safety IN PRACTICE

Strategic Plan

2021-2022

Every patient, every time

AUCKLAND DISTRICT HEALTH BOARD Te Toka Tumai

Waitematā District Health Board

Best Care for Everyone

AUCKLANDPHO

comprehensive care

National Hauora Coalition

ProCare

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Contents

1.0 Mission Statement:

It is our goal to be New Zealand's leading health-related quality improvement programme with a focus on safety. We will accomplish this by researching, sourcing and providing primary care teams with the best possible quality improvement training and supporting them to establish meaningful and sustainable changes within their organisations.

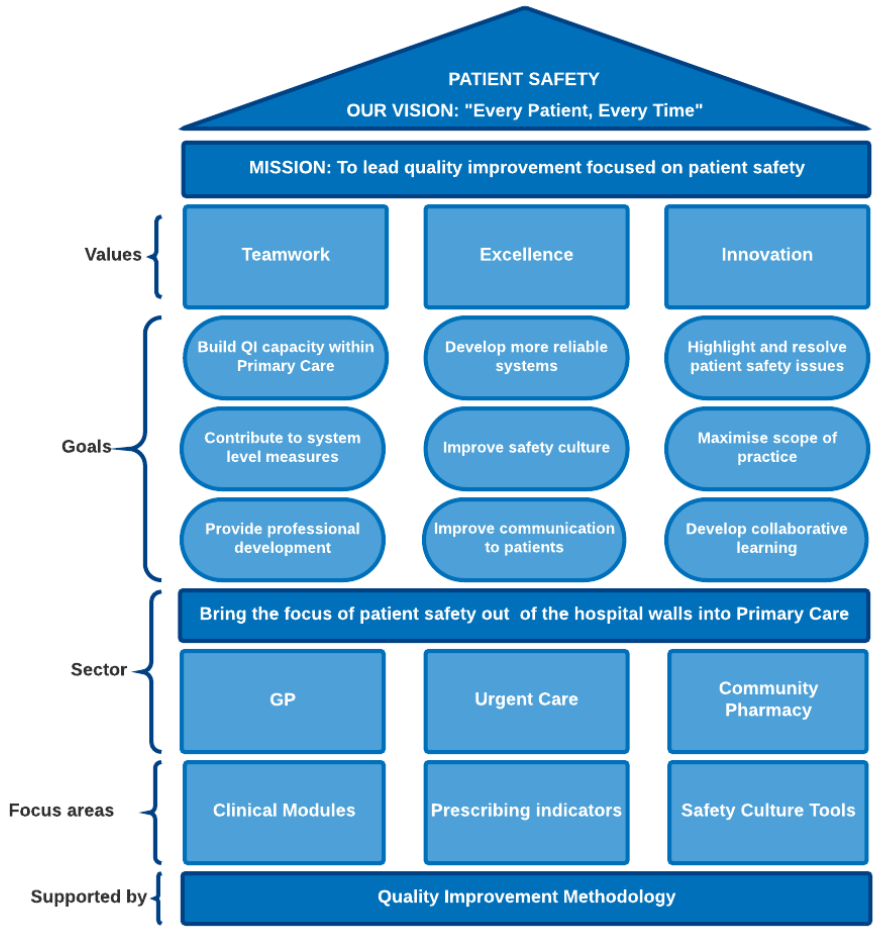
1.1 Objectives:

- Develop quality improvement knowledge and skills
- Provide primary care providers with the tools and skills to increase efficiency and adapt to changing circumstances
- Create safer and more reliable systems to ensure consistency of practice
- Make patient care safer by reducing preventable harm through developing a culture of safety and team work within primary care providers
- Contribute indirectly to reducing hospital admissions

1.2 Vision:

"Every patient, every time"

Figure 1. Strategic overview



2.0 Introduction:

Patient harm is frequently associated with medication errors and medications themselves. There is strong evidence from research in Australia and the United Kingdom of prescription errors and adverse drug events resulting in disability, harm or admission to hospital. These admissions were mainly attributed to problems with prescribing, monitoring and patient adherence. Gillian Rob et al (4) confirmed that this is also a problem in New Zealand with harm occurring at a rate of 34.7 per 100 admissions. It was found that 29% of this harm originated in the community and precipitated an admission to hospital. According to international studies, errors within primary care occur in approximately 1-2% of consultations particularly involving the elderly, those with co-morbidities and those on multiple medications.[5] this evidence indicates that patient safety is severely compromised and initiatives must be put in place to help clinical practice change.

In 2004 the World Health Organisation created the 'World Alliance for Patient Safety' programme to promote patient safety in healthcare. The focus of these efforts have historically been on secondary and tertiary level care, however, a shift is needed to focus also on primary care.

The Safety in Practice (SiP) programme is an initiative designed to provide quality improvement (QI) tools and training to primary health care teams to enable them to reduce preventable harm to patients when receiving care in the community. The programme was first introduced to the Auckland Metro region in 2014 with 23 general practices involved and has since expanded to include 51 general practices and urgent care clinics (UCCs) as well as 44 community pharmacies in the 2018/19 learning year.

The programme utilises quality improvement methodology to help teams identify and improve processes within their practice that would increase patient safety. 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]. The SiP programme is well aligned with the strategic priorities of the Health Quality and Safety Commission (HSQC) New Zealand. 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 key clinical areas believed to present the greatest risk to patient safety in the community for primary care teams to focus on. It is structured over three years with a new high-risk area being chosen by teams each year. Training and tools specific to each area are delivered to participating primary care teams through collaborative 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.

The purpose of the collaborative learning session is to bring together safety champions from each participating primary care team to:

- Develop skills and capabilities in quality 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

Monthly audits provide teams with data to facilitate the use of PDSA (Plan- Do- Study- Act) cycles to implement effective change that is specific and evidence based. The programme takes an end to end approach; this means primary care teams are trained to look at all aspects of patient care in relation to their chosen clinical module. This is inclusive of prescribing, monitoring, dispensing, counseling and patient adherence.

There are benefits beyond improved patient safety including:

- General practitioners are supported to achieve and maintain Foundation and Cornerstone accreditation
- Urgent Care doctors are supported to achieve and maintain Urgent Care accreditation
- Provides primary care teams with Continuing Professional Development (CPD) and evidence for maintenance of professional standards (MOPS)
- Following completion of the three-year curriculum primary care providers will be accredited “Safety in Practice Providers” provided they meet ongoing maintenance requirements.

In addition to the benefits listed above, participants also report benefiting from improved team work, communication, efficiency and an enhanced safety culture as a result of being part of the programme.

Future plans for the SiP programme include expanding to all general practices, urgent care clinics and community pharmacies across the Auckland Metro region, while maintaining a strong QI focus.

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	• 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	• The programme has the potential to reduce hospital admissions by reducing preventable harm in primary care.
Service integration and/or consolidation	• 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	• 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	• Supports teams to implement evidence-based care focusing on areas of known potential harm.
Outward focus and flexible, service orientation	• The programme develops more capable primary care providers and supports the RNZCGP Cornerstone accreditation programme
Emphasis on operational and financial sustainability	• Developing systems and processes within practices to improve efficiency and quality.

2. 1 Programme 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 structured over three years.

For GP teams there are two foundation modules (Lab results Handing 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 GP teams to begin year 1 of the programme with one of the core foundation modules, the NSAIDs prescribing indicator and one of the tools from the Culture Tool Shed. Each subsequent year teams can select any one 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].

For Community pharmacy teams there are four modules that can be done at any stage during the 3 years. Pharmacy teams must complete the safety climate survey as their culture tool during their first year of the programme and either repeat this or complete a significant event analysis in subsequent years [Figure 2]

Figure 2 SiP GP/Urgent care Programme Structure

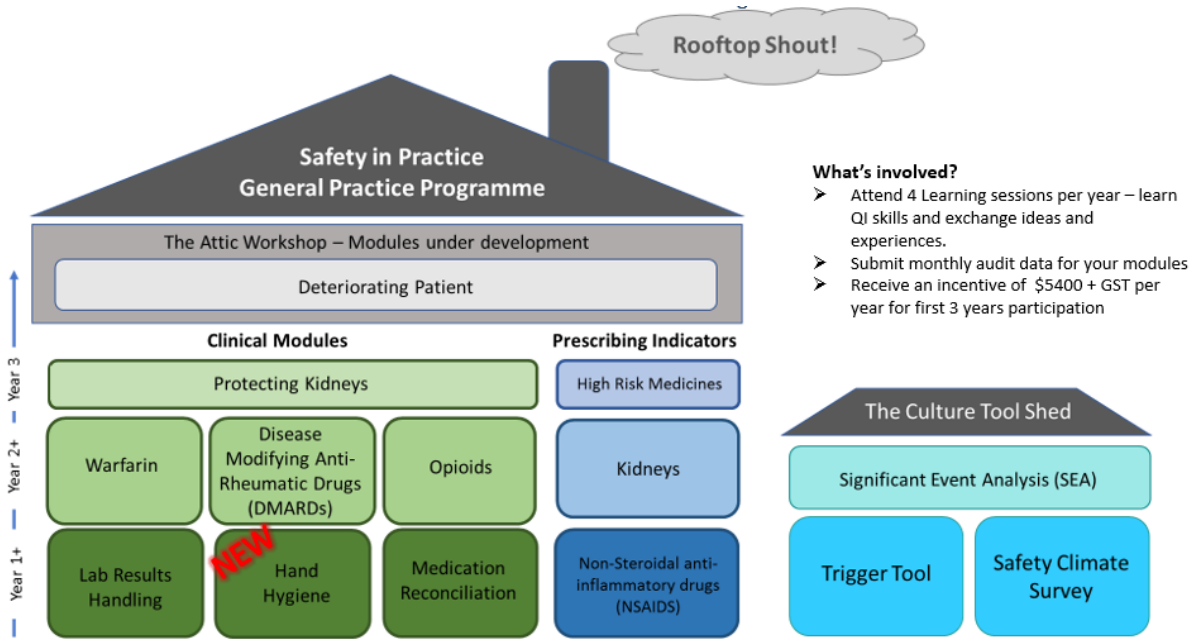
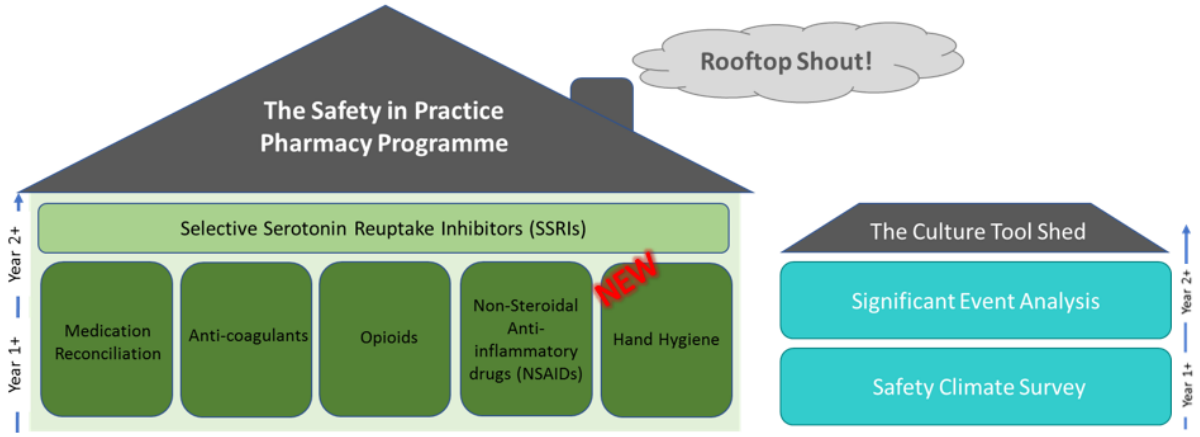
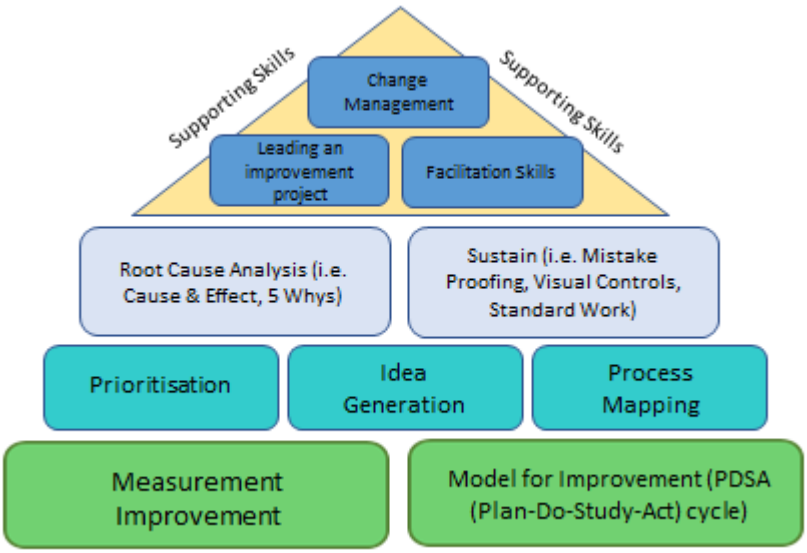


Figure 3 Pharmacy Programme Structure



Learnings from the Safety in Practice programme are supported by a strong foundation of quality improvement methodology. Figure 3 maps out how the programme is designed to develop quality improvement skills within the primary care teams as they progress through the programme. There is scope within the programme to change the structure of the three year curriculum to have all quality improvement skills taught during the first year in a stand-alone learning session.

Figure 3 Quality improvement skills development plan



The quality improvement skills will be delivered in a single three-hour workshop. At these workshops PHCTs will have an opportunity to learn and practice Quality Improvement (QI) tools that will be essential to their team throughout the Safety in Practice programme year. The skills they learn will their teams to improve practice, patient experience and outcomes relating to the Safety in Practice Clinical Modules.

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 teams manage their change management processes. 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. As data visibility increases this support will become more targeted to those teams that are struggling to achieve a sustained improvement in their chosen module.

3.0 Programme Trajectory:

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.

3.1 Programme Milestones

Short term

- Formalise the quality improvement curriculum and delivery structure
- Expand the programme to 110 participants across primary care by 2022
- Retain all year one and year two general practices, urgent care clinics and community pharmacies who are part of the programme
- Establish a formal transition process for year three practices
- Development of online learning modalities and data entry capabilities
- Increase usability and functionality of Qlik
- Development of a formal evaluation framework
- Review of the programme to be completed annually
- Programme to be adapted and modeled accordingly to incorporate new ideas and efficiency solutions as they are developed
- Establish newsletter, website and twitter with a strong social media presence
- Effectively engage with urgent care

Long term

- Expand the programme to all general practices & urgent care clinics and approximately 100 community pharmacy teams
- Further develop the online functionality of the Safety in Practice website
- Develop an accreditation process for Safety in Practice
- Expand the programme to all community pharmacies
- Programme to tailored and piloted with non-government organisations (NGOs) including mental health providers and aged residential care across Waitemata and Auckland DHB
- Exploration of partnership opportunities to develop and expand the programme further. Opportunities may exist with HQSC, Accident Compensation Corporation (ACC) and Healthcare Home.
- Package the Safety in Practice programme suitably so that it can be adopted by any healthcare organisation without ongoing support from the DHB

3.2 Programme evaluation:

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 practices. Due to small numbers to date it has not been feasible to undertake a significant evaluation of the effectiveness of the programme or the impact it has had on patient safety. An evaluation framework is currently being developed to evaluate the programme on an ongoing basis to ensure it is fit for purpose and delivering the required outcomes.

The evaluation will address but is not limited to the following questions:

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 unintended effects, positive or negative has SIP had on your practice?

4.0 Sustainability

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.

Practice Visits

Primary care teams currently receive support from DHB Improvement advisors (IAs) and Clinical leads (CLs) who visit them at their practices and provide support to:

- Review audit data and identify improvement ideas as well as successes and challenges
- 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

As primary care teams progress through the 3 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.

As the visibility of data is improved in the programme visits by IAs and CLs will become more targeted. Visits will be directed to teams whose data shows they are not performing. Other sources of support includes learning sessions, new letters, social media platforms, website resources and the potential development of a SiP website-discussion board.

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. A QI skills learning session or workshop will replace one of the learning sessions and only be a requirement of first year teams or new team members to attend. This will result in teams being equipped with quality improvement skills from the beginning of the programme and shorter subsequent learning sessions. This will reduce the pressure and time-demands on the team. This quality improvement workshop will be supported by an e-Learning module explaining the “why” and how to get started.

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.

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. ADHB, WDHB
- 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.

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 Health etc.
Retention of primary care teams	Low	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 primary care teams	Medium	High	Work closely with teams to ensure activities are implemented consistently and practice team are engaging other 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.
Integrity of data	Medium	High	Invest in data manager to work alongside Safety in Practice in supporting teams to collect high quality data

Maintenance of quality improvement skills post-curriculum completion	Medium	Low	Invest time in developing a transition plan for providers completing the three year programme and put support measures in place

5.0 Appendix

5.1 Programme structure:

Collaborative Learning Sessions

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.

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.

The following clinical modules are currently available to GP and Urgent Care:

- Medication reconciliation (core module)
- Laboratory results handling (core module)
- Warfarin/anticoagulants
- Opioids
- Protecting Kidneys
- Deteriorating patient (under-development)

The following clinical modules are currently available to community pharmacy:

- Medicine reconciliation
- Anticoagulants
- Non-steroidal anti-inflammatory drugs (NSAIDs)
- Opioids

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.

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 systems and data extraction tools such as Dr Info, 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. The following prescribing indicators are currently available:

- NSAIDs
- High Risk Medicines
- Kidneys

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 Bristol[10] and Stafford.[11]

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.

- **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.

- **Trigger tool:** A simple checklist used to screen medical records for potential harm. This facilitates structured, focused and rapid review of a sample of medical records by primary care clinicians in order to identify potential harm that may otherwise go unidentified.
- **Significant event analysis (SEA):** A technique used to reflect on individual cases to identify areas for improving the quality of care overall. Significant event audits form part of individual and practice-based learning and quality improvement.

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:

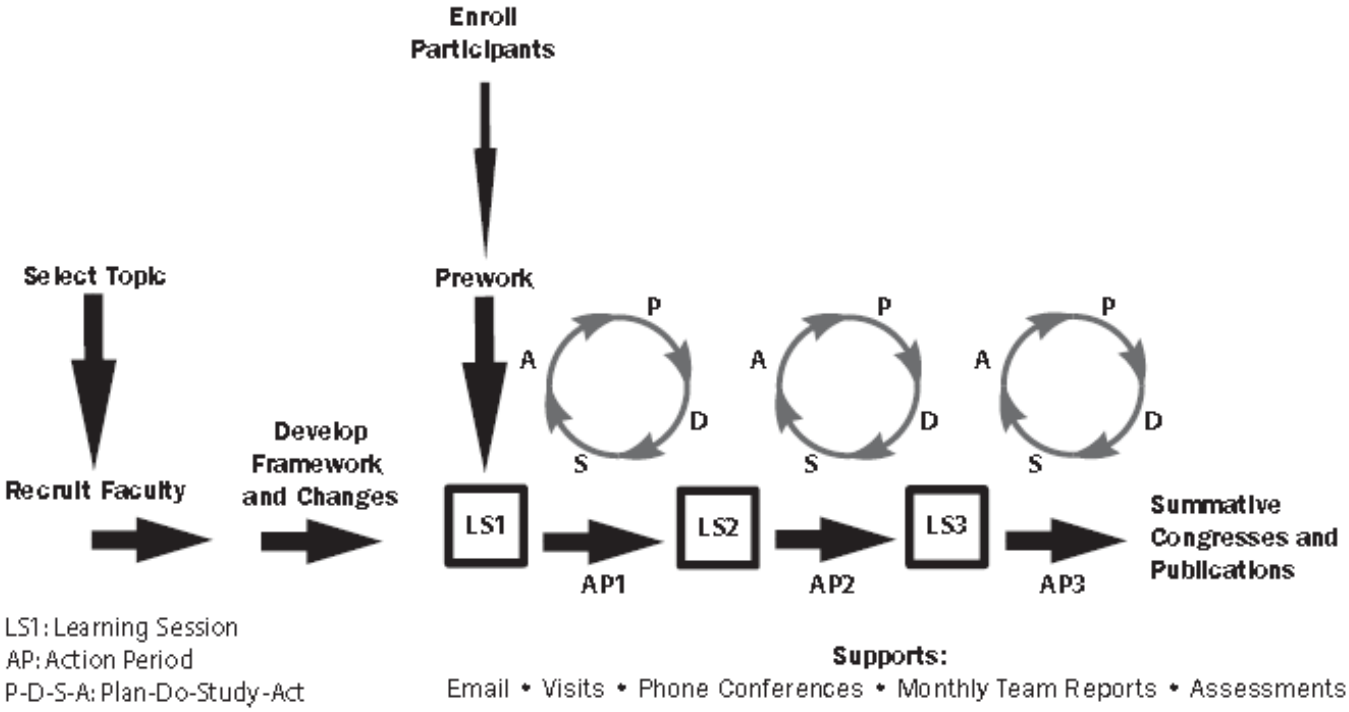
- It allows team members to see the wider impact of individual activities
- Helps the team to structure their improvement activities
- Facilitates the monitoring and improvement of change management
- Improves communication between team members
- Helps teams to stay engaged and focused on the goal

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

5.2 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.

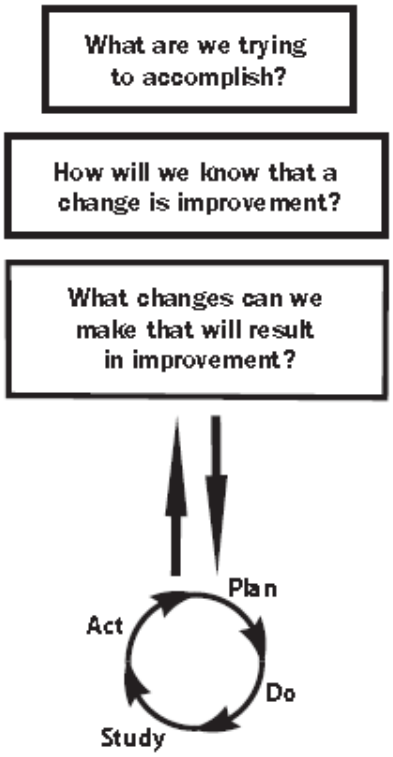
Figure 4 IHI Breakthrough Series Collaborative Methodology



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:

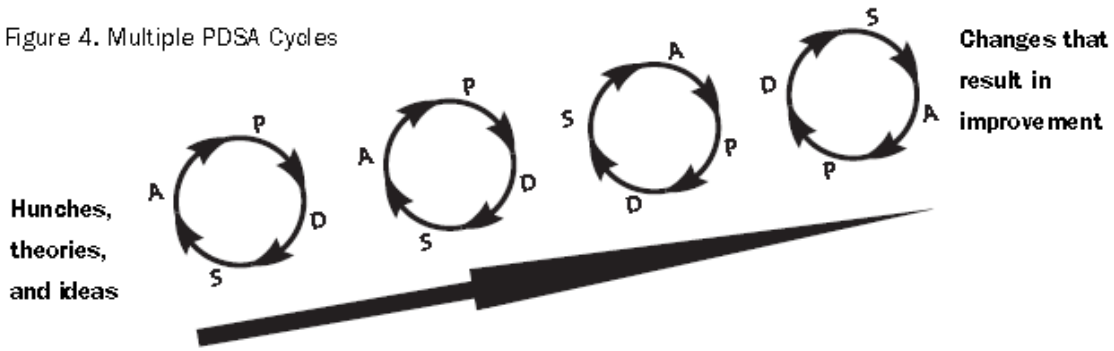
1. *What are we trying to accomplish?* ***(Aim)*** *i.e. what is the required outcome*
2. *How will we know that a change is an improvement?* ***(Measures)*** *i.e. identify the appropriate measures to track success.*
3. *What changes can we make that will result in improvement?* ***(Changes)*** *i.e.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

Figure 5 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 6.

Figure 6 PDSA Cycles



6.0 References

1. 'A Window on the Quality of New Zealand's Health Care' Healthcare Quality & Safety Commission 2017
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. May 2012.
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. Qual Saf Health Care. 2003;12:280–5.
4. Gillian Robb, Elizabeth Loe, Ashika Maharaj, Richard Hamblin. Mary Seddon. Medication-related patient harm in New Zealand hospitals: NZMJ 11 August 2017, Vol 130 No 1460.
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.
8. Pirmohamed M, James S, Meakin S et al. Adverse drug reactions as cause of admission to hospital: prospective analysis of 18 820 patients. BMJ.2004;329(7456):15–9.
9. *Singh H, Giardina TD, Meyer AND, Forjuoh SN, Reis MD, Thomas EJ. Types and origins of diagnostic errors in primary care settings. JAMA Internal Medicine 2013;173(6):418-25*
10. Bristol: 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)
11. Stafford: 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.midstaffspublicinquiry.com/report (Accessed 30-08-17)