HEALTH QUALITY & SAFETY
COMMISSION NEW ZEALAND
Kupu Taurangi Hauora o Aotearoa

Towards quality improvement at scale in the New Zealand primary care setting

Findings from consumer and health service engagement

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Contents

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List of abbreviations

ACC	Accident Compensation Corporation
CEO	chief executive officer
CLAB	central line associated bacteraemia
COPD	chronic obstructive pulmonary disease
CVD	cardiovascular disease
DHB	district health board
HCH	Health Care Home
PCEAG	primary care expert advisory group
PDSA	plan–do–study–act
PHO	primary health organisation
PHO-QIN	primary health organisation quality improvement network
PHARMAC	Pharmaceutical Management Agency
QI	quality improvement
QIC	quality improvement collaborative
SiP	Safety in Practice
SLM	System Level Measure
SSI	surgical site infections
WINZ	Work and Income New Zealand

Executive summary

The purpose of this document is to summarise the findings from consumer and health service engagement to inform the 2019/20 Primary Care programme planning on how to progress primary care quality improvement (QI) at scale.

The Health Quality & Safety Commission (the Commission) has a wealth of experience working with the hospital and district health board (DHB) sector to improve organisational capability and delivery of care. However, the heterogeneity of culture and structures and the diversity of primary care providers present a new set of challenges.

Since its signing in 1840, the Treaty of Waitangi has been the founding document for Aotearoa New Zealand with its underlying principles of partnership, participation and protection. The Treaty requires the government to ensure that Māori have at least the same level of health as non-Māori.[1] However, equity of health outcomes for Māori and non-Māori populations has demonstrably not been achieved, sparking renewed commitment to improvement as a national priority. Primary care has been identified as a key sector to address Māori health gain and equity.

In 2015, the Commission began increasing its focus on primary care. This included establishing a primary care expert advisory group (PCEAG), leading the implementation of a national patient experience survey, forming a primary health organisation quality improvement network (PHO-QIN) and supporting QI facilitator education.

The Whakakotahi programme, partnering with primary care in small-scale, sector-led QI projects, was launched in 2017 with three underpinning principles: equity, consumer engagement and system integration. In a contestable expressions of interest process (over an initial three-year period), three projects were selected in in 2017 and six in 2018. In 2019, a further eight projects have been selected, three of which have a medicines equity focus in partnership with the Pharmaceutical Management Agency (PHARMAC). While the emphasis was on building quality improvement capability in this first three-year phase, another intent was to investigate whether promising projects, arising from the initial primary care sites, might be scalable at a regional level and potentially form the basis of a national primary care quality improvement collaborative.

In December 2017, a workshop was held with the PCEAG to determine the next steps for initiating QI activities in primary care. Major recommendations were to engage sector stakeholders, including those with Māori equity expertise, strengthen the team's cultural competence and develop a strategy or road map to shape improvement initiatives at scale.

In response, in 2018 the Commission's primary care team formally sought support and advice from Te Tihi o Ruahine, an alliance of nine iwi, hapū and Māori organisations who work collectively to deliver whānau-centred services based on the Te Ara Whānau Ora process.

To engage sector stakeholders, the Commission's primary care team undertook a series of six workshops (96 participants) and 27 interviews (34 participants) to understand the context of primary care and identify barriers and enablers for achieving large-scale quality improvement activities such as a quality improvement collaborative (QIC) in this setting in New Zealand. The findings would help inform a high-level action plan for the Commission.

The sampling strategy was mixed, including established groups (Health Navigator Consumer Group, Te Tumu Whakarae [DHB Māori general managers] and three of the Commission's groups: Consumer Network, PHO Quality Improvement Network and PCEAG), established quality improvement collaboratives (Health Care Home and Safety in Practice), snowball sampling (asking who should be interviewed) and convenience sampling (central agencies workshop and academic and general practitioner [GP] networks). Rather than being designed to be representative of all primary care services, the sampling was intended to gather broad Māori and non-Māori narratives from consumers and from people working at macro- (national), meso- (institutional) and micro- (primary care team) system levels. Simple thematic analysis was conducted in an iterative fashion and the Consolidated Framework for Implementation Research[2] was used as a programme-level theory to guide and structure the analytical process.

The feedback was structured according to three main categories: the use of QIC methodology in New Zealand primary care, the outer setting (the economic, political and social context within which the PHOs, general practices or other community health providers reside) and the inner setting (the general practice context). The aim was to collect reflections on this methodology, develop an understanding of the context within which QICs would be implemented and highlight specific themes that emerged.

Findings

The need for definitions of quality and quality improvement from an Aotearoa New Zealand perspective

Much of the work in quality and quality improvement has been derived internationally. Discussions around the collaborative methodology raised a core higher-level question; that before embarking on any initiative (local, regional or national), there need to be definitions of quality and quality improvement from an Aotearoa New Zealand perspective – from Māori and non-Māori whānau. Those definitions would set the standard as change cannot be measured unless it is clearly understood what improvement in quality means.

> 'We firstly need a definition of quality from tangata whenua.' (Te Tumu Whakarae)

Focus on equity of health outcomes and engage patients

Participants strongly agreed that any topic or topics for a quality improvement initiative should address an equity issue and be meaningful and important to consumers and health care providers.

> 'Focus on EQUITY or go home … Maybe also focus on unenrolled populations.' (CEO, PHO)
>
> 'Start with patients – Ask people what they want.' (Chair of a DHB consumer council)

Support for quality improvement collaborative methodology

The majority of participants were supportive of an adaptable collaborative methodology that fosters the application of improvement science and focuses on impacting equity of health outcomes. However, the following limitations or issues would need to be addressed.

- Previous collaboratives failed to involve consumers (including in design, decision-making, planning, coordinating and team membership).
- While there is evidence for effectiveness in primary and ambulatory care settings, some gaps remain in the New Zealand evidence base with respect to equity (of both provider processes and health outcomes) and cost-effectiveness.
- Prior to initiating any new collaboratives, the overall primary aim of doing a collaborative must be clear as this drives the key measures of effectiveness. In particular, there needs to be clarity about whether the primary aim of a collaborative is to **improve patient outcomes (and equity of patient outcomes)** or whether it is to **build primary care capability in quality improvement**.
- Whatever the primary aim, before a collaborative is implemented a robust study design protocol (for example, interrupted time-series design or controlled before–after study) should be developed. It would establish baseline measures, clear methods of data collection (including type of data and frequency of collection) and monitoring and feedback systems.
- Barriers to data collection, aggregation, analysis and feedback were frequently identified, along with the need to invest in the infrastructure to address them.
- Measures would need to consider experience of whānau, and focus on ways in which data can be used to benefit patients.[3]
- Collaboratives need clinical champions, coaching and high-level commitment-to provide funding, adequate person-time resources, drive and coordination. There needs to be a collective understanding that undertaking a QIC is a long-term journey to create sustainable change and develop workforce capability.

> ‘Need right IT systems eg: good interactive website/platform set up so that practices can enter data straight on line and the input data is analysed, aggregated and feedback is provided to practices.’ (GP-2 leader, Safety in Practice)

Two large primary care QI collaborative efforts are currently occurring: Health Care Home and Safety in Practice. There is interest and opportunity for the Commission to work with and support these initiatives such as by offering QI workforce capability development opportunities (eg, quality improvement advisor or facilitator courses), supporting these collaboratives to enhance the involvement of consumers, primary care sector integration and intersectoral engagement, and supporting their evaluation planning process to demonstrate impacts.

A suite of topics

Primary care embraces generalism and diversity. A suite of available topics to choose from was preferred over a single national topic. Gathering evidence of what works is required as many activities are occurring in local pockets, which need to inform scale and spread initiatives. QI bundles or change packages have already been trialled and tested in the New Zealand primary care setting. For example, the Safety in Practice Collaborative has over 20 topics developed and tested by general practice and some topics have been developed for both general practices and pharmacies.

Therefore, the Commission could consider initiating or supporting primary care collaboratives from a suite of change packages for groups to choose from that are equity focused and important to consumers and health care providers. All collaboratives should include consumers in their design, development and implementation and involve them in teams. From these collaboratives, local solutions arise that are responsive to their local population or community context. Some groups already doing QICs want to partner and are willing to share their knowledge base and experiences.

Options for the scale and mode of collaboratives include:

- local QICs with natural groupings (eg, GP peer groups or bundles of practices together or PHO-based collaboratives with public health units and community partnerships)
- virtual collaboratives where practices could opt-in and use online education tools (eg, listserv, chatroom or webinars) and coaching
- regional collaboratives (eg, around a DHB catchment or community or the PHO Quality Improvement Network). This model could support the spread of the Safety in Practice programme, pick up the core topics (including safety and omission topics) and be further adapted to encourage more consumer involvement and multidisciplinary teams
- a national 'collaborative within a collaborative', where the local collaboratives ensure natural hubs, networks, alliances or relationships and, if they can be aggregated at a national scale, would demonstrate impact, facilitate transparency, share learnings and spark competitiveness.

Outer setting findings: economic, political and social context of primary care

Participants reported a strong desire to move towards expanded care teams, intersectoral partners, consumer engagement and community collective action. Some of this shift relates to increasing recognition that the health status of populations is strongly influenced by social and economic determinants of health.

> 'If we want to do something – we need to include GPs AND intersectoral partners about wellness – MSD [Ministry of Social Development], ACC [Accident Compensation Corporation], Housing, WINZ [Work and Income New Zealand], education, police. We need a whole community development approach and do things in partnership … be big, brave and bold and embrace generalism and what we can do at a community level rather than stuck in a time warp.' (CEO, PHO)

General practice has traditionally not been designed or enabled to support broader social needs of consumers, families and whānau that impact on health. It was noted that many Māori providers were already working closely with their communities within a whānau ora model, seamlessly linking health and social services together. However, stakeholders cautioned about overburdening these providers, who may be operating in isolated regions, caring for high-needs populations, and doing so within very constrained resources and infrastructure.

Māori and non-Māori providers welcomed the opportunity to improve the quality of primary care, develop practice team capability for QI science and do it at scale. At the same time, their views were tempered by their recognition of a ‘swamped’ general practice sector, competing priorities and scarce person-time. The inability to share data across the system was widely acknowledged as a major barrier to improvements in health care.

The role of the Ministry of Health (the Ministry) and DHBs and delivery on the Ministry’s System Level Measures (SLMs) were seen as clear ‘yardsticks’ for health service delivery initiatives. The release of data at the National Health Index level to support SLMs was also seen as a key lever. However, participants noted that there seemed to be no shared central government vision on the role of quality improvement for health care nor clarity about what the Ministry’s leadership role is or would be. They also noted the lack of specific investment in QI and that short-term contracting and reporting policies also did not foster QI in the sector. Furthermore, participants noted the lack of a national primary care data repository and other infrastructure to support improvement. Themes to achieve QI in primary care at scale were: a shared vision for QI; a national cross-agency unified strategy; and investment in workforce capability, data and analytics.

> ‘We have chronically underinvested in QI with regards to rigorous attention to data. Managing and utilising data to achieve system-wide improvement in each practice that can then scale up. We need much smarter data sharing.’ (CEO, PHO)

The collective impact model[4 5] for multiple entities to work together was put forward. The approach starts from the premise that the ‘complex nature of most social problems belies the idea that any single program or organisation, however well managed and funded, can singlehandedly create lasting large-scale change’.[4] Instead of working independently, the approach calls for different sectors to abandon their own agenda in favour of a common agenda or vision for change to achieve sustainable outcomes. The collective impact model has five original conditions: a shared purpose; a common agenda; shared agreed metrics; mutually reinforcing activities with consistent messaging; and a backbone organisation.[4]

Te Tihi o Ruahine has completed a literature review on collective impact, the progression of the conditions to Collective Impact 3.0 and the relationship of the approach to whānau ora. Te Tihi o Ruahine has recognised that the Collective Impact 3.0 has a natural synergy with whānau ora and has been working with the collective impact methodology for a number of its projects.

Inner setting – the general practice context

At a general practice level, a major theme was the need to foster and support simple building blocks for practices to get started with quality improvement and 'how-to' skills and tools (eg, safety climate survey, run charts, process mapping, templates, data platforms for sharing). A potential role put forward for the Commission to consider was to provide a repository of these 'how to' skills and tools. A further role was to curate and share the developing change packages or care bundles for specific topics, informed by evidence, and providing clear operational pathways, checklists and process changes that need to be made along with testimonials (local evidence and impact).

> 'Measurement appears to be a huge and time-consuming barrier – what to measure and how to measure it. What would be really useful is a set of change packages already with measures developed and SQL code already developed for the PMS [Patient Management System] or a validated survey or what to do to get consumer input, already curated for NZ primary care… the problem with RNZCGP/BPAC [Royal New Zealand College of General Practitioners and Best Practice Advocacy Centre] audits is that they are straight paper-based audits without any SQL query. That is – they expect GPs to do the data collection manually and then reflect but that is only the start of QI. … if [the Commission] could curate these as well as Safety in Practice bundles – would be a tremendous help as well as key tools to use.' (GP-6 rural Māori health service)

In summary there is evidence that the collaborative methodology is effective and participants support fostering the application of improvement science in primary care, focusing on consumer involvement at all levels, impacting equity of health outcomes and considering a suite of topics. However, while QICs may be an effective intervention, their success depends on a deep understanding of the context within which the intervention will take place and the constraints primary care is facing.[6] Of note is the primary care mixed fee for service or capitation funding model – 'the elephant in the room'[7] – along with the relative isolation of practices, other primary care providers, aged care, and social and hospital services from each other. Furthermore, participants noted the lack of a national primary care data repository and other infrastructure to support improvement. The Commission cannot bring about large-scale improvement alone but has a key strategic role in initiating new or supporting existing primary care QI initiatives, facilitating collective action and aligning with sector health priorities.

Options for the Commission to consider

The PCEAG met on 13 March 2019 to consider the findings from the sector and discuss potential options for the Commission. The three principles of Whakakotahi – equity, consumer engagement and integration – were reaffirmed. The PCEAG agreed that central agencies and the Commission need to work much more collectively and create a national charter or framework for quality improvement (QI) with clear strategic initiatives. This would determine and clarify roles for different organisations. The specific roles for the Commission were considered to be leadership and strategic vision, knowledge management, workforce capability and to lead or support quality improvement collaboratives.

The following are the specific options the PCEAG put forward for the Commission to consider.

1. To develop definitions of quality and quality improvement from tangata whenua and reflect Aotearoa New Zealand perspectives

This has broader implications for the Commission than the Primary Care programme alone and will require working with wider Māori and non-Māori agencies. The PCEAG considered the development of these definitions as a clear role for the Commission to broker.

The discussion led to the identification of a leadership role required for the Commission, particularly with respect to its mission and vision. Historically the Commission has been strongly hospital-centric. However, if equity is to be addressed, and to advance Māori health outcomes, it needs to make an intentional change. The PCEAG endorsed a statement that there is 'no quality without equity'. If the Commission is focusing on equity, it is likely to have far greater impact if investment is targeted towards quality improvement in the community rather than in hospitals. While it's understood that the Commission has a mandate from the Minister of Health, the PCEAG recommended that the Commission look at how that mandate could be implemented – for example, by:

- focusing on the broader sectors of primary care and community (including aged care) in a very explicit way
- strengthening the role or roles for consumers in primary health care, which the PCEAG considered to be 'in its infancy' and not well embedded
- articulating a 'health system view', rather than just a focus on primary care
- looking outside of health for other partnerships (such as local government and social services)
- more effectively integrating the Commission's programmes and functions.

2. For the Commission to investigate the application of the collective impact model, develop a shared vision for QI and a national cross-agency unified charter and strategy

The PCEAG was supportive of the principles of the collective impact model and the rationale for achieving large-scale social change. Collective impact agencies might include the Ministry of Health, Māori and non-Māori organisations, and alliances with health and social services and other sectors. The PCEAG agreed that agencies or alliances would need to develop a shared goal and agenda with prioritised workstreams. Different agency roles would ensure that key enablers for QI are systematically addressed to provide an environment that facilitates quality improvement (eg, shared vision and strategic capacity, leadership, knowledge management, a workforce with capacity and capability to deliver, investment in infrastructure, data sharing and analytics, and communication and change management).

- From this list of enablers, the PCEAG considered the Commission had a particular role in developing the shared vision and strategic capacity, leadership, knowledge management and workforce capability.
- The roles of different central agencies to foster system-wide QI were not clear to anyone (either PCEAG or the sample of stakeholders featuring in this report). The Commission could act as the facilitator (clarifying specific agency strengths and overlapping agendas) to help understand 'who does what' to support a collective impact discussion.
- From this collective action, it was agreed that a cross-agency national QI charter or framework for the health sector should be developed.
- The Commission could also potentially hold the role of the 'backbone' organisation for a collective impact initiative as detailed in the body of this report.

3. For the Commission to expand its knowledge management role

A key role for the Commission to consider is to develop a national quality improvement repository where information, knowledge, resources and other quality improvement 'know-how' are stored and able to be freely shared. The PCEAG conceptualised the knowledge management role as being able to support incremental levels of QI knowledge, skills and tools. For example, the Commission could:

- provide basic building blocks for QI so that teams from general practice and other allied community health providers can embark on a QI journey
- develop a framework and tools for consumer engagement in primary care
- work with Safety in Practice and Health Care Home collaboratives for bundles or change packages to be curated at a national level (and updated as required) and including a range of QI tools to undertake these improvement activities (eg, measures, Excel spreadsheet, data queries)
- routinely provide timely Atlas of Healthcare Variation data linked to the National Health Index at primary health organisation (PHO) and practice levels
- develop a suite of equity analytical approaches for district health boards (DHBs), PHOs, DHB–PHO alliances and frontline teams (eg, sampling strategies to achieve equal explanatory power for Māori, stratification of data by age, sex, ethnicity and NZDeprivation Index, use of the Health Equity Assessment Tool [HEAT])
- advise primary care sector agencies establishing new (eg, PHO) QI initiatives or continuing current (eg, Health Care Home or Safety in Practice) QI initiatives, working with them to develop both consumer and intersectoral engagement and, if required, robust evaluation plans to demonstrate impact

- be the coordinating body for regional or national primary care or sector-wide collaborative initiatives.

4. For the Commission to continue to build workforce capability

The PCEAG considered workforce capability to be a fundamental enabler of long-term quality improvement. Capability may need to be defined further but, at a simple level, it means that quality improvement activities would not be done by external agents but rather by teams enabled to work together to identify and improve problems, challenges, issues and opportunities. These teams may include a broad range of expertise, including those from the health care workforce, intersectoral partners and consumers.

It was noted that the Safety in Practice Collaborative created an environment for teamwork and sharing and successfully taught aspects of QI methodology. In this way, the collaborative has built up QI capability at ground level.

The PCEAG challenged the Commission to explore the following.

- Adapt or expand the training delivery mechanisms to reflect primary care and community contexts. The ability to take time to attend courses (such as for QI advisors and facilitators) is very limited in primary care and therefore a variety of modes of workforce capability-building needs to be explored to identify those that are best suited to these contexts.
- Revisit the Commission's selection approach to courses to reflect the broad primary care base (eg, including consumers and professionals from general practice, pharmacy, physiotherapy and other allied health and aged residential care).
- Build Māori health workforce QI capability and engage co-funders and/or partners to work towards this objective as well. The PCEAG strongly endorsed the need to purposefully invest in a Māori health workforce that will be able to support Māori aspirations and QI model development. Such a workforce would include quality improvement advisors and quality improvement facilitators in primary care.
- Strengthen existing networks for primary care quality improvement such as the primary health organisation quality improvement network (PHO-QIN).
- A role for the Commission is to articulate and clarify QI expertise levels from basic entry level to masterclass or fellowship level and to work with professional councils, colleges and tertiary institutions to develop a shared curriculum and standards for QI in the undergraduate and postgraduate health professional workforce.

5. For the Commission to consider primary care collaboratives as a vehicle for addressing health outcomes, building intersectoral relationships, teamwork (across consumers and the health and social service workforce) and QI capability building

- The stakeholder engagement work clearly articulated support for a choice from a suite of topics.
- Topics need to address equity, Māori health gain and population health needs.

- Depending on the initiatives arising from the national QI plan, the Commission could lead a national quality improvement collaborative or have a supporting role for other agencies.
- Also emphasised was a focus on data availability, analytic capability, equity reporting on health outcomes and shared learning.

Document purpose

The purpose of this document is to summarise the findings from consumer and health service engagement to inform the 2019/20 primary care programme planning in how to progress primary care quality improvement (QI) at scale.

Introduction

The Health Quality & Safety Commission (the Commission) 2017–2021 strategic priorities include:

- improving the consumer, family and whānau experience
- improving health equity
- reducing harm and mortality
- reducing unwarranted variation in patterns of care.

These objectives are achieved by shining the light on care delivery and patient outcomes, providing a helping hand to providers to support their QI efforts and building capability and clinical leadership across the health sector. Underpinning this work is the involvement of consumers as integral partners in their care at all levels of the health system.

Māori health

Since its signing in 1840, the Treaty of Waitangi has been the founding document for Aotearoa New Zealand with its underlying principles of partnership, participation and protection. It is considered a 'statement of the individual and collective rights of Māori, the Crown's responsibility to Māori, and a charter for New Zealand as a whole'.[1] The Treaty requires the government to ensure that Māori have at least the same level of health as non-Māori[1] and that they are able to achieve that same level of health through a te ao Māori (Māori world) paradigm. This recognises and respects Māori worldviews and the autonomy to determine health and wellbeing for Māori, using Māori models and resources.

However, equity of health outcomes for Māori and non-Māori populations has demonstrably not been achieved. Māori make up 14.9 percent of the New Zealand population,[8] yet have the poorest health and life expectancy of any New Zealand ethnic group.[9] Reaching old age is rare for Māori; currently 1.6 percent of Māori are aged 75+ years, compared with 6.8 percent of all non-Māori,[8] and life expectancy for Māori is six years shorter than that for non-Māori.[10] While achieving equity of health outcomes is an important goal for all peoples in New Zealand, for Māori it is reinforced by the Treaty of Waitangi as well as the United Nations Declaration on the Rights of Indigenous Peoples 2007.

What equity means

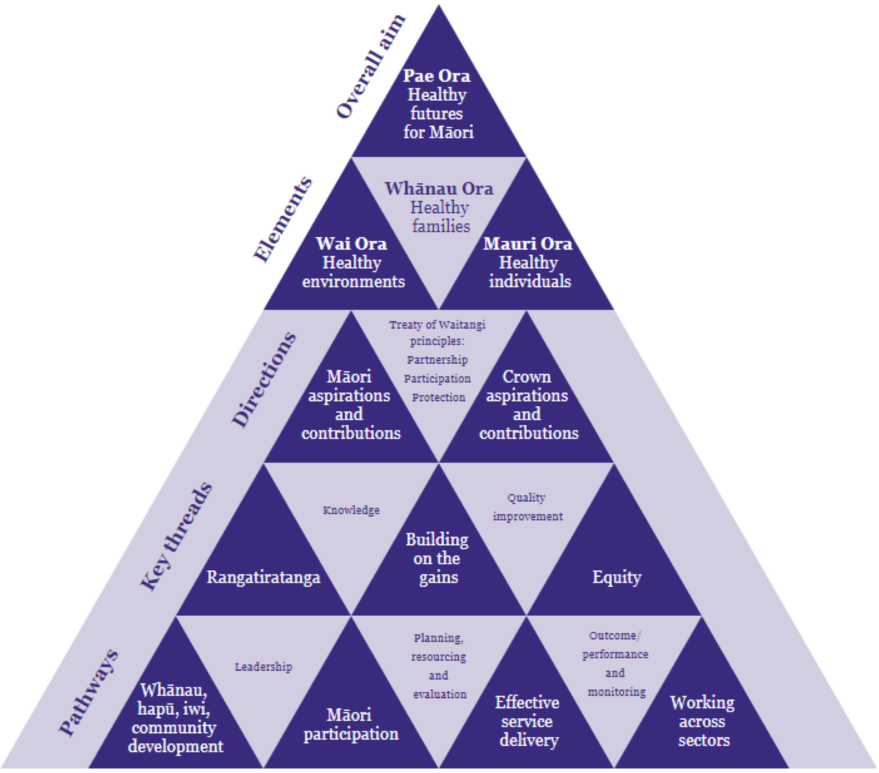
Population health means the health outcomes of defined population groups, families and communities and the distribution of outcomes within populations.[11] Health equity, the avoidable or remediable differences in health between population groups, is a core part of understanding population health. Failure to avoid or overcome inequities infringes on fairness and human rights.

In terms of health and health care, uniform approaches are equal because they provide the same care to every person, but they become inequitable (unfair) where differences between groups – such as age, sex, ethnicity, socioeconomic status and access to primary health care – may affect their health status. Equitable approaches are seldom equal because they aim to minimise the impact of these differences and different resourcing may be needed so that diverse populations can experience equitable health outcomes. This concept of health equity focuses attention away from individuals and instead monitors how resources, including health services, are distributed in the community.

Strategic equity frameworks

He Korowai Oranga – the Māori Health Strategy, affirmed in the New Zealand Health Strategy, sets the overarching framework to guide the government and health and disability sector to achieve the best health outcomes for Māori (Figure 1).[12]

Figure 1: He Korowai Oranga – the Māori Health Strategy[12]



In recognition of this, in March 2014 the Commission developed an action plan for achieving improved health and equity for all populations. The result was Te Whai Oranga: the Māori advancement framework.[13] Te Whai Oranga guides the Commission to recognise Māori interests and improve health outcomes of Māori, and supports the Commission's goal to integrate equity throughout all aspects of its work and at all levels of the organisation.[13]

The Commission's primary care programme

> 'Primary care has been identified as a key site for population health interventions that address the social determinants of health with the intention of decreasing inequities.'
>
> Ford-Gilboe et al (2018)[14]

In 2015 the Commission began increasing its focus on primary care. This included establishing a primary care expert advisory group (PCEAG), leading the implementation of a national patient experience survey, forming a primary health organisation quality improvement network (PHO-QIN) and supporting QI facilitator education. In addition, the Whakakotahi programme was launched in 2017 (see below). In 2018 the Commission's primary care team formally sought support and advice from Te Tihi o Ruahine, an alliance of nine iwi, hapū and Māori organisations who work collectively to deliver whānau-centred services based on the Te Ara Whānau Ora process.

Whakakotahi

The Whakakotahi programme involved the Commission partnering with primary care in sector-led QI projects and supporting project team members to gain QI skills through practical experience and collaborative learning. The underlying principles for this work were to address equity, foster consumer engagement and promote system and service integration.

The aim of Whakakotahi was to increase QI capability in primary care, with the following goals:

- build collaborative partnerships between the Commission and primary care to improve primary health care quality and the Commission's understanding of it
- improve one or more health outcomes with associated improvements in equity, consumer engagement and integration
- support sector-led initiatives to build improvement expertise and skills in the primary health care sector
- identify initiatives suitable for implementing at a national level.

In an expressions of interest process, three projects were selected in 2017 and a further six in 2018. In 2019, eight projects have been selected, three of which have a medicines equity focus in partnership with the Pharmaceutical Management Agency Ltd (PHARMAC). Whakakotahi has been accompanied from its inception by a formative evaluation (with the summative final report scheduled for June 2020) and learnings have driven iterative changes in the programme. Two key changes occurred for Whakakotahi in 2019: Te Tihi o Ruahine was specifically engaged to support Whakakotahi aims of equity and Māori health gain, and the scoring process for selecting submitted projects gave a greater weighting to equity.

The intention of Whakakotahi was to start with a few small-scale primary care improvement initiatives to initiate discussions and lay the groundwork for future, larger initiatives.

Promising projects arising from the initial primary care sites could potentially be scalable at a regional level and/or form the basis of national primary care QI collaboratives.

Quality improvement collaboratives

A collaborative is quality improvement methodology that 'brings together groups of practitioners from different healthcare organisations to work in a structured way to improve one aspect of the quality of their service'.[15] For a given health care topic, these teams from multiple sites apply and share improvement methods, ideas and data on service performance.

Although quality improvement collaboratives (QICs) vary by size, topic, context and implementation characteristics, they all have five features in common:

1. a specific health care topic
2. a coordinating group to bring together the scientific evidence, practical contextual and cultural knowledge and QI methods (often producing a 'change package' or toolkit)
3. multiple teams from multiple sites participating
4. use of QI science that includes a model or framework for improvement, measurable aims, collecting data on planning and performance, and implementing and evaluating small tests of change
5. a set of structured activities that promote a collaborative process to learn, share ideas and experiences and build peer networks (eg, face-to-face or virtual meetings; visits to other sites; visits by experts or facilitators; web-based activities to report changes, results and comparisons with other teams; and coaching and feedback by improvement experts).

The approach originated in North America in the late 1980s and became more formalised as the Breakthrough Series by the Institute for Healthcare Improvement in 1995. QICs have been initiated mainly in North America, Europe and Scandinavia as well as in low- and middle-income countries, such as those in Latin America and Africa.[16] [17] QICs incorporate the fundamental principles of QI and system redesign and have been used as a methodology to rapidly improve care at scale. However, they are resource intensive, generally requiring sustained efforts for at least 12 to 18 months, funding for infrastructure and coaching, and person-time away from clinical care and administrative responsibilities.

The Commission has led several secondary care QICs in New Zealand (eg, Safe Use of Opioids, Surgical Site Infection and a mini collaborative in Reducing Harm from Falls in the Wellington region with the Accident Compensation Corporation [ACC]) but not as yet with general practices and wider primary care. Other QICs in New Zealand have been implemented by district health boards (DHBs) in partnership with PHOs. These include the EQUIPPED Auckland Collaborative,[18] funded by Auckland DHB, and Safety in Practice in the Auckland region. Safety in Practice differs in its implementation depending on the funding DHB – whether it is Counties Manukau DHB or the combined Waitemata and Auckland DHBs. The Health Care Home Collaborative could be considered a further variation of a QIC as it incorporates the five common features, although system redesign is largely based on LEAN principles and the collaborative also incorporates aspects of the Chronic Care Model.[19]

A recent systematic review of the literature for collaboratives has been conducted.[20] A summary of the evidence, success factors and New Zealand and international examples was provided to the Commission Board in May 2018. In short, 64 studies met the Cochrane Effective Practice and Organisation of Care Review Group's minimum study design standards for inclusion in the review, of which 83 percent reported an improvement in one or more of the study's primary effect measures. By setting of care, a statistically significant improvement in provider process or patient outcomes was reported for:

- 32 out of 39 (82 percent) hospital-based QICs
- 17 out of 20 (85 percent) ambulatory or primary care QICs
- 3 out of 4 nursing home QICs and a sole ambulance QIC.

Persistence of the intervention effect six months to two years after the end of the collaborative was investigated in only 8 of the 64 studies (13 percent), two of which were conducted in primary care. All found sustained improvements. Cost-effectiveness was reported in 4 of the 64 studies (6 percent), one of which was a collaborative on diabetes care in general practice. All four reported that their study met standard criteria for cost-effectiveness. The majority of the ambulatory and primary care QIC studies (18 out of 20) described their intervention as following the Institute for Healthcare Improvement Breakthrough Series methodology, with or without some modifications. Whakakotahi, EQUIPPED[18] and Safety in Practice have all been based on or adapted from this methodology.

Evidence for equity

In the 64 studies included in the systematic review, the effect measures were either provider processes or patient outcomes. None of the included studies specifically investigated if there were any differential impacts by ethnicity or stratified by sociodemographic characteristics, although one collaborative had been implemented in an indigenous health service in Alaska and reported a significant decline in postnatal infant mortality.[21]

However, while not included in the systematic review due to methodological issues with study design or reporting, some published QICs have focused on equity.[22 23] Since 2004 the Australian Primary Care Collaborative has applied the Institute for Healthcare Improvement Breakthrough Series model to deliver large-scale QICs addressing long-term conditions (diabetes, coronary heart disease, chronic obstructive pulmonary disease) and a specific topic called 'Closing the gap (Aboriginal health)'.[24] The aim was to achieve a 30 percent improvement in the number of health assessments for Aboriginal and/or Torres Strait Islander peoples, performed by health services over the previous 12 months. The mean number of assessments improved by over 50 percent within nine months.[24]

The Hospital Disparities Collaborative focused on equity for cardiovascular care.[23] The collaborative included 10 hospitals and the main outcomes included changes in care for acute myocardial infarction and heart failure stratified by patient demographic characteristics. Early observations of the collaborative were that providers assumed they provided equal care to those they served and few stratified their publicly reported quality measures by ethnicity or language.[25] Results of the collaborative found that the quality of care improved significantly at 7 of 10 hospitals and exceeded those observed nationally.

Three out of 10 hospitals found ethnic disparities, which were eliminated in the course of the collaborative.[23]

Scale of collaboratives

The size of QICs in primary care has been diverse, ranging from single sites (with two or more teams) to multiple sites within a region or locality to a multi-region, national collaborative. Some have been conducted in ‘waves’, adding more topics or sites or regions. For example, the Australian Primary Care Collaboratives programme developed 13 waves between 2005 and 2011, in which 1,185 health services participated.[24]

Safety in Practice Scotland: The Scottish Safety in Practice programme expanded at scale because it ran a national ‘collaborative within a collaborative’.[26] From 2013 to 2018, over 1,000 general practices (GPs) and 1,200 pharmacies were participating (representing 90 percent of Scottish GPs and pharmacies). The mandate to participate was through health board contracts. The programme had a central coordinating group (Healthcare Improvement Scotland) that developed the QIC safety intervention and invited local regions and health board personnel to join a learning collaborative and build a virtual community. The QIC included ‘home and away teams’. The ‘away’ team was part of the central steering group and went to the central learning sessions, returning to its own region to share and conduct a regional collaborative within its local setting.

Local QI support (a half-time quality advisor) was funded from the Scottish government (Catriona MacMillan, personal communication, 2018). Regional QICs developed their own approaches and change ideas, adapted change packages and collected their own data. They held local meetings where teams could share learnings, experiences and stories of successes and failures, and these then could be collected and data aggregated at a national level.[27]

While a Scottish national data system was not established, all teams completed a safety climate survey online, and national tools were accredited (Neil Houston, personal communication, 2018). For Safety in Practice Scotland, developing clinical champions who would be advocates for change was a critical strategy. It initially called for expressions of interest for leadership and QI development. Health professionals were offered £2,000 to complete a QI course (WebEx and QI project), with an initial 25 GPs to build a GP improvement network (Catriona MacMillan, personal communication, 2018). From 2016 to 2018, GPs still received payments for participating in a Safety in Practice Collaborative but new contracts are focusing more on health and social care partnerships. The aim is to create conditions for successful clusters working with GPs. GPs still can work on the safety suite of topics at a local level, but Health Improvement Scotland is now looking at other modules such as long-term conditions, with practice administrators to improve workflow and a deteriorating patient pathway across primary care, urgent care and acute care (Catriona MacMillan, personal communication, 2018).

Towards primary care QI at scale

In December 2017, a workshop was held for the PCEAG to determine the next steps for initiating QI activities in primary care, beyond the initial three-year phase of Whakakotahi. The workshop used a 'liberating structure'* named TRIZ. It rests on a premise of 'reverse brainstorming': that is, asking participants to develop a system that is exactly the opposite of what they would be trying to achieve. The PCEAG was asked, 'How do we ensure quality improvement doesn't happen in New Zealand primary care?' Once major issues that sabotage, undermine or challenge QI efforts were raised (the barriers and 'black hat' thinking), two other questions followed: 'What are we/New Zealand health organisations doing that is on the list? How can we stop doing them or what can we do instead?'.

The PCEAG had no trouble in coming up with ideas to ensure QI would not happen in primary care such as:

- do nothing
- have no vision
- build a bureaucracy
- don't engage with stakeholders
- don't engage beyond health care
- do not recognise any primary care QI that is already happening
- do not have Māori equity expertise to lead and shape improvement work
- support low-value, useless-busy projects
- support existing silos and individuals
- continue to burden an overburdened workforce
- ask health providers to do it in their own time, on their own
- don't do any training of the workforce
- tell people what to do
- don't ask or involve consumers
- perpetuate inequities
- don't share success or mistakes, in fact communicate poorly if at all.

On the flipside, to build quality improvement capability in primary care, the following key themes emerged from the workshop.

Engage sector stakeholders, including those with Māori equity expertise, to lead and shape improvement processes.

Develop **explicit sector goals** with quantifiable metrics and a **clear strategy** or road map. This would identify strategic frameworks for achieving equity, align with integration needs, involve the primary care sector as a whole and seek to align with sector priorities.

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* www.liberatingstructures.com

Leadership, including frontline change champions, was seen as essential. These leaders would communicate broadly, focus on equity, be inclusive across all primary care (not just general practice) and openly share learnings, including about when things fail.

Quality improvement needs to be **person-centred** (on consumers and their families and whānau) and **solidly grounded in the community context of care** (eg, population diversity, rural vs urban).

Quality improvement science training was highlighted. Training for all health professionals (eg, pharmacists, midwives, podiatrists, paramedics, physiotherapists, nurses, doctors) should include QI competencies. Retro-training of the current workforce is needed to facilitate a shared language for QI.

Resourcing needed includes time dedicated to QI, money to cover the costs of improvement initiatives, and readily available QI resources.

Partnerships are important, such as with PHARMAC, ACC and external sector partners such as Healthy Housing, Work and Income New Zealand (WINZ) and other social services.

Recognise primary care QI activities already in progress or successful past activities.

Stakeholder engagement

To build on the PCEAG's recommendations and to inform primary care QI at scale, the Commission's primary care team set out to engage sector stakeholders in a series of workshops and interviews.

The objectives were to:

- understand the context of primary care and identify barriers and enablers for achieving large-scale quality improvement activities such as a QIC in this setting
- develop options that would inform a high-level action plan for the work required.

From mid-2018 the primary care team undertook a series of six workshops (96 participants) and 27 interviews (34 participants).

All but two participants lived and worked in New Zealand, in locations from Invercargill to Whangarei. Many had several roles but represented consumers (including the Commission's Consumer Network, Health Navigator Consumer Network and members of DHB consumer councils), Māori consumers and providers, Pacific consumers and providers, GPs, nurses, pharmacists, QI experts, Māori health care academics, Te Tumu Whakarae (DHB Māori general managers), clinical directors and chief executive officers of PHOs and DHBs and one health non-governmental organisation. Included in the interviews were leaders of the Safety in Practice collaboratives (Counties Manukau DHB and the separate Waitemata–Auckland DHB Safety in Practice Collaborative) and the Health Care Home Collaborative. Overseas participants included the Scottish Safety in Practice programme manager (Healthcare Improvement Scotland) and the principal policy officer of the Victoria Department of Health, who is leading change at scale in hospitals in Victoria, Australia. One of the workshops encompassed many people from central agencies as well as participants from the Ministry of Health, PHARMAC, Patients First, Technical Advisory Services, General Practice New Zealand, Royal New Zealand College of General Practitioners, Healthcare

New Zealand, Health Care Home Collaborative, and Lakes and Canterbury DHBs. (From this point, this workshop is collectively referred to as the Central Workshop.)

At the start of each workshop or interview, participants were given a brief introduction about the Commission's primary care initiatives and QICs and were asked for feedback on the barriers to and enablers of quality improvement in primary care and the use of the collaborative methodology. Feedback was collected formally via structured questions and group work on butcher paper and Post-it notes (three workshops) or noted directly at the time of the interview or workshop.

Prompting questions in semi-structured interviews included the following.

- What do we need to do or have to conduct quality improvement in primary care?
- What are the key barriers and enablers, pros and cons to a (national) collaborative?
- What changes, enablers and investments are required?
- What other infrastructure, resources and tools would be necessary?
- How can we proactively include consumers at all levels?
- Should it be one topic or a suite of topics? What should be the overarching goal?
- What other sector initiatives might support it or should be aligned with it?
- Who else should we be contacting?

Analysis

> 'There is nothing so practical as a good theory.'
>
> Kurt Lewin, 1951

There is a range of theoretical models to facilitate understanding of how and why implementation of complex multifaceted interventions succeed or fail and of the influencers (barriers and enablers) that may predict an intervention's likelihood of success. One such framework is the Consolidated Framework for Implementation Research,[2] which can be used to plan and design implementation of an initiative or to evaluate an intervention after it has been implemented. This pragmatic framework has amalgamated previously published implementation theories, including diffusion of innovations, dissemination and spread, organisational change and knowledge translation. It comprises five domains: the intervention, outer and inner settings in which implementation occurs (the context), the individuals involved and the process of implementation.[2] Three domains were used to categorise the qualitative feedback from the workshops and interviews: the intervention, and the outer and inner settings.

The intervention in the analysis was the QIC methodology. In the Consolidated Framework for Implementation Research, key constructs of this domain relate to stakeholders' perceptions of where the intervention originated (externally or internally developed), evidence for impact, degree of adaptability, trialability (ability to be piloted and tested), design and packaging of the intervention, complexity and costs (investment, supply and opportunity costs).[2] Generally the outer setting includes the economic, political and social context (within which the organisation/s or sites reside), whereas the inner setting includes structural, political and cultural context within which the implementation takes place. Feedback was de-identified to retain anonymity.

Quality improvement collaboratives

As noted in the Introduction, QICs originated in North America in the late 1980s and became more formalised as the Breakthrough Series by the Institute for Healthcare Improvement in 1995. For some participants, the Institute for Healthcare Improvement source and the subsequent use in multiple international settings gave the intervention more credibility. However, members of the Commission’s Consumer Network were particularly concerned about the principles and issues related to using international models.

> ‘Don’t impose this model – get the model from Māori.’ (Consumer Network workshop)
>
> ‘We don’t need to go offshore.’ (Consumer Network workshop)
>
> ‘Scotland is very different to New Zealand, very different ethnic make-up.’ (Consumer Network workshop)

Negative perceptions of an externally originated methodology were counterbalanced by the adaptability of QICs. The approach lends itself to a myriad of topics; allows for a widely varying scale of participating teams – ranging from three sites (Whakakotahi 2017) to regions (the QIC by Auckland–Waitemata DHBs currently has 110 practices doing Safety in Practice); and can be readily adapted, tailored and refined to meet local needs, including through community and consumer co-design of processes and services. Rather than being a restraining methodology, it was seen as enabling.

> ‘The model [QIC] is a touchstone to help guide, to ensure reliability, to provide resources to help people in the sector.’ (Consumer involved in Whakakotahi)

Others indicated that we have a similar system and primary care orientation to Scotland and that the Scottish Safety in Practice collaborative structure is similar to Health Quality Ontario, which holds regional quality meetings on selected topics aiming to spread at scale, feed back to a central organising body and share learnings.

No participant queried the evidence for QIC impact on patient outcomes and provider processes from the literature. However, some limitations of the QIC methodology and implementation were raised. First, few QICs have been implemented with consumer involvement and co-design. In addition, New Zealand evidence showing QICs’ benefit to patient outcomes is sparse, especially evidence indicating that they improve equity and are cost-effective. Unfortunately, many of the collaboratives undertaken in New Zealand primary care have been unable to demonstrate impacts due to missing data, inconsistency of data definitions and recording, lack of infrastructure and reliance on otherwise busy health providers to query patient files and audit data, which is incredibly time consuming.

> ‘Data collection – an incredibly important issue. Everyone records things in an inconsistent different way and therefore very hard to aggregate or get feedback back.’ (DHB primary care manager)

> ‘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.’ (Ko Awatea Research and Evaluation Office 2018)[28]

Equity

All workshop and interview participants strongly affirmed that any initiative should address equity of health outcomes and ensure specific equity reporting.

> ‘Only support programmes that are designed for equity as a core principle.’ (Central Workshop)
>
> ‘Focus on equity or go home … Maybe also focus on unenrolled populations.’ (CEO, PHO 2)
>
> ‘All data collected should be ethnic-specific, or at least counts Māori/non-Māori data.’ (Māori GP)

A QIC approach for Aotearoa New Zealand?

Views varied on the use of the collaborative methodology for QI at scale for Māori. Some were concerned about whether a QIC would impose unwanted constraints. Others thought that the QIC methodology would work well within Māori health services given their emphasis on whānau ora, community engagement, a whole-team approach (consumer champions, receptionist, community health workers, social workers, pharmacists, nurses and doctor) and broad networks and connections.

> ‘[A QIC would mean that] each practice is not alone … person connections are so important.’ (Māori public health physician)

Te Tumu Whakarae (Māori general managers from DHBs) supported a QIC approach that is aligned with Māori health priorities (and annual Māori health plans) and is delivered in a kaupapa Māori way.

> ‘Māori deserve good science and to close demonstrable gaps. [But before anything else] … We firstly need a definition of quality from tangata whenua.’ (Te Tumu Whakarae)

A definition of quality from tangata whenua would set the standard. Any initiative at scale would have this definition as its basis and could tailor the definition to its local environment and service delivery context. Te Tumu Whakarae also advised that measures of effectiveness need to consider the experience of whānau and health outcomes, as well as to be within a Treaty of Waitangi framework and He Korowai Oranga.

Some experience and expertise with QICs have been developed in the New Zealand primary care context already. Examples include the Safety in Practice collaboratives, Whakakotahi

2017 and 2018 and previously the West Auckland diabetes collaborative and the EQUIPPED collaborative.[18] Some key learnings were offered by participants and categorised by primary aim, topic, data collection systems and data analytics, leadership, management and costs.

Primary aim of the QIC: Prior to initiating any new collaborative, the primary aim of doing a collaborative must be clear as this drives the key measures of effectiveness. In particular, there needs to be clarity about whether the primary aim of a collaborative is to improve patient outcomes (and equity of patient outcomes) or to build primary care capability in quality improvement.

As with research studies, the primary aim drives the primary effect measures. Whatever the primary goal, funders need to invest in and plan a robust study design before a collaborative is implemented, and ensure the longitudinal collection of measures that will be able to show differences from usual practice. This would include methods of data collection, type of data, frequency of collection, data analysis and feedback mechanisms. There is a need to understand the counterfactual so that changes are indeed an improvement, which might be established, for example, by using a controlled before–after study. However, the Cochrane Collaboration[29] accepts that an interrupted times-series design is sufficient (without a control) if there are enough data points before and after the intervention and the start of intervention is clearly understood. The literature indicates an enormous amount of QI work has let itself down by not thinking about how to evaluate effectiveness[20] and then, because there was no evidence of effectiveness, funders have discounted the QIC or stopped funding it.

Topic: All interviewees and workshop participants agreed that the topic or topics needed to address an equity issue and that time must to be spent beforehand identifying topics that are meaningful and important to consumers and health care providers.

> ‘Pre-engage community – what do they want, what is important to them.’ (Māori public health physician)
>
> ‘Start with patients – Ask people what they want.’ (Consumer chair of a DHB consumer council)
>
> ‘We need to ask systematically what matters most to patients and then a strong sharable plan of action for what people want.’ (GP, Health Care Home)
>
> ‘Have consumers in the team right from the start.’ (PHO-QIN workshop)
>
> ‘Participation and partnership right at the conception.’ (Consumer workshop)

There was general support for a suite of topics and for using topics that have already been trialled and tested in a New Zealand health care setting (see Table 1 for suggested topics). Safety in Practice leaders (in both Counties Manukau DHB and Auckland–Waitemata DHB collaboratives) recommended taking their approach, which started with three ‘tried and tested’ topics and used toolkits and measures that were developed in Scottish general practice and then adapted or customised to New Zealand practices. Others not familiar with Safety in Practice also suggested a series of topics that have evidence, tools and measures already in place so that local teams could implement changes according to their own context. This would allow choice so that providers and communities could pick a topic that has particular relevance for their setting.

> ‘[We would like a] choice of Topics that are clinically important, large evidence-practice gaps, solid evidence for change and that high performance examples exist.’ (PCEAG workshop)
>
> ‘… choose one that will work best in your locality and also align with work PHOs already have to do. PHO support also means that they can use their channels to reduce barriers. Idea to pick three topics nationally; – one patient centred, one practice management like lab test handling, med rec [medication reconciliation], one best practice such as asthma, diabetes or gout.’ (PHO quality manager)

Table 1: Suggested topics for quality improvement collaborative

Source	**Suggested QIC topic**
Central Workshop	‘Consider possibility of Patient Experience Survey as a topic for QI.’
Consumer (chair of a DHB consumer council)	‘Patient portals are hugely important – a lot of people will engage with these – equally a lot of people would not want to or see the need. Huge potential though to support people both before and perhaps more importantly after a consultation or after discharge.’
Primary care expert advisory group	Major equity conditions for 0–4-year ambulatory sensitive hospitalisations (respiratory, cellulitis, gastroenteritis, oral health) and adult long-term conditions such as gout, diabetes, triple therapy for cardiovascular disease (CVD).
Te Tumu Whakarae	Review previous projects funded by Māori Health Innovation on Health Improvement and Innovation Resource Centre website (www.hiirc.org.nz) as an existing evidence base for what works. Examples: One heart, many lives (Northland – CVD risk assessment, PHARMAC and iwi provider) and Ngāti and Healthy (East Coast Tairāwhiti – diabetes, Ngāti Porou and University of Otago). Te Tumu Whakarae also recommended partnering with Ngā Pae o te Māramatanga, New Zealand's Māori Centre of Research Excellence (CoRE) funded by the Tertiary Education Commission) and hosted by the University of Auckland.
Safety in Practice, Counties Manukau DHB	‘[Starting with three safety bundles,] they soon got the hang of it and very keen to look at both areas of safety causing harm (eg triple whammy) to areas of omission causing harm … COPD [chronic obstructive pulmonary disease], CVDRA [CVD risk assessment,] paediatric prescribing, polypharmacy, gestational diabetes, gout … And let practices do what works for them – conversations and engagement are much richer rather than DHBs pushing onto them their priorities – if practices choose – their prerogative.’ (GP-4 leader, Safety in Practice)

Safety in Practice, Auckland and Waitemata DHBs	‘The early topics – Medication reconciliation, results handling and warfarin management have been thoroughly refined by Scotland GPs, and now by NZ GPs and are in strong shape. These are big issues, core GP issues and won’t go away … these topics deliver great value, involve the whole practice team (vs GP only) and are practice system issues. It creates the will, creates a team approach and resonates with people. They each have a part to play in “where does it go wrong”. Furthermore these topics provide important quick wins (confidence building).’ (DHB 1, primary care manager) However there has been pushback from Auckland practices regarding the focus on safety only. ‘The safety angle seems to get separated from other work – omission work such as best practice management for diabetes.’ (GP-2 leader, Safety in Practice)
Health Care Home Collaborative	‘Asthma, gout, diabetes would fit with ProActive care of existing conditions with a number of established bundles within each group… Also Frail elderly/falls assessment and advanced care planning… Polypharmacy or inappropriate med management eg triple whammy Preventive care bundle -cervical smear, alcohol brief advice, smoking, CVD risk, immunization, flu vaccinations.’ (CEO, PHO-2)

Data collection systems and data analytics: Barriers to data collection, aggregation, analysis and feedback were frequently identified, along with the need to invest in the infrastructure to overcome them.

> ‘Need right IT systems eg good interactive website/platform set up so that practices can enter data straight on line and the input data is analysed, aggregated and feedback is provided to practices.’ (GP-2 leader, Safety in Practice)

The following key learnings from the Commission’s hospital-based QICs should inform primary care work.

Commission quality improvement advisors' feedback

The opioid collaborative was a formative QIC where each DHB team did their own thing rather than following a set change package with metrics. At the time, there was little evidence to support sites on how to look at opioid harm. As a consequence, teams had difficulty in deciding on their aim statement and there was marked scope creep: some DHBs wanted to focus more on uncontrolled pain, and others on facilitating discharge. While the Commission's medication safety expert advisory group defined opioid harm in terms of constipation, nausea and vomiting, and respiratory depression, many sites used different definitions, such as for constipation. Therefore, the QIC ended up with a library of differing harm measures and could not aggregate metrics for impact. In addition, as there was no routine administrative or coded data to support the opioid collaborative, a lot of staff work and time involved collecting data and performing chart reviews. On the plus side, the opioid collaborative focused on innovative practices and, as sites decided what to do and how to do it, they owned their initiatives and were more likely to engage.

This is in direct contrast to central line associated bacteraemia (CLAB) and surgical site infections (SSI) collaboratives. For SSIs, a meta-analysis was conducted 12 months before the collaborative to provide the evidence for a 'bundle' so that teams understood exactly what the aim was and what the metrics were, and had a standardised template to use. The SSI rate measure is routinely collected via SSI surveillance data. The CLAB collaborative was similar. The bundles or 'how-to' guides had input from DHB, experts, evidence and experience of what interventions were most effective. Therefore, the gold standard was set before the collaborative began.

In terms of the sustainability of the impact of the intervention, 'we should never have dropped it [the CLAB collaborative], [and should have] at least continued to support data collection and feedback'.

Leadership, management and costs: For QICs, high-level leadership and commitment, along with an understanding that this is a long-term journey, are needed to provide investment, drive and coordination.

> 'It may take 3–4 years to develop confidence within practices [of their QI capability].' (DHB 1 primary care manager)

Funding is required for the coordinating body (project team, data management, advisory and governance), for hosting learning sessions and for QI coaching and other activities to support individual teams. Both Safety in Practice collaboratives in the Auckland region rely on PHO quality facilitators to support and coach the practices. However, these facilitators are often stretched thinly.

For the Safety in Practice collaboratives, each practice was funded $5,400 +GST per year to complete a clinical module and a safety culture tool such as a safety climate survey, trigger tool or sentinel event analysis. For the Auckland–Waitemata DHB initiative, the overall costs of Safety in Practice were around $800,000 in 2018. Leaders acknowledged that the lack of consumer involvement (in the development of modules and measures and engagement with clinical teams) was a gap. Addressing this gap would require purposeful design and planning, as well as compensating consumers for their time and effort. The number of teams also poses issues in terms of available infrastructure.

> ‘110 practices are taking part this year – the bigger it gets the more difficult it is to organise venues, break-out rooms etc – becomes a huge logistic challenge. What would this look like going forward? Maybe a maintenance fee to practices and collaborative support plus sentinel event analysis.
>
> Funding is needed as there is a time commitment for practices to collect data and go to learning sessions. Also need to fund the project team – important for them to develop confidence, consistency of messaging and develop a more cohesive team.’ (DHB-2 primary care manager)

For a national QIC such as one that involves regional collaboratives supported within a national collaborative (Safety in Practice Scotland model), the Commission’s quality improvement advisors thought that there was great value in bringing people together to a central meeting, mixing up small and large services, and rural and urban services, in terms of learning, sharing and networking but that the time off and travel would bring pushback and opportunity costs. They also considered it a major risk if there were not enough full-time equivalent quality advisors to support regional teams.

Outer setting: the external context

The outer setting domain includes the economic, political and social context within which the PHOs, general practices and other community health providers reside. While not a comprehensive account of the New Zealand health service and structures, this section synthesises the external setting impressions, barriers and enablers for primary care QI at scale reported by the workshop and interview participants. It addresses these issues within the categories of current primary care, primary care quality improvement, central policy and networks, and current large-scale QI sector initiatives.

Current primary care

The commentary on primary care mainly related to general practice and PHOs that provided meso-level clinical networks.

> ‘[PHOs have had] 20 years of providing the core function of a clinical network and allowing the capacity in practice for funding and contracts. Capability on the other hand has been very ad hoc.’ (GP-5)

The heterogeneity of general practice and PHOs was noted in terms of the size of providers, distribution of the populations and ethnic make-up, along with the clinical cultures.

> ‘For national QIC we must understand that cultures are so different across the country – even in Auckland with DHB lines by geography.’ (GP-3 leader, Safety in Practice)

An overarching theme was that primary care as it is envisaged in the 2001 Primary Care Strategy[30] has not yet been realised but interviewees reported a strong desire to move towards expanded care teams, intersectoral partners and community collective action. Some of this shift related to increasing recognition that the health status of populations is strongly influenced by social and economic determinants of health, and general practice has traditionally not been designed or enabled to support broader social needs of consumers, families and whānau that impact on health.

> ‘Desire to collaborate with nontraditional health players is strong.’ (Central Workshop)
>
> ‘If we want to do something – we need to include GPs and intersectoral partners about wellness – MSD [Ministry of Social Development], ACC, Housing, WINZ, education, police. We need a whole community development approach and do things in partnership. [We need to] be big, brave and bold and embrace generalism and what we can do at a community level rather than stuck in a time warp.’ (CEO, PHO-1)
>
> ‘Poor marginalised communities have the worst outcomes by miles – what we should do is go to them. Have a patient driven planning approach in localities – ignore who employs them – patients don’t leave hospital until sorted … health workers working together in a collaborative manner driven from voice of the community rather than other way around. I’m very keen on health navigators, coaches, HIPs [health improvement practitioners] in every practice, social workers, kaiawhina, WINZ, justice, education all working together … a single door. Currently New Zealand primary care is not resourced or set up to do this.’ (GP leader, Health Care Home)

It was widely acknowledged in workshops and interviews that engaging consumers in the design and delivery of health care in general practice is essential and is a large and important gap that many would like help to address.

Several interviews with Māori GPs and participants at the workshop of Te Tumu Whakarae noted that Māori providers may differ from other general practices particularly with respect to working pressures, operating in isolated regions, caring for populations with more socioeconomic disadvantage, and having fewer resources and less infrastructure. Care was needed to avoid overburdening them further. However, these same people reported that Māori providers were in general open to embracing QI in routine practice and wanted to build up their capacity and capability for QI science. Many were already working closely with their communities within a whānau ora model, seamlessly linking health and social services.

Primary care quality improvement

In the PHO-QIN workshop, it was apparent that many locally driven QI activities have been initiated. Gathering evidence of what works is required to inform the Commission’s scale and spread initiatives. There was a general wariness (and weariness) about ‘project-itis’, poor planning, poorly designed contracts, short timeframes and lack of long-term focus or funding that affected sustainability.

> ‘In a landscape of competing priorities and scarce people-time we do not ensure adequate people, staff, resources, planning and communication. The impacts are we end up with coalition of the willing, no change in culture, no change in thinking, no change in primary care work.’ (PHO-QIN workshop)

Many acknowledged the work of the Royal New Zealand College of General Practitioners in terms of Cornerstone and Foundation standards for practices and the Medical Council Vocational registration requirements for general practitioners (Maintenance of Professional Standards). However, the former are quality assurance standards to be met for each practice while the latter relate to individual practitioner competencies. Neither are team-based quality improvement. Furthermore, in recent years PHOs and general practices have focused on meeting national targets with these extrinsic performance demands competing with intrinsic motivation as well as time and people resource. Despite this, the opportunity to improve the quality of primary care, develop practice team capability and do it at scale was welcomed.

> ‘[QI at scale is an] opportunity to really engage GPs – to understand their data, understand QI methodologies and talk passionately about their work. Easy for docs to slip back into reactive model of working rather than best use of resources to reduce ASH [ambulatory sensitive hospitalisation] rates for our children.’ (CEO, PHO-1)

While many PHOs collect and analyse data for population health, the inability to share data across the system was widely acknowledged as a major barrier to improving health care. The sector indicated a strong willingness to see changes for many reasons including for patient engagement, care delivery for QI, monitoring performance and system transparency. Several participants acknowledged that addressing the current lack of a national primary care data repository is of central importance.

> ‘… we need to systematically open notes, and across the whole system have an e-shared care plan (and advanced care plan)- a national repository, open API- shared and visible within practices, community providers, complete patient access that they can fill in/alter. What matters to them should matter to us.’ (GP leader, Health Care Home)
>
> ‘Get consistent systems- great need for a common integrated platform across primary/secondary care.’ (Consumer involved in a DHB consumer council)
>
> ‘We have chronically underinvested in QI wrt [with regard] to rigorous attention to data. Managing and utilising data to achieve system-wide improvement in each practice that can then scale up. We need much smarter data sharing.’ (CEO, PHO-1)
>
> ‘Lack of data so that we cannot see the primary care sector as a whole.’ (Central Workshop)
>
> ‘National primary care database – would be very important enabler to get this initiative [a QIC] off the ground … data is needed for QI and for general practice telling the story about itself.’ (GP-5)

Central policy, sector initiatives and networks

The roles of the Ministry of Health and DHBs, as key organisations with strategic capacity and health service leadership, were emphasised. The alliances between DHBs and PHOs and delivery on the Ministry's System Level Measures (SLMs) were seen as clear 'yardsticks' for health service delivery initiatives. However, the Central Workshop participants noted that there seemed to be no shared central government vision on the role of QI to improve health care nor any clarity about what the Ministry's leadership role is or would be. They also noted the lack of specific investment in QI and that contracting and reporting policies also did not foster QI in the sector.

- 'Standard system reporting (eg DHB) is not focused on QI.'
- 'Short term contracting from annual plans are disruptive to making long term gains-longer term system planning (MOH and DHBs) is required.'
- 'Separate national contracts for aged residential care, pharmacy and PHOs potentiate lack of integration.'
- 'Work is being funded that is not aligned to health policy priorities'
- 'No central mechanism to share good QI.' (Central Workshop)

The suggestions below (written verbatim from butcher paper) come from the workshop of central agencies as ways to achieve QI in primary care at scale relating to strategy, investment, data and analytics.

- 'Have a cross agency national plan with ministerial mandate'
- 'Need a QI national charter for primary care (cross agency)'
- 'We need to provide a more cohesive direction to enable QI (?role for HQSC +MOH to more strongly link SLM and QI planning)'
- 'Need a common agenda/understanding of the vision/goal'
- 'Need clarity of leadership'
- 'Need to articulate purpose- clearly defining what doing, what agreed, what doing next- stay on task. Collaborative collective agreement (eg DHB CE, PHO CEOs GM [general manager] Māori, GM Planning and Funding), being inclusive, building relationships and having a common goal'
- 'Need to allocate responsibility to people/agencies – clearly understand their role in the system'
- 'Decouple QI from savings or disinvestment-make it positive to engage and provide an environment that helps people do the right thing'
- 'Need to realign funding for SLM to support QI' (PSAAP negotiation)
- 'Need to be thoughtful about other shifts needed in the system esp level of capacity/capability for QI and level of capacity/capability for analytics'
- 'Need a national primary care dataset (budget bid)'
- 'Need a shared measurement system' (Central Workshop)

Participants widely agreed that QI at scale would need to align with key sector organisations and initiatives that are already established, or making progress in primary care as well as other potential alliances and partnerships.

> ‘Partnerships with other national organisations – bringing in existing agencies and alliances.’ (PCEAG workshop)
>
> ‘We need MOH [Ministry of Health], DHB, PHO, College (SLMs, CME [continuing medical education], accreditation, requirements for QI training) aligned in their thinking with respect to QI at scale providing funding, drive and co-ordination.’ (DHB manager)

The collective impact model: A PHO CEO suggested that the Commission consider the collective impact model. This suggestion was endorsed by Te Tihi o Ruahine (at a primary care planning meeting of the Commission in January 2019) as a way of achieving large-scale change.

> ‘… we use the collective impact model – shared purpose, common agenda, shared agreed metrics, mutually reinforcing activities with consistent messaging and a backbone organisation. In terms of investment – each partner brings what they can – each partner has equal say in the shared goals and agreed outcomes. Also each partner is accountable – you agreed to do this – this is the outcome – what are you going to do about it?’ (CEO, PHO-1)

The approach starts from the premise that the ‘complex nature of most social problems belies the idea that any single program or organisation, however well managed and funded, can singlehandedly create lasting large-scale change’.[4] Instead of focusing on working independently, collective impact calls for different sectors to abandon their own agenda in favour of a common agenda or vision for change to achieve sustainable outcomes. This model hypothesises that five conditions are needed to make social progress, as Table 2 outlines.[4]

Table 2: The five conditions of collective impact[4]

Condition	Description
Common agenda	All participants have a shared vision for change, including a common understanding of the problem and a joint approach to solving it through agreed actions.
Shared measurement	Collecting data and measuring results consistently across all participants ensures efforts remain aligned and participants hold each other accountable.
Mutually reinforcing activities	Participant activities must be differentiated while still being coordinated through a mutually reinforcing plan of action.

Continuous communication	Consistent and open communication is needed across the many players to build trust, assure mutual objectives and create common motivation.
Backbone support	Creating and managing collective impact requires one or more separate organisations with staff and a specific set of skills to serve as the backbone for the entire initiative and coordinate participating organisations and agencies. Key functions include administrative support, coordination of partners, communications and technology support, data infrastructure and mobilisation of cross-sectoral relationships.

Following on from the original collective impact approach, the Tamarack Institute in 2016 progressed to Collective Impact 3.0,[5] which extends beyond the original five conditions in moving from: common agenda to collective aspirations; shared measurement to strategic learning; mutually reinforcing activities to high-leverage activities; continuous communication to inclusive community engagement; and backbone organisation to container of change.[5]

Te Tihi o Ruahine has completed a literature review on collective impact and its relationship with whānau ora. It recognises that Collective Impact 3.0 has a natural synergy with whānau ora and has been working with the collective impact methodology for a number of its projects. It has also progressed the conditions and the Tamarack additions so that they align with the whānau ora outcomes (Adele Small, Te Tihi o Ruahine, personal communication).

New Zealand Health Care Home and Safety in Practice collaboratives

Currently two large-scale collaboratives are operating in New Zealand. They are very different in the scale of change: Health Care Home is a model of care change including practice workforce and delivery whereas Safety in Practice focuses on improving particular delivery topics (eg, laboratory test handling) or health care topics (eg, CVD risk assessment).

Health Care Home Collaborative: The Health Care Home (HCH) Collaborative has developed accreditation standards that cover four core domains: ready access to urgent and unplanned care; proactive care for those with more complex needs; better routine and preventive care; and improved business efficiency and sustainability.[31] Practices can choose where to start within this suite. For example, some practices have learnt LEAN-Kaizen processes and made efficiency gains.

The collaborative has a benchmarking programme, a national data set, agreed measures (including alignment with SLMs) and existing infrastructure where PHOs submit data to a central databank and feedback is provided at a practice level. Furthermore, HCH has contracted Ventures (Midlands) to hold laboratory, pharmaceutical and hospitalisation data to enable outcome measurement.

> ‘Health Care Home is gaining considerable momentum (getting up to 1 mill enrolled pts) and has the potential to “bringing back the joy of general practice”. Lots of people are signing up to this.’ (GP-5)

> ‘Health Care Home is a natural fit for QI at scale.’ (GP, Health Care Home and CEO, PHO)

The HCH model also includes new professional roles to expand the workforce and build more capacity and capability for practice teams.

> ‘Sharing resources has to happen … hubs of care … like one social worker salary shared between three practices [noted within local HCH initiative].’ (Consumer)
>
> ‘HCH model still relatively early in implementation with key changes that still need to take place … [There are still] gaps exposed with integrated health and social care, allied health and work with at risk individuals.’ (CEO, DHB)

HCH leaders considered that a key role for the Commission could be, first, to support HCH practices to learn and apply QI methods to specific aspects of primary care delivery and, second, to lead or broker QI workforce capability development opportunities for GPs and nurses. While an online programme might be useful, one respondent preferred the idea of a training programme outside of practice, such as the quality improvement facilitator programme, accompanied by mentoring.

An acknowledged gap that HCH is working to address is how to meaningfully engage with consumers. HCH leaders would be interested in what support the Commission might be able to offer in this area, including by working on feedback from the Patient Experience Survey.

New Zealand Safety in Practice collaboratives: Safety in Practice (SiP) has been running since 2014/15. It was adapted from a model and curriculum developed in Scotland that brings together a focus on safety linked with change management and improvement skills. It contains a series of entry-level modules and practices can graduate to new areas of focus after two to three years while being expected to maintain previous core functioning (eg, laboratory test handling). The experience from SiP was that international bundles developed in general practice elsewhere were well accepted and easily adapted in the New Zealand setting. Furthermore, practice management modules such as laboratory test handling or medication reconciliation provided early wins in terms of developing confidence and laid the groundwork for other topics such as acute kidney injury, warfarin, opioids, patient experience of care and best practice for asthma, diabetes or gout.

Where the Auckland–Waitemata DHBs’ initiative differs from the Scottish model is in its inclusion of pharmacies and co-location of these teams with general practices at collaborative learning sessions (the Scottish model had separate pharmacy and GP programmes). This alternative approach has been seen as a real opportunity to share QI learning, build networks and relationships and ultimately help with service integration. Leaders see the huge potential to develop ‘one whole care team’ for patients and their families and whānau. Further enhancements are envisaged with accident and medical clinics, dentists, aged residential care, optometrists, physiotherapy, midwives and community nurses.

> ‘QI in NZ is not new but has been very GP focused without a focus on allied health involvement. Community pharmacy has not really had opportunities to walk with general practice. It’s very siloed.’ (Pharmacist lead, SiP)
>
> ‘Pharmacy teams are very appreciative and happy to be involved with practices as often feel disconnected and no involvement … with SLM … pharmacies have no such entity such as a PHO to give them support [to do QI].’ (DHB primary care manager)

While only including general practices, the Counties Manukau DHB’s Safety in Practice Collaborative differs from the collaboratives in Scotland and Auckland–Waitemata DHBs in that it looks at both areas of safety (eg, laboratory test handling) and areas of omission such as evidence-based care gaps seen for gout, CVD and COPD. Change packages or ‘how to’ bundles have been developed from scratch by practices and shared after thorough testing. Many of these align with SLMs and/or areas that have inequities in care (eg, paediatric dispensing, antenatal immunisations, triple therapy for CVD, polypharmacy, COPD, heart failure, Patient Experience Survey, gout). The leaders of the Counties Manukau DHB SiP define this initiative as a four-year learning experience to develop QI capability at the coalface using a suite of tools, defined methodology and learning sessions.

To spread Safety in Practice at scale, leaders recommended getting buy-in from PHOs and funding practices to attend learning sessions and meetings and collect data. A central repository of data would need to be set up to provide feedback to practices on their performance and to allow each PHO or DHB to merge the data and compare the performance of individual practices. Practices could choose from 21 tried and tested bundles as well as tools such as a safety culture survey, sentinel analysis and trigger tool. PHO quality improvement coaching and peer leaders have been key enablers in the success of SiP in Auckland, as have high-level sponsorship and commitment.

> ‘High level commitment from our CEO has been key to SiP ADHB/WDHB [Auckland and Waitemata DHBs’] success and understanding that this is a long-term journey.’ (DHB manager)
>
> ‘There is widespread variation in capacity and capability in NZ – improvement advisors, project managers, clinical champions (leads) and a formalised collaborative helps to get people started but represents significant local resourcing.’ (DHB 1 primary care manager)

Inner setting: general practice context

The inner setting includes the general practice context within which a QIC might be implemented. This section synthesises feedback about primary care QI and suggestions for practitioners from workshop and interview participants. These participants reported that, even if a primary care team decides to undertake quality improvement, huge barriers remain in terms of what to measure, how to sample and how to diagnose the problem. Addressing these barriers was seen as a key way in which the Commission could lend a helping hand.

> ‘Measurement appears to be a huge and time-consuming barrier – what to measure and how to measure it. What would be really useful is a set of change packages already with measures developed and SQL code already developed for the PMS or a validated survey or what to do to get consumer input already curated for NZ primary care … the problem with RNZCGP/BPAC [Royal New Zealand College of General Practitioners and Best Practice Advocacy Centre] audits is that they are straight paper-based audits without any SQL query. That is- they expect GPs to do the data collection manually and then reflect … but that is only the start of QI … if HQSC [the Commission] could curate these as well as Safety in Practice bundles – would be a tremendous help as well as [providing us with] key tools to use.’ (GP-6 rural Māori health service)
>
> ‘[There is] a lack of knowledge about sample sizes needed for QI vs research Its very important to be able to show evidence of impact on patient outcomes …. Need to make it easy to network, use data, need templates, Excel spreadsheets with inbuilt formulae already.’ (PHO quality manager)

To lift the capacity and capability of general practices for QI, several interviewees identified some basic building blocks or key enablers for QI in general practice as a ground-floor entry to QI knowledge (see Table 3). Not everyone saw formal QI training as necessary.

> ‘I am resisting being formally “trained”, as I’ve not been “trained” to do Cornerstone [quality assurance], nor teach medical students, nor how to use Electronic Health systems I’ve used. All of these processes are essential to being a doctor, and yet I didn’t have to “do a course” to learn those processes. I’m currently convinced that “scaling” QI means integrating the QI process into usual practice so that “training” and going off to do some expensive, time-consuming course is NOT necessary. It is a major barrier, as far as I can understand especially for low-resourced settings that would stand to benefit the most.’ (Email from GP-6 rural Māori health service)

Table 3: Building blocks and enablers for establishing QI knowledge in primary care

Building block or enabler	Comment
General suggestion for building blocks to primary care QI.	‘Maybe we need an equivalent Bodenheimer paper (“Building Blocks of Primary Care”)[32] that lists the building blocks of primary care QI. These blocks are practical things (a checklist of sorts?): regular staff meeting; shared vision; annual validated survey of “culture”.’ (GP-6 rural Māori health service)
Have **regular practice meetings** (suggested by four participants).	‘Importance of growing clinical leaders, champions and encouraging small, frequent improvement huddles eg weekly or daily 10–15 mins.’ (DHB 1 primary care manager)

Conduct some sort of **safety culture/climate survey**; ideally an online anonymous exercise for the entire team where everybody's voice matters and then the outcome is facilitated with the team.	'[A safety culture survey] highlights communication and balance of power.' (GP-4 leader, SiP)
As a team, agree on **shared vision and values**. (GP rural remote practice)	'The angle of safety went across the practice [and] included all the team from practice manager, nurses, receptionists and docs.' (GP-2 leader SiP)
QI should start at the clinical interface (eg, as clinicians or wider primary care team are doing usual activities and notice problems. At each practice meeting, discuss problems raised and **keep track of problems** in the basket or incident register. (GP rural remote practice)	'It is in these meetings that results of safety culture survey can be discussed or 5–10mins each month discuss results of trigger tool and what little change can be made. Emphasis on little and actually doing a PDSA [plan–do–study–act] cycle. After a while this practice can become routine.' (GP-2 leader, SiP)
Bring together the team. The nature of the problem will determine whether expanded team members need to meet.	'… possibly the [QI] skillset could be taught online but the real value is in the experiential learning in practices and then sharing learnings at learning sessions. Anecdotally the team environment within practices has improved out of sight- starting off with safety culture survey, collaborative coming together and sharing. Teams are now meeting outside of SiP [to discuss and share experiences, which]… is a good spin-off.' (DHB-2 primary care manager)
Have a **clinical champion**. Clinical champions are really important for initial engagement and to keep up practice momentum.	'Practices can go from high functioning to needing a whole lot of support through losing key staff [the champions].' (GP-1 leader. SiP)
Develop an understanding of **simple QI tools and frameworks**.	'One major benefit of SiP is the learning of core skills like PDSA that then can be applied to other common problems.' (DHB-2 primary care manager)
Find out if anyone has tackled this before, and whether they have shared, aggregated and organised their learnings so other practices can use and adapted them. **Have a knowledge-brokering organisation.** Access a central	'We need a central library/toolbox for all regions, resources on line. Tools and resources need to be reviewed and updated (need lit search and evidence review and bringing into current context)… Role of providing oversight of packages, develop resources, provide platform IT. Analytics, resources, even videos of PDSA so that

source that has curated the evidence for specific topics and sets out a clear operational pathway, checklist or process for changes that need to be made with testimonials (local evidence and impact). (Policy advisor)	consistent around country.' (GP-2 leader Safety in Practice)
Share your learning.	'… the power of primary care working on one topic.' (CEO, DHB)

Discussion

The purpose of this document is to inform the 2019/20 (and beyond) primary care programme regarding primary care quality improvement at scale. The Commission has a wealth of experience historically focused on working with the hospital and DHB sector to improve organisational capability, delivery of care, and a strong drive to strengthen consumer engagement, such as through consumer councils. However, the heterogeneity of culture and structures and the diversity of primary care providers present a new set of challenges. We conducted a qualitative evaluation from 6 workshops and 27 interviews to understand barriers to and enablers of quality improvement at scale in primary care. The intervention we focused on was the quality improvement collaborative methodology. The aim was to collect reflections on this methodology and develop an understanding of the context within which this would be implemented (the wider social and political environment) and within clinical teams.

Quality improvement initiatives

Discussions around collaborative methodology raised the core higher-level concern that, before embarking on any national programme, there needs to be 'a definition of quality from tangata whenua'. That definition would set the standard. Any initiative at scale would have this definition as its basis and could tailor the definition to its local environment and service delivery context.

Respondents were in general supportive of an adaptable collaborative methodology that fosters the application of improvement science and focuses on impacting equity of health outcomes. Limitations that would need to be addressed are the lack of consumer involvement in previous collaboratives (design and planning, coordinating and team members) and developing a New Zealand evidence base of impact (equity of provider processes and health outcomes and cost-effectiveness). Furthermore, the **primary** aim of doing a collaborative must be clear. Is it to build primary care capability in quality improvement? Or is it to improve patient outcomes (and equity of patient outcomes)?

Whatever the primary aim, before a collaborative is implemented a robust study design protocol ensuring baseline measures, clear methods of data collection (including type of data and frequency of collection) and monitoring and feedback systems should be developed.

Measures need to consider experience of families and whānau, and focus on ways of using data to benefit patients.[3]

The Cochrane Effective Practice and Organisation of Care Review Group has developed criteria[29] for assessing the quality of studies but the flipside is to use these criteria to robustly design a QIC in order to demonstrate evidence for impact. For controlled before–after studies, the minimum number of sites is two or more QIC intervention sites and at least two control sites. Data collection must occur at the same time and the sites should be comparable. For interrupted time-series studies (with or without control sites), at least three data points need to be recorded before and after the intervention and there must be a clearly defined point in time when the intervention occurred.[29]

Primary care embraces generalism and diversity. A suite of available topics to choose from was preferred over one option and using change packages that have already been trialled and tested in a New Zealand health care setting. However, participants strongly agreed that the topics should address an equity issue and be meaningful and important to consumers and health care providers.

Collaboratives need clinical champions, coaching and high-level commitment-to provide funding, drive and coordination. Also needed is a collective understanding that this is a long-term journey to sustain change and develop workforce capability.

Primary care context

Participants reported a strong desire to move towards expanded care teams, intersectoral partners, consumer engagement and community collective action. Some of this shift relates to increasing recognition that the health status of populations is strongly influenced by social and economic determinants and general practice has traditionally not been designed or enabled to support broader social needs of consumers, families and whānau that impact on health.

It was noted that many Māori providers were already working closely with their communities within a whānau ora model, seamlessly linking health and social services. However, these providers are often operating in isolated regions, caring for populations with more socioeconomic disadvantage, and having fewer resources and less infrastructure. Māori and non-Māori providers welcomed the opportunity to improve the quality of primary care, develop practice team capability for QI science and do it at scale. At the same time, their views were tempered by their recognition of a ‘swamped’ general practice sector, competing priorities and scarce people-time.

The inability to share data across the system was widely acknowledged as a major barrier to improvements in health care.

The role of the Ministry of Health and DHBs, and in particular the alliances between DHBs and PHOs and delivery on the Ministry’s System Level Measures, were seen as clear ‘yardsticks’ for health service delivery initiatives. However, the Central Workshop participants consistently noted that there seemed to be no shared central government vision of the role of quality improvement for health care nor any clarity about what the Ministry’s leadership role is or would be. They also noted the lack of specific investment in QI and that short-term contracting and reporting policies also did not foster QI in the sector. Participants in this workshop of central agencies had a series of suggestions to achieve QI in primary care at scale relating to a shared vision for QI, unified strategy, investment, data and analytics. Two primary care organisations echoed these ideas, suggesting the Commission consider the collective impact model. That is, instead of working independently, organisations or collective entities could come together with a shared purpose, common agenda, shared agreed metrics, mutually reinforcing activities with consistent messaging and a backbone organisation.

Two large primary care QI collaborative efforts are currently occurring: Health Care Home and Safety in Practice. Participants indicated their interest in the Commission working with and supporting these initiatives through leading or brokering workforce capability programmes for primary care clinicians, supporting meaningful engagement with consumers and intersectoral integration.

At the general practice level, the major finding was the need to foster and support simple building blocks for practices to get started with quality improvement and 'how-to' skills and tools (eg, safety culture/climate survey, run charts, process mapping). A potential role for the Commission would be to curate the developing change packages or care bundles for specific topics, including the evidence and a clear operational pathway, checklist or process for changes that need to be made along with testimonials (local evidence and impact).

Strengths and weaknesses of methodology

While many people were involved in workshops, group meetings and interviews, the sampling strategy was mixed between purposefully identifying already established groups (eg, the Commission's Consumer Network and Te Tumu Whakarae), established collaboratives (Health Care Home and Safety in Practice), snowball sampling (asking who should be interviewed) and convenience sampling (using central agency, academic and GP networks).

Rather than being designed to be representative of all primary care services, the sampling was intended to gather broad Māori and non-Māori narratives from macro- (national), meso- (institutional) and micro- (primary care team) system levels and from consumers. As such, it is biased towards the status quo of general practice. A further limitation was the mix of data collected, which included participants' responses to structured questions in workshops recorded on butcher paper and rapidly transcribed field notes taken at the time of interviews. While field notes were written up very quickly after the interviews and as much as possible the quotes are used verbatim, the workshops and interviews were not recorded and transcribed and therefore may not accurately reflect the richness of the feedback and conversations. Simple thematic analysis of all the written material was conducted in an iterative fashion and the Consolidated Framework for Implementation Research was used as a programme-level theory to guide and structure the analytical process. However, only one author undertook this task, which ideally requires a team to independently review and discuss emergent categories and themes.

Findings in relation to other studies and international literature

Studies have identified five high-level factors that are associated with sustained and effective improvements in care: the need for a shared vision, strategic capacity and leadership; use of theoretically sound change models; a workforce with capacity and capability to deliver; and investment in infrastructure.[3, 33, 34] These are factors that the Commission cannot deliver alone.

From the first PCEAG workshop in December 2017 and our subsequent participant activities, the need for a clear common goal has been strongly endorsed, as has the need for definitions of quality and quality improvement from an indigenous Aotearoa New Zealand perspective.

This is the first step, echoing the collective impact model[4] and learning networks that use an ‘actor-oriented’ network organisational architecture.[33] A learning network aligns actors (people, organisations, databases and registries) around a common goal; and develops standards, processes, policy and infrastructure to enable multi-actor collaboration and to establish a commons where information, knowledge, resources and know-how to achieve that goal are created and shared.[33] Cooperation and coproduction at scale facilitate these networks to improve health care delivery and outcomes.

The Commission could potentially serve as the backbone organisation in a multi-agency initiative, coordinating participating organisations and other actors, providing consistent and open communication and curating and holding an information repository. Of note, learning networks have arisen out of quality improvement collaboratives such as the ImproveCareNow Collaborative[35] and Ohio perinatal quality collaborative.[36]

International lessons and evidence for overcoming challenges to improving quality have been brought together recently.[3] This work has identified 10 challenges for organisations seeking to embark on improvement initiatives within the design, planning, organisational and leadership context and while sustaining improvement. Some of these challenges have particular significance for New Zealand primary care QI at scale.

QICs have evidence for their effectiveness[20] and large-scale examples of the collaborative methodology are engaging New Zealand primary care teams. From Whakakotahi, there is also evidence that the approach is adaptable to local contexts and can involve consumers in co-design. However, while QICs may be an effective intervention, their success depends on a deep understanding of the context within which the intervention will take place and the constraints primary care is facing.[6] Of note is the primary care mixed fee for service or capitation funding model – ‘the elephant in the room’[7] – along with the relative isolation of practices, other primary care providers, aged care, social and hospital services from each other and the lack of a national primary care repository and other infrastructure to support improvement.

Participants put forward a series of options for collaborative topics and modes of delivery for the Commission to consider. For many of the topics, there are already both quantitative data (such as the Atlas of Healthcare Variation) and consumer stories demonstrating the existence of inequities and the scale of the problem to be addressed. For each topic, care needs to be taken to avoid overambitious aims given the time scale and/or resources available.[3] The Commission would need to use the experiences of Whakakotahi and the

Safety in Practice collaboratives in terms of what scale of resources, backfill costs, effort and other support (including QI coaching and administrative support) are required. This might necessitate targeting sites and/or population groups with the greatest potential to benefit.[3]

While most topics put forward are actionable, the sheer number of topics, service contracts and competing demands (such as winter flu season and meningococcal W outbreaks) can be overwhelming for general practice. Hence a common goal, shared direction and alignment (eg, with SLMs, practice standards, DHB contracts and PHO performance indicators) and topic prioritisation are required to reduce the number of areas to be tackled or institute a staged approach.

The Health Foundation notes that challenges can occur with shifting agendas and priorities in the 'outer context' and suggests that topics or interventions are mapped to core themes as well as specific policies.[3] This approach will require central and collective leadership, clear communication and a cultural shift. For Safety in Practice Scotland, developing clinical champions or advocates for change was a critical strategy, which has been mirrored within New Zealand Safety in Practice and Health Care Home collaboratives.

In designing and planning an initiative, not only do the methods of evaluation need to be developed but also effort needs to be directed towards building capability of frontline clinicians to use data and understand QI science. A recent study in the *New Zealand Medical Journal* found that, of the 49 undergraduate health professional institutions (eg, for pharmacists, midwives, podiatrists, paramedics, physiotherapists, nurses and doctors), only two included improvement science in pre-registration curricula.[37] Therefore both new and former health professional graduates are unlikely to have a shared knowledge and language of QI science and this divergence will impede their ability to successfully implement and sustain improvements.[37] This is where the collaborative methodology may have a key role. In the systematic review of QICs, 90 percent of the studies described activities such as coaching, site visits, conference calls or use of electronic tools (eg, email, listserv or webinars) to facilitate a learning network in addition to learning sessions.

Options for collaboratives include:

1. local QICs with natural groupings (eg, GP peer groups or bundles of practices together or PHO-based collaboratives with public health units and community partnerships)
2. virtual collaboratives where practices could opt-in and use online education tools (eg, listserv, chatroom or webinars) and coaching
3. regional collaboratives (around a DHB catchment or community or the PHO Quality Improvement Network). This model could support the spread of the Safety in Practice programme, pick up the core topics (including safety and omission topics) and be further adapted to encourage more consumer involvement and multidisciplinary teams
4. a national 'collaborative within a collaborative', where the local collaboratives ensure natural hubs, networks, alliances or relationships and, if able to be aggregated at a national scale, would demonstrate impact, facilitate transparency, share learnings and spark competitiveness.

Conclusion

In summary, evidence points to the effectiveness of the collaborative methodology and participants support using it to foster the application of improvement science in primary care, focusing on consumer involvement at all levels, impacting equity of health outcomes and considering a suite of topics. The Commission cannot do this alone but has a key strategic role in initiating new or supporting existing primary care QI initiatives, facilitating collective action, aligning with sector health priorities and ensuring that all workstreams are enacted within the framework of the Treaty of Waitangi and He Korowai Oranga.

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