



safety

IN PRACTICE

Strategic Plan

2018/19

Glossary

ADE	Adverse Drug Event
CPAMS	Community Pharmacy Anticoagulation Management Service
CP	Community Pharmacy
CPD	Continuing Professional Development
DHB	District Health Board
DMARDs	Disease-Modifying Antirheumatic Drugs
GP	General Practice
HQSC	Health Quality & Safety Commission
MOPS	Maintenance Of Professional Standards
NGO	Non-Government Organisation
NSAIDs	Non-steroidal anti-inflammatory drugs
PDSA	Plan, Do, Study and Act
PHO	Primary Health Organisation
RNZCGP	Royal New Zealand College of General Practitioners
SiP	Safety in Practice
UK	United Kingdom
UCC	Urgent Care Clinic
WHO	World Health Organization

Executive Summary

The Safety in Practice (SiP) programme is an initiative designed to provide tools and training to primary health care teams to enable them to reduce preventable harm to patients when receiving care in the community. It is an adaptation of the Patient Safety in Primary Care programme implemented by Healthcare Improvement Scotland.

The programme was first introduced to the Auckland Metro region in 2014 with 23 general practices involved and has since expanded to include 61 general practices and urgent care clinics (UCCs) as well as 20 community pharmacies for a pilot run in Auckland and Waitemata DHB.

The programme effectively facilitates a focus on patient safety within the primary care setting. The initiative aligns well with the seven strategic themes identified by Auckland and Waitemata DHBs to guide the future vision for health services in the region [Section 2.2]. Additionally, the programme has been recognised by the Health Quality & Safety Commission (HQSC) New Zealand as an effective programme to bring the focus on patient safety beyond the hospital walls. The SiP programme has identified 6 core clinical areas for primary care teams to focus on based on evidentiary support for where risk is most likely to occur. Training and tools specific to each area are delivered to participating primary care teams through quarterly learning sessions. They provide primary care teams with the skills and knowledge to actively monitor their own systems and processes and develop quality improvement measures. Monthly audits provide teams with data to facilitate using PDSA (Plan- Do- Study- Act) cycles to implement effective change that is specific and evidence based.

In the first year the following process improvements were shown:

- A **47%** increase in the completion of medication reconciliation within 7 days after discharge from hospital.
- A **75%** increase in the implementation of improved process to manage lab results
- A **64%** increase in the implementation of process to ensure better management of warfarin.

Subsequent years have shown similar levels of improvements across increasing numbers of participating practices and new areas of clinical focus. Practices also report benefiting from improved team work, communication, efficiency and an enhanced safety culture as a result of being part of the programme.

Auckland and Waitemata DHBs wish to expand the programme into all general practices and urgent care clinics in the Auckland metro region by June 2021. If the community pharmacy pilot is successful, we plan to expand the programme to around 100 community pharmacies across Auckland metro. Beyond 2021 we plan to engage with all remaining community pharmacies across Auckland metro as well as introduce the programme to providers across the community NGO sector.

1. Introduction

The problem

Patient harm is frequently associated with medication and errors with respect to medication. Research from Australia shows that of the 100,000 adverse drug events recorded as causing disability in patients each year, it is shown that 40-50% of these could have been prevented.¹ Similarly in the UK, 1 in 550 prescriptions have been associated with a severe error.² Research from the Queens Medical Centre, Nottingham, UK indicates that 6.5% of hospital admissions over a 6 month period are medicines-related, 67% of these were considered preventable.³ These admissions were mainly attributed to problems with prescribing, monitoring and patient adherence.³

Gillian Robb et al⁴ confirmed that in New Zealand, medication-related harm is common, occurs both in hospital and in the community, and are a substantial burden for patients and for our healthcare system. The authors of this New Zealand study, found that medication related harm occurred at a rate of 34.7 per 100 admissions, and of these 29% originated in the community and precipitated an admission to hospital.⁴

Patient safety can be compromised when adequate systems and processes are not in place to ensure reliable clinical care.

What can we do?

The World Health Organisation (WHO) created the 'World Alliance for Patient Safety' programme in 2004 to promote patient safety in healthcare. Historically international efforts to improve patient safety have been focused within secondary care. In 2012 the WHO established a working group to focus specifically on the implementation of patient safety initiatives within the primary care setting. According to international studies, errors within primary care occur in approximately 1-2% of consultations, particularly involving medication and communication.⁵

The Safety in Practice programme is an effective initiative to bring the focus on safety out of the hospital walls and into community health care. The programme focuses on reducing preventable harm by improving processes and enhancing the quality improvement capability of primary care providers including general practices (GP), urgent care clinics (UCC) and community pharmacies (CP). The initiative provides primary care teams with tools and collaborative learning opportunities to improve safety in the delivery of primary care services. Safety champions identified within primary care teams allow for sharing and learning of experiences and insights supporting the programme to grow and evolve with time.

Currently the GP programme focuses on improvements in areas of clinical practice considered to present the highest risk to patients. These are related to the management of high risk processes and the prescribing and management of high risk medications:

High Risk Processes	Prescribing and management of high risk medications
Medication reconciliation	Warfarin
Lab results handling	Opioids
	Disease-modifying antirheumatic drugs (DMARDs)
	Non-steroidal anti-inflammatory drugs (NSAIDs)
	Protecting Kidneys

In each of the areas outlined above the programme takes an end to end approach. This means primary care teams are supported to look at all aspects of patient care in relation to these medications and processes. This is inclusive of prescribing, monitoring and patient adherence and education.

Safety in Practice outlined

Participating primary care teams are invited to attend collaborative learning sessions currently held quarterly. The purpose of these sessions is to bring together safety champions from each participating primary care team to:

- Develop skills and capabilities in quality and patient safety improvement methodologies and processes
- Share experiences and learn from other programme participants.
- Promote the value of the programme and emphasise the importance of safety in patient care.
- Share successes to encourage continued engagement and participation in the programme.

The programme is structured over 3 years and participating primary care teams are invited to select one of the identified high-risk areas to address each year. They are required to generate data from their own practice through conducting audits which will provide insights into their current systems and processes. This will allow them to utilise the quality improvement skills and methodologies acquired from the learning sessions to develop and implement targeted improvement initiatives. The use of PDSA (Plan- Do- Study- Act) cycles will assist teams to test and refine the changes they make to optimise the desired improvement outcome.

An evaluation framework is currently being developed to measure the impact of the programme on the reduction of harm to patients being treated in the primary care setting. The programme will be reviewed on an ongoing basis to ensure it is fit for purpose and delivering the desired

outcomes. The evaluation aims to take into account quantitative and qualitative aspects and will inform the evolution and future direction of the programme.

A key consideration for this programme is ensuring sustainability and retention of participating primary care teams. In addition to helping teams optimise their systems and efficiencies the programme also addresses other priorities that serve to encourage teams to remain engaged in the programme:

- Supports general practitioners to achieve and maintain Foundation and Cornerstone accreditation
- Provides primary care teams with Continuing Professional Development (CPD)
- The tools and audits carried out in the programme can be used as evidence for maintenance of professional standards (MOPS).
- Supports Urgent Care doctors to achieve and maintain Urgent Care accreditation
- Provides Urgent Care doctors with Continuing Professional Development (CPD)

1.1 Aim

The Safety in Practice programme is a regional initiative being rolled out across the Auckland Metro region. The aim for the programme is:

“To work with Primary Health Care teams to reduce preventable patient harm from the care they receive”.

1.2 Objectives

The programme has four primary objectives:

- Reduce preventable harm to patients
- Create safer and more reliable systems
- Promote a culture of safety
- Develop quality improvement skills to improve patient care

2. Context

The Safety in Practice programme is well aligned with the strategic priorities of the Health Quality & Safety Commission (HQSC) New Zealand. The HQSC have several programmes and initiatives aimed at reducing harm caused to patients when receiving healthcare. The programme is also aligned to the strategic themes of Auckland and Waitemata DHBs [Section 2.2].

2.1 Health Quality & Safety Commission New Zealand

The Health Quality & Safety Commission (HQSC) New Zealand has been leading the way for the improvement of patient safety in secondary care. This includes a focus on safe prescribing of high risk medications and recommended standards to support proper process for medication reconciliation. Improving safety is a fundamental component of the New Zealand ‘Triple Aim’ for quality improvement;

- Improved quality, safety and experience of care
- Improved health and equity for all populations
- Best value for public health system resources.

The purpose of the Triple Aim is to provide a framework to optimise health system performance by simultaneously focusing on three dimensions ; patient experience, population level health and value for money.

Research by the HQSC revealed that 8% of people interviewed about patient experience within primary care reported receiving the wrong medication or incorrect dose, either from prescription or dispensing errors. Of these, 46% sought medical advice or attention as a result.¹

The HQSC has recognised that better process around management of medication is necessary to improve patient safety. It needs to become integrated into the daily routine of healthcare

professionals across both primary and secondary care.¹ A key priority of the HQSC is to focus on the improvement of safety in Primary Care.

2.2 Auckland and Waitemata DHB’s strategic themes

Auckland and Waitemata DHB have seven strategic themes to direct healthcare improvement for the region. The SiP programme is well aligned to these themes as outlined in Table 1 below.

Table 1 SiP alignment with Auckland and Waitemata DHB strategic themes.

Community, whānau and patient-centric model of care	<ul style="list-style-type: none"> •Aims to improve the patient experience by reducing preventable harm occurring in primary care and promote self management of medicines
Emphasis and investment on treatment and keeping people healthy	<ul style="list-style-type: none"> •The programme has the potential to reduce hospital admissions by reducing preventable harm in primary care.
Service integration and/or consolidation	<ul style="list-style-type: none"> •Aims to promote effective team work within general practices and community pharmacy. •Aims to integrate the programme across primary and secondary care.
Intelligence and insight	<ul style="list-style-type: none"> •Tools provide teams with insights into their own processes and systems •An evaluation of the programme will assess performance and impact.
Consistent evidence-informed decision making practice	<ul style="list-style-type: none"> •Supports teams to implement evidence-based care. The programme is based on a successful Scottish programme and focuses on areas of known potential harm.
Outward focus and flexible, service orientation	<ul style="list-style-type: none"> •The programme develops more capable primary care providers and supports the RNZCGP Cornerstone accreditation programme
Emphasis on operational and financial sustainability	<ul style="list-style-type: none"> •Developing systems and processes within practices to improve efficiency and quality.

3 Programme Scope and Structure

The scope of the Safety in Practice programme is designed as a series of systems improvement modules together with quality improvement methodologies and culture tools. The general practice programme is a 3 year programme with 2 foundation modules (Lab results Handling and Medication Reconciliation) which form the core of the programme and must be completed in order to graduate from the programme in Year 3. It is recommended for Primary Care teams to begin year 1 of the programme with one of the core foundation modules, the NSAIDs prescribing indicator and one of the year 1 tools from the Culture Tool Shed (safety climate survey or trigger tool). Each subsequent year teams can select which of the other modules, tools and prescribing indicators they wish to focus on each year in accordance to their own practice and patient needs [Figure 1].

Note: The Community Pharmacy programme is slightly different with fewer modules [Figure 2]. There are currently four modules: Medicines Reconciliation, Opioids, Warfarin/Dabigatran, NSAIDs, and one culture tool, the Safety Climate Survey. This may grow and expand depending on the outcome of the pilot programme.

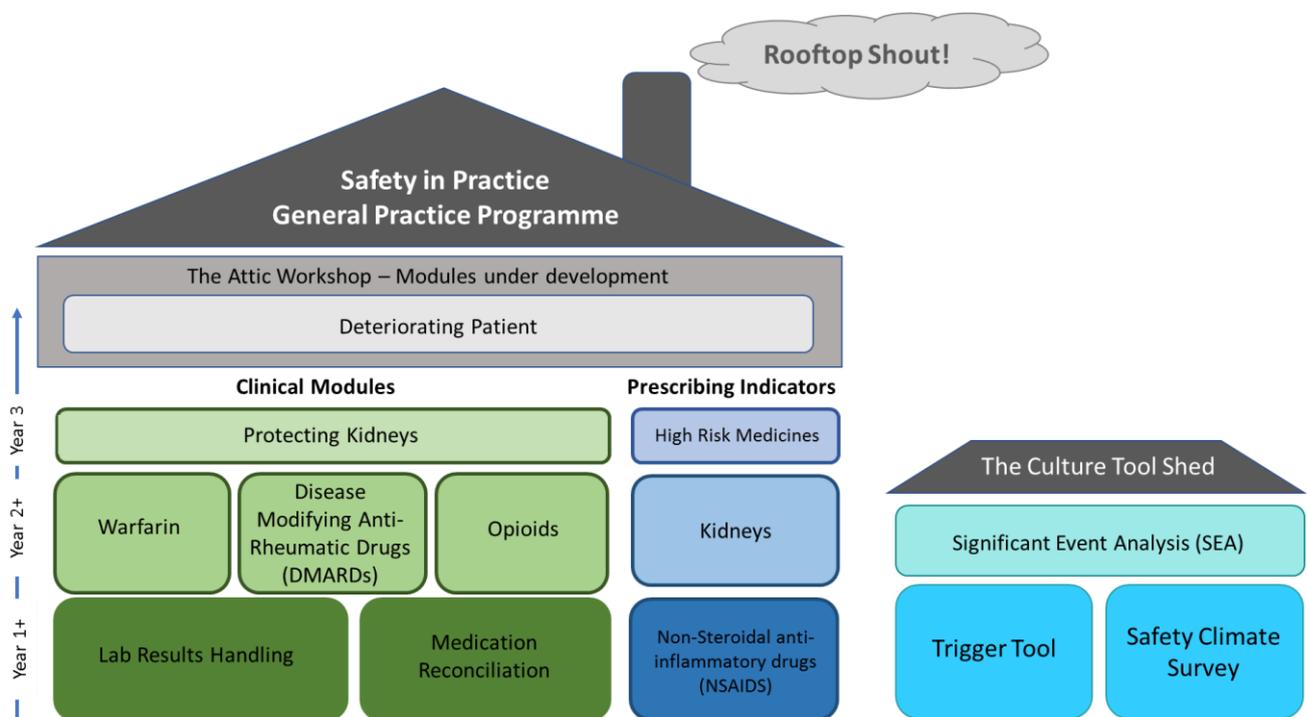


Figure 1 SiP Programme Structure

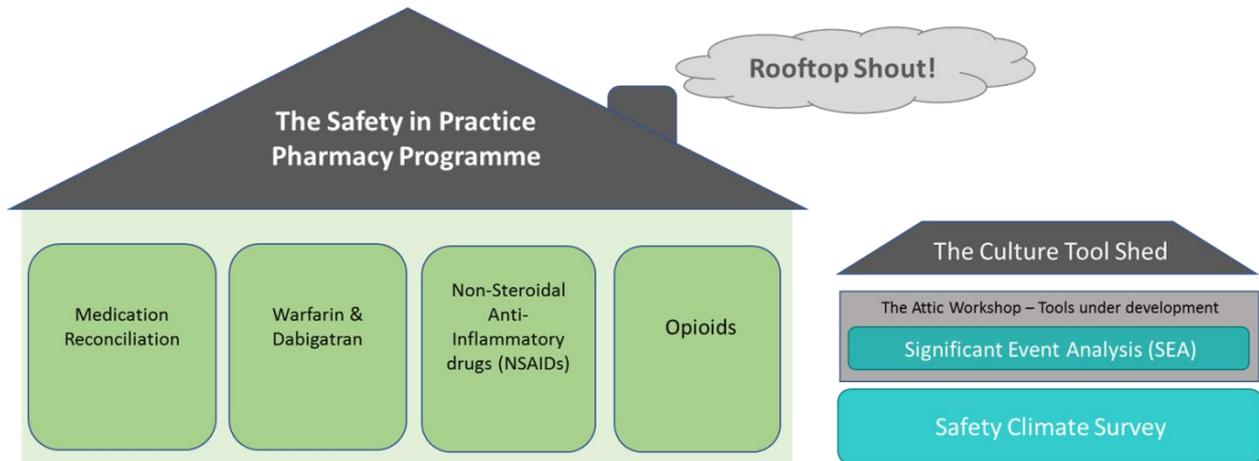


Figure 2 SiP Pharmacy Programme Structure

A key component of the programme is to ensure teams are also supported to develop skills and knowledge in quality improvement; a quality improvement skills plan is mapped out in Figure 3 and shows how we aim to develop individual team capabilities as they progress through programme.

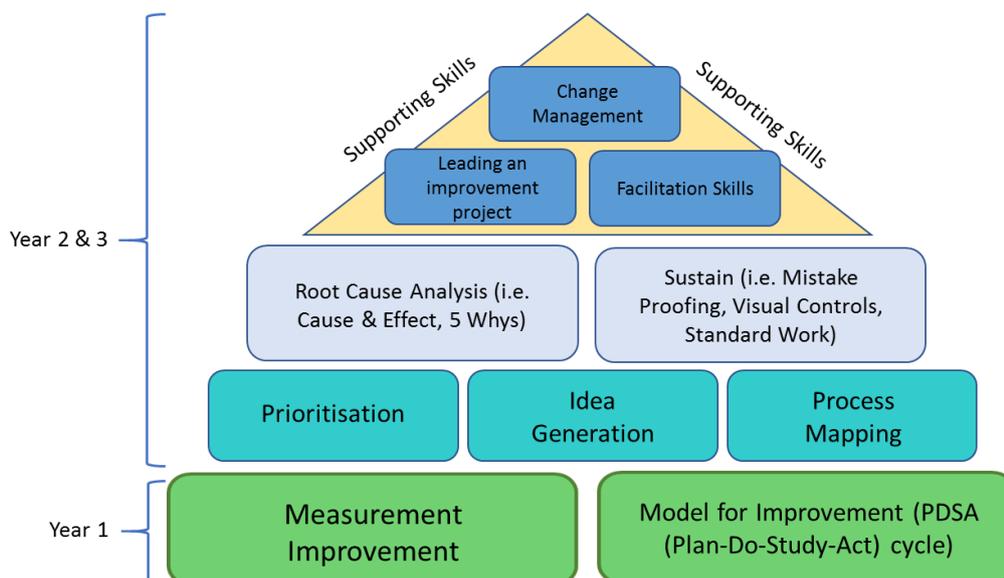


Figure 3 Quality improvement skills development plan

3.1 Core Modules

3.1.1 Medication Reconciliation

Adverse Drug Events (ADE) are the most common post-discharge complication with 20% of patients experiencing an ADE within three weeks of discharge from the hospital.⁶ According to the Institute of Medicine’s ‘Preventing Medication Errors’ more than 40% of medication errors are

believed to result from inadequate reconciliation in handovers during admission, transfer, and discharge of patients.⁷ Many of these errors could be prevented if more robust medication reconciliation processes were in place. The programme therefore focuses on reviewing all discharge summaries with both medication reconciled and actions completed within seven working days.

3.1.2 Laboratory Results Handling

The World Health Organisation identified that the rates of laboratory test follow-up remain suboptimal, resulting in seriously compromised patient care, delays to treatment and poor patient experience. A lack of integrated systems to oversee the management of lab test ordering and results handling is inadequate and a key contributor to the rate of error in primary care worldwide. For patients and their whānau this may contribute to avoidable harm and unnecessary anxiety and distress through:

- Sub-optimal clinical management of illness and delayed treatments
- Poor experience and dissatisfaction with care
- Miscommunication of lab tests results by health care staff
- The inconvenience of repeat appointments and duplication of unnecessary and potentially invasive procedures.

The programme focuses on implementing robust processes to ensure all lab results are actioned within 7 days and patients are reliably and appropriately informed of their results when required.

3.2 Optional Modules

Harm is frequently associated with medication and specifically errors with respect to medication. Improvements in prescribing and management of medication could reduce hospital admissions due to adverse drug events.⁸

The medicines considered to pose the highest risk to patients in New Zealand have been developed into change modules as part of this programme:

- **Warfarin**- Patients prescribed warfarin will be managed within the therapeutic target (or range) and practices will have developed consistent processes for the safe and reliable prescribing and monitoring of warfarin
- **Opioids** - Prescribing of opioids will follow a safe and reliable process
- **Disease modifying anti-rheumatic drugs (DMARDs)** - Patients prescribed DMARDs, particularly methotrexate and azathioprine, have their medicines safely prescribed and reliably monitored

3.2.1 Protecting Kidneys

We believe the programme can be modified and adjusted to address particular health needs. For example, medicine induced acute kidney injury (AKI) reportedly contributes to up to 26% of cases of hospital-acquired acute kidney injury (AKI) and 18% of cases of community-acquired AKI globally.⁹ The SiP Protecting Kidneys module helps practices to ensure that patients who are at

increased risk of AKI are reliably monitored, that prescribing for them is appropriate to their clinical risk, and that patients have the education and understanding to actively participate in protecting their own kidneys from harm. It is also looking at ways to assist practices to identify and manage acute kidney injury early when it does occur.

3.2.2 Prescribing Indicators

Prescribing indicators have been developed to measure the performance of health care providers in several key aspects related to the appropriate use of medicines. We are working with clinical audit tool providers such as Dr Info and Mohio to measure prescribing indicators to identify the number of patients over time who are identified as being at risk of harm as a result of being prescribed high risk medicines. Practices can then decide how they want to address these within their practice environment to reduce risk of harm to patients.

Non-steroidal anti-inflammatory drugs (NSAIDs) – Practices will use their clinical audit tool to identify patients with high risk prescribing of NSAID, allowing them to reduce high risk prescribing of NSAIDs.

An example of the indicators for NSAID prescribing is:

- Patients over 65 prescribed oral NSAID in the past month and not prescribed a gastro-intestinal protective medicine in the past 4 months.
- Patients with peptic ulcer prescribed oral NSAID in the past month and not prescribed a gastro-intestinal protective medicine in the past 4 months.
- Patients with CKD3, 4 or 5 and prescribed oral NSAID in the past month.
- TRIPLE WHAMMY - Patients prescribed oral NSAID in the past month also prescribed ACEI / ARB and loop diuretic in the last 4 months.
- Patients with heart failure and prescribed oral NSAID in the past month.
- Prescription of oral NSAID in the last month in combination with warfarin or a novel anticoagulant in the last 4 months.

High Risk Medicines

This indicator helps practices identify patients who are on medications recognised to be high risk if they are not appropriately prescribed and/or monitored. Medicines of focus include sodium valproate, warfarin, methotrexate and amiodarone.

Kidneys

Damage to kidneys from medications is a common cause of patient harm. This indicator helps practices identify patients who have been prescribed medication that are higher risk for them, or which require monitoring to ensure they are used safely.

3.2.3 The Attic Workshop- Modules under Development

3.2.3.1 Deteriorating Patient

Failure to detect the deteriorating patient is a major factor in delayed diagnosis in primary care.¹⁰ In the majority of instances of these adverse events, incomplete history taking, clinical examination, and recognition of the significance of some findings are major contributing factors in these adverse events. This module will test approaches to improve the detection of deteriorating patients and ensure they receive prompt and appropriate treatment in primary care.

3.3 The Culture Tool shed

Tools and processes are shared with participating primary care teams to improve the processes around identifying and implementing effective change management. The embedding and facilitation of a strong safety culture within organisations is recognised as being an important component of providing safe reliable care. Continuous assessment, reflection and improvement are key to ensuring a safety culture within healthcare teams. Assessments of historical organisational failures within the health sector have often cited poor safety culture as a contributing factor. Examples include reviews conducted in UK hospitals in Bristol¹¹ and Stafford.¹²

The programme has identified a series of tools to improve the safety culture of the participating primary care teams. The report generated from these tools provides an opportunity for teams to meet and discuss openly how they can improve their systems, team safety culture, and allows issues to be raised and prioritised for action.

3.3.1 Safety climate survey

The safety climate survey comprises 5 subject areas (Communication, Workload, Leadership, Teamwork and Safety Systems & Learning) with between 4 to 8 questions for each area. All staff are encouraged to complete an anonymised survey and the results are analysed as a team to assess opportunities for improvement.

3.3.2 Trigger tool

A simple checklist used as markers to identify patient records where harm is more likely to have occurred. This facilitates structured, focused and rapid review of these higher risk medical records by primary care clinicians in order to identify potential harm that may otherwise go unidentified.

3.3.3 Significant event analysis (SEA)

A technique used to reflect on individual patient safety incidents to identify areas for improving the quality of care overall. Significant event audits form part of individual and practice-based learning and quality improvement.

3.4 The Rooftop Shout

The rooftop shout encourages primary care teams to track their progress, measure the improvements made and celebrate their successes. A visual board accessible to the team is encouraged as a proven tool to improve performance:

- It allows team members to see the wider impact of individual activities
- Helps the team to structure their improvement activities
- Facilitates the monitoring and improvement of change management
- Improves communication between team members
- Helps teams to stay engaged and focused on the goal

The SiP team would encourage primary care teams to share their Rooftop Shout with other participating teams via social media and at SiP events.

4 Methodology and Process

The participating primary care teams will choose 1 clinical modules and 1 prescribing indicator to cover each year as well as one of the tools from the Culture Tool Shed.

We intend to engage with a small number of urgent care clinics to test approaches to improve patient safety in this sector. The areas of focus are likely to include lab results handling, detecting the deteriorating patient and reducing harm from high risk medicines but the specific areas, tools and measures may need to be adapted from those used for general practices

4.1 The IHI Breakthrough Series

The Safety in Practice programme uses the Institute for Healthcare Improvement (IHI) breakthrough series collaborative methodology [Figure 4]. The Breakthrough Series is designed to help organisations close the gap between what we know and what we do by creating a structure in which interested organisations can easily learn from each other and from recognised experts in topic areas where they want to make improvements. A Breakthrough Series Collaborative is a short-term (6- to 15-month) learning system that brings together a large number of teams from hospitals or clinics to seek improvement in a focused topic area.

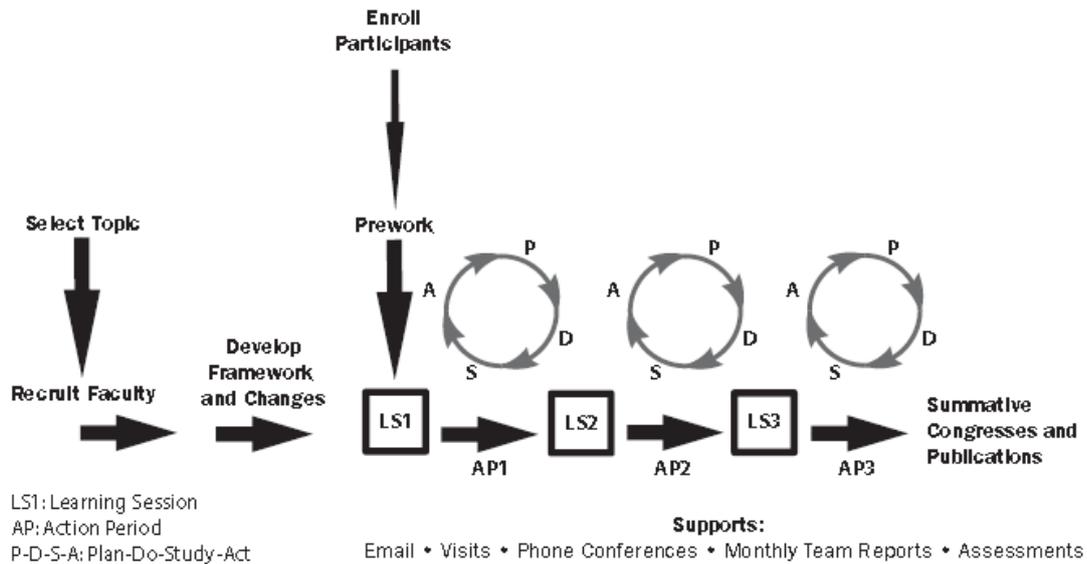


Figure 4 IHI Breakthrough Series Collaborative Methodology

4.2 Collaborative Learning Session

Once teams have chosen an area of focus they will be invited to send 2-3 safety champions from their teams to attend a collaborative learning session, currently one held quarterly. This brings together the safety champions of each enrolled primary care team to learn about best practice and facilitate sharing of knowledge and experiences. This method of collaborative learning has been widely demonstrated as an effective method of accelerating change within primary care. The purpose of the learning sessions is to:

- Develop skills and capabilities in quality and patient safety improvement methodologies and processes
- Share experiences and learn from other programme participants.
- Promote the value of the programme and emphasise the importance of safety in patient care.
- Share successes to encourage continued engagement and participation in the programme.

4.2 Modules

Each of the areas identified as presenting the highest risk to patients within the community have been developed into modules. Each module is structured to include a change package and a bundle.

A **change package** is a collection of change ideas known to produce a desired outcome in a process or system.

A **bundle** is a structured way of improving the processes around patient care: a small, straightforward set of evidence-based practices, generally three to five, that, when performed collectively and reliably, have been proven to improve outcomes.

4.2.1 Audits

A key component of working through each bundle is performing monthly audits within practices under the chosen module. The data collected provides each team with insights into their own systems and processes so that training and service improvement can be targeted.

For example, general practices will take a sample of 10 patients per month for the warfarin module and audit the care they currently receive by answering the following questions:

1. *Is there evidence that the last advice regarding warfarin dosing given to the patient followed current local guidelines?*
2. *Is there evidence that the last advice regarding the interval for INR blood testing given to the patient followed current local guidelines?*
3. *Since the last INR blood test, has the patient been taking the correct dose as ordered by the treating GP?*
4. *INR blood test is taken within 7 days of planned repeat INR?*
5. *Patient education recorded every 12 months?*

These questions need to be answered with a simple “Yes” or “No”. The data is then aggregated to show a month by month trend.

Figure 5 below shows an example of data captured under process measures for current general practices enrolled into the programme and working on medication reconciliation.

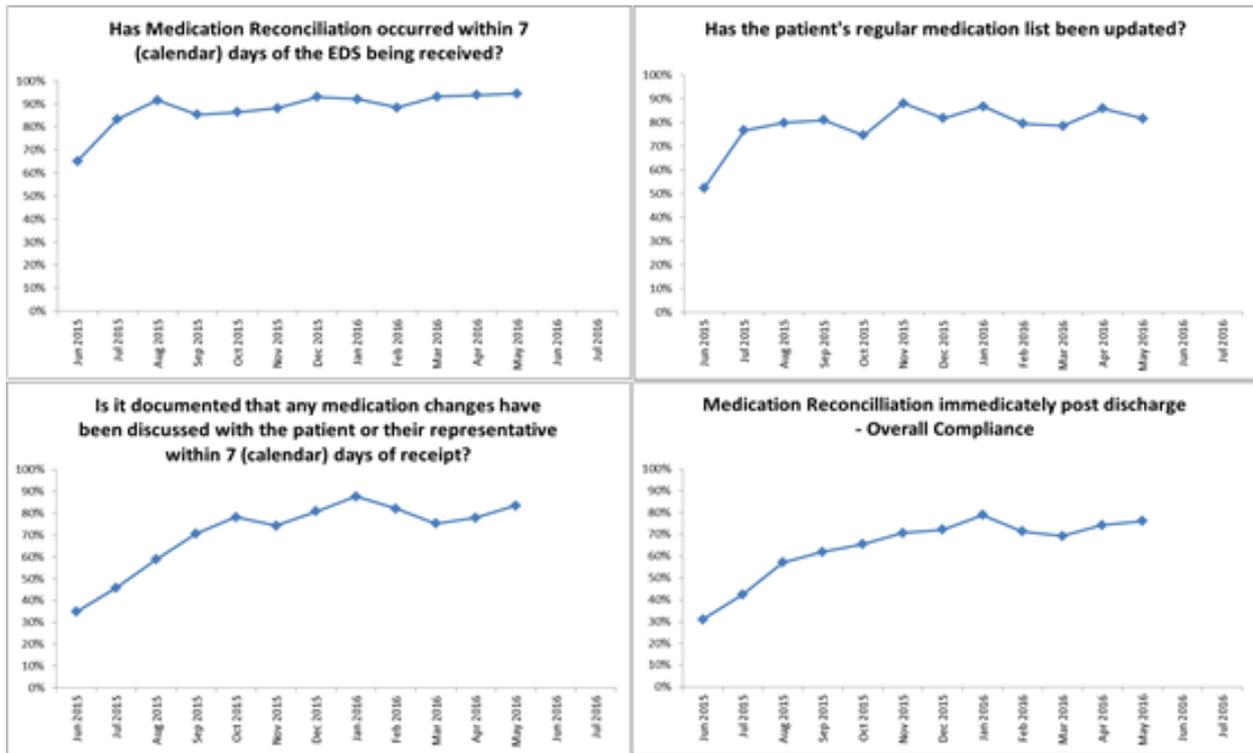


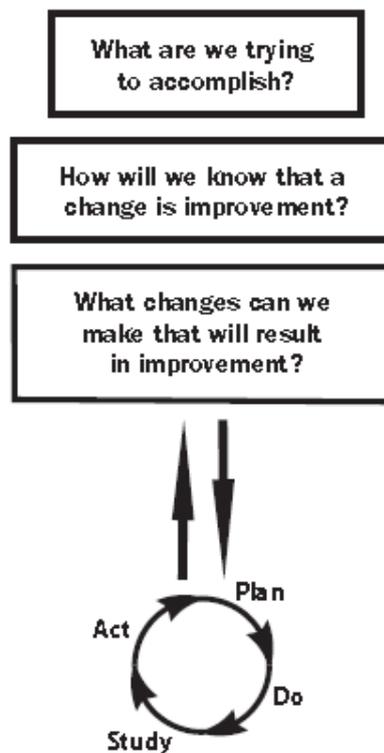
Figure 5 Example audit data for current practices working on medication reconciliation

4.3 Continuous improvement

Once data has been collected and assessed, practice teams can implement new processes and initiatives to make improvements in the chosen area of focus. The model for improvement as shown in Figure 6 requires participating teams to ask three questions:

1. What are we trying to accomplish? **(Aim)** i.e. what is the required outcome
2. How will we know that a change is an improvement? **(Measures)** i.e. identify the appropriate measures to track success.
3. What changes can we make that will result in improvement? **(Changes)** i.e. identify key changes that can be tested.

Figure 6 Model of Improvement



The use of PDSA (Plan- Do- Study- Act) cycles help teams to continuously assess, improve and refine their processes using quantitative measures to achieve an optimised outcome in relation to effecting change and reducing patient harm. The process is continual with refinement occurring with each cycle as shown in Figure 7.

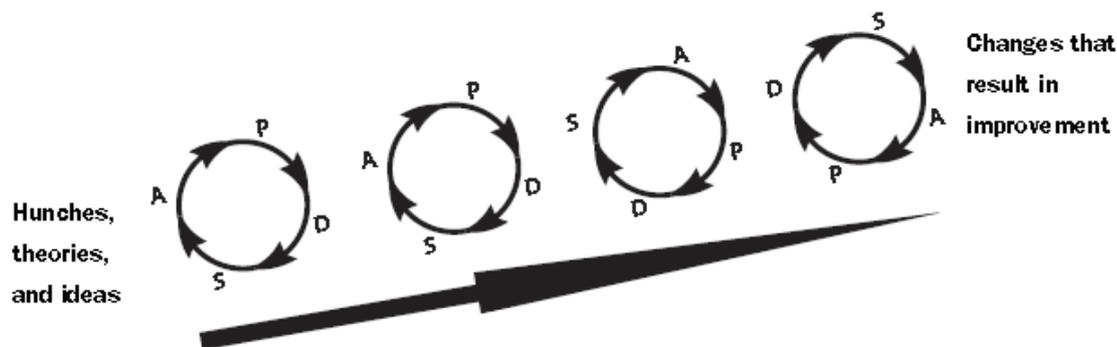


Figure 7 PDSA Cycles

4.4 Support for Programme Participants

Auckland and Waitemata DHBs will provide a planning, development and coordinating function to primary care teams as they participate in SiP. The DHB clinical leads, improvement advisors (and for GP teams PHO facilitators) will work to support improvement methodology, the tools of the programme, and to help support change management. The PHO facilitators are a key source of support for participating teams as well as in the recruitment of new teams.

As teams become more skilled and develop their own in house capability and capacity in quality improvement their need for support from the DHBs will reduce. i.e. first year participating teams will receive greater support than third year teams.

5 Programme Evaluation

An evaluation framework is currently being developed to determine the effectiveness of the programme and the impact it has on patient safety and better clinical practice. The aim is to evaluate the programme formally each year.

Qualitative feedback from primary care teams engaged in the programme to date has been positive and the programme has been well received. Teams have reported being able to apply learning from SiP to improvements in other areas of their clinical practice. Retention of primary care teams within the programme has been well sustained and teams are reporting data from multiple modules being implemented.

As the programme expands and more primary care teams engage with the programme we are looking at more robust measures to evaluate the effectiveness of the programme and the impact it is having on patient safety.

This evaluation aims:

- To measure how many practices have demonstrated improvements in their audits over the course of a year.
- To assess to which extent the goals of the SiP programme have been achieved
- To evaluate General Practice perception of SiP

- To produce learning based on programme experience to inform next editions

The evaluation questions are:

1. Has SiP created safer and more reliable systems in General Practice?
2. Has SiP improved the safety culture of participating General Practice?
3. Has SiP developed QI capability in practices?
4. Has SiP reduced harm or the potential of harm to patients?
5. What are the elements of the programme that worked best and which ones didn't?
6. Has SiP had an impact in Hospital activity?
7. Has SiP improved patient experience in General Practice?
8. Has SiP improved patient outcomes?
9. What other effect positive or negative has SiP had on your practice ? (unintended consequences)

The Safety in Practice programme will be evaluated on an ongoing basis to ensure it is fit for purpose and delivering the required outcomes. The evaluation will have both qualitative and quantitative elements. The outcome of the evaluation will support decision making in the development and future direction of the programme.

6 Strategic Direction & Programme Development

The Safety in Practice programme has been identified as a priority for both Auckland and Waitemata DHBs with significant financial investment to support the programmes achievements. The programme aims to support general practices and other primary care providers to provide safe patient care through proactive, systematic and evidence-based approaches to achieve real time improvements in patient outcomes.

It is planned to expand the programme to all general practices across Auckland and Waitemata DHB regions from July 2017 through to July 2021. If the pilot for community pharmacy is successful then expansion to around 100 community pharmacies by 2021 is planned.

Expanding the programme to include more primary care teams and a wider scope will require ongoing development of the programme to ensure retention of existing participants as well as ensuring operational and financial sustainability.

6.1 Plan for Phase 1 (July 2017 to June 2021)

The plan for expansion of the programme is to engage all general practices and urgent care clinics and around 100 community pharmacies into the programme during phase 1 as follows:

- Enrol all general practices across Waitemata and Auckland DHBs into the programme (by July 2021). The rate of expansion should be decided each year considering team resources and recognising that practice visits remains a rate limiting component of the programme.

- As the pilot for community pharmacy was successful, we plan to enrol a further 100 community pharmacies across Waitemata and Auckland DHBs (by July 2021).
- Engage with all urgent care clinics across Waitemata and Auckland DHBs (by July 2021)
- Retain all the general practices, urgent care clinics and community pharmacies who are part of the programme
- Review of the programme to be completed annually
- Programme to be adapted and modelled accordingly to incorporate new ideas and solutions as they develop.

6.2 Phase 2 (Beyond July 2021)

In phase 2 of the programme development we aim to engage with all the community pharmacies, non-government organisations (NGOs) including mental health providers and aged residential care across Waitemata and Auckland DHBs. This will likely need to include a pilot phase where the programme can be tested within the NGO space to explore what opportunities exist before rolling it out more widely.

6.3 Partnership Opportunities

The Safety in Practice programme has generated interest from various healthcare organisations across New Zealand. There may be opportunities to collaborate with other entities to develop and expand the programme further. This includes collaborations with HQSC who have several initiatives to improve patient safety and safe medication management that SiP could enhance. Similarly the Accident Compensation Corporation (ACC) has expressed an interest in jointly investing with the DHBs into SiP. This would help the expansion and development of SiP further.

6.4 Participant Retention - Value Proposition

In order to ensure retention and continued adoption, the value proposition of the programme needs to be emphasised to participating primary care teams on a regular basis as outlined below:

- Make patient care safer by reducing preventable harm through developing a culture of safety and teamwork within primary care providers to ensure high-risk processes are carried out reliably
- Contribute to reducing hospital admissions as a consequence of reducing adverse drug events
- Provide general practices and community pharmacies with the tools and skills to increase efficiency, adapt to changing circumstances and improve services
- Increased efficiency and better processes will lead to cost efficiencies and better productivity
- Strengthen relationships between the DHBs (including secondary care), Primary Health Organisations (PHOs), general practices, urgent care clinics and community pharmacies
- Programme supports general practitioners to achieve and maintain Foundation and Cornerstone accreditation.
- Taking part in Safety in Practice programme provides general practitioners with CPD and the tools and audits carried out in Safety in Practice programme can be used as evidence for

maintenance of professional standards (MOPS) and contribute towards ENHANCE learning points for community pharmacy CPD.

- Warfarin/dabigatran module for community pharmacy will align with the Community Pharmacy Anticoagulation Service (CPAMS) work

In addition to reiterating the value of SiP we will also ensure the programme is not too onerous and time consuming for participants as this will lead to disengagement.

7 Sustainability

7.1 Training for Primary Care Teams

We plan to provide training to primary care teams to build capability and capacity within to sustain quality improvement measures. This will mean that over time primary care teams will require less facilitation and support from the DHBs. We aim to map out the quality improvement needs in order to develop a comprehensive and valuable curriculum. This can be used to facilitate learning workshops and sessions for key team members, developing greater capacity within the primary care sector for effective change management and quality improvement.

7.1.2 Practice Visits

Primary care teams currently receive support from DHB Improvement Advisors and Clinical Leads who visit them at their practices and provide support to:

- Review audit data and identify improvement ideas
- Plan when and how these ideas can be implemented
- Engage other members of the team to ensure the activity becomes embedded into the culture of the practice
- Discuss successes and challenges

As primary care teams progress through the 4 year programme the expectation is for the number of practice visits to reduce and for teams to be more capable and confident in their level of QI skills and knowledge to drive their progress through each module.

	Number of Practice Visits	Other sources of support
First Year	1-2 per year	<ul style="list-style-type: none"> • SiP website- discussion Board • Learning Sessions • Social Media Platforms • Locality participant support groups
Second Year	0-1 upon request	
Third Year	0-1 upon request	
Fourth Year	0-1 upon request	

7.2 Learning Sessions

The learning sessions are considered a valuable component of this programme and an effective way to share experiences and accelerate change through learning from others. The programme currently runs 4 learning sessions per year. As the programme expands we may consider reducing this number or holding larger conference type sessions or using e-learning modules and webinars to deliver information around QI skills. This could ensure the opportunity to engage with other primary care providers and share experiences remains integral to the programme, recognising the value this has, but allows for more effective and sustainable management of the expansion of programme.

7.3 Digital Media

Part of the plan to ensure the programme remains sustainable as it expands is to better utilise digital and social media platforms. We plan to develop the Safety in Practice website to give additional functionality to support the programme going forward. This will include:

- Region specific content i.e. Auckland, Waitemata and Counties Manukau Health DHB
- Hosting e-learning modules, videos and webinars
- Host SiP data dashboard so teams can see how they are performing
- Host a chat room/message board for teams to share ideas and success stories or ask questions
- Functionality for data repository and aggregation

The team would also like to integrate social media campaigns into the programme and the website. This will help generate excitement and interest for the programme as well as allow programme participants to share experiences via this platform. This will be valuable when looking to expand the programme beyond Auckland to the rest of New Zealand. Social media has been proven to be far more effective at generating support and promoting initiatives than traditional campaigns using paper based collateral. It is also a more cost effective mechanism to share ideas and generate support.

8 Risk Management

The primary objective of the programme is to reduce preventable harm to patients in primary care in Auckland and Waitemata DHB. The most significant success factors influencing the achievement of this are in the promotion, recruitment and retention of primary care teams into the programme. As the programme develops and expands sustainability of the programme will be a key consideration. Table 2 below highlights the most critical risks identified for the SiP programme.

Table 2 Risks identified for the programme

Risk	Likelihood	Impact	Mitigation
Recruitment of primary care teams	Low	High	Invest in appropriate promotion strategies Elicit support from influential stakeholders i.e. PHOs, Nirvana Health, Green Cross Healthetc
Retention of primary care teams	Medium	High	Ensure value proposition is emphasised to teams. Ensure programme is manageable and valuable
Programme sustainability	Medium	High	Develop the programme appropriately to streamline design and create efficiencies. Utilise technology and digital media to deliver training more efficiently
Adequate financial investment	Medium	High	Ensure programme is meaningful and creating impact to justify further investment. Look for opportunities for collaboration and alternative investment
Good quality evaluation to effectively demonstrate impact	Low	High	Work with health economists to develop robust evaluation framework to effectively demonstrate impact.
Consistency of implementation within	Medium	High	Work closely with teams to ensure activities are implemented consistently and practice team are engaging other

primary care teams			team members to embed activities within practice culture.
Adequate programme resource to support expansion and further development of the programme	Medium	Medium	Focus of creating automation and put in place sustainability measures to ensure the programme can continue to grow without the need for additional resource.

References

1. 'A Window on the Quality of New Zealand's Health Care' 2017 Health Quality & Safety Commission www.hqsc.govt.nz/assets/Health-Quality-Evaluation/PR/A_Window_on_the_Quality_of_NZ_Health_Care_2017.pdf (Accessed 10-07-18)
2. Avery T, Barber N, Ghaleb M et al. Investigating the prevalence and cause of prescribing errors in general practice: the PRACTiCe study. A report for the General Medical Council. 2012, 227p. [http://researchprofiles.herts.ac.uk/portal/en/publications/investigating-the-prevalence-and-causes-of-prescribing-errors-in-general-practice\(42e0e1ed-fe43-4041-80ba-7b0ef4e57003\).html](http://researchprofiles.herts.ac.uk/portal/en/publications/investigating-the-prevalence-and-causes-of-prescribing-errors-in-general-practice(42e0e1ed-fe43-4041-80ba-7b0ef4e57003).html) (Accessed 10-07-18)
3. Howard RL, Avery AJ, Howard PD, Partridge M. Investigation into the reasons for preventable drug related admissions to a medical admissions unit: observational study. *Quality and Safety in Health Care*. 2003;12(4):280–5. <http://qualitysafety.bmj.com/content/qhc/12/4/280.full.pdf> (Accessed 10-07-18)
4. Robb G, Loe E, Maharaj A, Hamblin R, Seddon ME. Medication-related patient harm in New Zealand hospitals: *New Zealand Medical Journal* 2017;130(1460):21-32. www.nzma.org.nz/journal/read-the-journal/all-issues/2010-2019/2017/vol-130-no-1460-11-august-2017/7328 (Accessed 10-07-18)
5. The Health Foundation, United Kingdom. Evidence Scan: Levels of Harm in Primary Care 2011. www.health.org.uk/sites/health/files/LevelsOfHarmInPrimaryCare.pdf (Accessed 30-08-17)
6. Agency for Healthcare, Research and Quality. Readmissions and adverse events after discharge. Patient Safety Network. <https://psnet.ahrq.gov/primers/primer/11/adverse-events-after-hospital-discharge> (Accessed 30-08-17)
7. Redmond P, Grimes TC, McDonnell R et al. Interventions for improving medication reconciliation across transitions of care. *Cochrane Database of Systematic Reviews* 2013, Issue 10. CD010791. <http://cochranelibrary-wiley.com/doi/10.1002/14651858.CD010791/full> (Accessed 10-07-18)
8. Pirmohamed M, James S, Meakin S et al. Adverse drug reactions as cause of admission to hospital: prospective analysis of 18 820 patients. *British Medical Journal*.2004;329(7456):15–9. www.bmj.com/content/329/7456/15 (Accessed 10-07-18)
9. Luyckx VA, Naicker S. Acute kidney injury associated with the use of traditional medicines. *Nature Clinical Practice Nephrology*2008;4:664-71.
10. Singh H, Giardina TD, Meyer AND, et al. Types and origins of diagnostic errors in primary care settings. *Journal of the American Medical Association Internal Medicine* 2013;173(6):418-25 www.ncbi.nlm.nih.gov/pmc/articles/PMC3690001/pdf/nihms469798.pdf (Accessed 10-07-18)
11. Kennedy I. The Report of the Public Inquiry in to Children's heart surgery at the Bristol Royal Infirmary 1984-1005. Learning from Bristol 2001. CM5207(1). http://webarchive.nationalarchives.gov.uk/20090811143822/http://www.bristol-inquiry.org.uk/final_report/the_report.pdf (Accessed 30-08-17)

12. Francis R. Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry 2013. Executive summary. HC 947. ISBN: 9780102981476.
<http://webarchive.nationalarchives.gov.uk/20150407084231/http://www.midstaffpublicinquiry.com/report> (Accessed 30-08-17)