. In some cases they are only just seeing this happen and they are in the second year of the programme.
- Special cases were handled differently by practices. Practices regularly dealt with special cases that meant they were not complying with the questions in their audit bundle. Long weekends, very young patients, and locum or part-time staff were some of the reasons that practices gave for their non-compliance.
- Sample size was not matched to the practice size. Smaller practices felt they did not have enough patients to sample ten patients every month without sampling the same patient repeatedly. Larger practices felt they could take a larger sample, because they had more enrolled patients and the time and resource to collect more data. The sample size was chosen because learnings from Scotland were that small and frequent audits were best to track incremental changes.
- Sample size was changed from the original Scottish programme – In the Scottish programme, the Warfarin sample was 10 a month (felt to be enough as there was enough activity with these patients to make data meaningful). For medicine reconciliation and results handling the sample size was 20 a month. Less than this may mean that there is not enough activity to make the data meaningful – i.e.

have enough patients where there has been a change. The sample is meant to provide insight into the systems and processes.

- Reporting on Year 1 bundles - Practices moving into year 2 won't be required to continue reporting on their 1st year bundle. Given the changes are not completely bedded in with all practices a less frequent check may be appropriate to ensure that gains achieved are sustained. This also needs to be considered in the light of capacity within the practices. It may be better to have a focus on an area which needs a lot of improvement than an area a practice has got more or less right. A few practices told us they would continue to audit, but less frequently.
- Proactive use of data by project team - Data provided by practices does not appear to have been used in a proactive way e.g. to target practices who may need more support, those doing really well etc. Some practices commented that they wondered what the value of reporting the data was as they never received any feedback.

2.5 Outcomes

2.5.1 General Outcomes

- Patient outcome measures are not easy for this work. Even in Scotland they still don't really have anything much more than anecdotal evidence of improvement. Recent research completed in Scotland on Warfarin shows dramatic improvement in control which can be directly related to the programme. This research is to be released soon. The project team have attempted to carry out some analysis in this area in New Zealand but this is not yet complete. Anecdotal feedback includes:
  - Leabank took 70 patients off warfarin as a result of this programme
  - Turuki – someone looks at hospital discharges every day, whereas before this activity would go undone for a week or more
- Avondale – through this process they found they had been receiving results for a patient for 6 months and they were no longer enrolled in their practice
- DHBs may want to see measurable outcomes to justify costs and need clarity about the outcomes to make sure that their investment is appropriate. It would be unfortunate if the programme was halted because of this lack of hard data as there seems to be a consensus that the programme has resulted in significant improvements for some practices and is embryonic in changing the mind-set to focus on quality and safety.
- Practices told us that they experienced changes in the way practice teams worked together and extended their critical thinking about their practice. This took longer for some practices, particularly if a practice didn't have a cross specialist team actively engaged in the programme.
- The programme stimulated practices to go beyond robotic following processes and them think about what could have gone wrong with a patient. For example, it made them think about their processes and what happens when a GP goes on holiday. It also provides a whole of practice view and recognises that all staff have a part to play. The climate survey has a key role to play in this respect.
- Patient involvement was a key part of the programme in Scotland. It was discussed here but not really pushed. One practice did survey their patients about potential new services/ways of doing things but it was not a co-design type approach more getting views on a proposal "we're thinking of doing this – what do you think?"
- Feedback includes:
  - "It was a chance for practices to lead themselves" "they are more likely to continue because the changes they made weren't imposed"

- "(the programme) provides a way to impact safety in primary care and gives teams the skills to make improvements within their practices"
- "Before safety in practice there was no flashing light to say things weren't working – just a silent trend of harm in the background"

2.5.2 Bundle Compliance

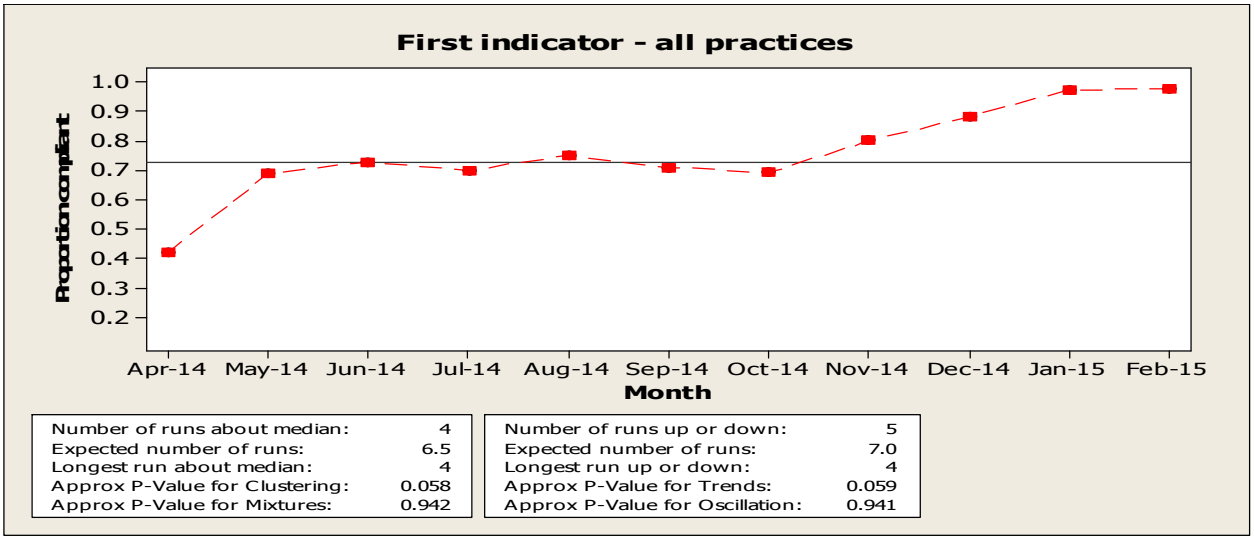
Data Analysis Notes

- We have plotted the compliance data across all practices as a run chart for each indicator to explore performance over the period of data collection.
- No baseline data was collected prior to starting the intervention. This data therefore only explores changes during the programme roll out.
- The charts are based on a proportion of compliance: number of compliant data points, over number of non-blank data points.
- For medication reconciliation, there were ten data points that had to be excluded – the raw data had a note on it stating that the person who had collected the data had no way to check compliance and guessed the answers instead.
- The data is a summation of data collected from all practices in each category. As a result, unusual results specific to each practice may not be visible in the data.
- Further data collection regarding each indicator with the same cohort of practices would enable more sensitive control chart analysis going forward. This would inform further improvements in performance, both to increase compliance and reduce variation.

The data from each of the three bundles is discussed below.

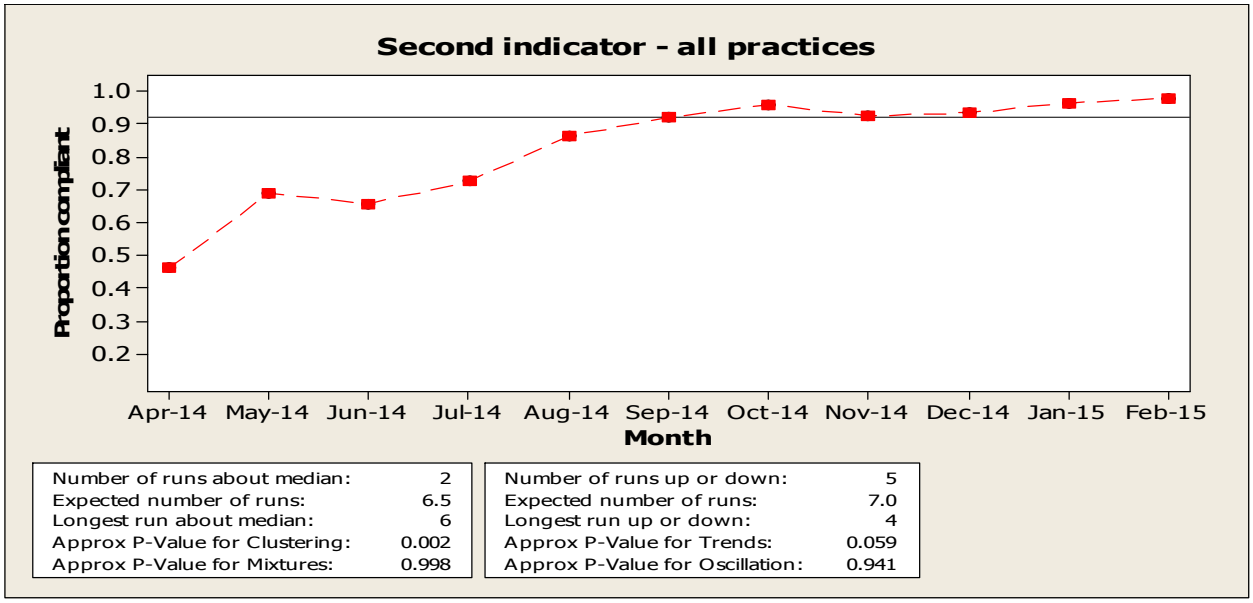
Warfarin

Indicator 1: Is there evidence that the last advice on Warfarin dosing given to patient followed current local guidelines or used computer assisted decision making?



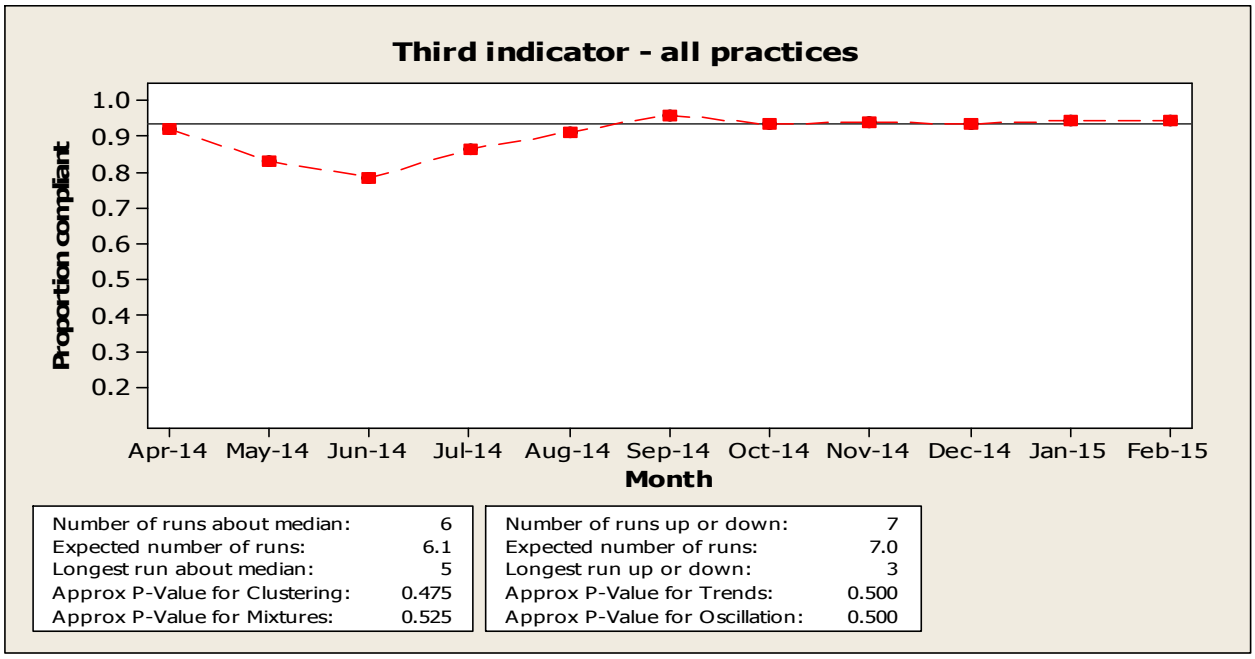
Statistically the data appears to show an improving trend from Oct 14 to Feb 15 (5 consecutive increasing data points), reaching 98% compliance in Feb 15. There is insufficient data to assess whether this high performance has been maintained or is stable. However, this is a very encouraging picture, and further data collection with the same cohort of practices would enable tracking going forward with more sensitive control chart analysis.

Indicator 2: Is the target INR and duration of treatment clearly documented in the notes?



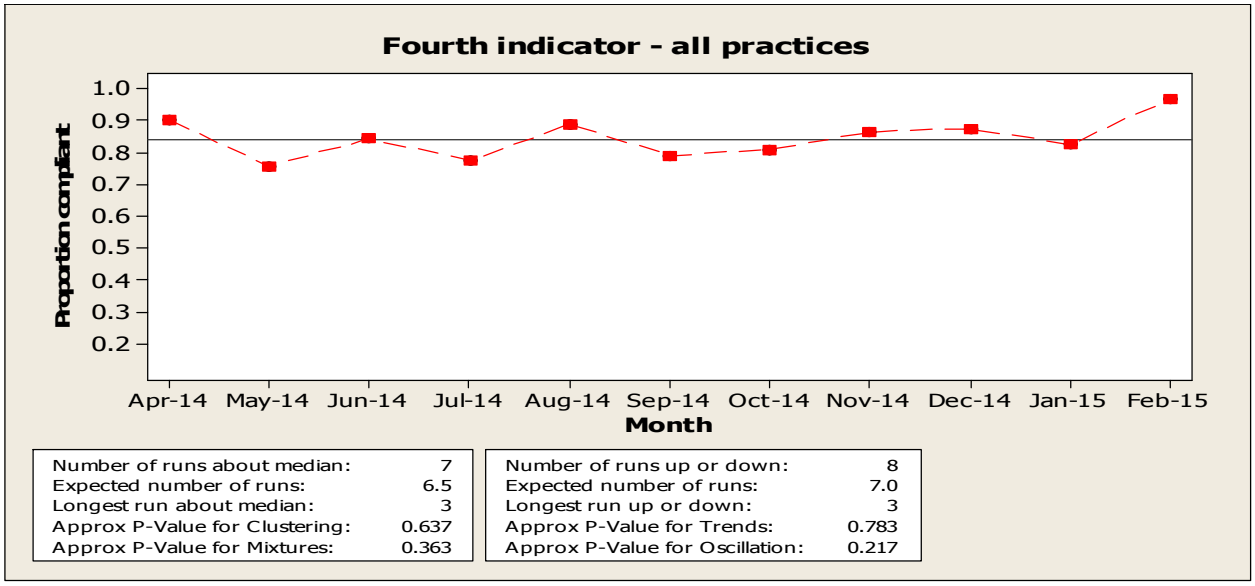
Statistically the data appears to show an improving trend from Jun 14 to Oct 14 (5 consecutive increasing data points), reaching 96% compliance in Oct 14. There is insufficient data to assess statistically whether this high performance is stable but it certainly appears to be tracking well. Further data collection with the same cohort of practices would enable tracking going forward with more sensitive control chart analysis.

Indicator 3: Since the last blood test, has the patient been taking the correct dose as ordered by the treating GP?



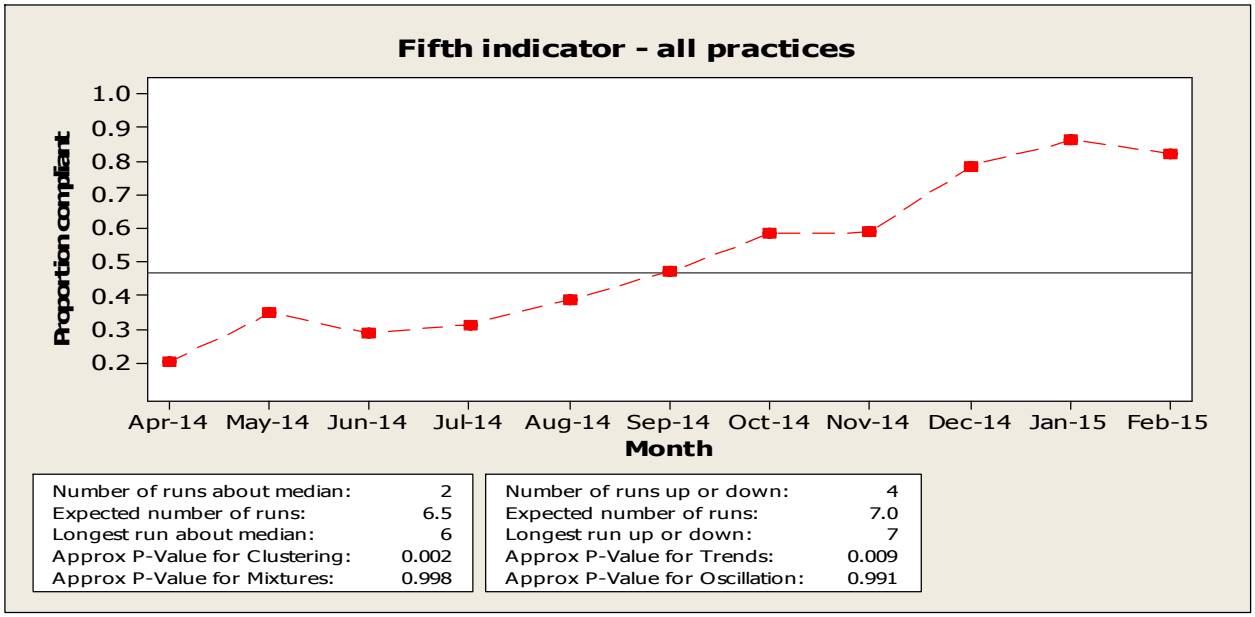
The data appears to exhibit normal variation around a median compliance of 93%. There are no obvious trends or step changes in performance. The variation appears to be wide (79% to 96%).

Indicator 4: Has the INR been taken within 7 days of the planned date?



The data appears to exhibit normal variation around a median compliance of 84%. There are no obvious trends or step changes in performance. The variation appears to be wide (76% to 97%).

Indicator 5: Is it recorded that the patient has received education about warfarin in the last 12 months?



Statistically the data appears to show an improving trend from Jun 14 to Oct 14 (5 consecutive increasing data points). There is also a cluster of 5 points above the median from Sept 14 onwards. Both of these indicate a significant improvement over the period of the programme reaching 86% in Jan 15.

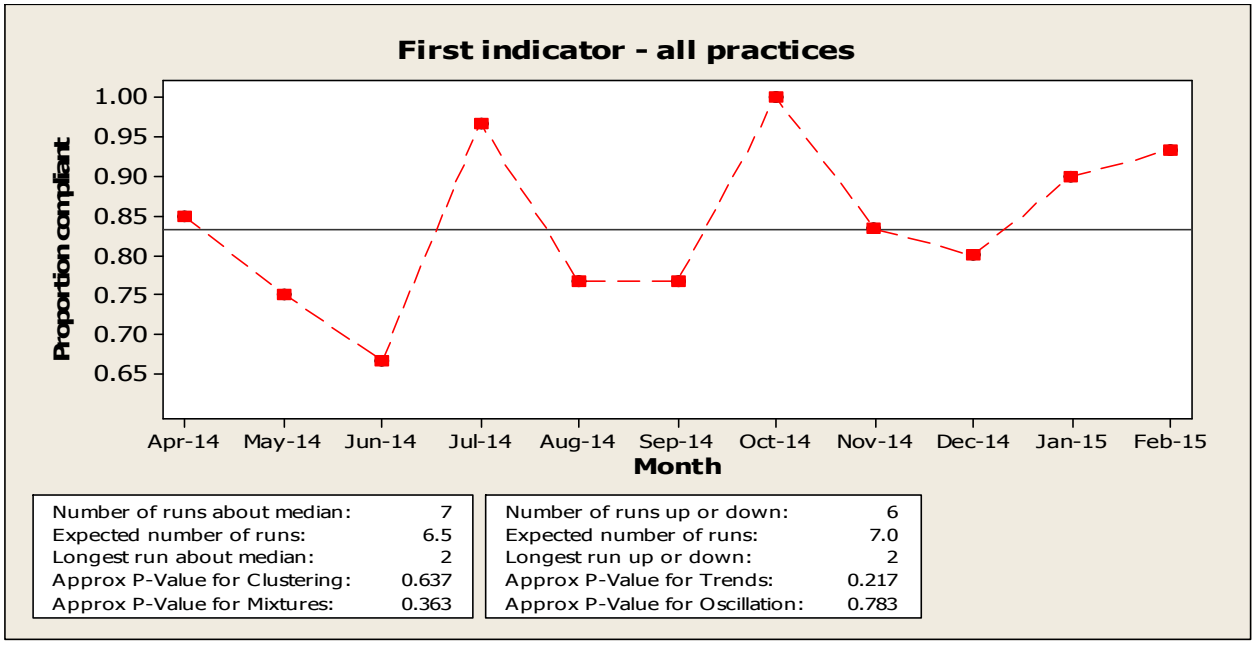
There is insufficient data to assess whether this high performance has been maintained or is stable. However, this is a very encouraging picture and further data collection with the same cohort of practices would enable tracking going forward with more sensitive control chart analysis.

Results Handling

Indicator 1: Was a definitive decision recorded by a clinician on EACH test result within 7 calendar days of being received?*
*This indicator was updated during the programme, and one practice collected their data using the new indicator:

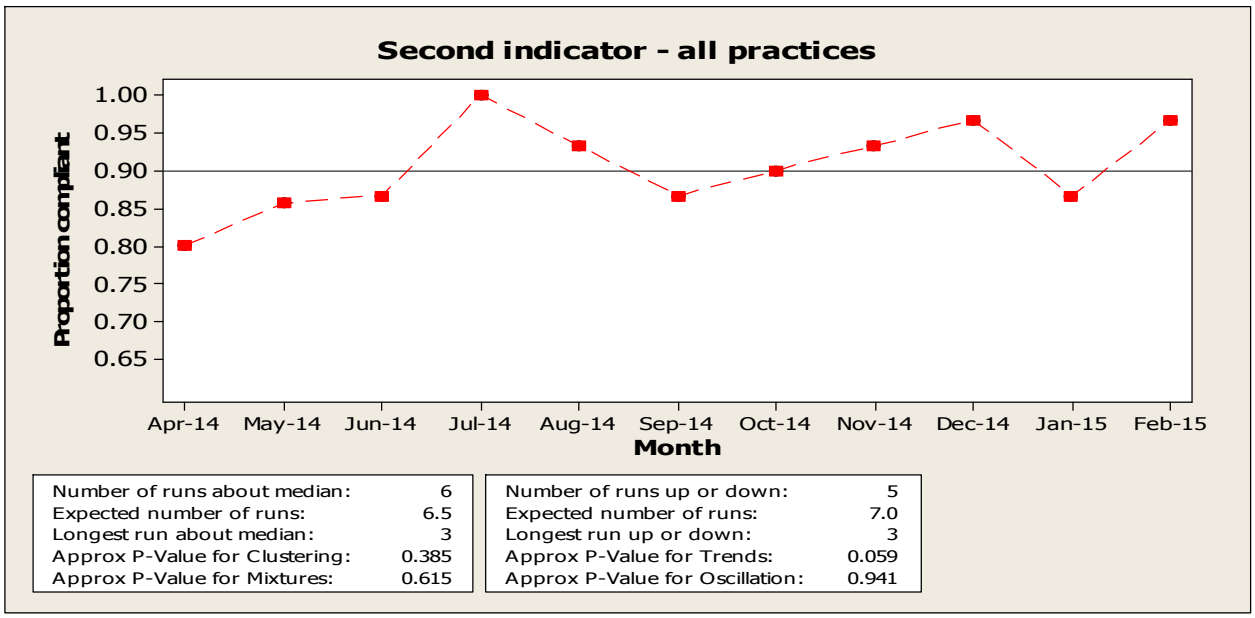
Was a definitive decision recorded by a clinician on ALL test results within 7 calendar days of being received?

For our analysis, we have assumed that this updated indicator and the original indicator are equivalent.



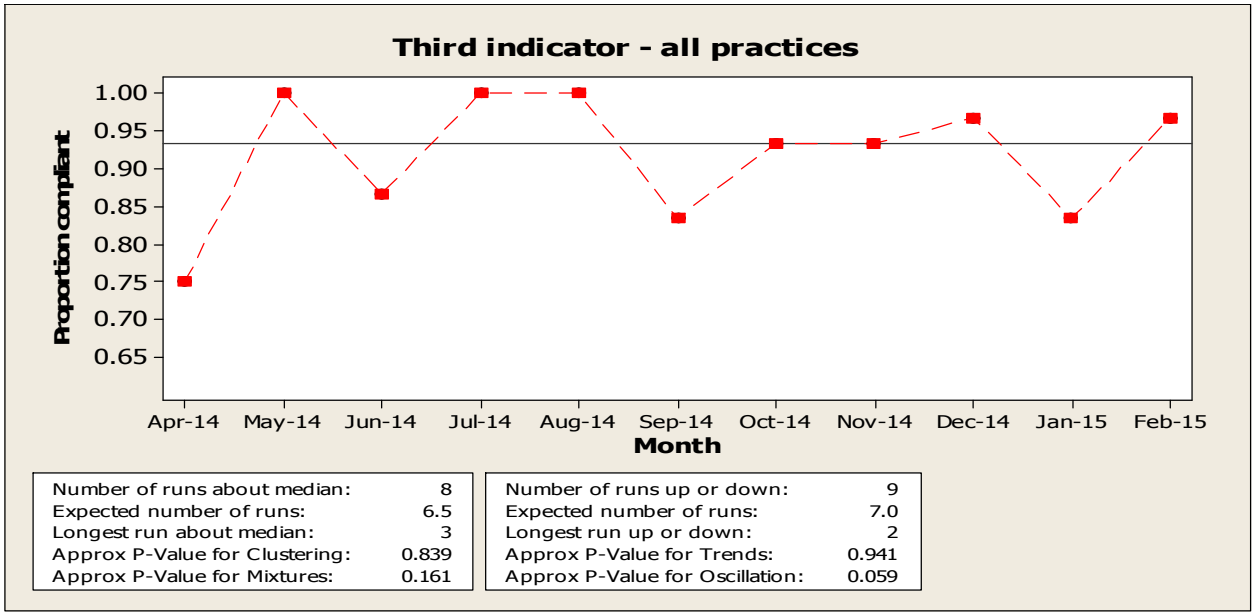
The data appears to exhibit common (normal) variation around a median compliance of 83%. There are no obvious trends or step changes in performance. The variation appears to be wide (67% to 100%).

Indicator 2: Have the decisions for EACH test result been 'actioned' by the practice including appropriate recalls and tracking of the actions?



The data appears to exhibit normal variation around a median compliance of 90%. There are no obvious trends or step changes in performance. The variation appears to be wide (80% to 100%)

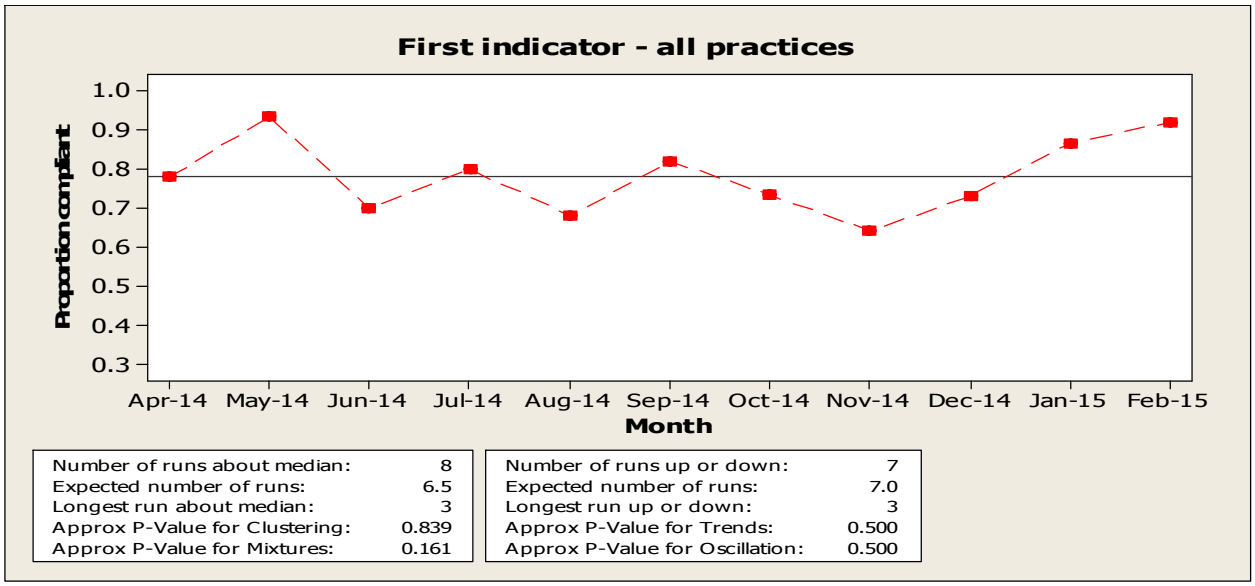
Indicator 3: Was the patient informed as instructed?



The data appears to exhibit normal variation around a median compliance of 93%. There are no obvious trends or step changes in performance. The variation appears to be wide (75% to 100%).

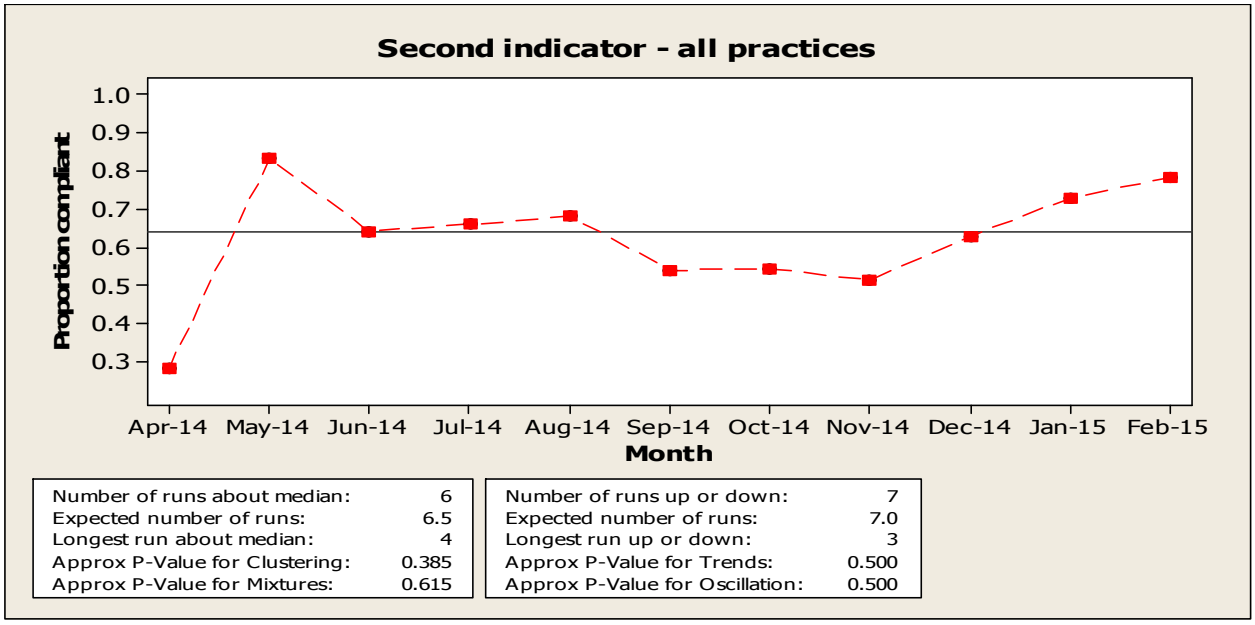
Medication Reconciliation

Indicator 1: Has the Electronic Discharge Summary (EDS) been viewed by a clinician within 24 hours of receipt?



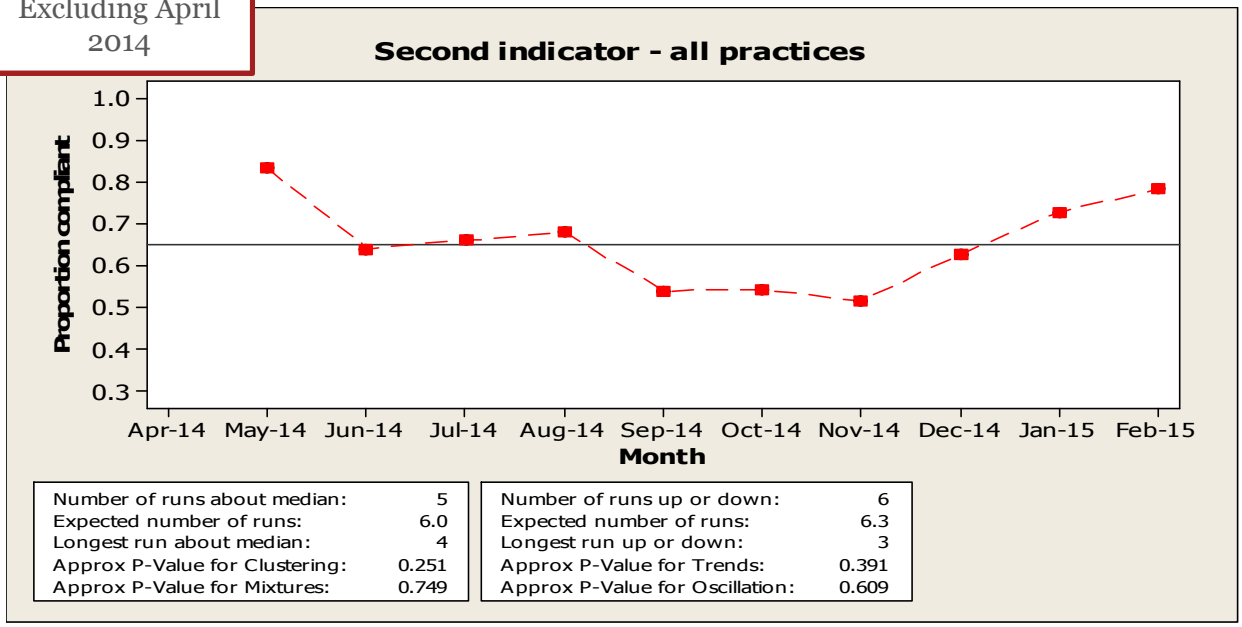
The data appears to exhibit normal variation around a median compliance of 78%. There are no obvious trends or step changes in performance. The variation appears to be wide (64% to 93%). With no prior baseline it is not possible to determine if this performance represents an improvement from a previous period.

Indicator 2: Has medication reconciliation occurred within 2 working days of the EDS being received?



The first data point appears to be unusual. This may reflect prior practice performance before the programme fully started (though it is not possible to be sure without more baseline data. We noted that compliance with this indicator across practices was poor in this first month. This low value may therefore

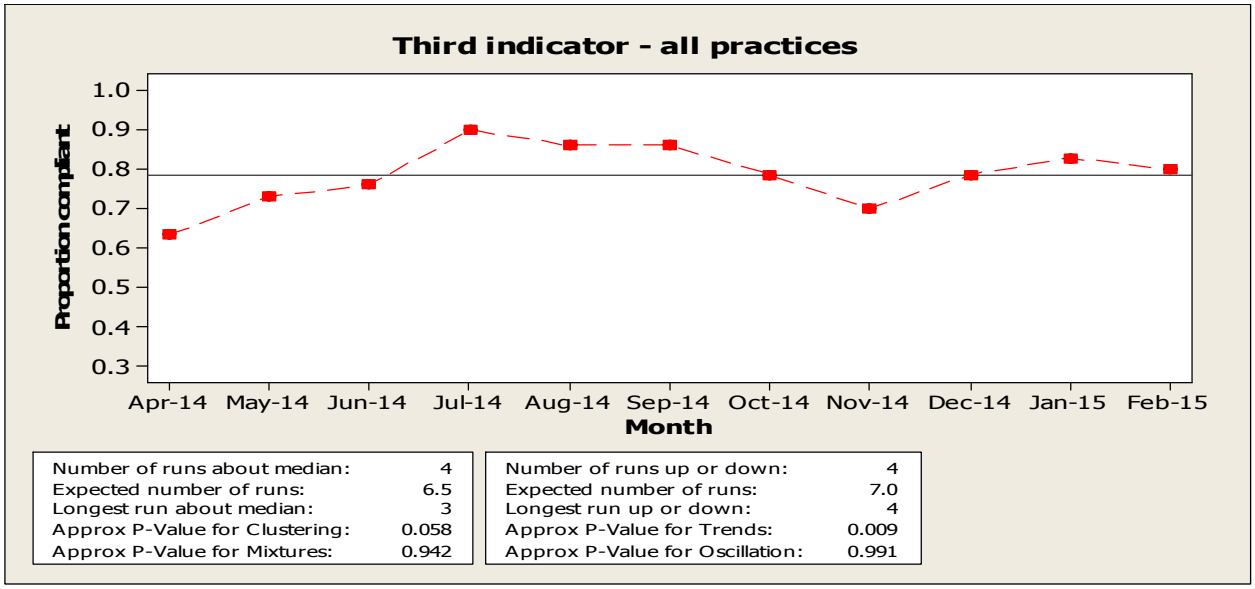
Excluding April 2014



just represent data skewed by a few low performing practices.

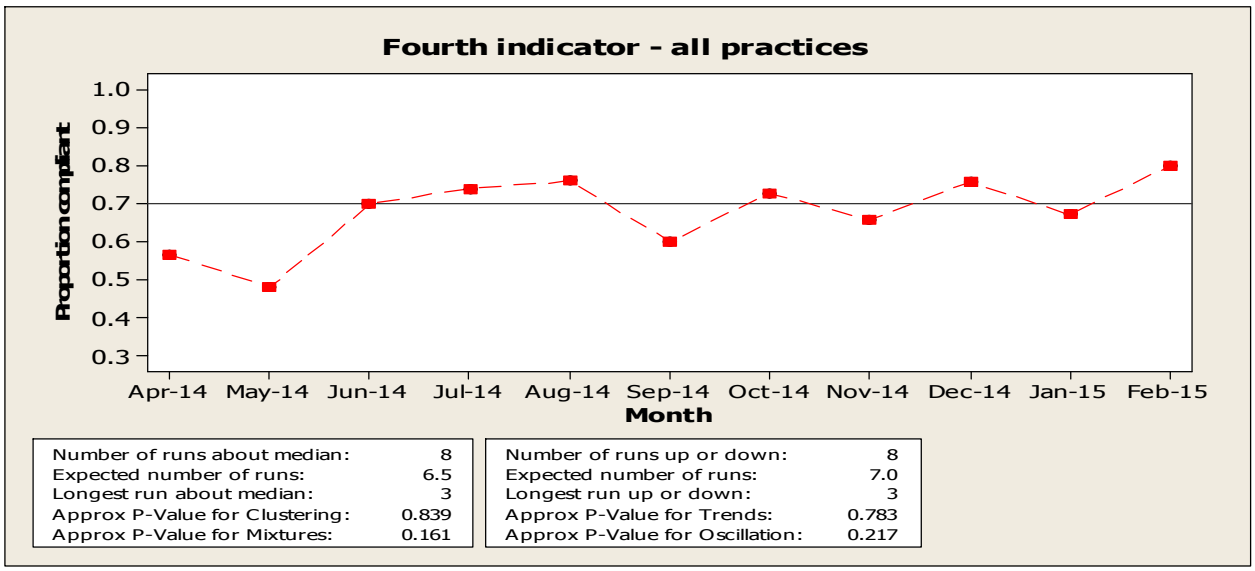
Beyond the first month the data appears to exhibit normal variation around a median compliance of 65%. There are no obvious trends or step changes in performance. The variation appears to be wide (51% to 83%). With no prior baseline it is not possible to determine if this performance represents an improvement from a previous period.

Indicator 3: Has the patient's regular medication list been updated?



The data appears to exhibit normal variation around a median compliance of 79%. There are no obvious trends or step changes in performance. The variation appears to be wide (63% to 90%). With no prior baseline it is not possible to determine if this performance represents an improvement from a previous period.

Indicator 4: Is it documented that any medication changes have been discussed with the patient or their representative within 7 days of receipt



The data appears to exhibit normal variation around a median compliance of 70%. There are no obvious trends or step changes in performance. The variation appears to be wide (48% to 80%). With no prior baseline it is not possible to determine if this performance represents an improvement from a previous period.

3.Recommendations

The following recommendations should be considered in the context of PwC's overall assessment.

3.1 Project Governance

- The Advisory Group must establish a vision and mission for the programme that will enable a strategy and associated objectives to be developed. The advisory Group should consult widely and regularly with programme participants to identify a strategy that will continue to be well understood and supported in the long term.
- Ensure all key stakeholders are effectively represented within the Advisory Group including members from the Health Quality and Safety Commission.
- Consumer representatives must be selected and managed to ensure that they effectively represent all relevant consumers; it is likely that 2-3 consumer representatives are necessary to fulfil this role successfully.
- The scope of responsibilities for all programme teams (Advisory Group, Clinical Lead, Operational Group and project team etc.), including who is ultimately responsible for programme delivery should be documented and all team members made aware of these responsibilities to ensure that each decision and action is taking place at the appropriate level.
- The project team leader should attend Advisory Group meetings to ensure that strategic decisions are made within the context of project practicalities.
- All Advisory Group members should be at CE level or their direct reports, this is essential to ensure that all members can participate in meaningful discussions on strategic delivery

3.2 Selection of practices

- Practices that are considering joining the programme for the first time should be given the opportunity to contact practices that have previously participated in the programme to gain and independent insight into their programme experience.
- If participant applications exceed the desired number of participants, there must be a robust and equitable methodology applied to determine which applicants will be accepted by the programme. This methodology should be documented in detail within the application packs and feedback should be offered to practices whose applications are unsuccessful. This will improve the quality of programme applications in the future.
- PHOs need to be fully involved with the programme team when applications are being considered; PHOs need to be involved in this process because they need to ensure that they have sufficient capacity to support the practices that are selected for the programme.

3.3 Project management

3.3.1 Project Planning

- In year 1 the programme did not have a detailed project plan and this resulted in a lack of transparency between the programme and the participants.
- A detailed project plan that is aligned to the programme's strategy should be developed for all subsequent programmes. It should consider the key activities of the project team, the Advisory Group, the Operational Group, practices, PHOs, and DHBs, ensuring that key project milestones are identified

and assessed throughout the project, and will increase the likelihood of the programme achieving its key objectives on schedule.

- Within the project plan a clearly defined timeline is required so that all parties know what is expected and when. A timeline will inform PHOs when practices may need support and it enables practices to plan their schedules to accommodate the programme.

3.3.2 Project Resourcing

- Where possible, project team members should be exclusively focused on this programme to ensure that the project team remain engaged and take responsibility for the delivery of the programme. A smaller project team that is exclusively focused on the programme is preferable to a larger team that is involved in a number of programmes. If it isn't logistically/economically possible for the entire project team to be exclusively focused on the programme, every effort should be made to ensure that the project team leader can exclusively focus on the programme.
- Monthly operational group meetings should include both facilitators and project team members; this will provide insight from a practice and project management perspective and should ensure that balanced organisational decisions are made.
- A clinically led project team should be continued because it has been effective at securing greater engagement with practices when compared to other programmes that are not clinically led.

3.3.3 Practice Contracts

- These contracts now explicitly detail the mandatory actions that are required from each participant. To maximise 'buy-in' and understanding it is recommended that the project team meet with potential participants to discuss in detail what practices need to carry out and why, prior to the contract being signed.
- Each deliverable that is expected from participants and is detailed in the contract should be substantively measureable to ensure that compliance/non-compliance with the practice contract cannot be disputed.

3.4 Engagement and communications

- The following elements of the programme were successful in year 1 and should be maintained to achieve a high level of participation in future years:
  - Practices receive participation payments.
  - Meetings/learning sessions were held in the evening to minimise disruption to the practices operations.
  - Participants were able to choose bundle groups that were most relevant to their needs.
- A communications plan that is aligned to the detailed project plan should be established to ensure that participants and project team members know how and when to communicate and how and when they will be communicated with.
- All programme teams (Advisory Group, Clinical Lead, Operational Group and project team etc.) must contribute to the communication plan to ensure that their communication needs are met without duplication and the purpose of reporting is clear.
- The communication plan should also provide details about how exceptional performance and significant programme accomplishments will be communicated outside of the programme.
- In addition to practice contracts, contracts should be established with DHBs and PHOs to ensure that all parties are fully aware of the expectations that the programme places on them. Once these contracts are

in place, all practices should be made aware of the commitments that have been made by DHBs and PHOs and vice versa.

- Failing to meet the terms of the contract and how best to achieve compliance in the future should be discussed with the project team. It is likely that these discussions will rectify these issues without the need for formalised penalties.
- Although it is easier to treat all practices the same, this is likely to result in some practices becoming disengaged if certain commitments are unrealistic for any of the participating practices. Giving practices the opportunity to tailor their participation in a way that meets their needs whilst still meeting the programmes requirements will improve engagement and participation referrals. In a limited number of cases this may require a small amendment to practice contracts, but generally it should be possible to work within the terms of the existing contract whilst accommodating a specific practice's needs.
- Where possible, facilitators should be selected that have a strong existing relationship with the relevant practice. If an existing relationship does not exist, this should be addressed by involving the practice in the recruitment process and implementing an extended handover period between the existing and future facilitator.
- Engagement is to be reinvigorated in year 2 thanks to the programme clinical lead and improvement advisors visiting every participating practice. This sort of interaction, combined with an opportunity to make suggestions and received feedback on those suggestions is critical to ensure long term engagement.
- The project team should regularly arrange and chair programme champion meetings where training can take place, programme participation updates can be made and support and suggestions can be offered to help champions overcome participation challenges.
- The benefit of collaborating with other practices has been a key programme benefit, although long evening learning sessions might not generate the most enthusiastic and creative collaboration. PHOs should seek to create more opportunities for practices to get together outside of these learning sessions.
- Where GPs are reluctant to engage with the programme (typically locums and part time staff) facilitators and PHOs must support practice champions to engage GPs through explaining the benefits of the programme to patients, the practice and the GPs. Where resistance remains, PHOs may need to insist upon compliance if the GP wishes to continue working for the practice.

3.5 Project support

- Practices found Improvement Advisors (IAs) to be very useful and they appreciated that IAs presented the options and allowed the practices to make the decisions. There was however resistance from PHOs about the involvement of IAs. Meetings between PHOs and IAs should be arranged and co-ordinated by the project team so that IAs can explain that they are not a threat to the PHOs, why they are needed and hopefully identify some benefits that the participation of IAs can bring to PHOs.
- Facilitators must tailor their approach to the specific needs of their individual practices. Facilitators must be aware of any issues that arise between the practices and the facilitator and they must discuss and resolve any issues as quickly as possible. The Facilitator team should meet regularly to discuss any issues they are having and to learn possible solutions based on their colleagues experiences. Facilitators should also undergo regular training to ensure that they are fully competent in their role; the nature of training i.e. face to face, web based etc. should be tailored to the preferences of the facilitator team as a whole to preserve full engagement.
- Improvement Advisors should be formally involved with each PHO to ensure alignment between improvement recommendations and the relevant PHOs strategic plan.
- Additional Improvement Advisor support will be required to reflect the increase in participants; one possible solution is to upskill high performing facilitators to become Improvement Advisors.

- As the programme expands, alternative options for effective efficient delivery will need to be explored and all key stakeholders need to be involved in developing these options.

3.6 Programme reporting

- As part of the facilitator training detailed above, facilitators need to be trained on the reporting expectations of the programme and given the necessary support/tools to ensure that the reporting requirements can be reasonably achieved.
- The reporting requirements should be established by the Advisory Group and should be measures that will help determine the programme's progress against the programme's strategic plan.

3.7 Collaborative Approach

- The collaborative approach adopted by the programme was identified as one of the strongest elements of the project. Collaboration will be further enhanced in the future through better communication of roles, responsibilities, performance, and programme strategy; this will ensure greater clarity about where to source answers.

3.8 Focused benefits management

- To achieve sustainability for the programme, a realistic business case needs to be developed. This should be subject to an appropriate level of challenge with benefits clearly defined, owned and tracked, including:
  - Identify quantifiable benefits at the outset of the programme and create a framework to review and track achievement.
  - Develop measureable benefits with clear targets, baselines and monitoring mechanisms.
  - Establish ownership of benefits.
  - Achieve agreed outcomes and sustainable change rather than simply delivering milestones and progress.

3.9 Smart financing

- Establish the budget and associated policies, processes and reporting standards for effective cost estimation and programme financial management and reporting, this includes:
  - Calculate programme costs, secure financing and run financial management processes, including cost control and reporting within programmes. Identify innovative funding approaches for each of the DHB's.
  - Develop programme financial policies and procedures. Provide visibility on financial performance of each of the programme elements.

3.10 Risk Management

- Establish risk management as a key element of the programme, making certain that there are effective risk identification processes in place and that the key risks are mitigated and opportunities taken. This would include:
  - Establishment of formal risk identification, assessment and mitigation processes.
  - Reporting key risks to decision makers and managing impacts.
  - Producing measures and controls to identify and manage risks and opportunities.

- Understanding the financial aspects of risk acceptance versus mitigation.
- Identifying opportunities from risks to improve programme outcomes.

3.11 Agile programme change control

- Implement a formal process is in place for controlling changes to programme scope according to the programme's principles and this has been communicated to the programme stakeholders, for example:
  - Tailor and implement good practice change control to the specific programme needs. Minimise bureaucracy around change control to respond swiftly to dynamic environments.
  - Establish a suitable level of governance to allow efficient and effective decision making.
  - Assess the impact of changes on time, budget, quality and benefits.
  - Control, approve and communicate changes and secure compliance with the process

3.12 Training

- As detailed above, all programme stakeholders (practices, champions, Improvement Advisors, facilitators, the Advisory Group, the Operational Group, DHBs, and PHOs) need continual training about their evolving roles and responsibilities and the changing responsibilities of the other programme stakeholders.
- A representative of the project team should co-ordinate all training and it is the project team's responsibility to ensure that changes that arise through training are appropriate communicated both in training and in accordance with the communication plan.

3.13 Learning sessions

- There has been some criticism about the training schedule, absenteeism, content, length, and venue in year 1. A solution that could address these training issues is moving to online training. An online platform can also manage training for staff that are already familiar with a particular subject or subjects that are subject to frequent changes. Online training will also require minimal additional administration work despite the anticipated growth in the number of practices participating in the programme.
- Discussions and sharing between practices can be enhanced through the establishment of a programme forum website, forums encourage more detailed discussion because contributors can take time to consider their response and they do not need to be present at a given time to participate in the discussion.
- Some facilitators have expressed uncertainty about how to engage with practices that are reluctant to 'buy-in' to the programme. Soft skills training such as influencing and negotiation techniques will support facilitators to address these issues.
- All training should be followed by a quick and easy to use multiple choice feedback form that provides specific insight into training issues and participants preferred method of resolving these issues.
- Post training facilitator meetings should be scheduled to take place shortly after training to gain insight into future training requirements and to obtain broader feedback about the programme as a whole.

3.14 Embedded lifecycle assurance and learning

- A clear assurance plan needs to be defined which outlines the nature, timing and extent of planned assurance, quality reviews and embeds learning, this includes:

- Capture lessons learned throughout the programme and create mechanisms to address those which continue after programme closure.
- Identify issues with existing programme structures and create improvements to manage them and increase the chance of success.
- Create a knowledge management system to maintain high performance in each practice post programme implementation.

3.15 Methodology

- Facilitators and improvement advisors should regularly review the quality of PDSA data produced by the practices they are responsible for and suggest solutions that will help the practice champion to improve standards.
- Training should regularly revisit aspects of PDSA that participants often struggle with e.g. the differences between how PDSA is used in this programme and Cornerstone Accreditation.
- Practice champions should be required to change regularly to increase the number of people in each practice that are familiar with the programme and its methodology.

3.16 Interventions

- Where new interventions are introduced they should be discussed, agreed and trained well in advance of their introduction to ensure that participants are fully prepared to use the new interventions effectively from the date of introduction.
- Retaining the same participants (in addition to growing the participation group) and indicators year on year should be a key goal of the programme to enable more sensitive control chart analysis going forward. This will enable benchmarks for the indicators to be created and measured against to substantively justify the programme's cost in conjunction with the subjective data produced by the Practice Climate Survey.

3.16.1 Audit Bundles

- Consider changing the title to reduce the "compliance audit" mind-set

3.16.2 Indicators

- Indicators need to be discussed and agreed by the Advisory Group and discussed with participants before they are changed or implemented.
- If changes are made, they must be fully communicated, explained and trained prior to implementation.
- Where changes are made, data for different indicators should not be merged and where the data collection period is less than 1 year this should be clearly identified.

3.16.3 Trigger tool

- The understanding of the trigger tool and practice climate survey was insufficient and more training and confirmation of competency across all participants is required before they can become an effective compulsory element of the programme.
- This training process should not only consider which participants have insufficient knowledge of the tool, but also which facilitators and improvement advisors require further training.

3.16.4 Climate survey

- Ensure an understanding among practices that the survey is integral to increasing patient safety, and that action must be taken based on survey results
- Consider changing the contract to require both Climate survey and trigger tool to be completed throughout the year
- Consider conducting the survey at the beginning of the programme and then later on so that it can be compared against an individual practice baseline.

3.17 Data collection and reporting

- Existing bundle data can now be utilised as baseline data when comparing the same bundles in subsequent years. To enable new bundle data to be effectively analysed in the first year of collection it will be necessary to determine suitable measures and create baseline data based on historic data that was generated prior to the measure's inclusion in the programme.
- Sample sizes and reporting schedules should be tailored to specific practices based on the size of the practice and the quality of data that has been submitted by the practice in the past. Facilitators should regularly review data quality and provide support and guidance to quickly address data quality issues (such not selecting samples randomly) and achieve consistency across participants.
- There was concern expressed by some practices that they never received any feedback on the data they reported. Practices should've been aware that this data was primarily for their own benefit and that they should utilise it to make safety decisions, this message clearly did not effectively reach some participants and needs to be reinforced in the future.
- Facilitators and improvement advisors should support practices to make sound safety decisions and implement appropriate responses based on sufficient reliable data.
- Consider reverting to the original Scottish sample size for results handling and Medicine reconciliation to ensure that the sample of patients with post discharge changes or results in the time period is of an acceptable scale.
- Provide guidance to practices on how to deal with special cases e.g. long weekends, locum and part time staff, so that all are interpreting this in the same way.

4. Appendices

4.1 Appendix A

Participating medication reconciliation practices

Practice	PHO	DHB
Avondale Family Health Centre	AH+	ADHB
Bader Drive Healthcare Clinic	AH+	CMH
Greenstone Family Clinic	AH+	CMH
Hong Kong Surgery	AH+	ADHB
Mangere Family Doctors	AH+	CMH
Papakura Marae Health Clinic	NHC	CMH
Silverdale Medical	WPHO	WDHB
Turuki Healthcare	Procare	CMH

Participating results handling practices

Practice	PHO	DHB
Apollo Medical	Procare	WDHB
Marsden Medical Centre	Auckland PHO	ADHB
Pukekohe Family Health Centre	Procare	CMH

Participating warfarin practices

Practice	PHO	DHB
Beachlands Medical Centre	East Health	CMH
Crawfords Medical Centre	East Health	CMH
Health New Lynn	Procare	WDHB
Highland Park Medical Centre	East Health	CMH
Langimalie Health Centre	AH+	ADHB
Leabank Health Centre	Procare	CMH
Mangere Health Centre	Procare	CMH
Manukau City Accident and Medical	Procare	CMH
Mt Wellington Integrated Health Centre	AH+	ADHB
South Seas Health Care Trust	AH+	CMH
Waiuku Health Centre	AH+	CMH
Westgate Medical Centre	Procare	WDHB

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In preparing this document and providing our recommendations, we have relied upon, and assumed the accuracy and completeness of, all information available to us from public sources and furnished to us by the Safety In Practice Programme Team, participating practices and other stakeholders interviewed as part of this evaluation.

It should not be construed that we have conducted an audit of the information we have used.

Our engagement did not constitute a statutory audit (the objective of which is the expression of an opinion on financial statements) or an examination (the objective of which is the expression of an opinion on management's assertions).

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