

COUNTIES MANUKAU DISTRICT HEALTH BOARD

# Quality Improvement Strategic Plan 2008-2011

August 2008



***“Face Reality, Seek New Designs,  
& Involve Everyone”***

*Don Berwick*





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*The quote on the front cover is from  
“Improvement, Trust and the Healthcare Workforce” by Don Berwick [1]*

## Statement from CMDHB Chief Executive

The single overriding task of the DHB is to ensure we treat each individual patient as if they were a member of our family or whaanau. This means that our job is about quality: at an organisation level, at a team level and at an individual level. It is about harmonising our skills, our commitment, our ambition and our resources to ensure that everyone is treated in the 'right way, at the right time by the right person'. Above all it means a fundamental change in how we work, what we prioritise, what we manage and what we achieve.

We need to do this because it will mean better care for those we look after. In short it will result in more lives saved and more people cured; it will lead to a healthier community and

a more prosperous future. We need to do this because all of us work in health to care for people, which means being able to put our professional skills and values to work on a daily basis in a Health Board passionate about the highest standards. Each of us has the power and the responsibility to make this vision a reality.

This Plan is about making that change happen. It will become central to our philosophy, our objectives, our investment and financing decisions, our day to day management and to our work.

It will become the yardstick by which our success as a DHB will be judged.



*Geraint Martin*  
Chief Executive  
Counties Manukau DHB

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# Counties Manukau DHB's Shared Vision & Values

## Vision

**To work in partnership with our communities to improve the health status of all, with particular emphasis on Maaori and Pacific peoples and other communities with health disparities**

We will do this by leading the development of an improved system of healthcare that is more accessible and better integrated.

We will dedicate ourselves to serving our patients and communities by ensuring the delivery of both quality focussed and cost effective healthcare, at the right place, right time and right setting.

Counties Manukau DHB will be a leader in the delivery of successful secondary and tertiary health care, and supporting primary and community care.

## Values

### Care & Respect

Treating people with respect and dignity: valuing individual and cultural differences and diversity

### Teamwork

Achieving success by working together and valuing each other's skills and contributions

### Professionalism

Acting with integrity and embracing the highest ethical standards

### Innovation

Constantly seeking and striving for new ideas and solutions

### Responsibility

Using and developing our capabilities to achieve outstanding results and taking accountability for our individual and collective actions

### Partnership

Working alongside and encouraging others in health and related sectors to ensure a common focus on, and strategies for achieving health gain and independence for our population

# Executive Summary

Despite our best efforts, the quality of care that we deliver to the population of CMDHB is not yet as safe, reliable or patient-centred as we would like it to be. To become an organisation that provides high quality care to each patient, every time, will require us to focus on continuously improving each of the dimensions that define healthcare quality.

**Six dimensions of Healthcare Quality – providing care that is:**

1. Safe
2. Effective
3. Patient-centred
4. Timely
5. Efficient
6. Equitable.

## Two Parts.

There is a difference between talking about quality and actually continuously striving to improve that quality. Quite deliberately this strategy has been split into two parts – the first introduces the strategic direction and quality improvement principles that provide the foundation for our QI actions. The second part - The Quality Improvement Action Plan 2008-2011 is a living document which maps out the major QI work streams for CMDHB over the next 3 years. Although separate documents, the two parts form the QI Strategic Action Plan and should be read together.

## Part 1. Strategic direction.

This QI Strategy is underpinned by an over-arching philosophy – sometimes called the Triple Aim [2] - where organisations simultaneously focus on three bottom lines, rather than just the financial bottom line. For a healthcare organisation the triple aims include improving the health of the population, the experience of the individual patient, and the financial bottom line.

**Triple Aims for Healthcare Organisations:**

1. to improve the health of a defined population;
2. to improve the experience of care by the people in this population;
3. while working within the cost per capita of providing this care.

In many countries these three aims are at odds with each other, however in New Zealand there is increasing alignment. The health of a population includes the distribution of health outcomes within the population as well as overall health outcomes. When this is recognised explicitly, the Triple Aim aligns with the New Zealand Health Strategy’s emphasis on reducing health inequalities.

## Part 2. Action Plan:

This Action Plan signals that there will be definable actions to ensure that such improvement can be measured. As Don Berwick has said:

*“Some is not a number, soon is not a time.”*

This makes the point that vague notions of improvement are not likely to get the transformational results that CMDHB aspires to. To embed QI into CMDHB requires that it is integral to strategic planning decisions, and that each part of the sector has defined measurable outcomes and specific timelines for meeting them.

Some parts of the sector are more advanced than others when it comes to QI, and part of the work over the next three years will be building capacity in all areas. This strategic action plan will eventually be across the Counties-Manukau district, not just secondary care, but fundamentally involving primary health care providers and other contracted health

providers. However, as there are defined problems in CMDHBs secondary care services, and also defined measures, the first actions plans will focus on the secondary care provider arm of the DHB. The intention is to map out a consultation process with other sectors in the district and to develop the sort of metrics which will allow continuous quality improvement to be successful across the spectrum of care.

Historically the hospital and the primary care sector have operated as separate entities, with the interface between them a particularly vulnerable area. Although the QI Action Plan starts with secondary care it also explicitly covers the points of intersection between primary and secondary care.

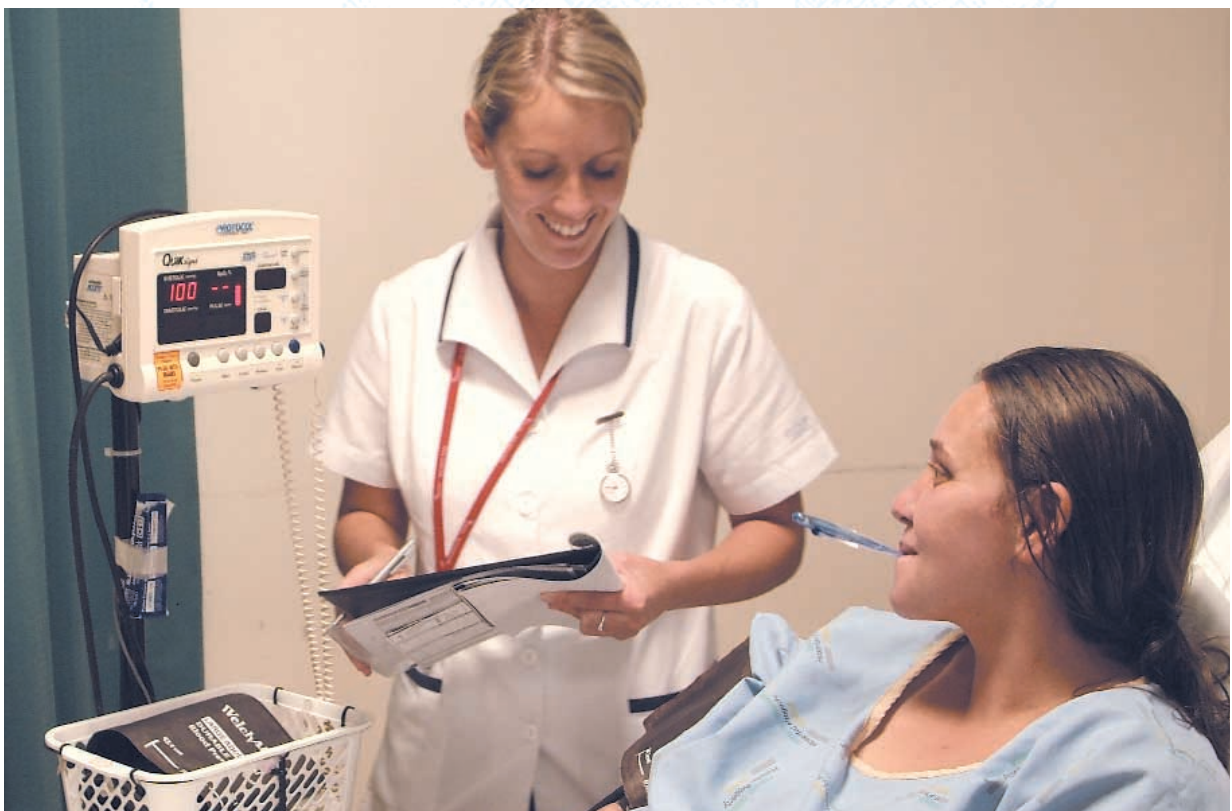
The actions plans should be seen as living documents and will inevitably change over time. We have attempted to define explicitly our targets, however, in many cases the absolute starting point is as yet unknown. In these cases the first step will be to define the

baseline and then to propose absolute improvement goals.

**Each Quality Improvement Action Area will be attempting to answer three questions:**

1. What are we trying to accomplish?
2. What changes can we introduce to produce an improvement?
3. How will we know that the change did indeed produce an improvement?

Fundamentally the 'business' of the DHB is healthcare - care for patients and their whaanau, and care for our population. The best way to improve the business is by focussing attention on the quality of care provided. This QI strategy proposes a paradigm shift in how providers and planners reference their work to improving quality. Involving people in their health is the role of providers in promoting wellness and achieving population health gain through health promotion and prevention. Achieving this will also be fundamental to the success of CMDHB.



# Strategy Scope, Principles and Objectives

## Scope

This CMDHB QI Strategic Plan takes a DHB wide view across the Counties-Manukau district incorporating all the elements (primary & secondary care, aged residential care, contracted providers) required to deliver health care to our population. It provides the foundation principles and philosophy that will guide the quality improvement actions listed in the QI Action Plan.

As it is a Quality Improvement (QI) Strategic Plan, it will not cover Quality Assurance (QA) activities. For a discussion of the differences between QI and QA see appendix I.

The efforts to achieve population health gain are outlined in many other CMDHB plans and this QI Strategic Plan does not intend to replicate these.

## Objectives

This QI Strategy is designed to map out the approach to QI for the next three years, building the philosophy of continuous quality improvement into the fabric of CMDHB. It will be an essential component to the planning and provision of healthcare with the ultimate aim of improving patient outcomes.

## Principles

- **CMDHB aims to be a high quality, high performing DHB**
- **CMDHB will address the triple aims of a high performing DHB:**
  1. **Improving the health of a defined population**
  2. **Improving the experience of care by individuals in this population**
  3. **Decreasing the cost of providing care to the population**
- **Improving the quality of care delivery is central to all CMDHB planning processes**
- **Healthcare Quality encompasses care that is:**
  - 1) **Safe**
  - 2) **Patient centred**
  - 3) **Clinically Effective**
  - 4) **Timely**
  - 5) **Equitable**
  - 6) **Efficient**
- **Quality is a system property, and will be improved by improving the system of care (not by exhorting individuals to do better; or blaming them when the system goes wrong)**
- **Equitable care in CMDHB includes both horizontal and vertical equity and is consistent with a commitment to reducing health inequalities**
- **Quality will be improved by front line staff empowered by senior leaders and with support, direction and technical assistance by those trained in QI.**
- **Measurement and setting defined goals are central to QI.**
- **The CMDHB Quality Improvement Strategic plan will align with regional, national and international QI initiatives.**

# I. Background

All those involved in providing care to CMDHB patients strive to provide the best possible quality of care. Despite these individual efforts, healthcare is not yet as safe and reliable as it should be. Studies of medical error and adverse event rates [3] in the United States, [4,5] Canada, [6] the United Kingdom, [7] Australia, [8] and here in New Zealand [9] all show unacceptable rates of patient harm. Peter Davis's New Zealand study showed that nearly 6.3% of hospital admissions suffer some form of iatrogenic harm (harm caused by medical management) and that more than a third of these are preventable. Furthermore, analysis shows that the cost of these adverse events - to the health care system and to the individual patients - is high.

Still more work shows that patients do not always get effective care – in a landmark U.S. study it was found that patients received just over 50% of recommended care and over 10% received care that was not recommended. [10] Several New Zealand studies have shown that there are problems accessing healthcare. [11-13]

This CMDHB Quality Improvement (QI) Strategic Action Plan accepts that there are problems with the quality of healthcare, and proposes that it can be improved, through redesigning our delivery of healthcare (aligning it with patient's wants and needs), and by developing a workforce capable of taking on quality improvement at every level.

Don Berwick's<sup>1</sup> First law of improvement:  
**“every system is perfectly designed to achieve exactly the results that it gets”** [14]

makes the point that errors and waste in healthcare are system properties, and that to improve these,

we must improve the system - how we deliver care - not ask the same system to perform better. This 'systems approach' to quality improvement is a core concept in this Quality Improvement Strategy.

What is the cost of not having a strong QI strategy? Not only does poor quality cost money (in adverse events, re-work and other waste), but it also erodes staff morale and retention. [1]

The aim of this strategy is to take CMDHB ahead, to firmly ensure that Counties-Manukau providers are able to offer high quality healthcare services, and that the organisation is capable of attracting and retaining the best staff.

## I.1 What is Healthcare Quality?

Before we can improve quality, we need to be clear what we mean by healthcare quality and what a high quality healthcare service would look like. Quality has been defined as

**“the degree to which the health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.”** [15]

Though a wordy definition, it does provide some general themes: [16]

- 1) There are both population and individual considerations which must be balanced when considering the quality of healthcare services.
- 2) “Health services” refers to a wide array of services that affect health, including services aimed at preventing disease and promoting

<sup>1</sup>President of the U.S. based Institute for Healthcare Improvement ([www.ihl.org](http://www.ihl.org))

health as well as acute services.

- 3) It is important to consider the patient’s perspective (“desired health outcomes”)
- 4) The phrase “increase the likelihood of desired outcomes”, reminds us that improving quality of care does not equate directly with improved health outcomes - it increases the chance of this, but there are other variables which have large effects on outcomes. Poor outcomes can happen even when the best possible health care is delivered as disease can defeat our best efforts. Conversely, patients can achieve good outcomes despite poor quality care.

Assessing quality therefore requires attention to both processes and outcomes of care

- 5) A high quality healthcare service is about making best use of current knowledge - making sure that clinicians are kept up to date and that knowledge is actually applied.

The Institute of Medicine (IOM) in its landmark report “Crossing the Quality Chasm: a New Health System for the 21st Century” came up with 6 dimensions that define healthcare quality.

Institute of Medicine: 6 dimensions of quality [17]	
Safe care	Avoiding injuries or harm to patients from care that is intended to help them.
Patient-Centered care	Providing care that is respectful of, and responsive to, individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions. Refers to health care that establishes a partnership among practitioners, patients, and their families, and that patients have the education and support they need to make decisions and participate in their own care.
Efficient care	Avoiding waste, including waste of equipment, supplies, ideas and energy.
Timely care	Reducing waits and sometimes harmful delays for both those who receive and those who give care.
Equitable care	Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location and socioeconomic status.
Clinically Effective care	Providing services based on scientific knowledge to all who could benefit, and refraining from providing services to those not likely to benefit (avoiding underuse and overuse respectively).

These same dimensions are reflected in the New Zealand Ministry of Health ‘Improving Quality (IQ) Strategy’ as outlined in the diagram over page. [18] This diagram puts the patient and their family at the centre, depicts quality improvement as occurring at all levels of the healthcare system, and has as its foundation the principles of the Treaty of Waitangi – Partnership, Participation and Protection. [19]

Both the IOM and the Ministry of Health (MoH) have the word equity in their definition of quality, but they have subtly different meanings. The IOM [17] term relates to horizontal equity - that is treating equal people equally. This translates to mean that all people should receive the same quality of care, irrespective of their age, gender, location or disability.

The MoH definition has ‘equity’ linked to ‘access’ and is described as:

**“the extent to which people are able to receive a service on the basis of need and ability to benefit, irrespective of factors such as ethnicity, age, impairment or gender.” [18]**

This vertical equity has the goal of equitable outcomes and recognises that treatment may differ for different groups (i.e. treating different needs differently) described by Coster & Buetow:

**“Equity describes the extent to which all individuals can access the care they need, rather than necessarily the same or equal**

**care. Accordingly, equity is a component of access and effectiveness at the population level.” [20]**

This definition is congruent with the intention to ‘reduce inequalities’ of health outcomes in the CMDHB District Strategic Plan. It is also clear that this approach aims for equity of outcomes (rather than just equality of care):

**“DHBs cannot deliver equity of outcome; they can only deliver equity of access and pursue equity of outcome. The pursuit of equity of outcomes must be done by ‘favouring’ those in relatively poor health status.” [21]**

**Figure 1. Quality dimensions in the New Zealand health and disability sector**



In addition to these general equity concerns, in Counties Manukau, this dimension of quality (equity) is about addressing ‘need’ for Maaori, Pacific peoples and other communities with health disparities. For Maaori addressing this need will necessitate attention to matters of Te Tiriti o

Waitangi commitment to equality of opportunity to benefit from publicly funded services [21] Commitment to Maaori health development as a Te Tiriti response is separate from, and additional to, reducing health disparities related to need.

## 1.2 Vulnerable System Syndrome

This syndrome first described by James Reason in 2001, [22] describes a cluster of organisational pathologies: blame (blaming front line individuals); denial (denying the existence of systemic error provoking weaknesses); and the single minded pursuit of the wrong kind of excellence (e.g. the blinkered pursuit of productive and financial indicators).

**“The need to achieve the latter targets is often cited as the reason why necessary systemic improvements cannot be made.” [22]**

Through the health reforms of the 1990s, with the emphasis on competition rather than collaboration, many healthcare organisations fell into the trap of focusing on financial indicators alone and became vulnerable systems. This QI Strategy focuses on building a ‘quality improvement culture’ and with its stance on a systems approach to care, aims to ensure that health care in Counties Manukau does not become a vulnerable system.

Another way to ensure that CMDHB does not become a vulnerable organisation is through its

adoption of the Triple Aim. This is an over-arching philosophy which underpins this strategy. This philosophy states that to be successful, healthcare organisations need to simultaneously pay attention to three business ‘bottom lines’ not merely the financial bottom line.

### The Triple Aim focuses on:

#### 1. Population Health

Improving the health of a defined population and reducing inequalities of care between subsets of that population. This incorporates health promotion and disease prevention strategies alongside quality clinical care.

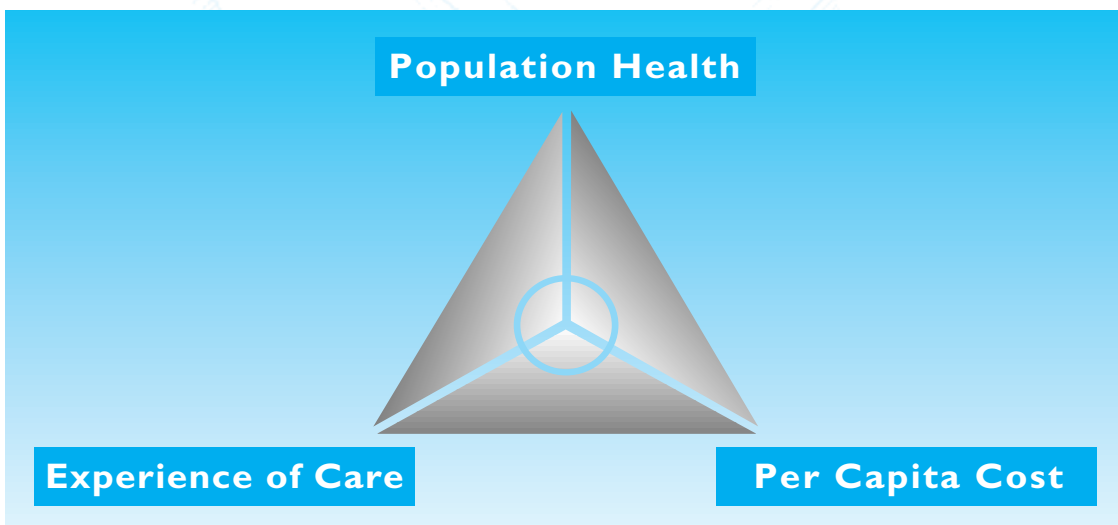
#### 2. Individual patient experience of care

The experience of individuals within that population. This is wider than patient satisfaction and includes coordination of care, safety and effectiveness of individual care.

#### 3. Cost

Attention to the per capita cost of health care, making sure that the 4 forms of waste described in the next section are minimised.

Figure 2. Triple Aim. [2]



### I.3 Cost of Poor Quality

One of the clear lessons from the quality improvement movement is that poor quality costs money. There is no doubt that this applies as much in health care as it does across other industries. Estimates of the cost of poor quality in United States healthcare go as high as 40%-60%. [23, 24] The cost of adverse events alone is estimated at 30% of the New Zealand healthcare budget. [25]

The costs of poor quality can be classified as those attributable to overuse, underuse, misuse, [26] and service waste. These are defined as follows:

#### Overuse

Interventions that have no clinical benefit or where the risks outweigh the benefits, constitute overuse. Over-prescribing of antibiotics for viral illnesses (for which antibiotics are not effective) [27] account for 44 million prescriptions in the United States each year, US \$17 million of these for the common cold alone. As well as the cost of these drugs, there is an estimated annual cost of US \$5 million to treat the consequences of increasingly drug resistant organisms resulting in part from overuse. While New Zealand spends very much less per capita than the US, there is evidence that we also suffer from overuse of ineffective medical care and are therefore just as likely to be wasting resources. Examples include the overuse of proton pump inhibitors, inhaled steroids and antibiotics.

#### Underuse

Underuse refers to not using an intervention where evidence suggests an advantage to the patient. Under treatment of patients with cardiovascular disease (CVD) is a typical example of this type of waste. Within the Counties Manukau population, of

those patients identified as high risk (>15% chance of a CVD event within 5 years), only 34%, 40% and 57% were prescribed aspirin, lipid lowering statins and blood pressure medications respectively. [28]

#### Misuse

The issue of preventable adverse medication events, hospital acquired infections, or other adverse events is well publicised. Peter Davis's New Zealand study showed that nearly 6.3% of hospital admissions suffer some form of iatrogenic harm and that close to 40% of these are preventable. [9] Furthermore, analysis shows that the cost of these adverse events is increased hospital stays (average of an additional 9 days) and costs (~\$10,000 per adverse event). [25] Of adverse events originating in primary care, four major areas have been identified: problems with diagnosis (28%); prescriptions (3-5% may cause adverse events – one third of which are serious); communication issues; and organisational change. [29]

#### Service waste

The previous three categories of waste relate specifically to direct patient care. However there are other sources of waste including: administrative waste (e.g. over- and under-ordering of supplies, staff shortages, poor organisation); delays (e.g. wasted theatre time, delays accessing diagnostic tests, long lengths of stay due to delays in hospital processes, admissions due to the need to access tests); and service deficiencies (e.g. broken equipment, lack of extended hour services, wrong services in the wrong places). These non-clinical wastes are often just accepted as part of the problems of large complex organisations, however attention to this form of waste is what differentiates leading organisations.

## 2. Context & Environment

The CMDHB Quality Improvement Strategy sits within both national and regional Quality Improvement work. It is important that we are cognisant of this work and able to link fully with their work streams. There are also international QI campaigns that we are well situated to learn from and form international collaboratives with.

### 2.1 CMDHB Strategies

#### 2.1.1 District Strategic Plan 2006-2011.

This is a 5-year plan for Counties Manukau which responds to the national context and local needs. It reflects our way of working here i.e. community partnerships, reducing inequalities, sustainability and a whole community approach, and is the product of extended conversations with our communities, health professionals, and partner agencies.

The six outcomes which provide the overarching strategic direction are included in the table below.

#### District Strategic Plan Outcome Areas

1. Improve community wellbeing
2. Improve child and youth health
3. Reduce the incidence and impact of priority conditions
4. Reduce health inequalities
5. Improve sector responsiveness to individual and family/whaanau need
6. Improve the capacity of the health sector to deliver quality services

#### 2.1.2 District Annual Plan

Key planning document for the DHB negotiated with Ministry of Health each year. The District Annual Plan summarises the key activities the DHB will undertake using the funds provided to achieve

the DHB's long term objectives as described in the District Strategic Plan.

The District Annual Plan must align with:

- Minister of Health's priorities
- Ministry of Health District Annual Plan guidelines and policy framework
- Indicators of DHB performance (including the national health targets).

#### 2.1.3 Health Services Plan (20 year plan)

The Counties Manukau District Health Board Health Services Plan describes the future shape of health services in Counties Manukau. The Health Services Plan (HSP) is grounded in our District Strategic Plan (DSP), but differs from it in that the HSP takes a longer view (20 years, as opposed to 5 years), and has a service rather than outcomes focus.

The purpose of the HSP is to inform and support our detailed planning of services, workforce, facilities and other major capital investments, finances, and information systems. Specific HSP objectives include to:

- Translate the strategic direction of CMDHB into a 'blueprint' for integrated health service delivery across Counties Manukau to the year 2026
- Provide a clear description of future Models of Care across the care continuum, and to plan for the shape, size, setting and location of service delivery for Counties Manukau residents and inter-district patients accessing care within Counties Manukau
- Provide advice on issues arising from the HSP that relate to facility and workforce

capacity, and affordability

- Support future business cases for facilities development within Counties Manukau.

These objectives would benefit from a greater QI focus and there is considerable overlap between this QI Strategic Plan and the District Strategic Plan. There are a number of other CMDHB plans - the Primary Health Care Plan, Whaanau Ora (Maaori Health) Plan and Tupu Ola Moui (Pacific Health) Plan - that focus on various aspects of the health service continuum and intersectoral approaches aiming for improved population health outcomes.

## 2.2 Regional Quality Improvement initiatives

There is a good deal of QI work going on in the Auckland region and an agreement between the northern DHBs to collaborate on QI projects (see appendix 2).

## 2.3 National Quality Improvement

### 2.3.1 Quality Improvement Committee: National Quality Improvement Programme

The National Quality Improvement Committee (QIC) identifies that “Quality improvement is an integral part of health planning.” Five initial areas for improvement were identified and have been started. For more detail on each project (see appendix 3).

#### 1) Optimising the patient’s journey

This programme is based on a national collaborative approach to implementing effective processes in all DHBs for optimising the flow of patients and improving their journey through the health system,

from primary care through the hospital system and back to primary care. CMDHB is the lead DHB for this initiative.

#### 2) Management of Healthcare incidents including ‘open disclosure’

When implemented correctly, incident management is an effective mechanism for systematically identifying and managing problems and failures in the system and for informing the development of preventive strategies. It also guides the immediate response to incidents, with the purpose of ameliorating risk and minimising further harm, including emotional and psychological trauma for patient, families and health practitioners. Waikato DHB is the lead DHB for this programme.

#### 3) Infection Prevention and Control

Infections that have been contracted in the healthcare system are a significant problem in New Zealand and worldwide. Reducing these infections has been identified as a priority because of the disease and economic burdens that these infections create. Auckland DHB is the lead DHB for this initiative, which includes ‘hand hygiene,’ decreasing surgical site and central line-associated infections.

#### 4) Safe Medication Management

Medication errors are common. [9] Approximately 1.6 percent of people admitted to hospital may experience an adverse medication event (harm due to medications). They occur both in hospitals and in primary care and the majority are preventable. Adverse drug events (ADE) have a significant impact on consumers. This ambitious project aims to decrease ADE in hospitals and communities. Hutt Valley DHB is the lead DHB for this programme.

### 5) National Mortality Review Systems

This focuses on improving the current Maternal and Child & Youth mortality systems, and introducing a new adult peri-operative mortality committee. This will be run by the Ministry of Health.

#### 2.3.2 National 'Saving 1,000 Lives' campaign.

This campaign currently being considered by the QIC, attempts to bring together the current QIC programmes with the Institute for Healthcare Improvement (IHI) campaigns – 'Saving 100,000 lives' and 'Protecting 5 million lives from harm.' Similar campaigns are being launched in Wales, Scotland, Canada and Denmark as more healthcare organisations see the benefit in coordinated campaigns.

The campaign proposes 6 interventions:

1. Transforming Care at the Bedside - includes pressure ulcer prevention and the early detection and management of the physiologically unstable patient
2. Medication Safety (links to QIC work stream above)
3. Decreasing Surgical Complications - includes, reducing surgical site infections (SSI), preventing thromboembolism, and decreasing cardiac events in surgical patients and monitoring peri-operative mortality
4. Cardiac care – Acute myocardial Infarction and Congestive Heart Failure
5. Healthcare Associated Infections - (links to QIC work stream above)

6. Clinical Governance ("Getting boards on board") and national reporting (links to QIC work stream above)

The measures that make up these 6 campaign areas have been replicated in the secondary care action table.

#### 2.3.3 Health and Disability Commissioner

The HDC is active in promoting system-wide quality improvement. As a result of his investigations in 2007 he commissioned a report on DHBs patient safety structures. Out of this he made five national recommendations regarding Quality and Safety in Health

1. Development of early warning scoring systems to identify the physiologically unstable patient
2. Standardised sentinel event investigation training
3. National open disclosure policy and training
4. Standardised initial communication process with the Coroner
5. Standardisation of both nursing and medical handover practices

### 2.4 International QI Campaigns

#### 2.4.1 Institute for Healthcare Improvement (IHI)

The IHI has been leading a large scale quality improvement effort in the U.S. In its first campaign, "Saving 100,000 lives" they identified 6 evidence-based QI initiatives and set about running 'break-through' collaboratives for 3,000 hospitals. After 18 months, using a standardised hospital mortality rate, they estimated that these 6 initiatives had saved 120,000 lives. The 6 key initiatives are each focused on a 'bundle' (a

series of interdependent, scientifically grounded steps) of care:

1. Evidence-based care for acute myocardial infarction (AMI)
2. Improving medication safety by introducing medication reconciliation
3. Decreasing ventilator-associated pneumonia (VAP)
4. Decreasing central –line associated bacteraemia (CLAB),
5. Decreasing surgical site infection rates (SSI)
6. Introduction of rapid response teams to identify and manage the physiologically unstable patients.

In 2007 the IHI launched a further programme - “Protecting 5 million lives from harm.” [30]

This added a further 6 initiatives:

1. Prevent Harm from High-Alert Medications
2. Reduce Surgical Complications
3. Prevent Pressure Ulcers
4. Reduce Methicillin-Resistant Staphylococcus aureus (MRSA) infection
5. Deliver Reliable, Evidence-Based Care for Congestive Heart Failure
6. Get Boards on Board

For detail on these bundles, see appendix 4.

The IHI is also promoting the “Triple Aim” philosophy that this Strategy is adopting. [2, 30]

## 2.4.2 World Health Organisation

The WHO is active in the quality improvement arena with its World Alliance for Patient Safety. It is working on a number of areas:

- Guidelines for adverse event reporting and learning systems
- WHO Surgical Safety Checklist
- Cleaner Care is Safer Care (adopted as part of the infection prevention and control work stream of QIC)

## 2.4.3 United Kingdom National Patient Safety Agency

The NHS in England, Scotland and Wales has made quality improvement a major focus since 2000. National organisations have been set up to address the issues of patient safety and quality improvement, as distinct from quality assurance (covered by organisations such as the Healthcare Commission). Both Wales and Scotland are launching a version of the IHI ‘Save 100,000 lives’ in 2008.

In England, the NHS Institute for Innovation and Improvement (previously the NHS Modernisation Unit) has lead large national programmes to reduce waiting times, improve efficiency and improve patient care. Similar programmes have been organised in Wales and Scotland. Across England and Wales, the role of the National Patient Safety Agency has addressed the specific issue of patient safety.

### 3. The Strategic Direction for Counties Manukau

#### 3.1 The Overall Approach

The overall approach to QI in Counties Manukau is captured in the diagram below. It is an amalgam of international approaches to QI, tailored to the health system of Counties Manukau. It includes three parts:

##### 1. Triple Aim: The underlying objectives of the healthcare system

That is, to improve the health of the population and reduce health disparities (as articulated in the CMDHB District Strategic Plan), to improve the individual patient experience and achieve these at reasonable cost. This builds on the Triple Aim philosophies from the IHI which emphasises the need to balance all three of these objectives in all that we do as a system. This will inform the selection of quality activities in our provision of care as all quality activities will be making a contribution to these overarching aims.

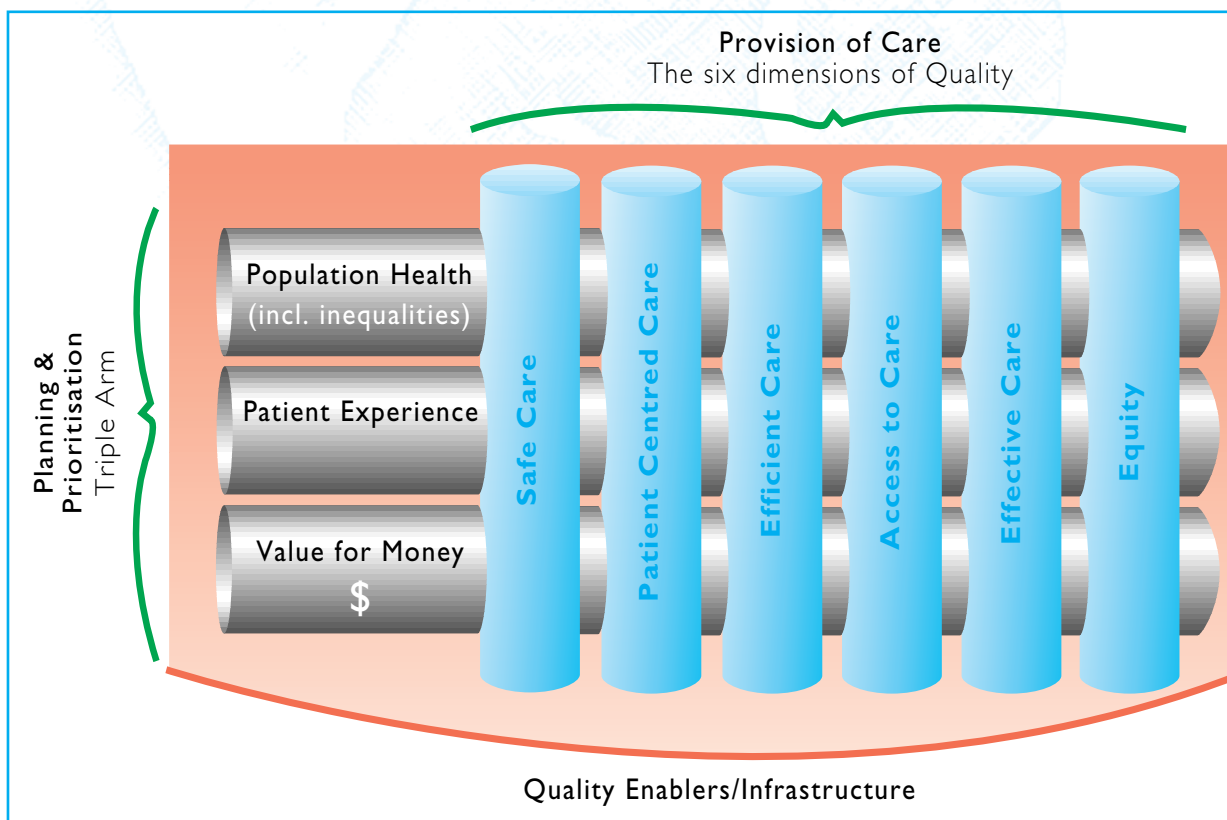
##### 2. High Quality Provision

In providing care to deliver the triple aim objectives, we need to know that care will be safe, effective, patient-centred, timely, efficient and equitable. These are the dimensions that will be used to shape our quality activity across our provision of care – whether that is direct provision by the DHB or through contracted providers (e.g. PHOs, pharmacists, residential care etc).

##### 3. Quality Enablers/Infrastructure

Delivering this QI Strategic Action Plan will require underlying enablers and infrastructure to enhance the quality ‘culture’ and the underlying infrastructure (especially IT) to make it happen. It also requires Information Management resources to measure our improvement over time.

Figure 3. Strategic Approach



### 3.2 Quality Planning

CMDHB has the overall responsibility to assess the ongoing health needs of the Counties Manukau population and plan appropriate services/initiatives to address those needs. This is summarised in the DHB's District Strategic Plan, which is supported by various service and population based plans that have been developed and are at differing stages of implementation (see appendix 7). Increasingly there will be a shift to incorporate CMDHB's 'triple aims' and six quality dimensions into these and future plans and their implementation.

### 3.3 CMDHB as a Quality Funder/Contractor

CMDHB's quality framework applies equally to the provision of services as it does to the planning, funding and contracting roles of the DHB. In implementing this quality framework to these functions the DHB will look to:

- Ensure the six dimensions of quality are written into provider contracts
- Apply lean thinking principles to its internal contracting administration and processes
- Ensure appropriate reporting processes support quality improvement and minimize bureaucracy, where possible

### 3.4 Enablers: Organisational Capability

There are enablers needed to increase the likelihood of success in each of the quality dimensions. These include workforce capability through quality improvement training and support; and IT systems to support the collection of data for monitoring and participation in regional, national and international QI collaboratives. Engaging clinicians and getting the governance structures

right ('getting boards on board') will also come into this area.

#### 3.4.1 Building workforce capability

We need to review how our workforce can own and drive the improvements that are necessary to make us a high-performing healthcare organisation. They need to be capable of:

“setting bold aims, measuring progress, finding alternative designs for the work itself, and testing changes rapidly and informatively.” [1]

It will be important to have a strategy to engage the workforce in QI. The Institute for Healthcare Improvement has recently published a paper “Engaging Physicians in a Shared Quality Agenda” [31] (see appendix 6) and for Counties Manukau, the principles of such engagement will be broadened to all clinicians.

#### 3.4.2 Consistent Model for Improvement

Understanding that the workforce needs to be involved is important; however we also need to be able to give them the tools to succeed. These tools are outlined in the model [32] for improvement that asks three central questions (see box). These questions form the basis for the outcome action plans in the next section and for the on-going quality improvement (Plan-Do-Study-Act cycles) that staff will need to be confident to run themselves.

#### 3.4.3 Trust

The success of all these efforts – whether we are judged to be a high quality healthcare organisation, capable of attracting and retaining the best staff – is predicated on establishing and maintaining a high degree of trust with both staff and the community. To deserve this trust we must enable the

**Box 1. Model for Improvement [32]**

**What are we trying to accomplish?**

The workforce has to have the skill to identify and agree on what they are going to improve. This involves listening to patients and families, exploring the possible drivers for inequalities in health outcomes, identifying the gap between where the organisation is and where it wants to be, and being willing to address this gap.

**How will we know that a change is an improvement?**

This statement acknowledges that “all improvement is change, but that not all change is improvement” and that the only way to decide whether the changes introduced have resulted in improvement is to measure. Two types of measurement have been found to be useful to decide which changes have helped: plotting data over time in statistical process control charts; and narratives/stories, from staff, patients and their whaanau/families.

**What changes can we make that will result in an improvement?**

The third part is to identify an alternative to the status quo which is worthy of a trial. These alternatives may come from staff, from the ‘best in class’ institutions or even from outside healthcare itself.

workforce to be part of the solution, trust that we will deal with adverse events in a systems way rather than blaming individual staff, and trust that we are committed to improving healthcare delivery and outcomes, not just focussing on the financial bottom line.

Supporting a “just culture” will ensure that the focus remains on service improvement when reporting and investigating complaints, incidents, adverse events and near misses. CMDHB recognises that blaming individuals does not improve patient safety and may harm the organisations ability to learn from errors.

We will need to be as open and transparent as possible, celebrating our successes but not hiding our problems, to maintain our trust with the Counties Manukau community.

**3.4.4 Information Management & Technology**

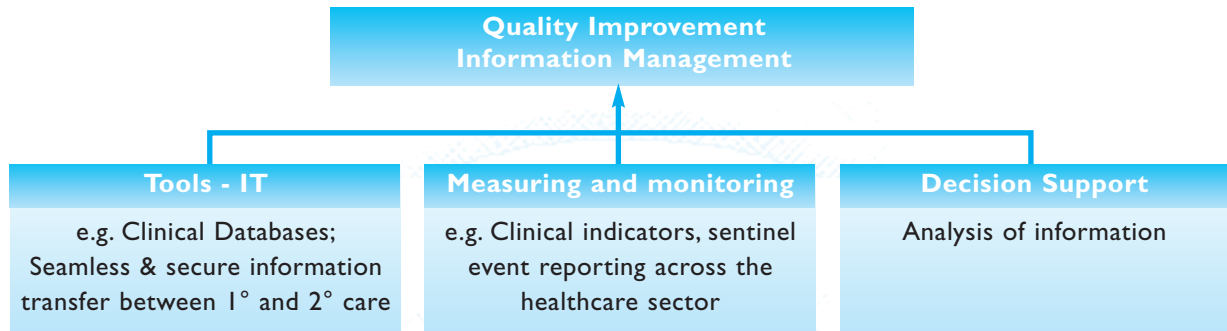
To ensure the success of this QI strategy, good information technology (IT) and sophisticated

information management, will be required. Although CMDHB is known for its IT for delivering clinical care (e.g. concerto) in secondary care, it is less well developed when it comes to linking information across the care continuum, and using IT to measure the effectiveness of such care. Some principles for IT involvement are:

- The technology will be care team and patient driven
- IT will be seen across the care continuum to ensure seamless transfer of information and coordination of care
- The role of IT in supporting the patient’s access to information will be critical including concepts such as the ‘patient portal’ and patient held electronic medical record.

The IT Governance Group at CMDHB will be expected to prioritise new technology and work processes on the basis of their likelihood to improve patient quality and safety.

Figure 4 . Requirements for QI:



**3.4.5 Clinical Governance**

Clinical governance involves Managers, Doctors, Nurses, Allied Health Professionals and Patients collaborating to ensure all tenets of healthcare quality are maximised to their fullest potential.

**“To be effective, Clinical Governance should reach every level of a healthcare organisation. It requires structures and processes that integrate financial control, service performance and clinical quality in ways that will engage clinicians and generate service improvements.” [33]**

Currently we have separate clinical governance mechanisms in secondary care (see appendix 5) and other parts of the healthcare sector. While these come together with the Clinical Advisory Group, that focuses on 1°/2° interface issues, work is in progress to develop an over-arching clinical governance structure for the entire DHB.

**3.4.6 Budget/Resources.**

Several of the initiatives outlined in the action tables have already been through the business case process and have allocated funding (e.g. the Physiologically Unstable Patient Project) however, others will require funding. It is proposed that the

overall QI Strategic Action Plan is approved, and that individual Action Plans will have to go through the formal funding process. Not all will require continued funding as several will actually release funding back to the organisation (e.g. Whai Maanaki).

Another enabler is the use of resources (e.g. engineers time in the Whai Manaaki), staff time and enthusiasm. It will be important not to overload staff and care teams with multiple programmes all at the same time.



## 4. Secondary Care Outcome areas

There are seven outcome areas based on the six dimensions of quality and one that links together the various enablers (outlined in the previous section) that underpin them all. These outcome areas are outlined in detail in Part 2: QI Action Plan.

### 4.1 High Quality Provision

The strategic direction for quality improvement at CMDHB is broadly aligned with the IOM dimensions of quality:

1. Safe care
2. Patient-centred care
3. Efficient care
4. Timely care
5. Equitable
6. Effective care

In Part 2: The Quality Improvement Action Plan the action points for each of these dimensions are detailed, and will form the basis for the QI activities for the next 3 years. Some of these outcomes cover several of the dimensions above, however, where possible they have been grouped under the predominant dimension.

Don Berwick's axiom:

**“some is not a number, soon is not a time”** <sup>[30]</sup>

makes the point that vague notions of improvements are not likely to get the transformational results that are required. The action points outlined in the QI Action Plan have defined measurable outcomes as we endeavour to see real change.

Each outcome is set up to answer the three improvement questions:

1. What are we trying to accomplish?
2. What changes can we make to result in an improvement?
3. How will we know that a change is an improvement?

It should be noted that in several of these outcome areas we currently do not know the baseline and our first step will therefore be to determine this baseline so that we can determine what absolute improvements (rather than relative improvements) we will be aiming for.

The action areas in Part 2: The QI Action Plan pertain to the secondary care provider arm, however, as other sectors establish their QI action plans, they will follow the same format.



## Abbreviations and Jargon

ADE	Adverse Drug Event
AE	Adverse Event
C+	Care Plus programme – funding for people with who have high clinical need
CCM	Chronic Care Management
CD	Clinical Director
CEO	Chief Executive Officer
CHF	Congestive Heart Disease
CLAB	Central Line Associated Bacteraemia
Clinician	A term encompassing all health professionals (medical, nursing, allied health, dental etc)
CMDHB	Counties-Manukau District Health Board
CMO	Chief Medical Officer
COO	Chief Operating Officer
COPD	Chronic Obstructive Pulmonary Disease
CVD	Cardiovascular Disease
DAP	District Annual Plan
EC	Emergency Care department
EWS	Early Warning Score
FAMA	Frequent Adult Medical Admissions
Frontline Focus	Project applying lean-thinking methodology to EC
FSA	First Specialist Appointment
GM	General Manager
GPHO	Group of General Managers from the PHOs Group
HONOS	Health Of the Nation Outcome Scale
Iatrogenic	Harm caused by medical management
HDC	Health & Disability Commissioner
HSP	Health Services Plan
IHI	Institute for Healthcare Improvement
IOM	Institute of Medicine (United States)
IT	Information Technology
LBD	Lets Beat Diabetes
LBP	Locality Based Planning
MICH	Mangere Integrated Community Healthcare
MoH	Ministry of Health
MH SMART	Mental Health Standard Measures and Recovery
PAG	Pharmacy Advisory Group
PHC	Primary Health Care
PHO	Primary Healthcare Organisation
PHO HP &SIA	Primary Healthcare Organisation, Health Plan & Services to Increase Access
PHC-WAG	Primary Health Care- Workforce Advisory
POAC	Primary Options for Acute Care
PPP	PHO Performance Programme
QA	Quality Assurance
QI	Quality Improvement
QIC	national Quality Improvement Committee
QIU	CMDHB Quality Improvement Unit
RRT	Rapid Response Team
SME	Self Management Education
SSHW	Safe Staffing Healthy Workplace
SSI	Surgical Site Infection
TIA	Transient Ischaemic Attack
VAP	Ventilator Associated Pneumonia
Whai Manaaki	Programme also known as “More time, better care” where lean thinking is applied by ward staff to their environment and work processes
WHO	World Health Organisation

# Appendices

## Appendix I. Quality Assurance versus Quality Improvement

Quality Assurance seeks to identify outliers (those providing poor quality of care) and usually it involves external inspection. It is designed to ensure minimum standards and provide accountability. Accreditation and certification of organisations, and credentialing of individuals would fall into the QA category. The push of publicly disclosed comparable indicators of DHB and PHO performance is also an attempt to ensure quality. If used correctly such reports can inspire some quality improvement – at least to reach the minimum standard. There are however limitations to the QA approach: [20]

- Focusing only on outliers means that QA is focusing only on minimum standards and does not seek to improve the performance of those that are above minimum standards.
- Externally reported data for QA may be inaccurate and requires substantial input to overcome problems when comparing very different patient groups (risk adjustment).
- Traditional quality assurance with its focus on ‘weeding out the bad apples’ can be misused to seek out, blame and punish ‘poor performers.’ It therefore reduces provider commitment to quality improvement, and can encourage

Figure 5. Quality Assurance Approach

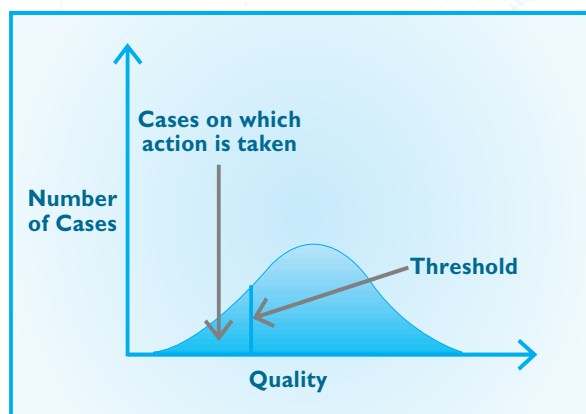
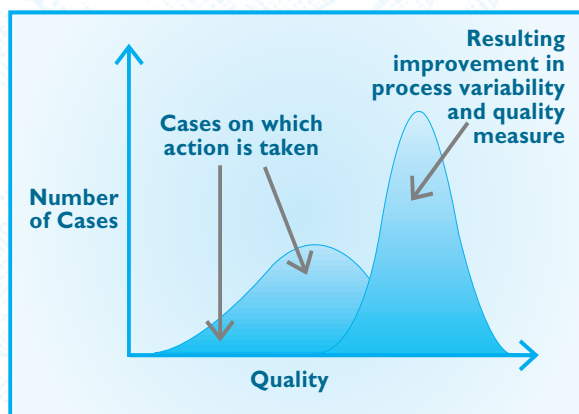


Figure 6. Quality Improvement Approach



### Quality Improvement

Quality improvement aims to continually improve the quality of care – even when minimum standards have been surpassed. It does this by focussing on the system of care (rather than on individuals), recognising the importance of clinical teams in providing care and focusing on the patient’s needs and expectations. Tools for QI include clinically owned clinical indicators, system re-design (e.g. using lean thinking approaches); clinical audit and rapid focused trials of change (plan-do-study-act cycles). The major push of this strategy will be in moving the CMDHB culture to a quality improvement culture.

## Appendix 2. Regional QI collaboratives

1. Medication Safety	
<ul style="list-style-type: none"> <li>• Medication Reconciliation</li> <li>• Regional drug chart</li> <li>• Pyxis automated drug administration</li> <li>• EDS medication section</li> <li>• Electronic medication chart</li> <li>• Electronic prescribing</li> <li>• Bedside verification through bar-coding down to the unit dose</li> </ul>	<p>CMDHB/ADHB/WDHB</p> <p>WDHB</p> <p>WDHB/CMDHB</p> <p>CMDHB</p>
2. Out-of-hours/hospital at night	ADHB
3. Comparative quality indicators	CMDHB
4. Sentinel event reporting	WDHB
5. Optimising patient flow	CMDHB
6. Early Warning Scores/ Rapid response Teams/ICU outreach	WDHB/CMDHB
7. Optimising Electronic Discharge Summary process	CMDHB/WDHB/ADHB
8. Quality Improvement Training	CMDHB
9. Whai Manaaki (more time, Better care)	CMDHB
10. Residential Care Quality	ADHB/WDHB/CMDHB

## Appendix 3. Quality Improvement Committee Programmes.

### Optimising the patient's journey

1. Phase 1 will focus on improving the patient's journey within the inpatient setting, from before the patient's entry (i.e. attendance at the Emergency Department or at outpatient medical and surgical services) until the patient is discharged from that episode of care.
2. Phase 2 will focus on the management of patients with chronic diseases who present at the hospital for treatment and on the flow of patients from the community/ primary care setting through to the hospital setting.

### Management of Healthcare incidents including 'Open disclosure'

**This national programme has three components.**

1. Review and redevelopment of a national policy and guidelines related to managing reportable events, including the principles and practices around the open disclosure of adverse events.
2. Provision of a comprehensive education programme for health and disability providers on incident management. This will have a particular focus on investigating and managing serious and sentinel events, for the purpose of identifying system improvements; reducing future patient risk; open disclosure of the results to

patients/families; and developing the confidence and communication techniques required for effective open disclosure.

3. Scoping of the business and technical requirements for a nationally co-ordinated incident information management system that meets the information requirements of all key stakeholders, including all health providers, DHBs, the Ministry of Health, ACC, the Office of the Health and Disability Commissioner and the Coroners

### Infection Prevention and Control

Healthcare associated infections in England are estimated to cost approx. 1 billion a year. [34] In the United States, the estimate is between US\$ 4.5- 5.7 billion per year. [34] The results from a NZ study predict an annual cost for hospital-acquired infection of up to \$18.76 million to the ADHB and a national cost of \$136.61 million. [35]

Surgical site infections:

- account for about 14% of possible adverse events threatening patient safety in hospitals in developed countries
- occur in at least 5% of the patients under going surgical procedures every year
- prolong hospital stay on average by 7.4 days, at an average cost of \$1000 per day.

The key components of this national programme are:

1. Adoption of the WHO Guidelines on Hand Hygiene, participation in the WHO High 5s Action on Patient Safety Programme, and implementation of a national hand hygiene campaign.

2. Development of guidance on the prevention of catheter-related bloodstream infections; piloting the guidance; finalising and publishing.

3. Review of current systems for surveillance of procedural and surgical site infections and recommendations for implementing a national surveillance system. Funding for this system is not included in this paper and if agreed additional funding would be required.

### Safe Medication Management

This national programme will use strategies that have been proven effective in reducing the rate of errors in medication management:

#### National Medication chart

This component will standardise medication prescribing in hospitals, and with its built in safety features it has the potential to decrease medication errors by up to 25%<sup>2</sup>. It will form the basis of an electronic medication chart – an essential prerequisite for bedside verification (see below).

#### Medicine reconciliation

This component involves the accurate collection of information on the medication history of a consumer, which is then reconciled with what the patient is actually charted.

#### Introduce e-medication chart, or e-prescribing or a clinician point of entry system

Alternatives that may also be implemented are likely to build on the national medication chart, which may involve e-prescribing or a clinician point of entry system.

## **Standardise hospital medicine information systems**

Emphasis and effort would be primarily into implementing a consistent electronic prescribing system and ensuring that all information systems dealing with medicines are using a consistent dataset of medicines such as the Unified Data Model<sup>3</sup> (UDM) that is being implemented in the Auckland Region. Once this occurs the pharmacy dispensing system can interface to other IS systems.

## **Package pharmaceuticals at unit of dose with barcodes on wrappers or labels**

In the short to medium term this is likely to involve the purchase and operation of unit dose repackaging machines. For the medium to long term by mandating through rule or regulation the requirement will be for globally standardised barcodes to be printed on pharmaceutical packaging.

## **Link all information systems connected with Medicine Management**

Includes patient management systems, electronic prescribing systems, barcode point of care systems, and pharmacy dispensing systems, using a common consistent dataset of medicines.

## **Introduce bedside verification using barcode-point-of-care (BPOC) systems to New Zealand public hospitals.**

In order for this system to be implemented many of the other components will need to be finalised. A consequence of introducing a bedside verification system is that an electronic medication administration record will become available.

## **Train and support DHB staff on the operation of these systems and process change management.**

The features outlined in this business case will involve staff changing current work patterns. In any project of this scale particular attention will need to be paid to change management process.

## **National Mortality Review Systems**

This national programme has two components:

1. establishment of a national adult mortality review committee to look at peri-operative deaths;
2. extension of the local Child and Youth Mortality Review Groups (CYMRGs) to cover all DHBs.

## **Appendix 4. IHI ‘Protecting 5 million lives from harm’ campaign.**

### **The six interventions from the 100,000 Lives Campaign:**

1. Deploy Rapid Response Teams at the first sign of patient decline.

<http://www.ihi.org/IHI/Programs/Campaign/RapidResponseTeams.htm>

2. Deliver Reliable, Evidence-Based Care for Acute Myocardial Infarction to prevent deaths from heart attack.

<http://www.ihi.org/IHI/Programs/Campaign/AMI.htm>

- Early administration of aspirin
- Aspirin at discharge
- Early administration of beta-blocker
- Beta-blocker at discharge
- ACE-inhibitor or angiotensin receptor blockers (ARB) at discharge for patients with systolic dysfunction

<sup>3</sup>UDM is repository of information about the medicines including formulary. Links branched to generics versions

- Timely initiation of reperfusion (thrombolysis or percutaneous intervention)
  - Smoking cessation counselling
3. Prevent Adverse Drug Events (ADEs) by implementing **medication reconciliation**.

<http://www.ihl.org/IHI/Programs/Campaign/ADEsMedReconciliation.htm>

Medication reconciliation is the process of creating the most accurate list possible of all medications a patient is taking - including drug name, dosage, frequency, and route - and comparing that list against the physician's admission, transfer, and/or discharge orders, with the goal of providing correct medications to the patient at all transition points within the hospital.

4. Prevent Central Line Infections by implementing a series of interdependent, scientifically grounded steps.

<http://www.ihl.org/IHI/Programs/Campaign/CentralLineInfection.htm>

- Hand hygiene
- Maximal barrier precautions
- Chlorhexidine skin antisepsis
- Optimal catheter site selection, with subclavian vein as the preferred site for non-tunnelled catheters
- Daily review of the line necessity, with prompt removal of unnecessary lines

5. Prevent Surgical Site Infections by implementing a series of interdependent, scientifically grounded steps.

<http://www.ihl.org/IHI/Programs/Campaign/SSI.htm>

- Appropriate use of antibiotics;
- Appropriate hair removal;
- Maintenance of postoperative glucose control for major cardiac surgery patients;
- Maintenance of postoperative normothermia for colorectal surgery patients.

6. Prevent Ventilator-Associated Pneumonia by implementing a series of interdependent, scientifically grounded steps:

- Elevation of the head of the bed to between 30 and 45 degrees
- Daily "sedative interruption" and daily assessment of readiness to extubate
- Peptic ulcer disease (PUD) prophylaxis
- Deep venous thrombosis (DVT) prophylaxis (unless contraindicated)

<http://www.ihl.org/IHI/Programs/Campaign/VAP.htm>

**New interventions targeted at reducing harm:**

7. **Prevent Harm from High-Alert Medications** starting with a focus on anticoagulants, sedatives, narcotics, and insulin.

<http://www.ihl.org/IHI/Programs/Campaign/HighAlertMedications.htm>

8. **Reduce Surgical Complications** by reliably implementing all of the changes in care recommended by SCIP, the Surgical Care Improvement Project

([www.medqic.org/scip](http://www.medqic.org/scip))

<http://www.ihl.org/IHI/Programs/Campaign/SurgicalComplications.htm>

9. **Prevent Pressure Ulcers** by reliably using science-based guidelines for their prevention

<http://www.ihl.org/IHI/Programs/Campaign/PressureUlcers.htm>

- Conduct a Pressure Ulcer Admission Assessment for All Patients
- Reassess Risk for All Patients Daily
- Inspect Skin Daily. Manage Moisture: Keep the Patient Dry and Moisturize Skin
- Optimize Nutrition and Hydration
- Minimize Pressure

10. **Reduce Methicillin-Resistant Staphylococcus aureus (MRSA)**

**infection** by reliably implementing scientifically proven infection control practices

<http://www.ihl.org/IHI/Programs/Campaign/MRSAInfection.htm>

- Hand hygiene
- Decontamination of the environment and equipment
- Active surveillance
- Contact precautions for infected and colonized patients
- Device bundles (Central Line Bundle and Ventilator Bundle)

11. Deliver **Reliable, Evidence-Based Care for Congestive Heart Failure** to avoid readmissions

<http://www.ihl.org/IHI/Programs/Campaign/CHF.htm>

- Left ventricular systolic (LVS) function assessment
- ACE-inhibitor or angiotensin receptor

blockers (ARB) at discharge for CHF patients with systolic dysfunction (Left Ventricular Ejection Fraction (LVEF) <40%)

- Anticoagulant at discharge for CHF patients with chronic or recurrent atrial fibrillation (AF)
- Smoking cessation advice and counselling
- Discharge instructions addressing all of the following: activity level, diet, discharge medications, follow-up appointment, weight monitoring, and what to do if symptoms worsen
- Influenza immunization\* (seasonal)
- Pneumococcal immunization\*

12. **Get Boards on Board** by defining and spreading the best-known leveraged processes for hospital Boards of Directors, so that they can become far more effective in accelerating organizational progress toward safe care.

<http://www.ihl.org/IHI/Programs/Campaign/BoardsOnBoard.htm>

**Better outcomes are associated with hospitals in which:**

- The board spends more than 25% of its time on quality issues;
- The board receives a formal quality performance measurement report;
- There is a high level interaction between the board and medical staff on QI strategy;
- The senior executives' compensation is based in part on quality performance; and
- The CEO is identified as the person with the greatest impact on quality, especially when so identified by the executive in charge of quality. [36]

## Appendix 5. CMDHB Planning Documents

The following documents are referred to in this document and are available on the DHBs website

[www.cmdhb.org.nz](http://www.cmdhb.org.nz) or from the DHBs office telephone (09) 262 9500:

### Organisation-wide plans & documents

- Counties Manukau DHB's District Strategic Plan
- Counties Manukau DHB's District Annual Plan

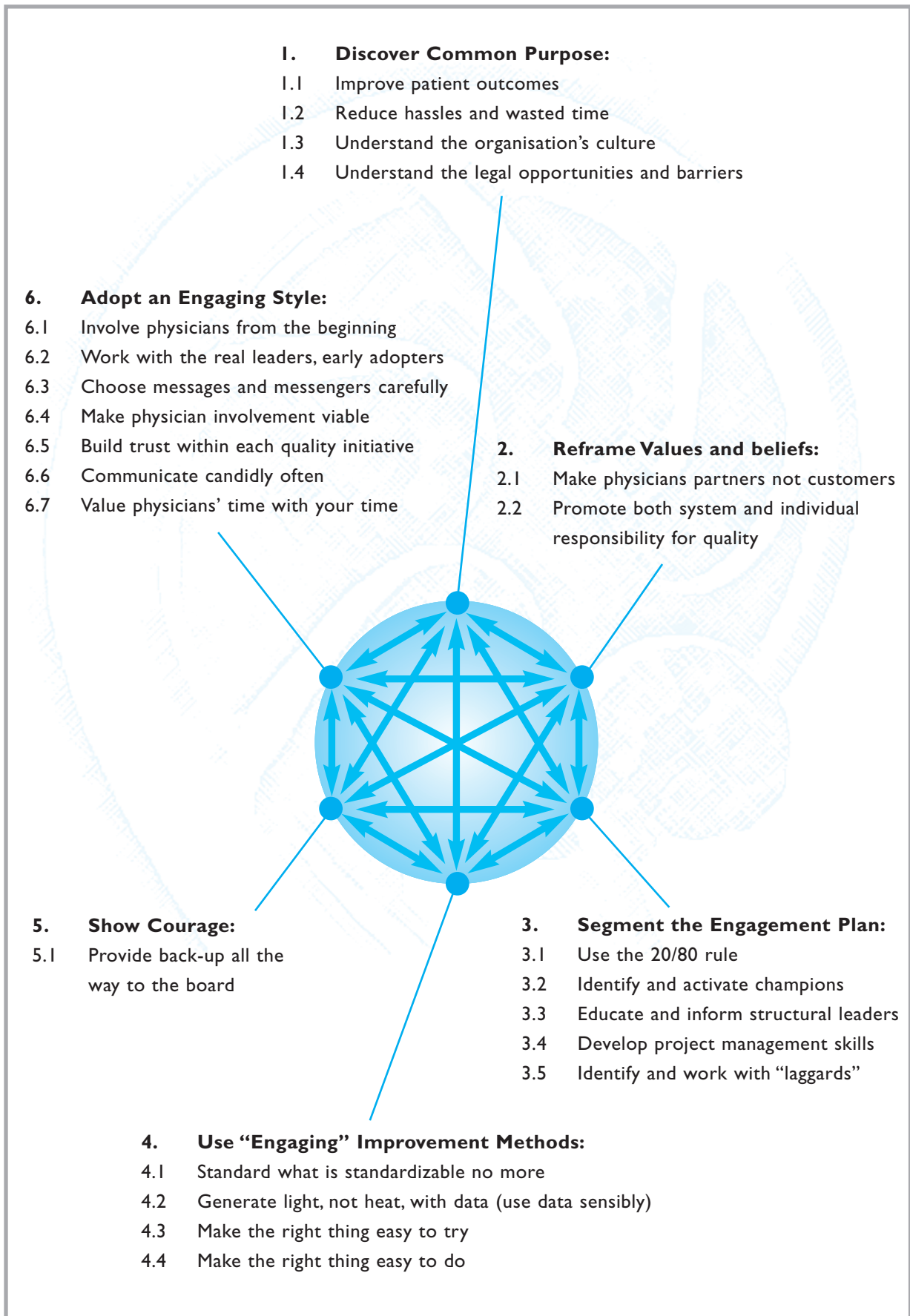
### Service and Population Health Plans

- Counties Manukau Primary Health Care Plan
- Disability Action Plan
- Health of Older People Action Plan
- 'Let's Beat Diabetes' Plans [www.letsbeatdiabetes.org.nz](http://www.letsbeatdiabetes.org.nz)
- Mental Health plans
- Oral Health Plan
- Primary Health Care Workforce Action Plan
- Sexual & Reproductive Health Plan
- Tupu Ola Moui (Pacific Health & Disability Action Plan)
- Whaanau Ora Plan (Maaori Health Plan)
- Workforce Development Reports
- Youth Health Plan
- Safe Staffing/Healthy Workplace (DHB/NZNO unit)

**In addition, the following plans are under development, and their availability can be advised by the DHB office:**

- Cancer Control Plan
- Child Health Plan

**Appendix 6. IHI Model for engaging health workers in Quality & Safety [31]**



**Appendix 7. Clinical Governance structures**

**Secondary care Quality Improvement Governance Structure**

The quality governance structure at Middlemore Hospital has three components - the Divisions (Medicine, Surgery etc), the Quality Improvement Unit and the Clinical Management Partnership Forum. This forum accepts the first element of clinical governance: that all clinical decisions have resource implications, and likewise all resource decisions have clinical impacts.

**Figure 7. Secondary care QI Governance Structure**

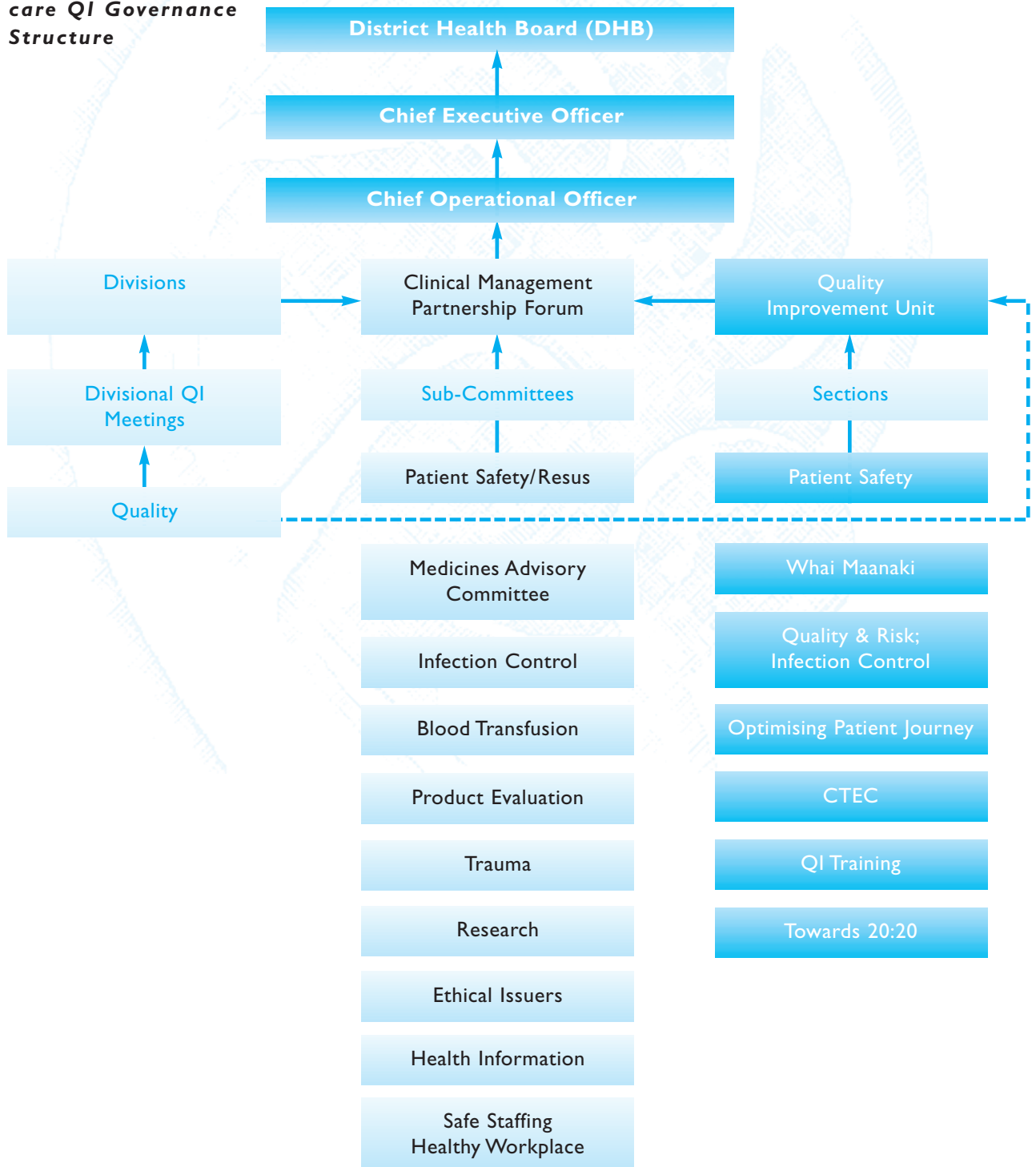
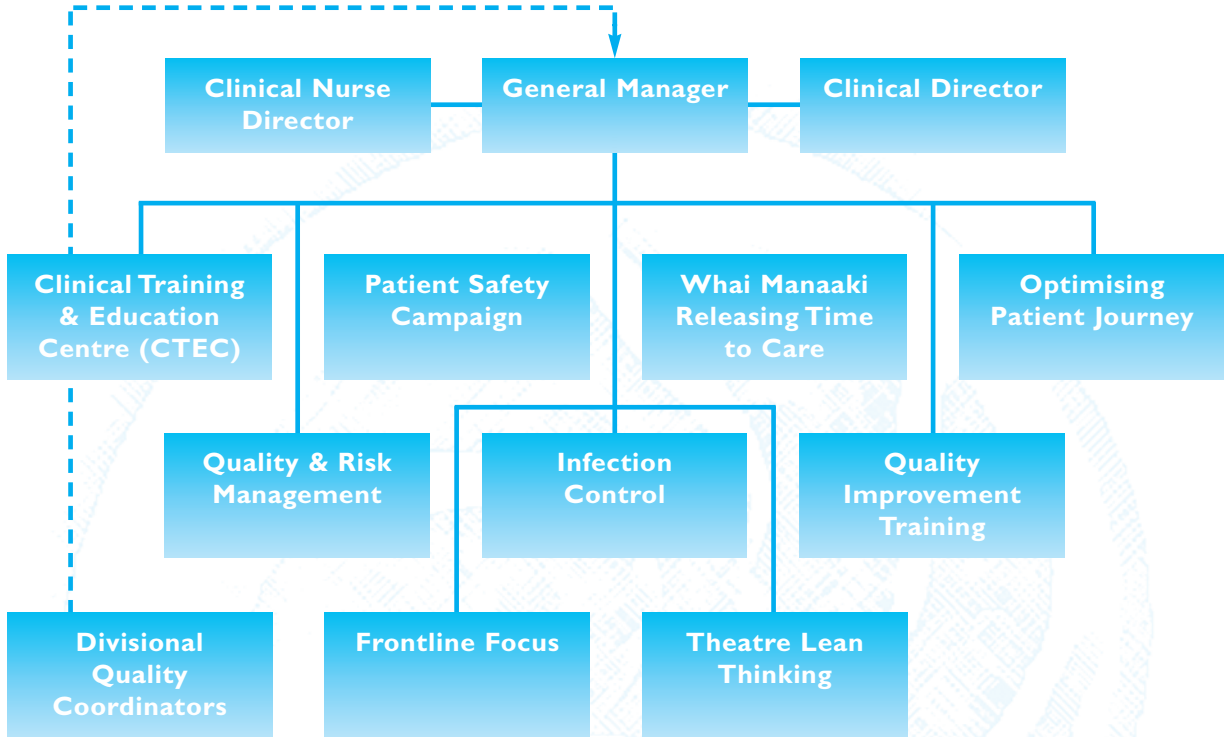


Figure 8. CMDHB Quality Improvement Unit



## References

1. Berwick, D., *Improvement, trust, and the healthcare workforce*. Quality and Safety in Health Care, 2003. **12**: p. 448-452.
2. Berwick, D.M., T. Nolan, and J. Whittington, *The triple aim: care, health and the cost*. Health Affairs, 2008. **27**(3): p. 759-769.
3. EN De Vries, et al., *The incidence and nature of in-hospital adverse events: a systematic review*. Quality and Safety in Health Care, 2008. **17**: p. 216-223.
4. Leape, L. and et al, *The nature of adverse events in hospitalized patients. Results of the Harvard Medical Practice Study II*. N Engl J Med, 1991. **324**: p. 377-84.
5. Kohn, L.T., J.M. Corrigan, and M.S. Donaldson, *To Err is Human: Building a Safer Healthcare System*. 2000, Washington D.C.: National Academy Press.
6. Baker, G.R. and et al, *The Canadian Adverse Events Study: the incidence of adverse events among hospital patients in Canada*. CMAJ, 2004. **170** (11): p. 1678-86.
7. Vincent, C., G. Neale, and M. Woloshynowych, *Adverse events in British hospitals: preliminary retrospective record review*. BMJ, 2001. **322**: p. 517-9.
8. Wilson, R.M. and et al, *The Quality in Australian Health Care Study*. Med J Aust, 1995. **163**: p. 458-71.
9. Davis, P. and et al, *Adverse events in New Zealand public hospitals I: occurrence and impact*. NZMedJ, 2002. **115**(1167).
10. McGlynn, E., et al., *The quality of health care delivered to adults in the United States*. N Engl J Med, 2003. **348** (26): p. 2635.
11. Bramley, D., et al., *A call to action on Maori cardiovascular health*. New Zealand Medical Journal, 2004. **117** (1197): p. U957.
12. Ellis, C., et al., New Zealand Acute Coronary Syndromes [NZACS] Audit Group. *Acute Coronary Syndrome patients in New Zealand receive less invasive management when admitted to hospitals without invasive facilities*. New Zealand Medical Journal., 2004. **117** (1197): p. U954.
13. Doolan-Noble, F., et al., *Cardiac rehabilitation services in New Zealand: access and utilisation*. New Zealand Medical Journal., 2004. **117** (1197): p. U955.
14. Berwick, D.M., *A primer on leading the improvement of systems*. BMJ, 1996. **312**: p. 619-22.
15. Institute of Medicine, Medicare: *A Strategy for Quality Assurance*, ed. K. Lohr. Vol. 2. 1990, Washington, D.C.: National Academy Press.
16. Chassin, M.R., R.V. Galvin, and the National Roundtable on Health Care Quality, *The urgent need to improve health care quality*. JAMA, 1998. **280** (11): p. 1000-1005.
17. Institute of Medicine Committee on Quality of Health Care in America, *Crossing the quality chasm: a new health system for the 21st century*. 2001, Washington D.C.: National Academy Press.
18. Minister of Health, *Improving Quality (IQ): A systems approach for the New Zealand health and disability sector*. 2003, Ministry of Health: Wellington.
19. *New Zealand Maori Council v Attorney-General Rule Number 1 NZLR 641, 663*. 1987.
20. Coster, G. and S. Beutow, *Quality in New Zealand Health System*. 2001, National Health Committee: Wellington.
21. Wright, J., *Principles for prioritising Health Interventions. Draft working paper for the Ministry of Health's prioritisation project*. 2002, Ministry of Health: Wellington.
22. Reason, J.T., J. Carthey, and et al, *Diagnosing vulnerable system syndrome: an essential pre-requisite to effective risk management*. Qual Health Care, 2001. **10**: p. 21-25.
23. Berwick, D.M., A.B. Godfrey, and J. Roessner, *Curing Health Care. New Strategies for Quality Improvement. A report on the National Demonstration Project on Quality Improvement in Health Care*. 1990, San Francisco: Jossey-Bass.
24. Panchak, P., *Lean Health Care? It Works!*, in Industry Week. 2003.
25. Brown, P. and et al. *Cost of medical injury in New Zealand, a retrospective cohort study*. Journal of Health Services & Research Policy, 2002. Jul (Suppl 1): p. S29-S34.
26. Chassin, M.R., *Quality of care: time to act*. JAMA, 1991. **266**: p. 3472-3.
27. Arroll, B. and T. Kenealy, *Antibiotics for the common cold and acute purulent rhinitis, in Cochrane Database of Systematic Reviews*. 2005: 3.
28. Sinclair, G. and A. Kerr, *The bold promise: a system change in primary care to support cardiovascular risk screening in New Zealand*. NZ MedJ, 2006. **119** (1245).
29. Wilson, T. and A. Sheikh, *Enhancing public safety in primary care*. BMJ, 2002. **321**: p. 584-587.
30. Berwick, D.M. (2008) *Protecting 5 million lives from harm*. <http://www.ihl.org/IHI/Programs/Campaign/>
31. Reinersten, J.L. and et al, *Engaging Physicians in a Shared Quality Agenda, in IHI Innovation Series White Paper*. 2007, Institute for Healthcare Improvement: Cambridge, Massachusetts.
32. Langley, G.J., et al., *The improvement guide: a practical approach to enhancing organizational performance*. 1996, San Francisco: Jossey-Bass.
33. Degeling, P.J. and et al, *Making clinical governance work*. BMJ, 2004. **329**: p. 679-681.
34. World Alliance for Patient Safety, *Global Patient Safety Challenge 2005-2006. 2005*, World Health Organisation: Geneva.
35. Graves, N., T.M. Nicholls, and AJ Morris, *Modelling the costs of hospital-acquired infections in New Zealand*. Infection Control and Hospital Epidemiology, 2003. **24** (3): p. 214-23.
36. Vaughan, T. and et al, *Engagement of leadership in quality improvement initiatives: executive quality improvement survey results*. Journal of Patient Safety, 2006. **2** (1): p. 2-9.



## Quality Improvement Strategic Plan 2008-2011



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