



## **Northern Region District Health Boards**

### **Discussion Document**

# **Improved Patient Health Outcomes Through Provision of Accessible Community Pharmacist Services as part of a Multidisciplinary Primary Care Team**

Author: Tim Wood, Project Director, Northern Region DHBs Community Pharmacy Programme  
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## **SECTION ONE – VISION**

### **Improved Health Outcomes**

#### **Through Provision of Accessible Community Pharmacist Services as part of a Multidisciplinary Primary Care Team**

**The vision recognises that pharmacists can increase their contribution to the goals and objectives of the New Zealand Health Strategy. This will be accomplished through pharmacists becoming a member of a multidisciplinary primary care team. As a member of this team they will lead and participate in a range of pharmacist services that focus on medication; use, education and advice.**

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## SECTION TWO – The Need for Change

Medication is by far the most common form of medical intervention for patients with chronic diseases such as diabetes, hypertension and cardiac failure. Chronic care patients are prescribed multiple and complex medication that they will need to take long term. Controlling the escalation of chronic disease and its complications is a priority of the primary care strategy. prescription error is believed to occur in up to 10% of prescriptions and WHO in 2006 concluded that more than half of people fail to take their medications correctly (WHO and International Pharmaceutical Federation 2006).’ This results in significant under treatment, waste of resources and, not uncommonly, harm to patients in the form of adverse reactions.

Davis et al in the Ministry of Health occasional paper ‘Adverse Events in New Zealand Public Hospitals: Principle Findings from a national Survey notes:

- Medication is associated with a total of 12.3% of hospital adverse events. However, medication errors for patients in surgery services were only 2.4% but 30% for patients in medicine services. Of the medication/drug adverse events 46.2% and 43.9% are highly preventable for surgery and medicine respectively.
- The elderly experience a greater proportion of adverse effects. While people over 65 account for one third of admissions they are associated with 40% of adverse events.
- Nearly one fifth of adverse events recorded in public hospitals in New Zealand occurred outside the hospital, most commonly doctor’s rooms, patients home, aged residential care. Forty six percent of the adverse events occurring outside of hospital are highly preventable.

The Safe and Quality Use of Medicines National Strategy 2005 notes there is little known about the nature and incidence of medication error in the community.. Anecdotal evidence and the personal observations of clinicians suggest that medication errors in the community are having a detrimental impact on health outcomes.

Wastage of medicines is a significant problem with safety, environmental and financial consequences. The School of Pharmacy, The University of Auckland, Disposal of Unwanted Medicines Properly (DUMP) campaign in Waitemata DHB established that management of pharmaceutical waste provides benefits to consumers and health professionals and provides mechanism to manage the safety, environmental and financial consequences.

Enhancing the role of the community pharmacist within the primary care team has the potential to increase the effectiveness of medication use, prevent waste and reduce harm associated with pharmaceutical use. Such services will contribute to improved health outcomes and delivery of the New Zealand Health Strategy.

The Pharmacy Council workforce survey shows that the pharmacist workforce is aging. Any workforce shortage will inhibit the realisation of the vision. Expanding and exploring alternative workforce options will require consideration.

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## SECTION THREE – NEW ZEALAND HISTORICAL CONTEXT

Historically negotiations on community pharmacy services have focused on the price for dispensing and related activities. Discussions on price have included debate on whether or not the dispensing fee includes provision of advice, and the extent thereof, to patients when they pick up their medications from a pharmacy. There has been very little regard for system change to enable improved outcomes for patients. This limited dialogue has been a result of a lack of recognition of the role that pharmacists play in patient care in the primary care (community) setting. In stark contrast pharmacists in the hospital sector have increasingly expanded their role. Hospital pharmacists are now widely recognised as a valuable member of the multidisciplinary health care team focused on provision of safe and quality care. Providing community pharmacist services as part of a multidisciplinary primary care team is considered one of the five enablers for the delivery of this strategy

Both the Pharmaceutical Society (10 Year Vision for pharmacists in New Zealand) and the Pharmacy Guild (Blue Print for the Future of Community Pharmacy) have developed vision documents. More recently the Pharmaceutical Society held a springboard meeting and has released a report that includes opportunities for development of pharmacy services. These documents promote pharmacists as a valued contributor to quality and safe primary care services.

The DHBs have developed a New Zealand National Pharmacist Services Framework. This provides a range of defined services that pharmacists could provide within a variety of settings. The framework is based on current international direction and development for community pharmacy and therefore provides a valuable basis on which to develop services. The framework consists of five service levels in addition to base dispensing:

1. Health Education,
2. Medicines and Clinical Information Support,
3. Medicines Use Review and Adherence Support,
4. Medicines Therapy Assessment, and
5. Comprehensive Medicines Management.

The New Zealand National Pharmacist Services Framework does not provide an overall strategic direction for community pharmacy development. Rather it establishes a range of services that pharmacists can and should provide and that will be supported by training and competency requirements

Medicines New Zealand is an “aspirational” document. It articulates an overarching framework and desired outcomes for the medicines systems in New Zealand. Medicines New Zealand is supported by an action plan called Actioning Medicines New Zealand.

There are common themes articulated across all these documents:-.

1. Patient- centred services
2. Health outcomes
3. Safety
4. Quality
5. Sustainability
6. Value for money
7. Integrated healthcare teams
8. Continuing professional development

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## SECTION FOUR – INTERNATIONAL CONTEXT

Pharmacy in England Building on Strengths – Delivering the Future - a recent White paper by the Department of Health describes how pharmacists can make a strong contribution to delivering patient care beyond the safe and effective dispensing of prescriptions. This document provides a vision of what could be possible and highlights a wide range of pilots. The paper also looks at performance management and contractual relationships.

The All-Party Pharmacy Group (APPG) report The Future of Pharmacy – Report of the APPG Inquiry also looks at a range of service options and how pharmacy can contribute to health outcomes. It also explores opportunities for changes in contractual arrangements.

The Right Medicine - a strategy for pharmaceutical care in Scotland looks at the place community pharmacy has in helping deliver improved patient outcomes. The strategies and directions include improving access, the range of services and integration of services within the primary care team. This was underlined by an objective to realise savings and free up resource.

Developing Pharmacy Practice: A Focus on Patient Care – a report by the World Health Organisation in collaboration with the International Pharmaceutical Federation also explores the potential for pharmacists to make a more significant contribution beyond dispensing medications.

The College of Pharmacists of British Columbia report entitled Framework of Professional Practice explores similar themes to those mentioned in the papers above.

The Pharmacy Guild of Australia administers a research and development fund on behalf of the Crown. Their website reports on research and development activities, many of which are similar to those in both the New Zealand and international documents mentioned above.

The international experience and directions express similar themes to those identified in the New Zealand historical context section above. However, the international literature is light on how to achieve the desired outcomes. Additionally, there is very little evidence that the directions and strategies deliver improved patient outcomes. While international experience will be helpful in informing a Northern Region direction, local evidence will need to be gathered to demonstrate improved patient outcomes as a result of new pharmacist services.

## SECTION FIVE – STRATEGY & DIRECTION

The vision for community pharmacist services is

**Improved Health Outcomes through Access to Community Pharmacist Services as part of a Multidisciplinary Primary Care Team**

Delivery on the vision will be through a framework consisting of four key directions:

1. Prescription Management,
2. Clinical Information Support,
3. Medicines Review,
4. Wellness Programmes.

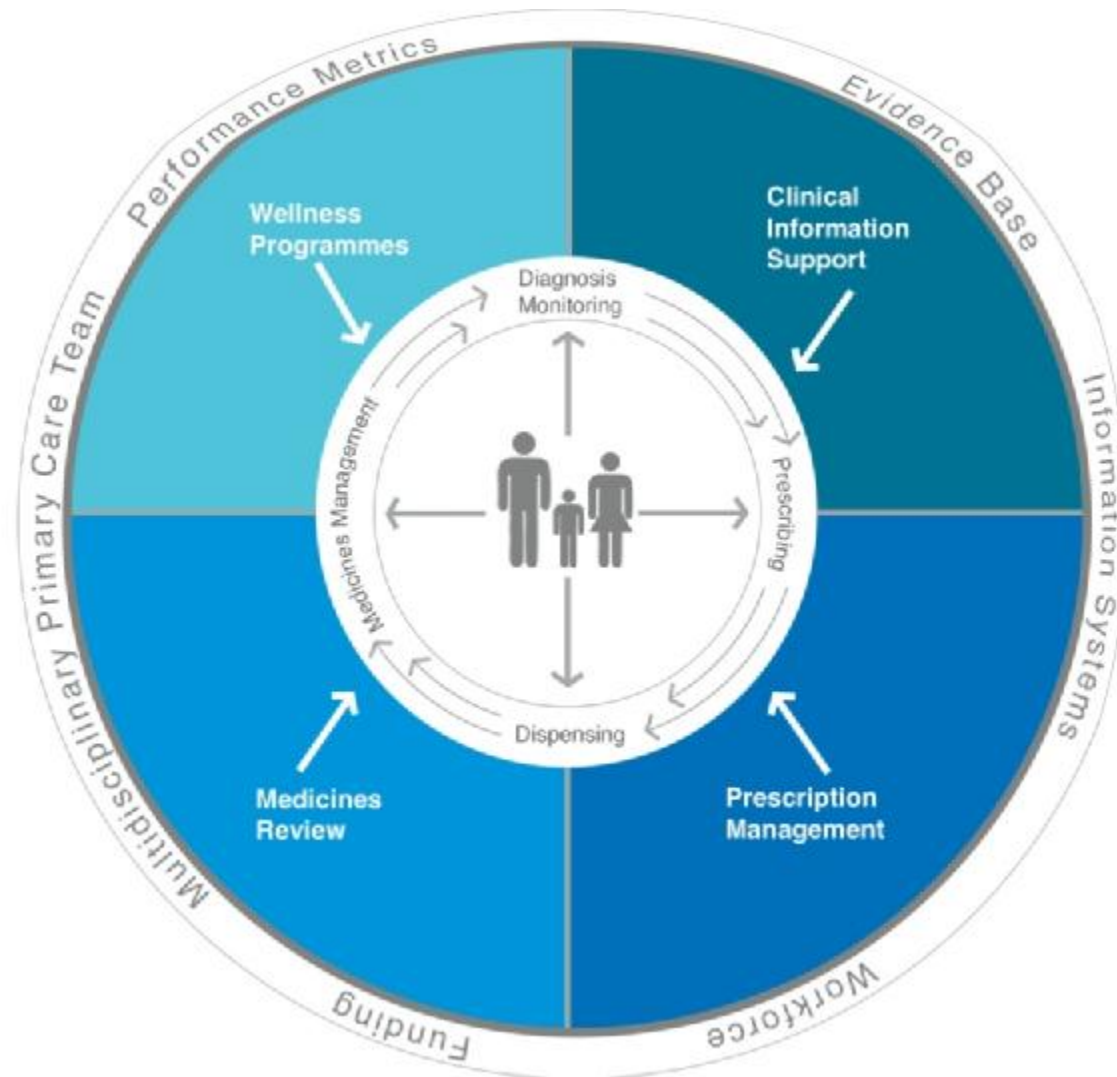
Five enablers will support the achievement of the outcomes targets of the key directions:

1. Funding,
2. Information Systems,
3. Workforce,
4. Multidisciplinary Primary Care Team,
5. Performance Metrics.

Additionally there is recognition of the requirement to research, evaluate, monitor and pilot pharmacist services to develop a local evidence base.

All service development and system implementation will be responsive to the needs of differing sections of the community. Development and implementation will be responsive to:

1. An aging population,
2. Ethnic and cultural diversity,
3. High health needs populations,
4. Specialist dispensing requirements, and
5. Equity of access for all populations.



## SECTION SIX – KEY DIRECTIONS

The directions are not mutually exclusive and will need to be implemented with consideration of all directions and the activity occurring within them. The directions are defined as:

### **Clinical Information Support**

#### Outcome Targets

1. Improving quality and cost/effectiveness of prescribing for individual patients based on current best practice,
2. Reducing medication harm
3. Reducing prescription errors

Clinical Information Support involves the provision of evidence-based information to health providers on the appropriate and cost effective use of medicines and facilitation of best practice medicine utilisation. It includes facilitation of information transmission between Service Users and providers, including medicines reconciliation and sharing of medication history between providers, so that the prescriber has access to a sufficient disease and medication history to inform good prescribing decisions.

Clinical Information Support aligns with the Information Services: Medicines and Clinical Support component of the New Zealand National Pharmacist Framework. It involves the provision of evidence-based information to health providers on the appropriate and cost/effective use of medicines and facilitation of best practice utilisation of medicines.

This will require support from information system development to enable all prescriptions to comply and align with the Pharmaceutical Schedule and associated rules and regulations.

Delivery on this direction provides the following challenges

1. Effective and efficient information systems,
2. Acceptance of community pharmacy as a member of the primary care team,
3. Determining the role of clinical pharmacy vs. community pharmacy,
4. Workforce capability and capacity,

5. Development of an evidence base.

## **Prescription Management**

### Outcome Targets

1. Patients receive the correct medications at the appropriate doses for their individual treatment regime,
2. Patients access the medicines they need,
3. Reducing medication harm,
4. Reducing prescription errors,
5. Reducing inequalities,
6. Reducing medication waste.

Prescription management encompasses receipt of the prescription by the dispensing pharmacist, medication dispensing and patient advice. Patient advice is the provision of appropriate, clear and patient friendly advice on how to take medications and meeting the patients' information requirements. It is recognised that this process is a mix of cognitive and mechanistic functions. Consequently, prescription management will be developed to reflect these functions and will be underpinned by a focus on safety and quality.

Compliance and concordance initiatives are not considered part of the Prescription Management direction but of the Medicines Review direction. However, it is recognised these type of activities will assist in the targeted outcomes from Prescription Management.

Dispensing is, and will remain, a responsibility of the pharmacy profession. Pharmacists will manage the dispensing process and be responsible for the quality of dispensing. For pharmacists to take an increasing role in the other directions in this document, fewer pharmacists will be engaged in dispensing medication. Pharmacy technicians and/or automated dispensing systems are likely to have an increased role in dispensing medication.

System changes are required to ensure that prescriptions when presented to pharmacies are accurate and appropriate. Such changes are within the scope of ePharmacy as per HISAC Action Zone 4. The Northern Region DHBs will work with HISAC to ensure alignment and the most appropriate speed of implementation.

Delivery on this direction provides the following challenges:

1. Workforce capability and capacity,
2. PHARMAC policy changes may be required,
3. Effective and efficient information systems,
4. Pharmacists being recognised as a positively contributing member of the primary care team, and
5. Responsiveness to changing population demographics.

## **Medicines Review**

### **Outcome Targets**

1. Improving patient understanding and compliance with medication regimens and encouraging self management,
2. Monitoring the medication requirements of patients with complex disease,
3. Simplifying the medication regimes to enable compliance,
4. Reduction of medication waste.

The New Zealand National Pharmacist Services Framework components of Medicines Use Review and Adherence Support, Medicines Therapy Assessment and Comprehensive Medicines Management align with this direction. Models for implementation will be informed by both international experience and the four DHB Health Needs Assessments. Models will have clearly articulated outcomes and evaluations/evidence based analysis to ensure contribution to improved health outcomes for the people targeted by the services.

Pharmacists will need to become recognised as an essential and integrated member of the primary care team. Model development will need to align with the developmental directions of the primary care strategy and will need to define the various inputs and outputs required from all components of primary care to deliver the outcomes.

An engagement framework to obtain general practice, nurse and other primary care workforce input into and agreement of approaches will be developed.

Delivery on this direction provides the following challenges:

1. Workforce capability and capacity,
2. Effective and efficient information system,

3. Pharmacists being recognised as a positively contributing member of the primary care team, and
4. Demonstration of positive impact on health outcomes.

## **Wellness Programmes**

### Outcome Targets

1. Improved access to population health interventions,
2. Increased access to health advice and treatment of minor ailments that do not require intervention at general practitioner level,
3. Improved health outcomes,
4. Reduction in inequalities.

Wellness Programmes are those that enable pharmacists to engage in population health intervention strategies and in activities that reduce demand on general practice. Population health interventions could include participation in approved public health programmes e.g. IMMS, smoking cessation or screening for chronic disease. This direction includes the Information Services: Health education component of the New Zealand National Pharmacist Framework.

Internationally, pharmacists are delivering a wider range of services including Wellness Programmes. This improves access for patients and care givers and reduces demand on general practice which is suffering from a shortage of General Practitioners. There is growing evidence that access to general practice may become more difficult for some parts of the population where general practitioners are no longer taking on new patients and as a wider range of health initiatives are delivered through general practice increased pressure is being placed on an already limited workforce. Pharmacists as part of the multidisciplinary primary care team will have a role in delivering Wellness Programmes to improve access and to free up General Practitioner resource so they can focus on areas where they deliver greatest value and health outcome.

Delivery on this direction provides the following challenges:

1. Workforce capability and capacity,
2. PHARMAC policy changes may be required,
3. Effective and efficient information systems,
4. Pharmacists being recognised as a positively contributing member of the primary care team,
5. Responsiveness to changing population demographics.

## SECTION SEVEN – ENABLERS & EVIDENCE BASE

This section discusses five enablers; plus the requirement to generate an evidence base to ensure appropriate delivery of the principle directions and achieve the vision.

### **FUNDING**

There is a multitude of funding mechanisms available. This section will not explore these in any detail. Funding mechanisms will be considered for each element when it has been designed and agreed upon. Individual elements of the total range of service are likely to be funded in differing ways. Final funding mechanisms will be cognisant of the following principles:

1. Value for money. Value for money is the use of resources and powers in an efficient, appropriate and effective way.
2. Transaction costs. Transaction costs for both funders and providers are to be minimised as much as is practicable.
3. Synergy with service delivery model and performance metrics. That is to say funding models will support effective and efficient service delivery and will be based on being able to meaningfully measure performance.
4. Recognition and promotion of performance. The funding models will provide compensation that incentives exceptional performance in the provision of a quality service.

### **INFORMATION SYSTEMS**

Health Information Strategy Action Committee (HISAC) Action Zone 4 – ePHARMACY has a vision of:

“Pharmaceutical prescription and dispensing information is easily accessed and shared on a secure and timely basis.”

The Northern Region DHBs approach to information systems will align and support the HISAC vision. Additional aspects of an information system for the northern region will:

1. Enable appropriate prescribing and dispensing of medication.

2. Enable effective and efficient payment mechanisms.
3. Enable the maximisation of the utility of Test Safe with respect to pharmacy dispensing information.
4. Enable collection, collation, analysis and reporting of performance metrics.
5. Enable communication across the primary care team, to support delivery of integrated care.

## **WORKFORCE**

The Pharmacy Council workforce demographic 30 June 2007 shows:

1. 4% increase in practising pharmacists from 2005 (2,787) to 2007 (2,889)
2. 20% of practising pharmacists are aged 56 or older with a further 23% aged 46 to 55.
3. 74% (2,261) of pharmacists work in community pharmacy. 350 (12%) of pharmacists work in hospital pharmacy with the rest having roles in the pharmaceutical industry, teaching/research and IPAs etc.
4. 295 pharmacists work in two or more settings.
5. 1,272 community pharmacists work 40 or more hours weekly.
6. Approximately two thirds of pharmacists aged 55 or younger are female while approximately 22% of pharmacists aged 56 or older are female.

There are significant gaps in our knowledge of the current workforce and aspirations of those in training. This knowledge gap needs to be rectified. In addition collaboration with the training bodies need to be developed to inform and influence them on future training requirements.

The successful implementation of the vision will require pharmacists and technicians to take on functions that are outside current scopes of practice. This will require the commitment of the workforce, the Pharmacy Council and other pharmacy stakeholder groups to develop competency standards and training programmes. This will also need the support and endorsement of the rest of the primary care workforce.

## **MULTIDISCIPLINARY PRIMARY CARE TEAM**

Directions articulated within this strategy will require a pharmacist to become a recognised member of the wider primary care team not only as a provider but also as a peer, focused on development of safety and quality initiatives that deliver improved health outcomes.

## **PERFORMANCE METRICS**

Demonstration of effectiveness will be paramount in justifying continued investment and in obtaining support from the wider primary care workforce. Development of a performance metrics system will be required to obtain the measures to support an evidence base, measure system and individual service delivery performance and to support funding mechanisms.

Components of the performance metrics will be developed for each service component in such a way that it aligns with the ePharmacy direction.

## **EVIDENCE BASE**

There is a dearth of studies demonstrating the efficacy of pharmacist/pharmaceutical care services and their impact on health outcomes. There is a slowly growing body of evidence but it is far from comprehensive (The Contribution of Community Pharmacy to Improving the Public's Health: Literature Review Update 2004-7).

The Research and Development fund administered by the Pharmacy Guild of Australia is developing a body of evidence of the health outcomes from pharmacist/pharmaceutical care services. Some of this may be applicable to the New Zealand environment and may inform the development of the various components of this strategy.

New Zealand needs to develop an evidence base to support implementation of this strategic direction. To support the development of an evidence base, collaboration with organisations that can lead and conduct research and evaluations of pharmaceutical care are to be developed.

## SECTION SEVEN – PHARMACY REGULATION

Debate in New Zealand on the need to regulate access to community pharmacy agreements in addition to licensing requirements has occurred on and off for many years. In 2003 DHBs consulted on whether an ‘authorisation’ clause should be included in the agreement. It was concluded that such a clause should not be progressed.

An economic analysis of four professions for the European Commission, of which one was pharmacy, concluded that economic benefits tend to be gained by highly regulated professions at the expense of consumer welfare (Paterson et al Economic impact of regulation in the field of liberal professions in different member states. Final Report Part 1. Study for the European Economic Commission, Vienna: Institute for Advanced Studies 2003). This report also noted concerns that high levels of regulation inhibit competition and restrict opportunities for mergers or new forms of service provision which might benefit some sections of the public.

Generally, DHBs do not wish to engage in debate or inform national policy on the appropriate regulatory setting. However, DHBs will inform policy advisors of the health outcomes we are seeking and that regulation should not inhibit progress towards achieving these.

Regulation aside, the question does arise, how do DHBs ensure that all patients with need for these services have access to them. Not all community pharmacies will be in a position to implement new services as they are developed and rolled out. This was borne out in a survey the Pharmacy Guild undertook during the last national negotiation process. Allowing pharmacies to pick up services as and when they are ready may increase inequalities.

Should DHBs deal with specific access issues on a case by case basis? Should all services be compulsory for all pharmacies when making services compulsory may lead to unexpected market changes that may or may not support equity? These are important issues to be decided before introducing new services.

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