



THE UNIVERSITY OF  
MELBOURNE



## AUSTRALIAN PRIMARY HEALTH CARE RESEARCH INSTITUTE

THE DEPARTMENT OF GENERAL PRACTICE &  
MELBOURNE INSTITUTE OF APPLIED ECONOMICS  
AND SOCIAL RESEARCH  
THE UNIVERSITY OF MELBOURNE

**SIREN PROJECT: SYSTEMS INNOVATION AND REVIEWS OF  
EVIDENCE IN PRIMARY HEALTH CARE  
NARRATIVE REVIEW OF INNOVATIVE MODELS FOR  
COMPREHENSIVE PRIMARY HEALTH CARE DELIVERY**

Dr Lucio Naccarella  
Ms Donna Southern  
Dr John Furler  
Professor Anthony Scott  
Ms Lauren Prosser  
Professor Doris Young

September 2007

## ACKNOWLEDGMENT

The research reported in this paper is a project of the Australian Primary Health Care Research Institute, which is supported by a grant from the Australian Government Department of Health and Ageing under the Primary Health Care Research, Evaluation and Development Strategy. The information and opinions contained in it do not necessarily reflect the views or policies of the Australian Government Department of Health and Ageing.

Australian Primary Health Care Research Institute (APHCRI)  
ANU College of Medicine and Health Sciences  
Building 62, Cnr Mills and Eggleston Roads  
The Australian National University  
Canberra ACT 0200

T: +61 2 6125 0766  
F: +61 2 6125 2254  
E: [aphcri@anu.edu.au](mailto:aphcri@anu.edu.au)  
W: [www.anu.edu.au/aphcri](http://www.anu.edu.au/aphcri)

## PREFACE

This work was commissioned by the Australian Primary Health Care Research Institute (APHCRI) as part of its Stream Four funding round in 2005. The aim of the stream was to systematically identify, review and synthesise knowledge about primary health care organisation, funding, delivery and performance and then consider how this knowledge can be applied in the Australian context.

As part of Stream Four APHCRI commissioned 12 spokes (research centres) to review evidence in six topic areas:

- Integration, co-ordination and multidisciplinary care
- Innovative models for comprehensive primary health care delivery
- Children and young Australians, health promotion and prevention
- Chronic disease management
- Innovative models for the management of mental health in primary care settings
- Workforce

This report focuses on Innovative models for comprehensive primary care<sup>1</sup> delivery and is designed to provide a basis on which national primary health care policy can be informed.

The report was prepared by Dr Lucio Naccarella, Ms Donna Southern, Dr John Furler, Ms Lauren Prosser, Professor Anthony Scott, and Professor Doris Young.

I would like to acknowledge the input of our Associate Investigators: Professor Hal Swerissen (Head, School of Public Health, Associate Dean Bendigo, LaTrobe University) and Professor Elizabeth Waters (Chair in Public Health, Associate Head of School Research, Deakin University).

The advice and support of the international reference group members throughout this review and synthesis process is also acknowledged including: Professor Nicholas Mays (Health Services Research Unit, London School of Hygiene and Tropical Medicine); Professor Sally Wyke (University of Stirling); Professor Jan de Maeseneer (Ghent University, Department of General Practice and Primary Health Care, Belgium, Chair of European Forum For Primary Care); Dr John Marwick (Principal Clinical Adviser, Primary Health Team, Ministry of Health); Professor Barbara Starfield (Johns Hopkins University Bloomberg School of Public Health); and Ms Louise Lapierre (Canadian Health Services Research Foundation, Senior Program Officer, Primary Healthcare Theme).

Dr Lucio Naccarella  
Department of General Practice  
The University of Melbourne

---

<sup>1</sup> In this narrative review and report the term 'primary care' is used to mean general practice plus nurses and allied health professionals.

PREFACE.....	3
1. INTRODUCTION .....	6
1.1. AUSTRALIA'S PRIMARY CARE SYSTEM AND ITS REFORM.....	6
1.2 PURPOSE AND AIMS .....	6
1.3 CONCEPTUAL FRAMEWORK FOR THE REVIEW.....	7
2. METHODOLOGY .....	9
2.1 OBJECTIVES.....	9
2.2 CONCEPTUAL FRAMEWORK.....	10
2.3 LITERATURE REVIEW METHODS.....	10
2.3.1 Data sources.....	10
2.3.2 Data extraction scope .....	12
2.3.3 Data synthesis process.....	13
2.4 LIMITATIONS OF THE REVIEW .....	14
3. PRIMARY CARE SYSTEM REFORM: A CONTEXTUAL PERSPECTIVE.....	16
3.1 A SYSTEMS PERSPECTIVE ON REFORM .....	16
3.2 RECURRING CONTEXTUAL FACTORS INFLUENCING REFORMS.....	17
3.3 PRIMARY CARE REFORM CONTEXT .....	21
3.4 AUSTRALIA'S PRIMARY CARE REFORM CONTEXT .....	31
3.5 PROCESSES FOR THE IMPLEMENTATION OF PRIMARY CARE REFORMS.....	33
4. MECHANISMS OF REFORM: ACROSS - COUNTRY COMPARISONS .....	36
4.1 OBJECTIVES.....	36
4.2 CONCEPTUAL FRAMEWORK AND OVERVIEW .....	36
4.2.1 Main relationships important in reform and their characteristics.....	37
4.3 THE GP-PATIENT RELATIONSHIP.....	38
4.3.1 Who are the parties to the relationship and how long does it last? .....	38
4.3.2 What information, activities, services, or funding is exchanged between parties and how does this occur? ..	40
Financial relationships between patients and GPs .....	41
Organisational arrangements between patients and their doctor.....	43
4.3.3 What are the governance arrangements of the relationship? .....	46
4.4 GPs AND OTHER PRIMARY CARE PROFESSIONALS.....	47
4.4.1 Who are the parties to the relationship and how long does it last? .....	48
4.4.2 What information, activities, services, or funding is exchanged between parties and how does this occur? ..	49
Structures and organisation for multi-disciplinary teamwork .....	49
Funding exchanged between the parties.....	50
4.4.3 What are the governance arrangements of the relationship? .....	52
4.5 THIRD-PARTY FUNDERS AND PRIMARY CARE PROVIDERS.....	52
4.5.1 Who are the parties to the relationship and how long does it last? .....	52
4.5.2 What information, activities, services and funding are exchanged and how does this occur?.....	54
Financing and structuring of the primary care system .....	55
4.5.3 What are the governance arrangements of the relationship? .....	61
4.6 CONCLUDING COMMENTS.....	63
5. DISCUSSION: CONTEXTUALISING KEY AREAS FOR PRIMARY CARE POLICY REFORM.....	64
5.1 OBJECTIVES.....	64
5.2 THE AUSTRALIAN PRIMARY CARE SYSTEM REFORM CONTEXT .....	64
5.3. POLICY LINKAGE CONSULTATION PROCESS FINDINGS .....	66
5.4 KEY AREAS FOR POTENTIAL REFORM .....	66
5.4.1 Flexible GP funding .....	68
5.4.2 A National Quality Framework.....	69
5.4.3 The development of meso level Primary Care Organisations within Australia .....	72

The role of network organisations .....	73
Currently existing Primary Care Organisations in Australia .....	74
Policy implications .....	78
5.4.4 Supporting and enabling reform through enhanced infrastructure .....	78
Findings related to infrastructure .....	79
Information Technology /Information Management .....	79
Policy implications .....	84
6. CONCLUSION .....	85
REFERENCES .....	87
APPENDICES .....	92
APPENDIX 1: REALIST REVIEW AND PROGRAM LOGIC FRAMEWORK .....	92
APPENDIX 2: EVIDENCE REFORM FORM .....	93
APPENDIX 3: POLICY LINKAGE CONSULTATION PROCESS (28/7/06).....	94
APPENDIX 4: INNOVATIVE MODELS FOR COMPREHENSIVE PRIMARY HEALTH CARE DELIVERY - CONTEXT SETTING: UK .....	100
APPENDIX 5: NEW ZEALAND PHC REFORM: THE DEVELOPMENT AND IMPLEMENTATION OF PRIMARY HEALTH ORGANISATIONS .....	118
APPENDIX 6: INNOVATIVE MODELS FOR COMPREHENSIVE PRIMARY HEALTH CARE DELIVERY CONTEXT SETTING: CANADA .....	129
APPENDIX 7: INNOVATIVE MODELS FOR COMPREHENSIVE PRIMARY HEALTH CARE DELIVERY CONTEXT SETTING: NETHERLANDS.....	144
APPENDIX 8: INNOVATIVE MODELS FOR COMPREHENSIVE PRIMARY HEALTH CARE DELIVERY - CONTEXT SETTING: USA .....	159

## List of Tables

Table 1	Research objectives and key review questions
Table 2	Profile of the key policy informants
Table 3	Summary of the main aims of recent primary care reform.

## List of Figures

Figure 1	Evidence review typology
Figure 2	Total health expenditure rates, Canada
Figure 3	Total health expenditure rates as percentage of GDP, Canada
Figure 4	Annual per cent growth in per capita spending, United States.
Figure 5	Annual per cent growth in per capita spending (private and public), United States.
Figure 6	Trends in real total expenditure on health (dollars million, 2001/02 prices), 1989/90–2000/01, New Zealand
Figure 7	Expenditure on primary care services (dollars million, nominal) 1989/90 to 2001/2*, New Zealand
Figure 8	UK health care expenditure (real terms), 1990 to 2004.
Figure 9	UK Health expenditure as a per cent of GDP, 1990 to 2004.
Figure 10	Per capita health expenditure in the Netherlands (real terms), 1991 to 2001 (Euros)
Figure 11	Health expenditure as a per cent of GDP, Netherlands
Figure 12	Role of key relationships in the process of reform
Figure 13	Combined Model Funding Flow
Figure 14	Policy options in perspective

## 1. INTRODUCTION

### 1.1. AUSTRALIA'S PRIMARY CARE SYSTEM AND ITS REFORM

Within Australia the primary health care system is a complex mix of public and private services and of Commonwealth and State Government programs. Its main components are: *general medical practice* which is provided by general practitioners (GPs) who are largely Commonwealth funded through a fee-for-service framework; *community health services* which are staffed by GPs and multidisciplinary care teams of salaried non-medical health professionals; and *community health programs* funded through both Commonwealth and State Governments to support frail older people and people with disabilities.

This review focuses specifically on the 'primary care' or general practice (plus nurses and allied health professionals) component of the broader primary health care system. Within this review, we recognise that there is debate about the conceptualisations of the terms primary health care, primary care, and general practice. For the purposes of this review the following conceptualisation of general practice is used:

General practice is part of the Australian health care system and operates predominantly through private medical practices, which provide universal un-referred access to the whole person medical care for individuals, families and communities. General practice care means comprehensive, coordinated and continuing medical care drawing on biomedical, psychological, social and environmental understandings of health (RACGP, 2002).

The role of general practice and its relation to the Australian health care system is constantly changing and responding to pressures resulting from issues such as equity, efficiency and quality. Internationally, governments have commissioned country specific reports to inform primary health care system reform, and specifically general medical practice policy reform, such as the European Observatory on Health System and Policies. These reports identify an array of innovative country-specific models such as: Primary Care Trusts (UK); Primary Health Organisations (NZ); Transmural care (Netherlands); Family Health Groups (Canada) and Health Maintenance Organisations (USA). In the Australian context, there has been no systematic analysis of the relevance and applicability of these international model reforms to primary care.

### 1.2 PURPOSE AND AIMS

To reform primary health care in Australia, policy makers need an evidence base that informs them about what innovative models work, for whom and in what circumstances. This review aimed to undertake a narrative review and synthesis of evidence to identify innovative models for primary care delivery from the UK, NZ, Canada, Netherlands and USA. The focus is predominantly on primary care services centred on general medical practitioners, (plus nurses and allied health professionals). The focus is to identify factors influencing (barriers and facilitators) innovations and to develop practical and feasible options for primary care delivery reform within the Australian setting.

## 1.3 CONCEPTUAL FRAMEWORK FOR THE REVIEW

The review has been driven by two conceptual perspectives. First, despite the literature and policymakers' continual reference to the term *'model'*, we recognised at the outset that a model is comprised of *'mechanisms'* which we define as agents of change that alter certain characteristics of the relationships between the various 'actors' in the primary care system to produce behaviour change.<sup>2</sup> Mechanisms may be thought of in terms of any transferable aspects of an arrangement, or a process that is transposable to another setting. The actors may be individuals or organisations, which are highly context dependent in their own right. The relationships between players can also be thought of as 'contracts', which can be implicitly or explicitly defined depending on the nature and complexity of the relationship.<sup>3</sup>

Second, we also recognised that the organisation and funding of primary care develops in differing cultural and historical contexts and what appears as a specific 'model' in one point in time has actually evolved over time from earlier reforms. For example, Primary Care Trusts in the UK evolved from GP Fundholding, Total Purchasing and Primary Care Groups. This usually means that specific 'models' cannot be easily transferred to other settings although some of the mechanisms used within these models can be transferred. Furthermore, the innovative models in question are not comprised of single or simple mechanisms, but often involve multiple mechanisms designed to meet the objectives of the policy change. These are complex and involve interventions that concern the design, implementation, governance, funding and regulation of entire health care systems. The mechanisms within a model can be regarded as complex interventions. The evidence review and synthesis process has explicitly recognised this and has been underpinned by the following propositions (based on a realist review and synthesis perspective):

1. Mechanisms involve influencing the behaviour of people and organisations
2. Mechanisms are based on multiple theories about how they will influence organisations and the behaviour of individuals
3. Models and mechanisms consist of a chain of processes which are often not linear
4. Models and mechanisms are embedded in health and social systems and how they work is shaped by this context
5. Models and mechanisms are prone to modification as they are developed and are implemented
6. Models and mechanisms are open systems and change through learning as stakeholders come to understand them

---

<sup>2</sup> A mechanism can be thought of as some technical aspect of a larger process (or mechanical device), a part, or combination of parts, designed to perform a particular function. Sometimes an entire process (or an entire machine) can be thought of as a mechanism, depending on the purpose of its application. In the context of health care reform, a mechanism may be thought of in terms of any transferable bits of a process that can be transposed to another setting.

<sup>3</sup> Economists, sociologists and psychologists place different emphases on different characteristics of such relationships. Economists focus on the explicit contractual relationship between an individual supplier and consumer with a focus on prices and information. Sociologists focus on the social context in which the relationship exists, and psychologists focus on the motivation underlying the observed behaviours within the relationship.

Given the above propositions, the framework we used needed to be compatible with the context and complexities of the various primary care delivery systems, and sympathetic to the heterogenous evidence bases that exist. To address these issues, two approaches were used:

1. **Country-specific review and synthesis approach** to enable 'stories' to unfold about why, how and in what contexts the innovative models and mechanisms have emerged and been implemented
2. **Narrative review and synthesis (based mainly on a realist review) approach** to enable an explanatory analysis of how and why models and mechanisms work (or do not work) in particular contexts or settings.

The next chapter provides a description and discussion about the methodology used to review and synthesise evidence of innovative models for comprehensive primary care delivery.

## 2. METHODOLOGY

### 2.1 OBJECTIVES

The aim of the review was to map and critically appraise innovative models of comprehensive primary care delivery by country, including, NZ, UK, USA, Canada and the Netherlands. These countries were selected either on the basis that they were perceived as being comparable countries in terms of the organisation, funding and delivery of primary care, or that they had a diversity of innovative primary care delivery models. We do acknowledge that in other countries, such as Germany and Spain innovative models of primary care delivery also exist. However, time constraints and language only permitted the above mentioned countries to be explored.

The Australian primary care delivery setting was not reviewed in terms of innovation per se, but was used as a context to consider how the international knowledge could be applied and to explore options for reform.

The original research objectives and key review questions included:

**Table 1: Research objectives and key review questions**

Research Objectives	Key Review Questions
To describe innovative models for comprehensive primary health care delivery.	<ul style="list-style-type: none"> <li>• What types of innovative models for comprehensive primary health care delivery exist nationally and internationally?</li> </ul>
To explore how the innovative models incorporate and integrate key approaches to comprehensive primary health care delivery.	<ul style="list-style-type: none"> <li>• What factors (pros/cons) influence the development, implementation and sustainability of these models?</li> <li>• How do we address barriers and enhance facilitators to implement the models?</li> <li>• What do we know about the influence of interface issues on the models, such as the Commonwealth / State funding arrangements?</li> </ul>
To explore how the innovative models influence key dimensions of comprehensive primary health care delivery.	<ul style="list-style-type: none"> <li>• What influence do the various innovative models have on the key dimensions of comprehensive primary health care delivery?</li> <li>• What do we know about the costs and benefits of the innovative models as compared to existing primary health care models?</li> </ul>
To develop options for implementation of models in the current Australian policy setting and context.	<ul style="list-style-type: none"> <li>• What policy levers are available within the current Australian primary health care setting to implement the models?</li> <li>• What is the match between these models and key findings of the literature synthesis?</li> </ul>

Through the initial evidence review process, there arose a recognition that the notion of models of primary care delivery could be usefully conceptualised as a range of *mechanisms* that change and add value (i.e. innovate) to the characteristics of the *relationships* between the main actors (e.g., GPs and patients; GPs and other health professionals; third party funders of primary care and primary care providers) within the primary care system. Based on this premise, the review questions were refined to:

- What innovative mechanisms exist within the primary care system?
- What contextual factors influence the development, implementation and sustainability of these mechanisms within primary care?
- What impact do these mechanisms have on the primary care system?
- What do we know about the costs and benefits of these mechanisms within primary care?
- What policy levers are available within the current Australian primary care setting to implement the mechanisms?

## 2.2 CONCEPTUAL FRAMEWORK

The conceptual framework underpinning the evidence review and synthesis process was largely a *narrative review and synthesis and a country-specific approach*. This approach enabled us to tell chronological country-specific stories, by organising, describing and interpreting diverse sources of evidence with regard to the organisation, financing and governance arrangements and explaining their effects on quality/outcomes, cost control/efficiency, and equity/access.

Key stages in the narrative review and synthesis process involved: (1) identifying focus of review (2) specifying review questions (3) selecting evidence to include (4) data extraction and quality appraisal (5) synthesis and (6) reporting results of review and dissemination.

The review and synthesis process was underpinned by two other frameworks. First we drew upon realist review approach (Pawson 2001). This led us to ask questions about the theory underlying any reform, what was known of the context and key factors that played an important role, and what was known about what really happened in the field when a reform was introduced. Second, we also drew upon a logic framework (Watson, Krueger et al. 2005) to assist the organisation of commentary and evidence into themes around inputs, outputs and outcomes as a way of answering our research questions (Appendix 1).

## 2.3 LITERATURE REVIEW METHODS

### 2.3.1 Data sources

The main method used to identify data was by electronically searching databases. A substantial amount of time was spent conducting scoping searches to gauge the range and depth of potentially relevant sources of information and the nature of the review questions. Data sources included:

- **Published and ongoing systematic reviews** – The Cochrane Data base of Systematic Reviews (CDSR); Database of Abstracts of Reviews of Effectiveness (DARE); Health Technology Assessment (HTA) Database;
- **General databases** - MEDLINE, EMBASE, CINAHL, PsycLIT, ISI Web of Science, PubMed, AUSTHealth;
- **Journal Hand Searches** – E.g. Healthcare Policy, Healthcare Papers, British Medical Journal, Australian Medical Journal;
- **Search Engines**- Google Scholar;
- **Organization websites** with relevant literature:
- **UK**- National Primary Care Research & Development Centre, NHS Service Delivery and Organisation R & D Programme, NHS Centre for Reviews and Dissemination
- **US**- Commonwealth Fund
- **Europe** - European Forum For Primary Care
- **Canada** - Primary Health Care Transitions Fund

- **Australia** – Primary Health Care Research Information Service (PHCRIS), Australian Resource Centre for Healthcare Innovations (ARCHI), Centre for General Practice Integration Studies (CGPIS); and
- **“Grey” literature** including: International and Australian Government policy documents, commissioned reports; position papers/policy statements of professional bodies or associations.

An international reference group assisted in the identification of relevant information sources comprised of.

- **England**- Professor Nicholas Mays, Health Services Research Unit, London School of Hygiene and Tropical Medicine;
- **Scotland**- Professor Sally Wyke, University of Stirling;
- **Europe**- Professor Jan de Maeseneer, Ghent University, Dept of General Practice and Primary Health Care, Belgium (Chair of European Forum For Primary Care);
- **NZ** -Dr John Marwick, Principal Clinical Adviser, Primary Health Team, Ministry of Health;
- **US**- Professor Barbara Starfield, Johns Hopkins University Bloomberg School of Public Health; and
- **Canada**- Dr Louise Lapierre Canadian Health Services Research Foundation, Senior Program Officer, Primary Healthcare Theme.

Searches were confined to innovative developments since 1990. The scoping searches highlighted the need to use a broad range of search terms and phrases. The search terms used partly depended on the databases searched (e.g. Medline uses MeSH terms). Clusters of search terms used included:

- primary health care
  - primary health care/ primary healthcare/ healthcare, primary/ primary care/ primary medical care/ general practice/ family practice/ family medicine
- primary health care delivery / primary medical care/general practice delivery
  - comprehensive care/ coordinated care/ integrated care/ continuity of care/ accessibility of care/ quality of care/ service planning and sustainability
- primary health care delivery reforms innovation
  - health service structures/ health service organization/ health service funding/ health service governance
- primary health care models/frameworks/schemas/taxonomy
- health care system
- health care market/ health care providers/ health care reforms/ health care sectors/ health care research

These clusters were crossed with the terms:

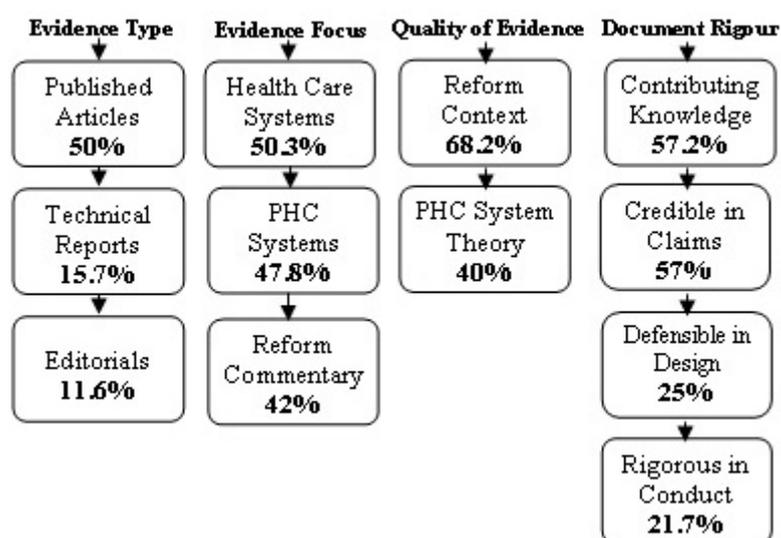
- planning;
- implementation;
- maintenance/sustainability;
- evaluation/effectiveness; and
- costings.

### 2.3.2 Data extraction scope

To ensure that the quality of the evidence review was transparent, an *Evidence Review Form* (Appendix 2) was developed. The form was not a tool to include or exclude evidence, but to provide an overview of the breadth of evidence reviewed and synthesised. Each reviewer documented the evidence with regard to the *evidence type and focus*. Each reviewer also documented the quality of the evidence in terms of *relevance and rigor at country level and document level*. Overall, 780 references were searched and collated into an Endnote Library, with 318 documents reviewed. These reviewed documents became the 'core' evidence for the review and are found within the country context documents (Appendices 4-8).

As can be seen from Figure 1, in terms of evidence type, 50% were published articles, 15.7% were technical reports and 11.6% were editorials. In terms of evidence focus; 50.3% were focused on health care systems, 47.8% were on PHC systems and 42% were reform commentaries (note more than one category may have been relevant). In terms of the relevance of the evidence, 68.2% were on PHC system reform context and 40% on PHC system reform theories. In term of the rigor of the evidence, over half (57.2%) rated the evidence as contributing to the knowledge base, whereas only 25% rated the evidence as defensible in design, and 21.7% as rigorous in conduct and over a half (57%) rated the evidence as credible.

Figure 1: Evidence review typology



A log of activities was also kept by each reviewer. This documented personal communication with the international reference group; communication with relevant organisations; and policy advisors.

### 2.3.3 Data synthesis process

To determine how the evidence gathered could be applied to the Australian primary care context, three key stages were undertaken. First, country specific documents were produced to understand what primary care reforms and subsequent innovations have occurred and to understand how and why they have succeeded or not, in relation to the particular context and setting, in which they were introduced. Drafts of each country document were circulated amongst the research team and international contacts, and comments helped to refine the questions being asked and define more clearly the literature to be included. Second, a synthesis of the country-specific context setting documents was produced to draw out commonalities in issues, reforms, innovations and tensions that innovative primary care developments have produced. Third, policy levers were identified within the Australian primary care setting to implement potential areas for reform via a policy key informant linkage consultation process.

A total of seventeen key individual policy / decision-makers throughout Australia were identified and contacted by the review team. Table 2 provides a profile of the key policy informants<sup>4</sup>. All key informants participated in a semi-structured interviews that lasted anywhere from 30 minutes to 90 minutes.

**Table 2: Profile of the key policy informants**

Actor & Purpose	Key Policy Informants
<b>Policy advisors</b>	<ul style="list-style-type: none"> <li>• General Practice Support Organisation officer</li> <li>• General Practice Support Organisation officer</li> <li>• Mr Paul Butler, Manager of Policy, Primary and Community Health Branch. Victorian Department of Human Service</li> <li>• Prof. Nick Mays, Senior Policy Advisor, NZ Treasury</li> <li>• Prof. Andrew Wilson, Queensland Health</li> <li>• Dr. Michael Kidd, President, RACGP</li> <li>• Dr Peter Waxman, GP Advisor, Victorian Department of Human Services</li> <li>• Commonwealth Government officer</li> <li>• Commonwealth Government officer</li> <li>• State Government policy officer</li> <li>• State Government policy officer</li> </ul>
<b>Policy analysts</b>	<ul style="list-style-type: none"> <li>• A/Prof. David Legge, LaTrobe University</li> <li>• Ms. Liz Furler, Past Commonwealth Government officer and past Managing Editor, Australia &amp; New Zealand Health Policy</li> <li>• Dr. Tere Dawson, Senior Program &amp; Policy Coordinator (Health Issues Centre)</li> <li>• Associate Professor Libby Kalucy, Primary Health Care Research &amp; Information Service</li> </ul>
<b>Policy implementers</b>	<ul style="list-style-type: none"> <li>• Mr. Robert Griew, CEO, Northern Territory Government, Dept of Health &amp; Community Services</li> <li>• Mr. Chris McGowan, General Manager, Population &amp; Primary Health Care, Southern Health, South Australia</li> </ul>

<sup>4</sup> All key informants had a choice about being identified in the final report. This choice was respected as can be seen in Table 2.

All policy informants were provided with an interim report that provided interim key review and synthesis findings and potential policy recommendations<sup>5</sup> and a set of questions to reflect upon (see Appendix 3). Policy informants were asked to reflect upon four key areas:

1. Perceptions about what policy reforms they saw occurring within the Australian primary care system within the next five years?
2. Which policy options stood out as being possible within the current Australian primary care system?
3. What key financing, organisational and governance changes need to occur within the Australian primary care system to make the review options occur?
4. What else is going on outside the Australian primary care system that needs to be taken into account to make the review options?

All interviews were audio taped and transcribed verbatim by a trained independent transcriber. A thematic data analysis approach (Strauss and Corbin 1998) was used as the primary analytical process to identify themes within the data.

## 2.4 LIMITATIONS OF THE REVIEW

The findings of the review need to be read with regard to several provisos. The most notable was the limited time-scale that the review was conducted within (one-year). This influenced not only the scope of the review but the development and refinement of methods used to review and synthesise evidence. For instance, despite the practice of narrative approaches to review and synthesis of evidence, limited formal guidance existed on their conduct at the time of this review.

The second proviso relates to the conceptual frameworks (realist review questions and Program Logic) that informed the development of the country-specific context-setting documents. With regard to a realist review (Pawson, 2001) despite review members considering the realist review questions while developing the country specific documents, a conventional realist review was actually not conducted. A core principle that underlies a realist review and synthesis is uncovering the array of theories that underlie interventions or models of interest. These theories are then explored in other interventions to provide an explanatory analysis of how and why they work (or don't work) in particular contexts or settings. Given the macro or systems level focus of this review, locating explanatory theories of complex multi-dimensional systems proved difficult and unworkable. Thus, it is important to note that a realist review and synthesis approach informed our review, but was not actually undertaken.

With regard to the Primary Health Care delivery logic model (Watson et al 2005) while its components proved useful as a way of ensuring that evidence related to inputs, activities and outputs, it proved difficult to use the logic model structure to inform the review synthesis process due to limited available literature.

Lastly, the focus of the review on documentary evidence gave a good idea of how services were organised and what their main components were, but did not always

---

<sup>5</sup> Despite the term 'policy recommendations' being used, the term 'policy options' was intended in keeping with the principles underlying narrative reviews.

shed light on issues such as the influence of the context on why developments occurred and why some worked and others did not. This information could only have been obtained through interviews with key players in each country who witnessed the reforms and this was not possible in this study.

## 3. PRIMARY CARE SYSTEM REFORM: A CONTEXTUAL PERSPECTIVE

This chapter provides an overview of the context(s) that have been considered in identifying, reviewing and synthesising innovative primary care reforms that have and are occurring. Firstly, the importance of a 'systems perspective' and its implications for synthesising findings and identifying policy options is discussed. The array of recurring contextual factors that influence systems reforms are then presented. This is then followed by the main aims of primary care reforms and the main trends in health expenditure and its components for each of the main countries reviewed, to provide a context for the scale and direction of reform in the primary care sector since the early 1990. The current Australian primary care system reform context is then briefly discussed. Finally, processes and structures that have been used to implement primary care reforms within Australia are presented.

These contextual perspectives are key to the review process, as they enable the development of a line of argument about what reforms work using a range of data sources.

### 3.1 A SYSTEMS PERSPECTIVE ON REFORM

This narrative review has taken a macro or 'whole systems' perspective, thus it is fitting that we incorporate systems thinking into how we synthesis review findings. A systems perspective recognises that the structure of any system, which is composed of many interlocking relationships among its components (or actors), is just as important in determining its behaviours, as the individual components themselves. Systems' thinking is relevant as we recognise that the dynamic complexity (nature of actual relationships) may be more critical than the detailed complexity itself (number of actors). From this line of thought has emerged complexity theory, the study of systems that are characterised by their complexity, interdependence and non-linear dynamics.

Internationally the concepts of "whole systems thinking", "systems theory" and "systems dynamics" (SD) are being used to influence, interpret and implement health care policies (Royston, Dost et al. 1999; Wolstenholme, Monk et al. 2004). A systems perspective recognises that attempts to solve complex problems often fail due to the tendency of dynamic systems to delay, defeat or dilute the effects of planned interventions or reforms.

Within the primary care setting, researchers have also suggested that the primary care system is inherently a "complex adaptive system - CAS" (Crabtree, Miller et al. 1998; Miller, Crabtree. B.F. et al. 1998; Sweeney and Griffiths 2002; Plsek 2003). The important feature of CAS is the interconnectedness of all its components and the relationships between components are more important in understanding the system than the components themselves (McDaniel and Walls 1997; Miller, Crabtree. B.F. et al. 1998). In other words, at any point in time, general practice is dynamic, referring to the continual presence of multiple interactions and their accompanying responses and challenges, both within the system and between the system and its environment/context.

Primary care system reform can thus be seen as a classic system dynamics problem, as one needs to understand how mechanisms, such as the financing, organisational and governance arrangements impact on the relationships between the various 'actors' in the primary care system. In concrete terms, our review and synthesis process has explored how mechanisms are embedded in health and social systems, and how mechanisms influence the relationships between actors within the system (see Chapter 4).

## 3.2 RECURRING CONTEXTUAL FACTORS INFLUENCING REFORMS

A broad array of contextual factors have been identified that appear to have driven primary care reforms including:

- Government emphases on access & equity, cost control, and quality of care
- Government commissioning of key reviews and reports by governments
- Political moment of change and or political will
- Media reporting of problems in the health care system
- Changes in government health expenditure and its allocation within the health system
- Values and culture of country
- Community expectations
- Community/disadvantaged (e.g., Maori) focus
- Health providers' morale
- Mobilisation of general practitioners

Despite these above conditions being important, they do not reflect the complexity of the conditions nor the way they inter-connect to influence the innovative mechanisms. Thus, it is important to organise these contextual factors in ways that enable more meaningful interpretation or their implications upon the adoption, implementation and sustainability of policy reforms.

Five key dimensions are suggested as a way to cluster the array of contextual factors including: health care system; profession; government; reform history; and community.

### 1. Health care system

- **Health care system pressures:** In all countries common pressures were reported as influencing reforms including: cost control, access & equity, and quality of care. For example the Netherlands health care system has been in a constant state of reform, with the focus being on equity or guaranteeing universal access to care by establishing and expanding social health insurance schemes. Whereas in NZ there was a perceived inefficiency and lack of accountability in the old primary health care system, resulting in a focus on cost control.
- **Market orientation of the health system:** For example in the USA, reforms have usually occurred due to market place pressures, rather than government led reforms or evidence-based reforms. This may mean that reforms occur within certain geographical areas or with certain providers, creating a more diverse pattern of models and mechanisms of care.

- **Existing health system structure & funding:** The way health systems are structured and funded, i.e. federalism, health insurance systems and health system governance, all impact directly on the types of reform strategies that can be implemented. For instance, the British system of government is highly centralised, and reform of the NHS is very much driven at the national level. This contrasts with the Canadian health care system, where through a process of regionalisation, jurisdiction over the organisation and funding of health care services has been assigned to provincial governments, however federal / provincial agreement is required to establish national standards or programs.
- **Reform of wider health care system:** Within all countries, reform of the primary health care system appeared to occur within the context of concomitant reform of the wider health care system. For example, in Canada, there has been a drive to develop an ideal model of PHC delivery via new funding to the health transition fund (HTF).

## 2. Profession

- **General practice profession positioning:** Within each country evidence exists that the positioning of general practice with government is a key condition influencing reform. For example, in Canada, despite a funding bargain between the medical profession and government, resulting in GPs having power, they have not been included in the policy reform agendas. This has resulted in limited policy levers being available to influence the organisation and delivery of primary care.
- **Emergence of organisations of general practice:** The actual organisation of general practice appears to be a key intervening condition. For example, the organisation of general practice in the UK (i.e. PCTs) and in NZ (i.e. PHOs) appears to be key to both engaging GPs in the process of reform and optimising opportunities for reform. Another example is the emergence of the 'Third Providers' in NZ that provide an opportunity for Maori providers to have a voice. Whereas, in the US there is a lack of a GP 'profession'.
- **Status of other primary care providers:** Nurses are widely recognised as part of the primary care system, however their status and incremental nature appears key to reform implementation. For example, in NZ, there has been a 'slow nurse movement' building for the last 10-15 years, enabling nurse-related reforms to be seen as part of wider multidisciplinary team-based reforms.

## 3. Government

- Government priorities: Depending on the actual government priorities, this may influence. For example in the Netherlands, equity was the main driver for reform, thus there has been a continual focus on restructuring the social insurance system to enable universal health care for all. In the UK, the abolition of GP fundholding happened as a Labour government was elected which had a stronger focus on reducing inequalities in access between the patients of fundholding and non-fundholding GPs.
- Government taskforces, commissioning of key reviews and reports. All countries have at some stage convened taskforces, and commissioned reviews, such as in NZ (NZHS, NZDS, NZPHS)
- Public funding and announcement of significant new primary (medical) health care funding: For example, in the UK, primary care reforms have occurred with the announcement of increased funding on primary care via incentives for practice change, another example, was the boost to infrastructure (particularly IT) in primary care within the system

## 4. Reform history

- The role of reform history and policy legacies: Opportunities for reform can be shaped, or even impeded by existing policy legacies. This issue has been discussed in terms of missed reform opportunities [Hutchinson B, 2001]. In Canada for instance, deals brokered between government and the medical profession<sup>6</sup> are argued to have impeded comprehensive primary health care reform. In particular, reforms challenging the dominant FFS payment system have proven less successful which may be due to policy makers wanting to maintain the status quo of strong physician support for Medicare [Hutchinson B, 2001]. In the US, fundamental systemic reform has been stymied due to the entrenched pro-specialty medical culture, and the vested interests of specialty organisations, medical academia, insurance companies, medical device manufacturers and pharmaceutical companies, in maintaining the current market-driven, technology based, system of health care. In the absence of universal financial access to health services, most advocates of health system reform have limited their focus to insurance issues, and there has been little coalescence of opinion on the matter of wider systemic reform [Lancet, 2004; Starfield, 2006]. In contrast, the UK has a history of implementing top-down health system change every 2-3 years and so in this sense, reform is incremental and also comprehensive, as it builds on previous policy changes. The past 15 years has witnessed an intense period of structural reform in health care and primary care, including a revised General Medical Services

---

<sup>6</sup> In Canada, the FFS “founding bargain” has placed family physicians in a privileged position in terms of their influence in primary care reform. Governments brought family physicians into the Medicare program on generous terms, including the continuation of FFS remuneration, clinical autonomy, and control over the location and organisation of medical practice. Policy makers were left with few policy levers to influence the organisation and delivery of medical care [Hutchinson B, 2001].

(GMS) contract, the introduction of an internal market for health care, GP fundholding and more recently, the devolution of Primary Care Trusts.

## **5. Community feeling**

- Community confidence in and satisfaction with existing health care systems is a common driver of reform. For example, in Canada, regaining public confidence and improving patient satisfaction was a key element in government elections.
- Public consultation and discussion of key reviews: For example in New Zealand, the release of the draft New Zealand Health Strategy in 2000 for public consultation and discussion was a key event in the reform process.

### 3.3 PRIMARY CARE REFORM CONTEXT

Any discussion about context needs to be set within the knowledge of the main aims of primary care reform. Table 2 provides a summary of the main aims of reform.

**Table 2 Summary of the Main aims of Recent Primary Care Reform**

Country	Main Aims of Recent Reforms
<b>NZ</b>	<ul style="list-style-type: none"> <li>Reducing costs, removing barriers to access and reducing emphasis on Fee-For-Service</li> </ul>
<b>Canada</b>	<ul style="list-style-type: none"> <li>Integration of primary health care delivery components</li> </ul>
<b>Netherlands</b>	<ul style="list-style-type: none"> <li>Universal access and improved performance of the primary health care systems</li> </ul>
<b>UK</b>	<ul style="list-style-type: none"> <li>Accessibility, quality and choice of general practice services</li> </ul>
<b>USA</b>	<ul style="list-style-type: none"> <li>Cost containment</li> <li>Quality of care</li> </ul>
<b>Australia</b>	<ul style="list-style-type: none"> <li>Improving cost-effectiveness</li> <li>Improving quality and health outcomes</li> <li>Improving access and equity</li> </ul>

Overall, commonalities exist in the aims of primary health care reform including:

- improving the cost-effectiveness and efficiency of services
- improving service access and equity
- improving the quality of services

The next section sets out the main trends in health expenditure and its components for each of the main countries. The main aim is to provide a context for the scale and direction of reform in the primary care sector since the early 1990s. Additional expenditure on health care usually follows closely the growth in the economy or GDP, and so it is these conditions that are likely to lead to changes in spending on primary care services. However, increased spending on health care or primary care is not automatically associated with innovation and reform in the sector. This depends on how the additional expenditure is spent.

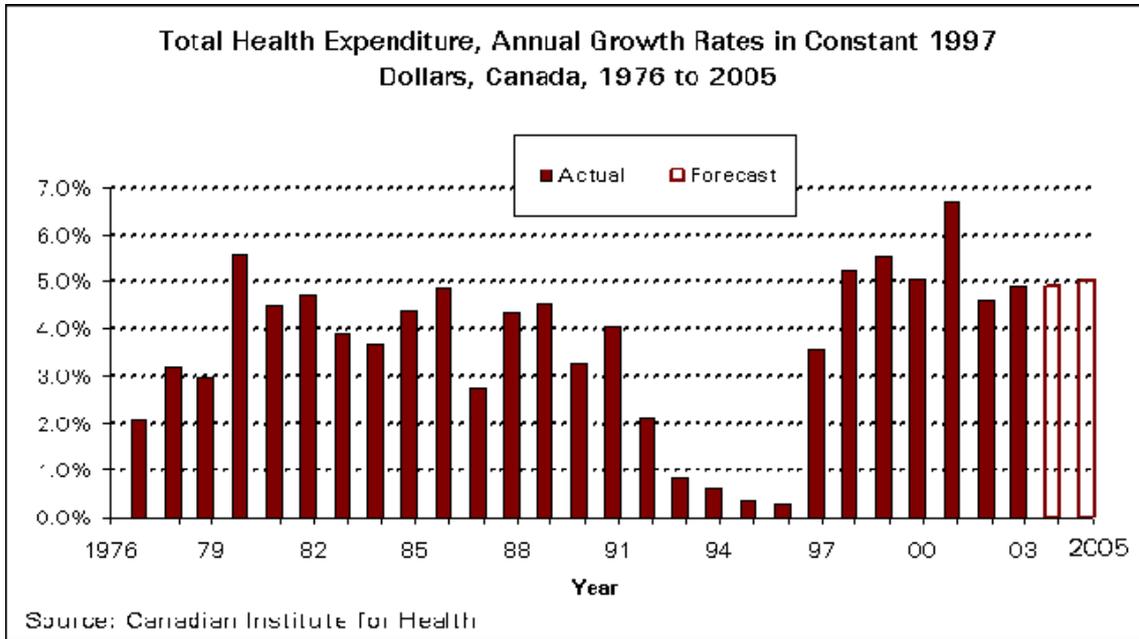
A common issue in some countries is that it is not possible to separately identify trends in total expenditure on primary care services, and so this needs to be borne in mind when interpreting the data. A further issue is that some of the data across countries are not comparable because of different definitions and also the varying availability of data.

#### Canada

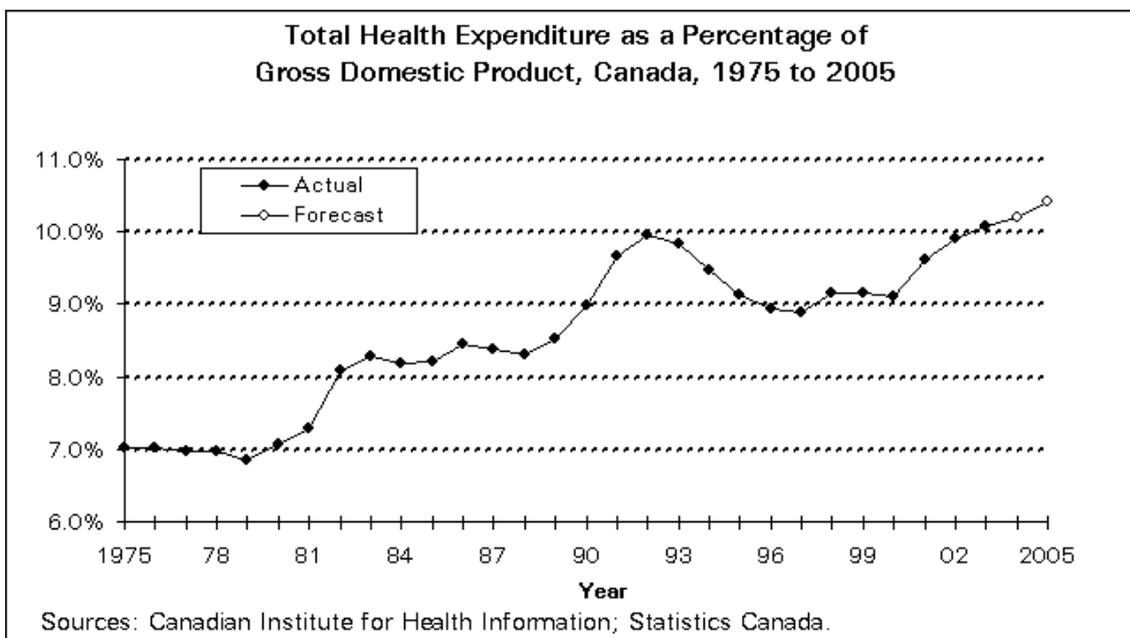
The main issue with Canada was a sharp fall in the growth of total health expenditure from 1991 to 1997 (Canadian Institute for Health Information 2005). This is shown in Figure 2 below. This also led to a reduction in the % of GDP spent on health care as shown in Figure 3. This reduction in growth was concentrated in expenditure by provincial governments on hospitals, but also affected federal government spending on physician services (including GPs) and spending on capital projects. Public sector expenditure on health care fell between 1992 and 1996. Since 1997, the growth in spending has increased each year. Trends since 1997 appear to be due to

reinvestment by federal and provincial governments after a period of recession and fiscal restraint during the early to mid 1990s.

**Figure 2: Total health expenditure rates, Canada**



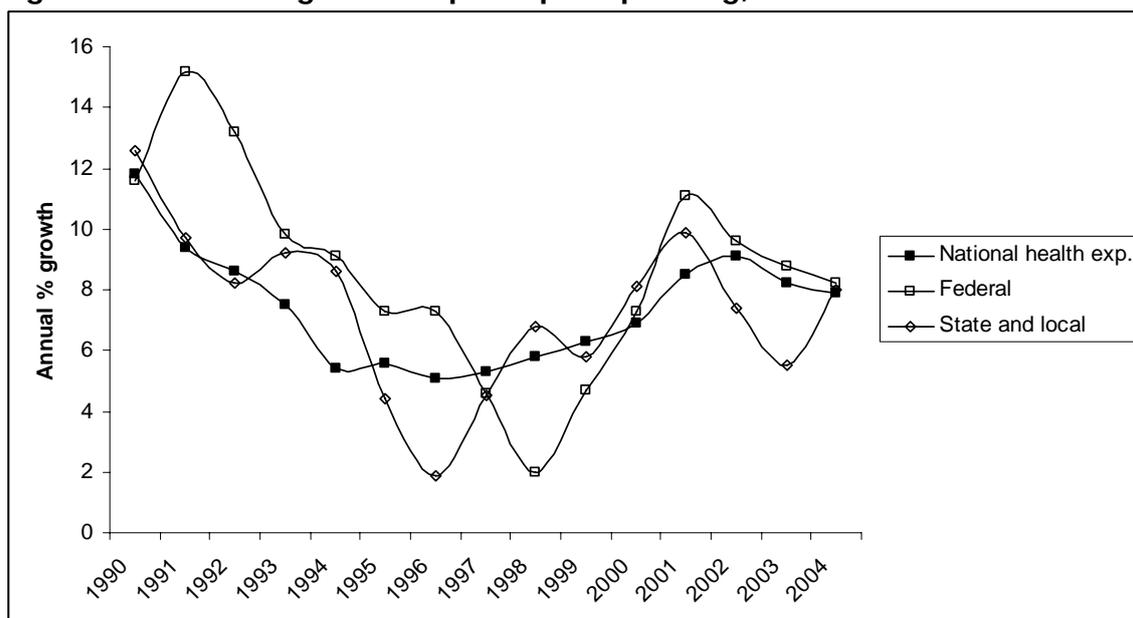
**Figure 3: Total health expenditure rates as percentage of GDP, Canada**



United States

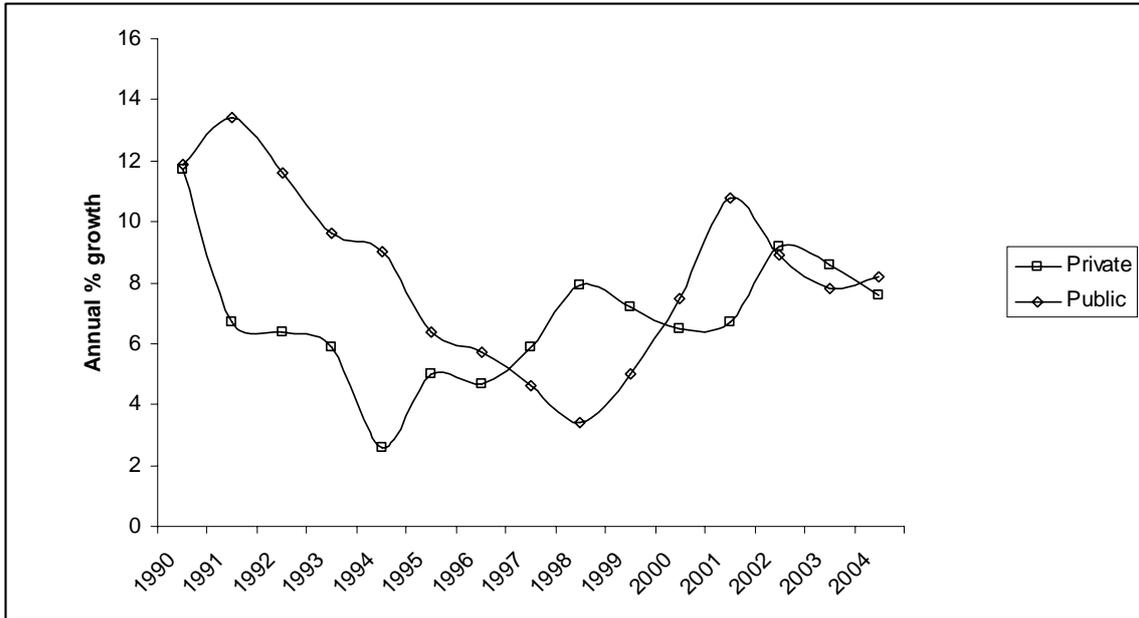
The US system's complexity and diversity means that the link between health expenditure growth and primary care reform is much weaker compared to other countries. It also means that the trends in the growth of expenditure are more difficult to explain and to associate with specific reforms (Mehrotra, Dudley et al. 2003). Total health expenditure in the US has been growing for a number of years. However, spending as a share of GDP grew until 1993 to 13.8% and then remained relatively stable until 2001 when it grew to 14.6% of GDP and up to 15.2% in 2003. The annual rate of growth of spending from various sources is shown in Figures 4 and 5 below. The annual growth in overall spending slowed from about 12% in 1993 to between 4% and 6% during the 1990s, and has increased to 7.9% in 2004. Growth is predicted to remain around this level until 2014 (Heffler S., Smith S. et al. 2005). The sources of the slowdown in spending during the 1990s reflect reductions in the growth of both Federal and State spending. The growth in private spending fell during the early 1990s, but picked up again in the mid-1990s, suggesting a substitution of private for public spending during that period. Since the late 1990s, public spending has been growing more quickly than private spending and will continue to do so as Medicare expands its pharmaceutical benefits from 2006.

Figure 4: Annual % growth in per capita spending, United States.



Source: US Department of Health and Human Services  
 ([http://www.cms.hhs.gov/NationalHealthExpendData/02\\_NationalHealthAccountsHistorical.asp#TopOfPage](http://www.cms.hhs.gov/NationalHealthExpendData/02_NationalHealthAccountsHistorical.asp#TopOfPage))

**Figure 5: Annual % growth in per capita spending (private and public), United States.**

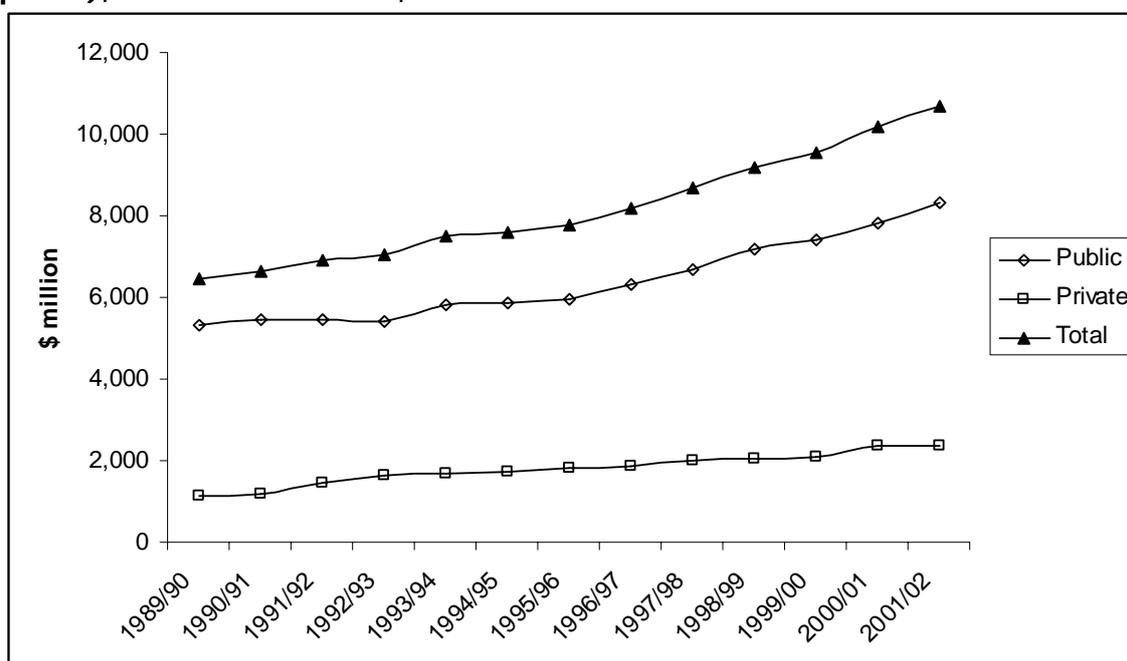


Source: US Department of Health and Human Services  
 ([http://www.cms.hhs.gov/NationalHealthExpendData/02\\_NationalHealthAccountsHistorical.asp#TopOfPage](http://www.cms.hhs.gov/NationalHealthExpendData/02_NationalHealthAccountsHistorical.asp#TopOfPage))

New Zealand

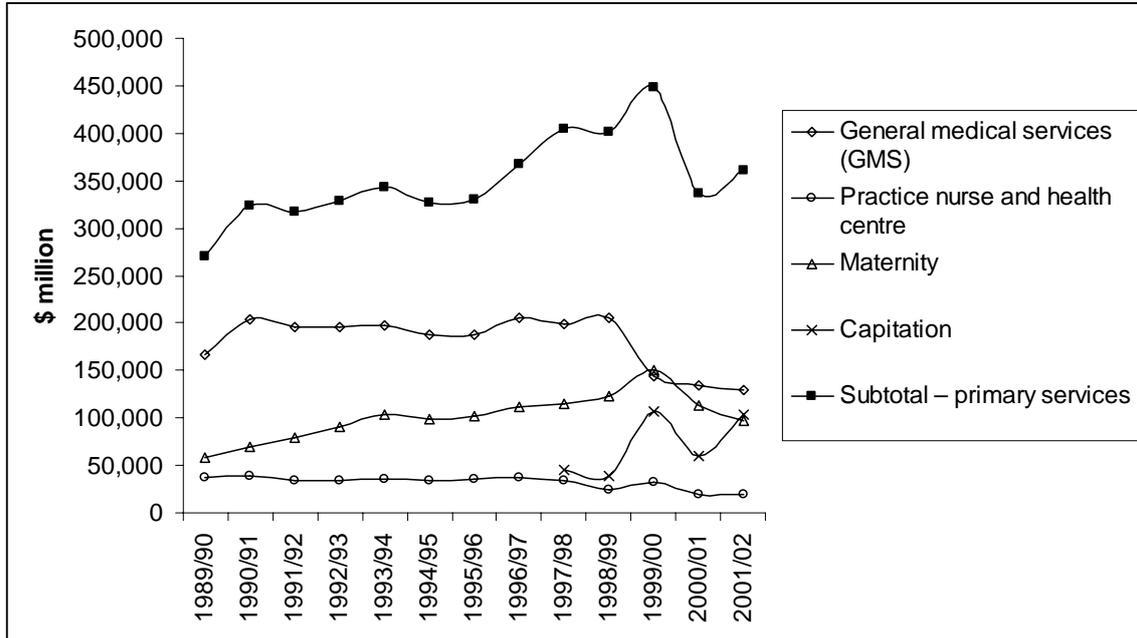
The growth of health expenditure in New Zealand remained relatively stable during the 1990s, with an average growth rate of 4.3% (Figure 6) (Ministry of Health 2005). Health expenditure as a % of GDP has been growing slowly from 7.8% in 1998 to 8.1% in 2003. Public expenditure on health care fell slightly during the early 1990s, with growth increasing after that period. There is also data on the growth in expenditure on primary care for the 1990s. This shows stable funding during the early to mid 1990s, and a reduction in funding for General Medical Services, which seems to have been replaced with capitation funding in 1999/2000 (Figure 7). This would translate to a real reduction in spending in the early to mid 1990s once the effects of inflation are accounted for.

**Figure 6: Trends in real total expenditure on health (\$ million, 2001/02 prices), 1989/90–2000/01, New Zealand**



Source: Ministry of Health. Health expenditure trends in New Zealand, 1990-2002. Wellington: Ministry of Health, 2004.

Figure 7. Expenditure on primary care services (\$ million, nominal) 1989/90 to 2001/2\*, New Zealand

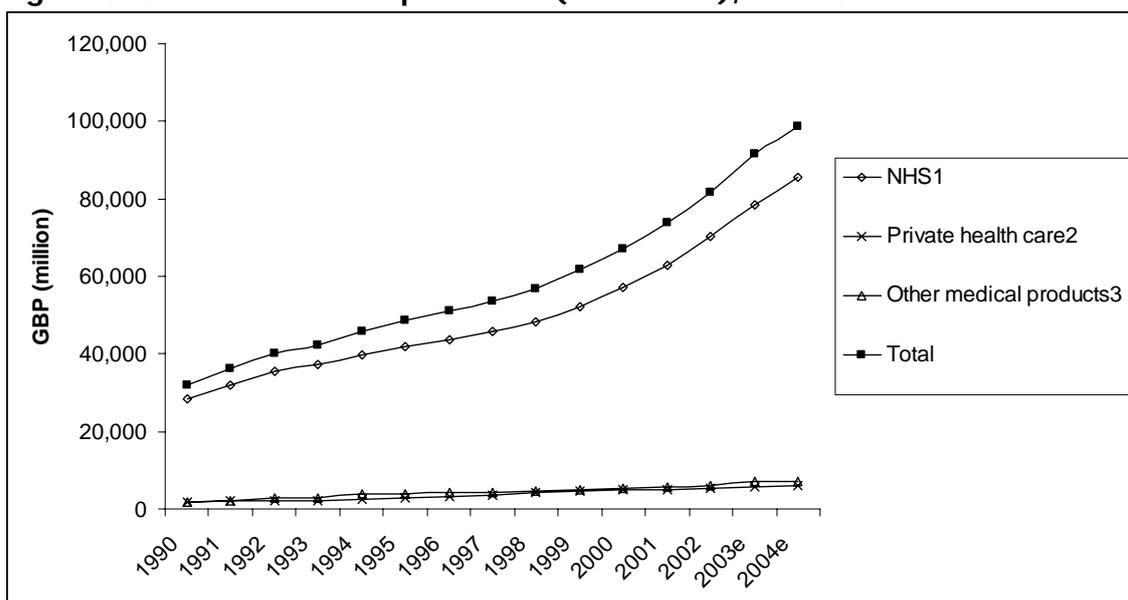


\* The total also includes expenditure on the rural practice bonus and immunisation  
 Source: Ministry of Health. Health expenditure trends in New Zealand, 1990-2002.  
 Wellington: Ministry of Health, 2004.

United Kingdom

The UK has experienced steady growth in health care expenditure during the 1990s followed by a sharp increase in growth since 1999 (Figure 8). This more recent increase was a deliberate boost to NHS funding bring health care spending closer to the European average in terms of its share of GDP. Figure 9 shows the growth in health spending as a proportion of GDP. This was 5.7% in 1990 and fell slightly during the 1990s, but has increased since 1999, with the estimate for 2004 at 8.5% of GDP. So although health spending was growing steadily during the 1990s (Figure 7), it was not growing as fast as other areas of the economy (Figure 8).

Figure 8. UK health care expenditure (real terms), 1990 to 2004.



Source: Office of Health Economics.

e = OHE estimates (see text).

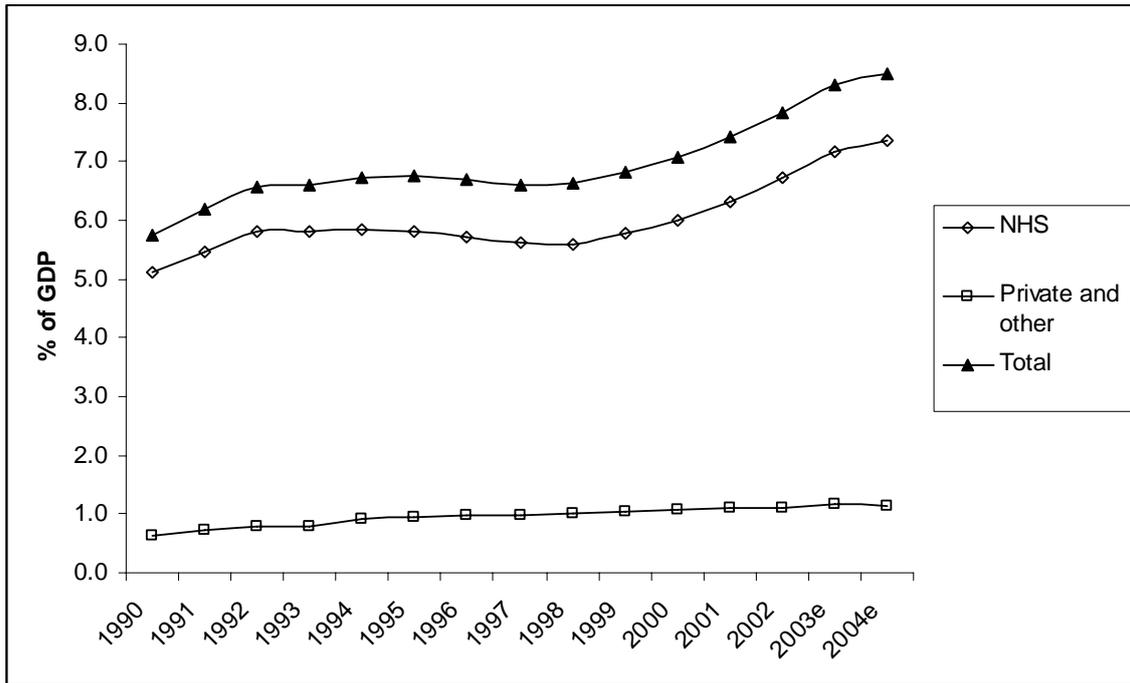
1 Including charges paid by patients.

2 Consumer expenditure on private medical insurance (PMI) and private medical treatment.

3 Figures relate to consumer expenditure on medical goods including medicines not purchased on NHS prescription, and expenditure on therapeutic equipment such as spectacles, contact lenses and hearing aids.

4 Figures have been adjusted by the GDP deflator at market prices and hence may include relative price effects.

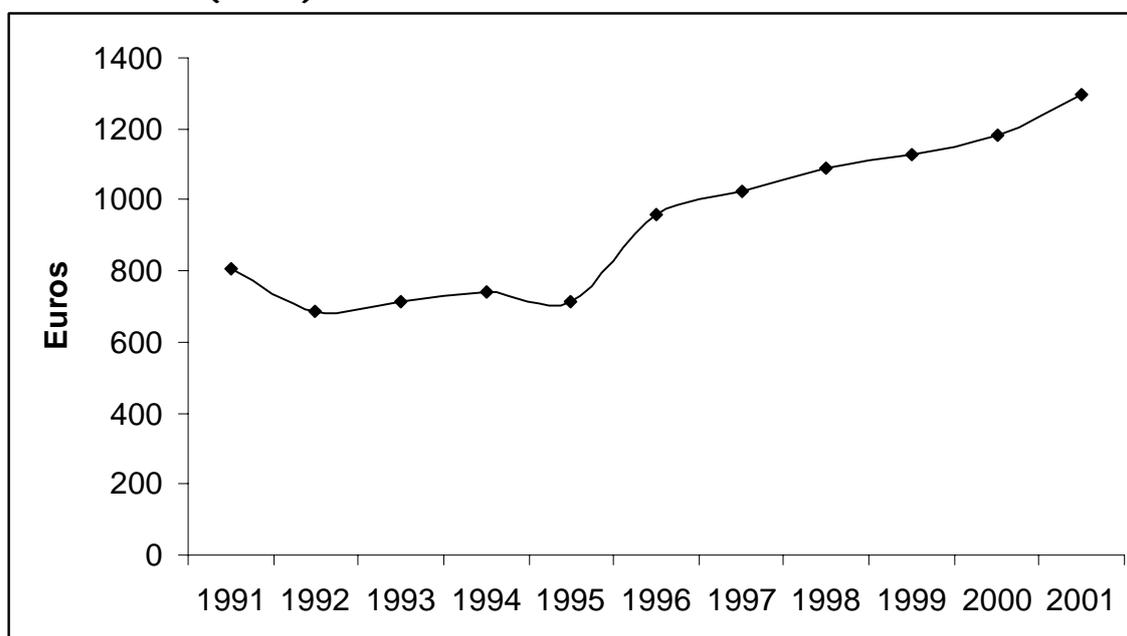
Figure 9. UK Health expenditure as a % of GDP, 1990 to 2004.



Netherlands

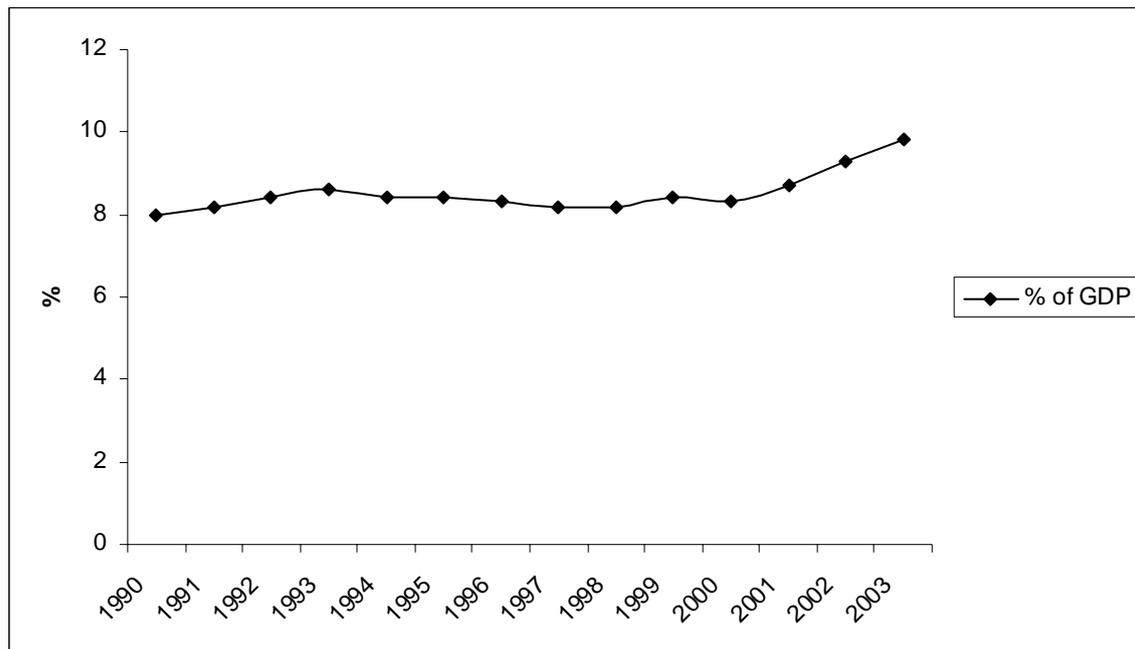
Health expenditure in the Netherlands has grown steadily during the 1990s, although the first half was relatively stable with increased growth from 1996 onwards (Figure 10). Expenditure as a percentage of GDP has remained relatively stable and fell slightly during the late 1990s, suggesting that the economy was growing at a faster rate than health expenditure (Figure 11). However, since 2000 the share has increased sharply from 8.3% of GDP to 9.8% of GDP in 2003. There are few data on expenditure on primary care. Expenditure on GPs increased slightly during the 1990s from 16m NLG to 23m NLG in 1999. However, the percentage of total health care expenditure spent on GPs fell slightly during the 1990s (from 3.7% in 1990 to 3.4% in 1999, suggesting that other areas of health expenditure grew faster than expenditure on GPs (Statistics Netherlands 2005).

**Figure 10: Per capita health expenditure in the Netherlands (real terms), 1991 to 2001 (Euros)**



Source: (Douven 2004)

Figure 11: Health expenditure as a % of GDP, Netherlands



Source: WHO Regional Office for Europe

## 3.4 AUSTRALIA'S PRIMARY CARE REFORM CONTEXT

Australia's health care system is extensive, loosely organised and complex and is characterised by:

- Australia's federal structure of government, with the Commonwealth, State and local involvement in the health system
- The dominant role of private GPs in providing care, mostly on a FFS basis, but with governments increasingly influencing the structure of health services through their financing arrangements;
- Universal access to quality general practice medical care is via Commonwealth and State funding for Medicare;
- Substantial private funding (health insurance) is supported and regulated by the Commonwealth, so that the health system offers a degree of choice

Several historical challenges face the Australian health care system including: the growth in expenditure, variable access to care and variability in the quality of care.

Within the last decade in Australia there have been reforms in both the health and primary health care sector with a major focus on improving efficiency, access and quality of service delivery. However, several distinctive features of Australia's health system, including: the split between Commonwealth and State Governments for responsibility for health care; and the mix of public and private funding and provision of health care have led to reforms being incremental, consisting often of a range independent and interactive measures in different part of the system (Bloom 2000).

Overall general practice is financed by a health system based on values of equity and quality and efficient allocation of resources. Overall in Australia, there is evidence for the effectiveness of a strong, well financed primary care sector on health outcomes, but the evidence in support of specific financing strategies is limited and variable. Fee for service (FFS) makes up the substantial proportion of GP financing in Australia and it is strongly supported by a majority of GPs. FFS is where a GP is paid per episode of care. While FFS gives control of GP income to the GP, some of the inequities in such a system include: it focuses GP on the immediate interaction with patients and does not encourage a broader population health perspective in general practice. FFS also does not address complex health needs and patients with chronic disease requiring many visits and FFS does not encourage GPs to work in areas of low socio-economic status.

Medicare, is one of the Commonwealth attempts to address inequities inherent in the FFS model by providing access to health services for all Australians. An important context for primary health care reform is Australia's Medicare System. Medicare is the Commonwealth funded health insurance scheme that provides universal free or subsidised health care services to the Australian population. It covers both in-hospital services for patients in public hospitals, and provides subsidies or free (bulk-billed) access to GPs, plus certain pathology, psychiatry and optometry services.

However, Medicare does not address inequality and contributes less to the sustainability of general practice i.e. GPs cannot continue to subsidise the care of disadvantaged by bulk-billing or not charging a fee for disadvantaged patients. In addition to the inequity inefficiency of the FFS, it has a lack of measurable accountability for the quality of care and health outcomes, and it tends to reward throughput medicine. Medicare also is an uncapped expenditure items. In response to

inadequacies of Medicare, the Commonwealth has introduced alternative payments schemes such as:

- the Enhanced Primary Care (EPC) scheme provides a framework for a multidisciplinary approach to health care and to 28 EPC items on the MBS, including health assessments for people aged over 75 (or 55 for ATSI people), and multidisciplinary care planning and case conferencing; and
- Practice Incentive Payments (PIP) recognise general practices that provide comprehensive, quality care, and which are either accredited or working towards accreditation against the RACGP Standards for General Practices. Payments focus on aspects of general practice that contribute to quality care such as the provision of after hours care, student teaching and better prescribing, with loadings to practices in rural and remote locations.

A recent senate inquiry into Medicare in 2003 made comments about the:

- Viability of general practice. General practice across Australia is varied and so generalisations about its viability is difficult. Two issues impacting on GPs- the time and cost of administering blended payments such as the PIP and EPC and the unsustainably high workloads, especially for GPs working in areas of workforce shortage; and
- Access to general practice. Access to affordable, effective and timely primary care is fundamental to Australia's continued health and prosperity. Several factors resulting in access problems including; GP workforce shortages, increase in GP attendance over time; move away from hospital based care; increase in needs of ageing population and increase in chronic illness.

In 2003 the Commonwealth also announced Changes to Medicare (A Fairer Medicare Package) key elements of the government proposed changes included a system of incentive payments for practices that agree to bulk bill all concession card holding patients and the capacity for participating practices to receive rebates for all their patients directly from the HIC. At a philosophical level, the government package is a step away from the principle of universality that has underpinned Medicare. Arguments exist that changes to Medicare need not focus on concessional patients, but should focus on the role of Medicare as a universal insurer, with equal benefits for everyone. A review of the proposed Medicare changes by the AIPC argued that the changes had a relatively limited focus on specific issues related to access, and did not address broader policy issues related to equity, efficiency and quality (Swerrisen 2004). That review argued for broader objectives of reform including improving:

- Service access and equity
- The quality of service and population outcomes
- Efficiency of services.

Alternative financing models have been put forward- where there is a mix of payment and financial choices for GPs and the community, enabling GPs to choose the mix of income streams that best suits their style of practice and practice population needs.

For example the Australian Division of General Practice (Australian Divisions of General Practice 2002) suggested a model where GPs could access one of three income options, in addition to FFS income:

1. Packaged payments – accessed through a specific series of services and activities for patients who enroll with a particular practice for a purpose and who have a chronic disease and or complex care need
2. A payment to support enrolment of general patients with the patients; and

3. Pooled GP incentive payments and practice capacity grants to enable accountability and flexibility of the mix of payments depending on practice and or local community health needs.

Overall the model maintains the principle of FFS income for the GP, but the GP is free to determine based on their own business needs clinical judgments and their practice population, what proportion of income derived from patient fees or directly billed through Medicare.

### 3.5 PROCESSES FOR THE IMPLEMENTATION OF PRIMARY CARE REFORMS

Within Australian primary care the period since the early 1990s until 2000 can be described as one of the establishment of discipline specific (general practice) consultative committees, working parties/groups, steering groups, taskforces and research and evaluation programs.

For example, the 1991 General Practice Strategy, despite being instigated by the then Minister for Health, to enable the Government, RACGP and AMA to meet and reach agreement on major issues, the *General Practice Consultative Committee (GPCC)* was formed which was responsible for the production of the report "The future of General Practice" a strategy for the nineties and beyond" later known as the General Practice Strategy.

To develop a better understanding of the major tasks, explore possible options and achieve agreement, the GPCC then established the *General Practice Working Group (GPWG)*. GPWG, which in turn established task oriented working parties to address and report on specific issues including: the *Workforce working party* and the *Information Management Working Party*.

To progress specific aspects of these Working Parties, subgroups were established such as: the *Divisions Steering Group*; the *Strategic Evaluation Group*. Funding programs were also established such as the *Demonstration Practice Grants Program* to enable GPs to trial activities consistent with the reforms. Similarly, the *General practice Evaluation Group (GPEP)* was established in response to the Senate Committee's recommendation to evaluate the impact of vocational registration, and it was linked to GPWG to consider general practice research proposals and provide reports to GPWG.

In 1998 to review the General Practice Strategy, the new health minister formed the *GP Strategy Review Group (GPSRG)* with membership by personal invitation of the minister to represent a broad range of interests and perspectives on Australian general practice. To implement some of the recommendations of the GPSRG, the minister approved the formation of the *General Practice Advisory Council (GPPAC)*. To achieve the objectives of GPPAC, it established taskforces: such as: *Chronic disease and integration taskforce*; *Access taskforce*; and *Primary Health Care taskforce* which undertook a process of consultation and research to identify barriers and opportunities for improved integration of general practice across the primary health care sector. The work employed a range of methodologies and produced several reports (The role of GP in strengthening PHC- a review of international experience; Towards a better integrated PHC sector; Mapping the role of GP in strengthening the Aust PHC sector 1990- 2000)

GPPAC also has key *Standing Committees* to develop strategic advice on program design, implementation, evaluation and to actively promote emerging issues for GPPAC consideration in the areas of:

- Divisions of General Practice,
- Rural and remote areas and
- Quality, research, evaluation and development

Overall the 1990s can be described as a decade of periodic reviews and the establishment of structures (working groups, parties, taskforces) to undertake progress or develop further policy options on an incremental basis and not a big bang/comprehensive basis. It would appear to have been a period of high level of dissemination and implementation of review processes.

Since 2000 there has been an array of intergovernmental high level processes and structures at a primary care and broader health care that have influenced primary care policy reform options and their implementation.

For example the *Council of Australian Governments (COAG)* is the peak intergovernmental forum in Australia and its role is to initiate, develop and monitor the implementation of policy reforms that are of national significance and which require cooperative action by Australian governments. In 2005 COAG commissioned the *Productivity Commission* to undertake a study of issues impacting on the health workforce including the supply of, and demand for, health workforce professionals, and to propose solutions to ensure the continued delivery of quality health care over the next ten years (Productivity Commission 2005). The outcomes of COAG meetings and commissioned works are contained in communiqués, which may result in formal intergovernmental form agreements.

Another example of intergovernmental processes is the *Australian Health Care Agreements (AHCAs)*. Every five years the Commonwealth, States and Territories have negotiated health care agreements, and new agreements are signed. Traditionally the AHCAs process has been designed to provide funding to the States on the basis that the States preserve the core features of Medicare – the maintenance of universally accessible public hospital care free of charge. The potential for the AHCAs to be used to articulate and further national health care policy objectives and reforms has been canvassed (Reid 2002).

The use of Parliamentary Inquiries is another example of intergovernmental processes. In 2005 two parliamentary inquiries were conducted into Australian health system leading to significant reforms:

- *Inquiry into Health Funding*- the House of Representatives Standing Committee on Health & Ageing examined how the Australian government could improve the efficient and effective delivery of high quality health care to all Australians.
- *Senate Select Committee on Mental health* was appointed in 2005 to inquire into the provision of mental health services in Australia.

The *Australian Health Ministers' Advisory Council (AHMAC)* that has commissioned a range of work to implement reform options. For example, to address health workforce reforms, it established the *workforce advisory committees*, such as the National Nursing and Nursing education Taskforce, the Australian Medical Workforce Advisory Committee and the Aboriginal and Torres Strait Islander health workforce Working Group.

The review has revealed that Governments in all countries have at some stage commissioned intergovernmental and discipline specific taskforces, reviews, reports, evaluations and consultation processes of both specific aspects and of the 'whole' of the primary care system reform opportunities. For example, the UK led reform of the NHS with a change of Government with a consultation process and development of a number of white papers that individually were incremental but together represented a coherent reform package aligned with broad objectives. Other examples of government commissions include in NZ (NZHS, NZDS, NZPHS) and Canada (Romanow 2002). Evidence exists that these intergovernmental commissioned works have been instrumental in initiating and furthering primary care policy reforms within a broader health system reform strategy in those countries.

Thus, based on evidence reviewed and the current reform implementation process context within Australia, to align and embed primary care reforms within broader health care system reforms, implementation of reforms may be optimised via intergovernmental processes such as Parliamentary inquiries (via Senate Select Committees); the Council of Australian Government (COAG) process; or the Australian Health Care Agreements process at a health care system level, rather than from a profession (primary care) system level.

## 4. MECHANISMS OF REFORM: ACROSS - COUNTRY COMPARISONS

### 4.1 OBJECTIVES

This chapter aims to describe key mechanisms of primary health care innovation and reform identified from the “country context” documents for Canada, US, UK, Netherlands and NZ. The country specific documents are provided in Appendices 4- 8. Examples will be given of the key mechanisms identified, drawing on literature highlighted within the country context documents.

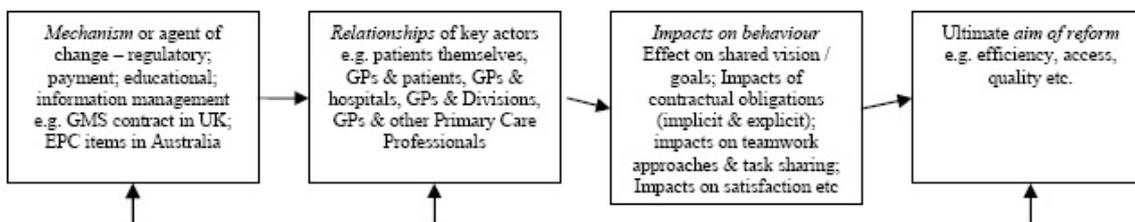
### 4.2 CONCEPTUAL FRAMEWORK AND OVERVIEW

Within the context of health system reform, we define a mechanism as an agent of change that alters certain characteristics of the relationships between the various ‘actors’ in the primary health care system to produce behaviour change.<sup>7</sup> As illustrated in Figure 12 the mechanisms may be thought of in terms of any transferable aspects of an arrangement, or a process that is transposable to another setting. The actors may be individuals or organisations, which are highly context dependent in their own right. The relationships between players can also be thought of as ‘contracts’, which can be implicitly or explicitly defined depending on the nature and complexity of the relationship.<sup>8</sup> Each of these relationships are potentially recursive in nature, involving one party influencing the behaviour of the other party and may include the two parties simultaneously influencing the behaviour of each other (e.g. patients want doctors to listen and doctors want to patients to adhere to treatment recommendations; governments want clinicians to adhere to guidelines and reduce variations in care and clinicians want to maximise their income related to target payments). The result of changes in these relationships may be the realisation of the aims of reform, or not, depending on how well the mechanism has impacted the characteristics of the relationship. For example, the GMS contract in the UK has promoted increased teamwork approaches among GPs and nurse practitioners (NPs) whereas the introduction of the EPC items in Australia have been unsuccessful in their aim of cementing teamwork approaches between GPs and others in primary care.

---

<sup>7</sup> A mechanism can be thought of as some technical aspect of a larger process (or mechanical device), a part, or combination of parts, designed to perform a particular function. Sometimes an entire process (or an entire machine) can be thought of as a mechanism, depending on the purpose of its application. In the context of health care reform, a mechanism may be thought of in terms of any transferable bits of a process that can be transposed to another setting.

<sup>8</sup> Economists, sociologists and psychologists place different emphases on different characteristics of such relationships. Economists focus on the explicit contractual relationship between an individual supplier and consumer with a focus on prices and information. Sociologists focus on the social context in which the relationship exists, and psychologists focus on the motivation underlying the observed behaviours within the relationship.

**Figure 12: Role of Key Relationships in the Process of Reform**


#### 4.2.1 Main relationships important in reform and their characteristics

Across countries, common aims of health reform are to meet the health needs of populations in an equitable, cost effective way. Depending on the particular country, different emphases may be placed on improving primary care access, continuity of care, comprehensiveness, cost effectiveness, equity and quality. To this end, the expanding role of the primary care sector and the family physician / GP in meeting primary health care goals, such as health promotion and illness prevention in addition to providing individual medical care is a common theme. There have been many consequences of expanding this role (e.g. GP workforce shortages; access problems; low GP morale) and many reform opportunities as a result.

A more explicit consideration of the relationships between GPs and the many other actors in the health care system is key in helping to define innovative models of primary health care delivery. There is enormous scope for reform initiatives to alter the relationship dynamics between many of the actors in primary care. However, the main relationships which reform seems to influence are relationships between:

- GPs and patients,
- GPs and other primary care professionals
- Third-party funders of primary care and primary medical care providers, and
- GPs and secondary care services.

These relationships can be influenced by a number of mechanisms including the financing and structure of the primary care system, changes to its organisation and care delivery pathways, payments to providers and governance (Figure 1). Mechanisms that act to promote a change to the characteristics of these relationships are a potential source of behaviour change and reform. Changes in the characteristics of a relationship will alter behaviour towards (or away from) the intended objective of reform. A primary care 'model' may therefore be comprised of a number of relationships, each with a specific set of characteristics that influence behaviour within each relationship. An 'innovative model' may therefore introduce new or novel mechanisms that alter these characteristics. The characteristics of these relationships can be defined by:

- I. who the parties are to the relationship, and how long the relationship lasts
- II. what information, activities, services, or funding is exchanged between parties in the relationship and how this occurs
- III. the governance of the relationship (including notions of accountability, professionalism, autonomy, and power)

Changes to any of the above characteristics may influence the behaviour of the parties in the relationship, and consequently influence meeting the objectives of primary care reform.

For the purpose of this review, we have focused on the relationships between GPs and patients, other health professionals, and third-party funders of primary care and primary medical care providers. The relationships between GPs and secondary care services extend beyond the bounds of primary care and therefore beyond the scope of this review.

The relationships described above and their characteristics will be discussed in the context of the key mechanisms and pathways to implementing reform which include:

1. changes to the financing and structure of the primary care system,
2. changes to its organisation systems and care delivery pathways,
3. payments to providers and
4. formal and informal governance arrangements.

## 4.3 THE GP-PATIENT RELATIONSHIP

### 4.3.1 Who are the parties to the relationship and how long does it last?

Not only do many patients form a relationship with a single primary care provider (i.e. GP, Family Physician), they may also interact with the practice which may be a solo practice, a large group practice, or a practice that employs a range of other service providers. Patients may also have a relationship with more than one practice.

Increasingly, many patients seeking primary care interact with members of a primary care team. The likelihood and nature of interaction between the patient and the health care provider (either the GP, other team members or wider staff) is influenced by a range of issues. This includes the patient's 'attachment' to the practice and GP (is the GP or practice their 'main' primary care provider?) and whether GPs use practice nurses or other health professionals and/or include them in the practice team. The outcomes of the relationship between the GP and patient may alter depending on whether the patient can see the same GP at each visit or after hours.

Quite apart from the reason for the visit, the length of the GP-patient relationship over time depends on a number of factors that are encapsulated within the concept of continuity of care. How continuity of care is conceptualised and its precise relationship to quality is open to debate, however it is upheld by some as a cornerstone of quality primary care (Hjortdahl P and Laerum E 1992; Buetow SA 1995; Pilotto LS, McCallum J et al. 1996; Appleby N, Dunt D et al. 1999; Hays R 1999; Christakis DA 2001; Sturmberg JP and Schattner P 2001). There are however, different interpretations of the term, such as whether it is viewed solely as a structural aspect of care (Campbell M, Fitzpatrick R et al. 2000), an outcome (Sturmberg JP 2000), or as having aspects of both process and outcome (Hjortdahl P and Borchgrevink C 1991). The concept itself is comprised of a number of aspects, and there is no single agreed definition (Pilotto LS, McCallum J et al. 1996; Sturmberg JP 2000; Saultz JW and Albedaiwi W 2004). There is general consensus however, that an important component of continuity of care is the relationship based experience between the patient and the provider, which also comprises a level of trust, built over a period of time (Haggerty JL, Reid RJ et al. 2003; Sturmberg JP 2004). A longer relationship also reduces the costs of acquiring information. This is in terms of the doctor gaining knowledge of the patient's medical history, values, preferences and circumstances that influence the optimal treatment recommendation. It is also about the patient obtaining information from the GP on treatment options and being involved in decision making if so desired. The sequential continuity component, or number of consecutive visits made to the preferred provider is not the only determinant of the relationship-based experience of 'continuity of care'. The overall number of contacts has been shown to be less important and interruptions

to continuous care do not appear to interrupt the continuity of the personal relationship (Starfield B 1998).

Thus continuity of care is understood to exist within the relationship built over time between the patient and the person, or place providing the care and is comprised of a component of trust.

Continuity of care can therefore be influenced by any factors that affect the personal relationship between the patient and the doctor, particularly affecting trust, as well as the ability of the patient to access the same provider over time. Factors that can affect continuity of care may include:

How the primary care provider is paid. There is limited empirical evidence supporting the best formulae for physician payment systems (Gosden, Forland et al. 2000; Davies, Anand et al. 2005) however it is widely argued that solely fee-for-service (FFS) payment encourages more episodic, fragmented care, which may be less appropriate for managing chronic conditions and therefore may impact on patient trust and subsequently continuity of care. Blends of different types of payments have been tried (e.g. for chronic disease) to encourage GPs to stay involved throughout patients' care management and improve relational continuity, trust, and familiarity with patients' preferences and values, which may also improve information exchange and promote more shared decision making. In addition, the strength of incentives incurred by the primary care provider to treat only enrolled patients, or disincentives (e.g. capitation negation) for treating patients not on their enrolment register may also impact continuity of care indirectly via workload and availability of the doctor to take appointments.

How care is organised and structured. Requirements for patient enrolment, contracting with a practice to restrict access to other primary care providers and what penalties and incentives are in place to maintain this arrangement will influence continuity of care. For example, the Ontario example of patient rostering imposes no financial penalties directly on the patient for accessing services outside of their primary care roster, compared with strong financial disincentives in the US, where patients may bear the full cost of seeking primary care outside of the contractual agreement with an HMO. Financial disincentives for consultation outside the enrolled Primary Health Organisation (PHO – see below) are targeted at providers in the New Zealand system. Also influencing continuity of care is the composition of practice skill mix, and shifts to team-based care, which may affect both actual and perceived access to patients' preferred primary care provider. In New Zealand, for example, expanded roles for nurses may be a factor in the improved perception of access to primary care services that have occurred under recent reforms (Cumming, Raymont et al. 2005).

Patient costs. Up front costs incurred by the patient (e.g. increasing co-payments) may alter patient expectations of the consultation or, depending on how sensitive patients are to cost, influence decisions to change doctor. Financial penalties may be in place to discourage patients attending a doctor outside of their rostered clinic or service agreement. For example, in the US patients may bear the full cost of seeking primary care outside of contractual arrangements with an HMO.

## 4.3.2 What information, activities, services, or funding is exchanged between parties and how does this occur?

Exchange of information. The exchange of information between individual patients and GPs is dependent on the nature of the particular clinical problem being addressed. Acute medical care may entail just a few episodic visits, referral to secondary medical services, or admission to a hospital. However, management of a chronic illness, such as for example diabetes, may engage a range of primary care providers over an extended period of time, and access to additional support services within the community. Patients have information on their preferences and history and GPs have information on how to diagnose and treat symptoms. The role of doctor-patient communication, including the role of shared decision making, becomes important here. Mechanisms that might influence the nature of information exchange include education in doctor-patient communication skills and factors influencing the length of consultations.

Exchange of activities and services. The range of services provided to patients is influenced by many factors including the finance and structure of health care services as well as the needs, preferences, and expectations of the patient. The range of services is usually specified by the third party payer through the way GPs are paid, for example, the MBS in Australia. The individual patient usually has little direct influence over this, although may express their preferences and expectations during the consultation.

Exchange of funding. The patient perspective on accessing health care services (i.e. who they access, when, and for what) depends very much on the nature of their problems, the previous experience that they have in navigating the system, and the particular barriers in access (financial, organisational and logistic) that confront them. For example, if a GP changes from charging a co-payment to bulk billing, as a result of the recent 100% rebate<sup>9</sup>, then this alters the relationship between patients and GPs. Patients may attend more or less often, with a consequent impact on continuity of care, costs and outcomes. The presence or absence of a financial transaction may alter the level of patient expectations from the consultation, and thus impact on the nature of the doctor-patient relationship. Changes in the funding and organisation of services can therefore act as mechanisms to change behaviour in both GPs and patients.

In this section we describe a number of mechanisms that influence “how information, activities, services and funding are exchanged within the GP-patient relationship<sup>10</sup>”. The emphasis is not so much on how the mechanisms facilitate an exchange between the GP and patient, but more about how they influence this relationship dynamic.

The organisation and funding of services influence the ways that information and services are exchanged and transacted between GP and patient. Funding may be

---

<sup>9</sup>[http://www.medicareaustralia.gov.au/resources/medicare/hic\\_100percent\\_rebate\\_010105.pdf#search=%22100%25%20rebate%20medicare%22](http://www.medicareaustralia.gov.au/resources/medicare/hic_100percent_rebate_010105.pdf#search=%22100%25%20rebate%20medicare%22)

<sup>10</sup> The specific activities, services and funding exchanged will again differ depending on the nature of the presenting problem, and case by case. Although interrelated, activities, services and funding can each be influenced separately by financing, organisational and governance issues. As we are taking a macro systems perspective, we have gathered all of these into a common ‘basket of services’.

contingent on inputs, services, processes or outcomes. Improving continuity of care provides one example of how mechanisms can be put in place to effect behaviour change in both provider and patient. Supply-side mechanisms may include the use of capitation payments to family physicians to service a particular patient population. To support this payment mechanism (i.e. by defining a denominator for population based payments), and to facilitate the patient behaviour of attending the same clinic, a requirement for patient enrolment (e.g. voluntary or mandatory contracts) may be in place. Depending on how the health care system is funded (e.g. social insurance or private enterprise) demand-side mechanisms may also be in place to reinforce the patient behaviour of attending the same clinic (e.g. immunisation incentives in Australia where child care benefit claims depend on the child's immunisation status).

### Financial relationships between patients and GPs

The way that services are transacted between the patient and their primary care provider is determined by how services are structured and funded, the way health care systems are financed, as well as the different values underpinning the provision of health care (i.e. medically necessary care based on need as a fundamental human right, versus the right only to reasonable access to care).

Health system financing has an enormous impact on how primary care services are funded and structured because it sets the scene for what types of mechanisms will be feasible and potentially effective in altering the way that funding flows<sup>11</sup> between all of the actors, ultimately influencing the relationship dynamics between GPs and patients. For example, systems with universal access will endeavour to have zero or relatively small financial transactions between patients and GPs. The ability of GPs to charge patients directly will be determined by historical precedent and the method of financing.

Health care systems across developed nations can be financed by private contributions, social health insurance, or general taxes. Solely privately funded health care systems are rare, however the US system is closest to this model, characterised in 2004 by 54% of health care spending from private sources (Heffler S., Smith S. et al. 2005).

The funding of public health care systems generally occurs through: i) social security, including social insurance<sup>12</sup>; ii) general taxation or government revenue<sup>13</sup>; and iii)

---

<sup>11</sup> The terms funding and financing are often used interchangeably, however, financing can refer to the source of funds (i.e. how revenue is raised to pay for goods and services e.g. general taxation, user pays) and funding can refer to the ways in which the funds are transferred to providers such as between the third-party payer and the primary care provider Derber, R. and A. Baumann (2005). EICP - Barriers and Facilitators to Enhancing Interdisciplinary Collaboration in Primary Health Care. [Enhancing Interdisciplinary Collaboration in Primary Health Care](#),: 1-35.

<sup>12</sup> Social insurance is where people receive benefits or services, including medical care, in recognition of contributions to an insurance scheme. Generally the insurers are non-profit, non-government entities and they provide 100% coverage of the population risk (i.e. they could be regionally based or national

<sup>13</sup> General taxation funds the provision of universal health care for the majority of the population, such as New Zealand, the NHS in the UK and the Medicare systems in Canada and Australia.

sickness insurance<sup>14</sup>. However, health care systems are rarely funded solely through one source of finance and some small form of private finance usually exists, e.g. through co-payments on pharmaceuticals or up front fees for GP consultations. The general aims of social insurance and taxation driven public health care systems are to provide universal access to health care.

### **Co-payments and provider payment**

Social insurance systems require the payment of premiums, whereas coverage funded through general taxation does not. Under social insurance schemes, the payment of premiums enables more use of demand-side<sup>15</sup> market mechanisms, as well as targeting the supply side<sup>16</sup>. As health care coverage funded through general taxation is not subject to premiums per se, demand side mechanisms are less effective. However, changes in the government subsidy of fees (i.e. the Medicare rebate) will impact on the amount of money patients have to pay up front, or as co-payments.

Even in health care systems with universal access to services, patients can be required to pay an up-front fee to access primary care services, and then recoup all, part or none of these costs from the government insurer. Simple economic theory predicts that higher prices will reduce demand and indeed this has been shown to be the case empirically in health care in a number of countries (Zweifel and Manning 2000). This theory does not consider the impact on equity of access. In practice, higher prices charged up-front for primary care services can discourage those most in need and who can least afford care from accessing it. The reduction of co-payments for the most disadvantaged patients was tied to the introduction of weighted funding formulae in access PHOs in New Zealand. Evaluation suggests that it has directly improved equity of access to primary care (Zweifel and Manning 2000). In direct contrast funding flows that are direct between the patient and care provider have been shown to impose a significant barrier to accessing care. Evidence for this is particularly striking in the US health care system, where cost is a major barrier to care seeking by the un-insured and under-insured (Safran, Wilson et al. 2002).

Generally, patterns of service utilisation by patients are known to be influenced by the costs they bear, such as when and how often they access care. Cost also impacts on how patients view the GP-patient relationship. Larger out-of-pocket expenses may result in different expectations of the services than in situations where access is freely available. Depending on how patient expectations are realised, such expectations may then impact on the continuity of care and potentially the level of trust in the GP-patient relationship.

### **Service availability and competition between GPs for patients**

The availability and price charged for services is also influenced by the degree of competition between primary medical care services for patients. This also depends on how responsive patients are to changes in the costs of accessing a GP. For example, in an area with a fixed patient population and a high concentration of GPs, patients may be able to change GPs relatively easily and so the prices charged by GPs may be

---

<sup>14</sup> Provides health care coverage to a defined population.

<sup>15</sup> Demand-side mechanisms include anything that makes health care less readily accessible to the consumer such as no claim bonuses, and larger up-front deductibles in-lieu of lower annual premiums.

<sup>16</sup> Supply-side mechanisms include any types of incentives or penalties to encourage health care providers to act in particular ways.

similar and relatively low. If a GP increases prices, he or she may lose patients to other practices. However, the costs of changing GPs may be high in other ways, including the time it takes to build up a good relationship with a new GP. Some patients may therefore not be very sensitive to changes in prices charged. Patients with high incomes may also be less sensitive to a change in price compared to patients with low incomes.

In addition to the sensitivity of patients to changes in prices, competition between primary medical care services for patients is influenced by the number and location of primary care providers. Workforce and training issues influence the absolute number of primary care providers, with most countries facing a shortage of GPs as a large cohort approach retirement and fewer doctors choose general practice as a vocation (World Health Organisation 2006). Once trained, the freedom of primary care providers to practice where they like may be restricted in some countries through mechanisms that regulate location of practice to encourage better access in rural and remote areas or in areas of disadvantage and high need. Such restrictions existed in the UK until 2002 where some geographical areas were 'closed' to new GPs as they were considered to already have a high supply for the need of the population (Amos and Doran 2002).

Restrictions on how services are financed, for instance preventing GPs from working privately in parallel to the public sector, is argued by some to also impact on the availability of public services through lengthening waiting times. Such a situation, as seen in the Canadian system, may compound existing access problems already caused by physician shortages.

In summary, health system financing can impact directly on the GP-patient relationship through the ways in which GPs are paid for their services (e.g. FFS, free access, co-payments) which may create particular patient expectations. Health system financing may also indirectly impact on patient access through service availability and competition between providers for patients. The degree of competition for services also depends on patients' ability to choose which primary care provider to visit, and the available information that is used to make such a choice.

Organisational arrangements between patients and their doctor

### **Patient enrolment**

Patient enrolment, patient lists, or patient rostering all describe the formal requirement for patients to register with a particular family physician, GP, or a primary care practice. The theory underpinning patient enrolment is that bonding between patients and care providers will facilitate enhanced continuity of care through patients opting to see the same provider (Hjortdahl P and Laerum E 1992; Shortt 2004). Enrolled patient populations also provide a more defined denominator for measures of patient outcomes for quality improvement objectives.

In the UK, patient enrolment has been in place for some time as an element of the capitation payment structure which has been in place since inception of the NHS in 1948. In some countries, patient enrolment is also linked with incentives or penalties to physicians, or higher premiums to patients, to reinforce patient behaviour of seeing the same doctor. In Canada a system of patient rostering is being trialed in some provinces as one strategy to improve continuity of care. However, in most provinces there are no incentives or penalties linked with patient rostering that would differentiate it from the current FFS system and the majority of Canadians self-affiliate with a practice, which may result in the process being mainly administrative (Shortt 2004). One exception to

this is Ontario's Health Service Organisations where capitation negotiation regulations are in place for physician's whose patients seek healthcare elsewhere (Shortt 2004).

Patient enrolment can be used as a mechanism to enhance continuity of care, through encouraging patient behaviour to seek the same primary care provider, or practice. However, the cost of setting up patient lists versus the benefits of improving care continuity should be considered, particularly if patient populations already self-affiliate with a primary care provider. In addition, in theory GPs should not have discretion as to who should be admitted onto their enrolment list, as they may choose the lower cost patients rather than higher cost (i.e. those most in need), leading to patient selection. In the New Zealand reforms, increased payment associated with patients from socio-economically disadvantaged groups led in fact to PHOs targeting the enrolment of these patients, demonstrating that it is possible to address this sort of "cream skimming". This is particularly problematic if in addition GPs are paid by a fixed capitation rate per patient. In the UK, the use of exception rulings allowing GPs to exclude individual patients from consideration in the calculation of target payments on the basis of particular difficulties or complexity is also designed to counter this.

### **Organisational and administrative management systems supporting expanded patient access**

Common across the countries we reviewed was the adoption of organisational management systems to facilitate and support the move toward integrative models of primary care delivery. In particular, attention was paid to 24/7 extended service, reducing waiting times to see a doctor, finding ways to provide greater accessibility to patients' preferred doctor, the adoption of information technology to facilitate the transfer of patient information between primary care team members, and to reduce unnecessary patient visits through email contact between the patient and doctor.

The move toward larger practices with team based care arrangements is a strong trend across countries, marked by considerable decline in solo practice (Beaulieu 2004; Newton, Dubard et al. 2005). Whilst larger group practices may capitalise on greater practice infrastructure, providing after hours care through on call rostering, the use of information technology to create virtual networks such as the Family Practice Networks in Canada can also share responsibility for patient access through sharing patient information using electronic patient records. Patients can join a network by signing an agreement that their family physician and their physician's network will look after their primary care needs. Information sharing among physicians within the network is facilitated by software, allowing them to access medical histories without the patients' primary care physician having to be present (Champlain District Health Council 2004).

In the US a growing contingent of primary care physicians is moving against the trend of larger group practices. Some problems of access in underserved and remote areas are being addressed using low overhead forms of solo primary care which have become a viable alternative to large health service organisations (Crane 2005). With the aid of information technology low-overhead practice models provide personalised service to patients, using Advanced Access scheduling, electronic medical records, electronic communication technology and lean systems to manage non-physician tasks (Endsley, Magill et al. 2002; Iliff 2003). These practice models provide a responsive, patient-centred service. Solo practice does not however, equate with isolated practice, with teamwork and planned care important features of the model (Moore 2006). Low-overhead models have been suggested as one possible solution to improving primary care access in areas of lower SES, higher unmet health needs and un-insurance,

because they are relatively portable due to their simplicity. However, they may not provide a cost effective solution for the poor covered by Medicare or Medicaid. Accepting patients covered by public insurance adds complexity and cost to the low-overhead practice (Crane 2005).

Information technology and organisational systems are not the total solution however they are important elements in expanding patient access to services. Individually, organisational systems represent localised administrative management innovations that have been applied at the micro-level of practice, sometimes at considerable cost borne by the primary care providers themselves. Combined, they represent key features of an overall primary care strategy that is aimed toward an integrated delivery system. Some of these strategies are described in more detail below.

### **Open or advanced and enhanced or expanded access**

Waiting times to see the doctor is a major source of patient dissatisfaction across countries. Managing appointments has received considerable attention across the US and Canada in order to facilitate continuity of care between the doctor and patient and to provide after hours service. In the UK, a 48 hour waiting time guarantee is in place. Electronic patient records and communication have been instrumental to improving care continuity and information sharing within primary care teams (Department of Health 2005).

Appointment scheduling such as the open or advanced access system is a US administrative management innovation allowing patients to be seen on the same day that they ring for an appointment (Bodenheimer, Majeed et al. 2003). It operates on the principle of doing today's work today, and not having patient's wait for appointments (Anderson and Sotolongo 2005).

Whilst changing to this scheduling procedure requires a significant cultural shift among providers, and a period of time to clear the backlog of appointments, it has demonstrated benefits, at least anecdotally, of improved patient and provider satisfaction, improved patient access to their preferred provider, a reduction in lower acuity consultations, and a reduction of patients who do not keep their appointments (Edsall 2004; Anderson and Sotolongo 2005; Forrest 2005). Simulated economic analyses indicate that open-access scheduling increases physician income while it reduces physician hours (Spann 2004).

Some empirical evidence supporting open access scheduling was provided by a pilot study conducted across Minnesota Allina Medical Clinics (AMC)<sup>17</sup> with 12 pilot sites, comprising practices ranging in size from four to 80 physicians. The effects of open access scheduling were tracked using patient data over 3 years (including the period prior to, during, and after the launch of open access) obtained on every patient visit at 23 AMC sites. An algorithm based on 18 months of patient-visit histories and a patient telephone survey was developed, to determine the match between patients and their preferred physician. The outcomes tracked included: panel count, appointment demand, provider capacity, patient-to-primary care physician match, and patient visits. The results were: more patients seeing their own physician; more productive patient visits; increased physician remuneration due to higher charges in place for matched visits (i.e. visits that match patients with their preferred doctor); and an overall net

---

<sup>17</sup> AMC delivers primary and specialty health care to 500,000 patients annually at 40 locations throughout Minnesota.

gain in revenue for practices. Patients at the 12 pilot sites used fewer urgent care services and reported improved satisfaction (O'Hare and Corlett 2004).

This scheduling innovation is different to the enhanced or expanded access to primary care recommended as a component of Canadian primary care reform. Enhanced or expanded access refers to the use of extending hours of clinic operation and augmenting out-of-hours service, including the use of telephone triage by nurse practitioners (Shortt 2004). The effectiveness of expanding access to primary care in this way as a solution to inappropriate use of emergency departments and forced use of walk-in clinics outside of the preferred clinics' hours has not yet been evaluated.

### **Electronic communications and medical records**

The general enhancement of information technology is a significant component of primary care reform in a number of countries. Included is the generation of patient specific information in electronic medical records (EMRs), knowledge based systems such as clinical practice guidelines, and decision support systems which aim to guide practitioners in the management of clinical problems (Shortt 2004).

EMRs are a key innovation in improving information transfer between sites of care, and have been proposed as a part of Canada's solution to currently poorly integrated health data management systems (Iron 2006). There is considerable evidence that supports a role for information technology in enhancing certain aspects of primary care delivery, such as electronic hospital discharge summaries, if they contain the right information and are received by the physician in a timely fashion (Shortt 2004).

More generally, the use of email communication between patients and physicians is a growing area particularly in the US, and has entered into the realm of online consultations rather than merely replacing telephone advice (Komives 2005). A number of advantages of online consultations have been identified, such as patient convenience and eliminating unnecessary clinic visits however, there is current debate about appropriate physician reimbursement for online consultations (Komives 2005; Spencer 2005).

In the UK, information technology and management systems have formed important elements of government health strategy. National health records have been key to information sharing supporting integrated patient care policies, and providing an interface between primary and secondary care. An example of the latter is the Choose & Book electronic booking system, used by the primary care physician with the patient during a consultation to identify and book treatment options available at various hospitals, and organise any pre-clinic diagnostic workup required. The use of information technology is also a critical component underpinning policies of increasing health system responsiveness to patients. For example, implementation of the Patient Choice policy relies on information technology to enable measurement of the patient responsiveness of services.

### **4.3.3 What are the governance arrangements of the relationship?**

As a concept, governance is multi-dimensional, drawing together a range of mechanisms, with the aims of quality control, regulation, accountability and risk management. There are several forms of governance, neither which are mutually exclusive, including markets, hierarchies and networks, each giving rise to different incentives and outcomes (Davies, Anand et al. 2005). Governance arrangements are often formalised by legislation, which may result in penalties or award incentives in order to influence how physicians practice and the pathways patients use to access

care. In addition, there may be certain government regulations in place and restrictions on some forms of practice (e.g. regulated use of controlled drugs; ongoing demonstration of GP competencies; independent disciplinary processes) specifically designed to maintain patient safety<sup>18</sup>.

Often however, governance arrangements are not legislated. They may exist implicitly in practice cultures that promote clinical excellence through having processes in place for continuing quality improvement, putting best evidence into practice using clinical guidelines and other means, ultimately impacting on the GP-patient relationship by promoting an environment of trust. Clinical governance is a concept that engenders these ideas. It can be self-imposed and self-regulated by GPs (i.e. bottom-up) as seen in some general practices in the Netherlands, or imposed through rules and regulations (i.e. top-down) as seen in the UK<sup>19</sup>.

The clinical governance arrangements of the GP-patient relationship can therefore be influenced by many factors, but ultimately they are characterised by physician accountability for quality patient care and safety.

#### 4.4 GPs AND OTHER PRIMARY CARE PROFESSIONALS

Across countries a common theme of primary care reform is to expand skill-mix through multi-disciplinary, or transmural teamwork due to recognition that no single profession can meet all of the aims of primary health care, including health promotion, prevention, as well as curative care and chronic disease management. As such there is a notable growth in models of multi-disciplinary team-based primary care, substitution practices and declining solo practice. A central role for primary care as a profession, whether it is delivered by general practitioners or a multi-disciplinary team, has been recognised as the most cost effective approach to providing community based care where it is needed (Starfield 2004). The evidence supporting this “gatekeeper” role is predicated on its important function of filtering out patients who are well from seeking specialty care, sparing them from unnecessary tests, investigations and the risk of iatrogenic illness<sup>20</sup>.

---

<sup>18</sup> For example, Greater Manchester GP Harold Shipman murdered elderly patients with opioid drugs which are normally used legitimately to alleviate pain at the end of life. As a result, a number of changes to regulatory process were put in place such as tighter regulation of narcotic use, and separation of powers for GP disciplinary processes from the General Medical Council.

<sup>19</sup> The NHS has taken a formal approach to clinical governance by implementing a Quality Outcomes Framework (QOF) to GPs, linking remuneration to performance and outcomes. This latter approach is discussed specifically under the relationship between GPs and third-party funders.

<sup>20</sup> A notable exception to this view is held by some pro-specialism factions of the US health care system who consider this filtering function of primary care as an obstacle to patient choice [Mullin F, 1998 #522; Bindman A, 2003; Showstack J et al, 2003; Sandy LG et al 2003]. Starfield however mounts a strong counter argument to this in the US context.

With the trends toward a more diverse primary care workforce and teams to provide comprehensive care, contemporary health policy discussion has identified a shift in thinking about the GPs' role as central care coordinator to one as an equal member of a wider multi-disciplinary team (E.g. Beaulieu 2004). However, in practice, the gatekeeper role of GPs / family physicians is still very much a key point of difference in the organisation of primary care systems across countries. Across Canada, in some US health service organisations, in the Netherlands and NZ, the GP has a strong central coordinating role<sup>21</sup> in managing primary care services and providing access to secondary care.

Whilst the term teamwork has particular meaning that may exclude more general modes of working together such as networking or collaboration, it is used here in a more general sense. We use the term in a way that includes loose arrangements of working together through to structured teams with pre-specified roles. The focus of this section is however limited to *multidisciplinary* teamwork, substitution and supplementation practices, and how these may influence the role of the GP.

#### **4.4.1 Who are the parties to the relationship and how long does it last?**

The delivery of comprehensive Primary Health Care can incorporate a long list of disciplines including most commonly practice nurses, but also allied health, optometry, midwifery, dental, ambulance attendants, pharmacy, social workers, and general practitioners. Increasingly, the delivery of Primary Medical Health Care by general practitioners / family physicians requires substantial interaction, collaboration, or teamwork with one or more members of the Primary Health Care sector, particularly for managing patients with chronic health problems.

Evolving in parallel to the Primary Health Care model with the general practitioner / family physician as central is the non-physician clinical (NPC) workforce, which is increasing in clinical autonomy. The NPC workforce began in the US during the 1960s, as an innovative strategy proposed by the American Medical Association, to cope with a shortage of primary care physicians and was founded with military-trained personnel returning home from combat (Hooker 2003). Contemporary Non-physician Clinicians (NPCs) include nurse practitioners (NPs), clinical nurse specialists (CNSs), certified nurse midwives (CNMs), certified registered nurse anesthetists, physician assistants (PAs) and also a range of complimentary and allied health professionals such as chiropractors, acupuncturists, naturopaths, optometrists and podiatrists (Cooper, Laud et al. 1998). The NPC workforce is not limited to the US, with numerous models of physician substitution and supplementation evident across many countries including the UK, NZ, Canada, and Australia.

---

<sup>21</sup> The gate-keeping role of family physicians and GPs in Canada is soft and patients can access specialist care without a referral, albeit resulting in a lower payment to the specialists [Mullin F, 1998]. In the Netherlands, GPs are the central gate-keepers to specialist care, however the formal requirement of a referral for the whole population was introduced only recently Bakker, D. H., .de., Groenewegen, P.P., Hingstman, L., Sluijs, E.M., van de Velden, L.F.J (2006). "Primary health care in the Netherlands: current situation and trends." [Unpublished.](#)[Bakker et al, 2006; Busse, 2002].

The nature and length of the relationship between the GP and other health professionals (OHPs) will depend on many factors including the nature of patients' illnesses, the structure and organisation of the care delivery path ways and how health care professionals are funded, existing practice culture and previous history of working together.

#### **4.4.2 What information, activities, services, or funding is exchanged between parties and how does this occur?**

With the growing diversity of the primary care workforce and skill mix, traditional roles have to make way for newer niche roles and there is the perennial problem of overlapping professional boundaries and ensuing inter-professional rivalry. These issues pose major challenges to realising the benefits of a teamwork approach<sup>22</sup> (Cinota 1999; Beaulieu 2004). Some strategies employed to deal with these issues are discussed next.

##### **Structures and organisation for multi-disciplinary teamwork**

In Canada, "getting people to work together" is being tackled through trialing different primary care models. For example, given the reluctance of some family physicians to work in groups, the concept of Family Practice Networks (FPN) have been introduced which allow physicians to voluntarily participate in real or virtual groups, linked through IT to facilitate transfer of information (Beaulieu 2004). This type of arrangement is seen in the Ontario Family Health Groups and the Alberta Primary Care Initiative. The facilitation of information transfer is the main purpose of this arrangement, which contrasts sharply with the group practice philosophy that underpins the Family Medicine Groups (FMGs) in Quebec and the Family Health Networks in Ontario. Under the latter arrangements group practice also incorporates a range of preconditions for teamwork, such as sharing of vision, clientele (patients), tasks, activities, expenses, revenues, quality assurance, as well as information sharing (Beaulieu 2004). At present it is too early to comment on a comparison between these two approaches.

##### **Pre-specification of roles and responsibilities**

How teams are defined and how they operate to provide seamless, integrated care and how transparent these arrangements are to all of the actors a key issue. The Chronic Care Model (CCM), popular across North America, incorporates integrative systems of care that include computerised information for reminders, feedback about patients' physiological monitoring, registries to help plan individual and population-based patient care and peer support groups to help patients self-manage their illness. Under various implementations of the CCM, team care is more transparent, as team members have a clear division of labour and patients also are encouraged to take on a role as a team member in their own care through education and support for self management (Bodenheimer, Wagner et al. 2002).

There are tensions however, around the role of the primary care physician, teams, and the further specialisation within teams and chronic care models (Moore and Showstack 2003). Proponents of increasing specialism argue that CCMs make the central role of the primary care physician redundant. Those that support primary care as a system of care delivery argue that the role of the primary care physician is enhanced as the hub of the chronic care team (Bodenheimer, Wagner et al. 2002; Rothman and Wagner 2003). Whilst this argument may appear less relevant for health care systems with a

---

<sup>22</sup> Benefits of collaboration between care providers, such as reduced costs were demonstrated by a systematic review of interventions to promote collaboration between doctors and nurses however this was based in the hospital setting [Zwarenstein M, 2000].

strongly primary care oriented system, it underlines the importance of the nature of roles and relationships between actors, such as flexibility versus mutual exclusivity among primary care team members. This issue is also relevant to primary care oriented systems, particularly those where teamwork is increasingly a feature. Whilst pre-defined boundaries and specified care pathways and protocols, such as those typical of CCMs and case-management models are useful, if the nature of the roles are too rigid then this may be less conducive to optimising teamwork.

### Substitution or supplementation

One aspect of multi-disciplinary practice that has received considerable mention in the literature is the growth of a non-physician clinical (NPC) workforce in several countries (Sandy and Schroeder 2003; Newton, Dubard et al. 2005). How substitution practices such as the promotion NPC niche roles, traditionally conducted by the primary care physician are organised, will directly influence how primary care teams function. The principles underpinning substitution practices originally related to easing the workload of physicians and using a cheaper alternative workforce<sup>23</sup>. More recently the term supplementation has also evolved, to distinguish support of the GP role from supplanting it.

The length of the relationship between members of the NPC workforce and the GP will therefore vary depending on whether the NPC role is viewed as substitution or supplementation. If it is substitution, it is quite possible that only rudimentary information exchange and no ongoing relationship may emerge. If the role is one of supplementation, then this may involve shared goals, shared resources as well as shared patients and an ongoing teamwork approach may be formed.

### Funding exchanged between the parties

The funding and remuneration of OHPs varies greatly across countries ranging from FFS (e.g. PAs in the US) through to fully salaried. In this section we have limited our specific examples to practice nurses (PN)<sup>24</sup>, and nurse practitioners (NP)<sup>25</sup>, as these professions consistently collaborate with GPs and physicians across countries, and are the most widely evaluated of OHPs.

The relationship between GPs and OHPs will be influenced by the funding arrangements, and level of professional autonomy of each party. For instance, the general medical practice may be the employer, however funding arrangements may require that the GP site the nurse's work before the practice can be remunerated through the Government rebate (e.g. Medicare). This type of arrangement may reinforce a more supervisory relationship between the GP and the PN (Willis, Judith et al. 2000).

---

<sup>23</sup> However, overall costs may not be reduced due to GPs reassigning themselves different tasks in lieu of those filled by non-physicians.

<sup>24</sup> Practice nurses are registered nurses (RNs) working within a general practice or ambulatory care setting having a medical auxiliary role.

<sup>25</sup> Nurse Practitioners (NPs) have completed formal higher education in preparation for more expanded roles within primary health care. Their functions can include health assessment, physical examination, treatment of acute self-limiting illnesses, health promotion and illness prevention activities, instruction, counseling and coordination of services [Levine et al 1993]. In some countries NPs may also have limited prescribing rights

In other circumstances, PNs may be employed through a practice grant program that allows more separation of tasks and increased autonomy for nurses to deliver screening, health education and patient data management (Willis, Judith et al. 2000). The medical practice may also receive direct subsidies from government in the form of cash reimbursements for a proportion of salary costs or through the fee schedule. These types of arrangements may provide more flexibility in how practices employ and are able to retain OHPs, however issues of how teamwork is structured are influenced also by the power and status differential between professions. With regard to the autonomy of PNs, since the advent of GP contracts in the UK, British PNs have been able to exercise more control over their working time and preferred tasks (Willis, Judith et al. 2000).

Some types of contracts will also remunerate the medical practice or health centre, rather than the individual professionals within them. This was apparent in some practice-based contracts introduced as part of Personal Medical Services pilots in the UK in 1997. The 2004 GP contract is made with the practice and not individual GPs. Practices are then free to organise their resources as they see fit in order to deliver services. This type of contract may encourage team work where rewards are jointly determined and all members of a team face the same incentives (Bloor and Maynard 1998). However, one issue here is the size of the team. A team that is too large will contain reduced incentives as individuals can 'free-ride' and benefit from the effort of others (Ratto, Burgess et al. 2001).

In terms of professional autonomy, the role of NPs is diverse across the countries we reviewed and is also influenced to some degree by how they are remunerated (Canadian Nurses Association 2002). Generally, barriers to NP practice are similar across countries and include: prescriptive authority; reimbursement; and regulation of practice (White 2001). In the US, NPs provide many services and are permitted in some states to practice without any physician supervision or collaboration and have hospital admitting privileges. In all US states NPs have some level of independent autonomy to prescribe drugs, and are eligible for direct Medicaide reimbursement (Mundinger, Kane et al. 2000). This range of responsibilities and privileges places some NPs on an equal footing with physicians in primary care (Mundinger, Kane et al. 2000). In comparison to the US, the role of the NP in the UK is relatively recent, emerging during the 1990s. It has however been quickly recognised as an important resource in primary care (White 2001) and in the new GMS contracts, there is provision for more specialised nursing particularly in relation to delivering organised care for patients with chronic and complex needs (Johnston 2005). In NZ and Canada the role of the NP is more recent than the UK and is still developing, particularly in relation to competency standards (Bourgueil, Marek et al. 2005; Gardner and Gardner 2005). Recently, the establishment of Family Medicine Groups in Quebec, Family Health Networks and Family Health Groups in Ontario, has directed specific funds to support the NP role (Bourgueil, Marek et al. 2005).

In summary, funding and remuneration of OHPs is one factor that impacts on the relationship between OHPs and GPs and Family Physicians. Generally, countries that have provided specific funding or contracting arrangements with OHPs (particularly NPs) have the most expanded and developed roles for OHPs.

#### **4.4.3 What are the governance arrangements of the relationship?**

We found evidence that governance arrangements (accountability for clinical standards and outcomes, clarity of professional autonomy and responsibility) were key issues in defining and establishing wider GP-OHP relationships. In New Zealand for example the establishment of PHOs was accompanied by widespread anxiety amongst GPs that nurses, while included in the management structures of the PHOs, would not share in the responsibility for health outcomes. The negotiation of this inter-professional territory is still in process. In Canada, there exists considerable reticence about the widespread integration of NPs into the delivery of primary care, due in part to practice boundary issues, liability concerns, and funding (Shortt 2004).

Drawing on the notion of clinical governance and accountability for clinical standards and outcomes it is worth noting what evaluations exist. The NP role in primary care is the most widely evaluated (Hooker 2003) and there is strong empirical evidence gathered internationally, in support of the NP role in terms of its effectiveness, safety and appropriateness in providing first-contact care to patients with undifferentiated health problems (Shortt 2004), however, overall costs may not necessarily be reduced, depending on whether nurses are meeting previously unmet patient need or generating demand for care where previously there was none. A systematic review of a number of studies conducted in various developed countries showed that patients expressed more satisfaction with NPs compared with physicians. NPs spent more time with patients and ordered more tests however, no overall differences were found in the number of prescriptions, return visits or referrals to specialists.

In terms of competency standards, in all countries we reviewed these are still being reviewed and developed (White 2001; Canadian Nurses Association 2002).

#### **4.5 THIRD-PARTY FUNDERS AND PRIMARY CARE PROVIDERS**

As stated earlier, the funding of health care can be distinguished from its financing and it is the path of funding flows that is frequently the target of primary care reform. For individuals, health care costs can be very large and unmanageable. Therefore, models of funding allocation often involve breaking the “user pays” nexus. The typical response to unpredictable illness and health costs is to insure, where a third party insurer is paid a premium. Potential recipients of care give their money in advance to the third-party through general taxes (if the third party is government) or premiums (if the third party is a social insurer or private insurance company). When care is needed, the third-party provides resources to the care providers.

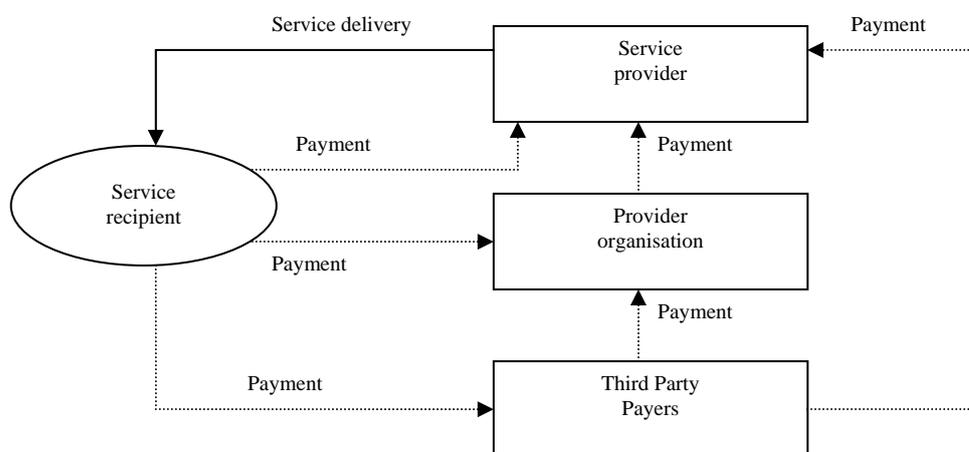
##### **4.5.1 Who are the parties to the relationship and how long does it last?**

The third-party may be situated in the public or private sector, a level of government (central, state, regional), a quasi-public organisation (nominally private but heavily regulated by government) or a group of providers (fully devolved budgets e.g. GP Fundholding). There are a number of different funding allocation models involving third-party payers, provider organisations, as well as individual service providers. Funding flows can become complex and include payments directly between service recipients and the service provider, the third-party and the service provider, the third-party and provider organisations, and directly between the service recipient and provider organisation (Figure 13).

There is enormous scope to influence the relationship dynamics between third-party payers and the service provider (i.e. GP). The type of third-party (i.e. for profit, not-for-profit, quasi-public), the type of funding model (number and arrangement of provider organisations), and the balance of risk both in terms of financial risk to individual service providers and to ensuring adequate supply of services where they are needed, are all important levers that can be used to manage behaviour change and ultimately meet the aims of reform. The level to which budgetary responsibility is devolved or decentralised can also influence the behaviour of providers.

The relationship dynamics between third-party funders and GPs are influenced by the financing (general taxation, private enterprise) and structure (e.g. decentralisation, strength of governance) of the primary care system, decentralisation of funding (e.g. level at which the budget is held), and the number and types of provider and professional organisations involved. The relationship is also influenced by the extent to which the third party wishes to influence provider behaviour. For example, some third parties may be passive in their role of distributing funds and have a largely administrative function (as in many fee-for-service systems). Third parties may also more actively seek to influence the behaviour of primary care providers through contracts, incentives and other forms of control in order to meet societal objectives.

**Figure 13 Combined Model Funding Flow (Source: Derber and Baumann 2005 in Hollander and Deber, 2005)**



The relationship dynamics between third-party payers and providers is influenced by many factors, including perceived levels of risk, power, autonomy, dependence and trust. These factors can also be influenced by the changing expectations of each party, which are informed by previous experiences that accumulate over time.

The length of the relationship between the parties is thought to impact on the capacity to build trust-worthiness, with longer term relationships producing additional benefits that include cost-efficiencies through more efficient investment and less resources spent on formal contracting (Goddard and Mannion 1998; Dawson and Goddard 1999). Whilst more frequent renegotiation of relationships between the parties may imply a more market-oriented, or competitive relationship, particularly where there is the threat of contracting with other parties (e.g. a third-party funder contracts with a different set of GPs) there is little to suggest that trust will be eroded under these conditions because it is still possible for trust to build if consecutive shorter-term

renegotiation occurs, maintaining the relationship over a period of time. However, higher contracting costs are more likely.

The optimum relationship length for the building of trust has not been determined, and will depend also on the previous experiences of each party. In the NHS, a move to encourage longer term relationships (exceeding one year) has taken the form of long term contracts or agreements (LTCs) covering periods of 3 – 5 years (Goddard and Mannion 1998; Dawson and Goddard 1999). However, it has been shown that longer contracts *per se* are unlikely to be the major driver in the development of trust between parties, as evidenced by high levels of non-financial investment occurring in the NHS in the absence of contracts. This occurs because of how the NHS is structured and financed and the risk, as assessed by providers, to invest in service provision in the absence of long-term contracts is perceived to be low (Goddard and Mannion 1998).

### **4.5.2 What information, activities, services and funding are exchanged and how does this occur?**

Third-party funders provide funding, legitimacy and support to providers within a contractual relationship. Funders will provide information about the range of services expected to be provided and how funding will be allocated. In exchange, funders will require providers to meet certain objectives and goals and to provide an indicated set of services to patients. The types of information exchanged will depend on the types of objectives, goals and services provided. For instance, the information exchange in a contract between the primary care provider and a for-profit insurance company based in the private sector may focus mainly on cost control. However, the information required from providers in a contract with the NHS may give equal weight to meeting quality performance criteria.

Information about cost control, quality performance or health promotion targets can be used to shape the expectations of the funder about the scope and reach of services, the types of required services, or the levels of funding provided to a service. Likewise, changes in government priorities, such as an emphasis on quality or infrastructure also impact on how services are funded, and therefore shape how providers adapt their service provision in response to these changes. The specifications for what information is to be exchanged between third-party funder and the service provider acts as a mechanism to change the behaviour of both funder and provider. There may exist more or less formal mechanisms to decide on what services should or should not be funded (e.g. MBS review committee in Australia, NICE in the UK).

Whilst health system financing and structure may directly impact on the types of processes used for information exchange and the type of services that are transacted between providers and funders, the particular structural, procedural and cultural changes that may act as levers for improving performance are less clear. There are few, if any, simple organisational levers that can directly influence organisational performance and change is contingent on many factors including the political, social-cultural and historical environment of the organisation and the engagement of all staff (Sheaff, Schofield et al. 2003). In this section, the focus is just on how different financing, funding flows, and organisational arrangements might impact on the relationship dynamics between third-party funders and GPs.

### 1) Financing and structuring of the primary care system

Although the ways in which health systems are financed (i.e. taxation, social insurance, sickness funds, and private funding) influences the types of mechanisms that are effective in shaping behaviour change, it is the flow of funds (

#### **Decentralisation**

The decentralisation of services and/or devolution of funding, and decision making from central government to regional or local health care organisations is a key issue affecting the structure of a health care system. There is little evidence about the effects of decentralisation and there are several potential advantages and disadvantages. For example it may increase the relevance of decisions on health care resource allocation to local populations, who have different priorities to other regions of a country. It is difficult within a central planning approach to be sensitive to local needs, preferences and cost variations.

In terms of health system structure, the level of service decentralisation (e.g. central government to regional) and the corresponding devolution of decision-making authority can impact directly on the type of information exchange between the third-party funder and the service provider. If devolution reduces the perceived legitimacy of the third-party funder through a corresponding reduction in decision-making authority, or a break in the accountability chain, then this may impede any desired changes in the practice behaviour of providers. For example, Regional Health Authorities (RHAs) were introduced throughout Canada in the 1990s, with wide variation in their implementation across provinces (Lomas, Woods et al. 1997). Lomas (1997) argued that the degree of service decentralisation was mismatched to the degree of devolved authority, leading to a lack of clarity about where accountability for meeting the goals of primary care reforms rests (Lomas, Woods et al. 1997; Lewis and Kouri 2004). In addition, and possibly more pertinent to the present review, regionalisation did not include family physicians' services. Therefore, performance-based incentives have had little impact on changing family physicians' practice behaviour.

#### **Funding flows, accountability and risk**

Managing financial risk by sharing it between the third party payer and the providers of health care can be achieved through a number of related mechanisms such as separating purchasing and service provision; GP fund holding; and linking various types of provider payment with their performance.

Achieving separation between purchaser and provider in order to manage financial risk can be achieved in a number of ways. The third party may itself have a number of levels through which funding flows, and at each stage, specific payment arrangements are needed. For example, the national government may allocate funds to regions on the basis of historical patterns of spending or in relation to population 'need' using a weighted capitation formula. The regions may then use a different method to transfer the funds to providers. The type of payment scheme may vary at each level of decentralisation (i.e. for each relationship). The incentives embodied in each of these payment schemes also vary. For example, at one extreme funds to regions or providers may be based on historical activity levels. In this case all financial risk lies with government as the region may inflate its budgets to secure a larger budget in the following year. This is the most undesirable arrangement from an efficiency point of view as all risk is borne by the third party and there is no incentive for the region (or provider) to be cost conscious. Some sharing of risk and strengthening of incentives is desirable and alternative payment schemes achieve these to different degrees. There is

therefore a trade off between the level at which the budget is held and the strength of incentives to be cost conscious. Sharing the risk of going into deficit and sharing the savings of a budget surplus create incentives to be cost conscious. The closer the budget to the provider (i.e. the more devolved), the stronger the incentives for cost control but the higher the financial risk. There is therefore a trade-off between the strength of incentives and the degree of risk sharing. For example in the UK, GP Fundholding arguably contained relatively strong incentives for GPs to make local decisions about how to allocate resources. However, to manage the financial risks, many fundholders joined with other practices. These incentives were less strong when the budget was held at PCT level once fundholding was abolished. Practice-based commissioning introduced in 2005 once again devolves budgets to GP practice level. In New Zealand while fund holding is devolved to PHO level, practitioners continue to work largely on a FFS basis, albeit after engaging in a more robust contracting arrangement with the PHO about FFS levels.

The incentives for GP fundholders were much weaker than for physicians in HMOs in the US. GP fundholders were allowed to retain surpluses to re-invest in patient care, i.e. not to use as personal income. If a GP fundholder went into deficit, then this was covered by the Health Authority, so there were few penalties for going into deficit. However, if an HMO physician went over budget their personal income was at risk and so the incentives were much stronger to stay within budget.

### **Payment systems and influencing practice**

Targeting the way that physicians are paid is a common strategy for changing their behaviour in order to achieve health policy objectives. Typically, GPs or Family Physicians are paid through any, or combinations of, Fee-for-Service (FFS)<sup>26</sup>, salary, capitation<sup>27</sup>, sessional payments, target payments and incentive payments. Evidence supports the idea that the mode of payment impacts on how GPs conduct some aspects of their professional practice, however it is not clear how particular payment mechanisms impact on the quality of care or on patient outcomes in the short to intermediate-term (Shortt 2004).

FFS is a predominant form of provider remuneration in many countries, including Canada, the US, NZ and Australia. Within these countries, there are moves toward blended modes of payment to alter how and where physicians practice. For example, in Canada, service agreements that include alternative remuneration options and contractual payments are a strategy to recruit and retain physicians in under-served areas (Martin and Hogg 2004). In the UK, changes to GP remuneration have historically provided a major focus for improving the quality of care, such as financial incentives in the form of target payments for the uptake of prevention and health promotion activities.

Debate about the best payment system is however, largely predicated on the economic rationale of supplier-induced-demand. It is widely argued that the problem with FFS is that it favours shorter, problem-based visits and increased patient volume, rather than a comprehensive approach to patient care (Phillips, Dodoo et al. 2005). However, sub-

---

<sup>26</sup> FFS payments are based on the number of patients seen.

<sup>27</sup> Capitation payment is a lump sum payment per patient managed over a given period, and is usually linked with a pre-determined patient roster or proportion of enrolled population.

optimal care quality can be a problem equally produced by solely salary or capitation models, through physicians only providing the minimum service required, or accepting only the healthier patients on their roster due to them requiring less time for care (Romanow 2002 p.114). The problem with using an economic rationale to choose the best payment system is that it ignores the social and institutional context of the incentive, (Scott 2004) and the existence of other objectives such as career concern, work satisfaction, idealism, and professionalism (Davies et al., 2005).

Providing physicians with a mixture of payments that aim to support team-based care, and meeting population health objectives, often involves linking incentive payments to meeting minimum quality performance criteria, population health targets, and attending continuing medical education programs. However, the mechanism of linking physician payment with the accountability chain through payment for performance (P4P) with the aims of improving quality, is controversial in some countries [e.g. Feasby & Gerdes, 2006]. P4P is a type of FFS, but is usually only applicable when performance can be measured, or at least applicable only to aspects of performance that can be measured.

There are numerous types of P4P schemes, however all incorporate some level of risk to physician income as payment is explicitly made for meeting a given goal. Examples of major P4P programs that specifically target physicians and GPs include government sponsored Centres for Medicare and Medicaid Services Physician Group Practice (PGP) Demonstration in the US; the Quality Outcomes Framework in the UK; elements of the Practice Incentives Program in Australia; and the privately sponsored California Pay-for-Performance Program in the US.

In relation to how P4P affects the relationship dynamic between the individual provider or provider groups and the third-party payer, a number of issues have been identified. These include at what level payments are targeted, such as individual providers, provider groups, primary care organisations or teams, or at the level of the health region where funding may target quality infrastructures. Directly targeting individual providers has been adopted in many instances as a strategy to align individual performance goals more closely with those of the organisation or third-party funder [Pink, 2006].

The way that providers perceive the fairness of the incentives and the activities that they are linked to will impact greatly on the relationship between the parties. Trust can be eroded between provider and funder under a number of circumstances. For instance, if providers have not been consulted in the selection of quality indicators, if there are measures of quality out of the scope of control of providers, if the reporting processes are not transparent or they are overly complex so that it is not clear how performance and payment are linked, and if there are inadequate adjustments for case severity or complexity, then gaming of the system may result. Problems relating to gaming include the inappropriate focus on only what is being measured, to the detriment of other important areas.

This last point leads to the problem of balancing the range and scope of indicators so as not to compound health inequalities through condoning lower levels of performance for disadvantaged groups or diverting resources away from these groups. Risk adjusted for case mix and severity are required to provide fair comparisons across providers and decrease the chances of providers selecting patients that may improve their scores on the quality measures [Pink, 2006].

In summary, arguments that favour the use of blended payment systems to reward quality extend the economic rationale of supplier-induced-demand by attempting to “balance out” the pro’s and con’s of the singular payment mechanisms such as FFS, capitation and salary. There is however, little empirical evidence supporting particular mixes of payment in meeting the types of policy objectives described above, whether they are effective in reducing cost<sup>28</sup>, and how financial incentives actually work to produce behaviour change. Blended payments that reward quality practice and provide physicians with flexible work options are however more likely to elicit implicit motivating factors. For example, the successes of GP fund holding in the UK may be linked to increasing professional autonomy because fundholding GPs had discretion over how they used financial savings (Davies C, 2005).

### 2) Organisation and professional groups

The ways that third-party payers and providers organise themselves can impact on the relationship dynamics between all of the actors, ultimately affecting the balance of power, trust, and the perception of professional autonomy of providers. Funding mechanisms can also define how primary care is organised. Third-party funders may influence the behaviour of GP providers through requirements to provide a specific set of services and to meet quality objectives in order to receive funds, but GP providers may also influence the behaviour of third-party funders by grouping together in professional associations and changing their position of power in the relationship through renegotiating their contracts or fundholding. The key point is that changes in the parties to this relationship are a mechanism that can be used to change behaviour.

#### **Professional groups**

An example of how changes in the parties influence behaviour and in turn, the implementation of primary health care reform, is provided by the emergence of Primary Health Organisations (PHOs) in NZ. In this example, providers initially grouped together to form professional organisations (IPAs) in response to market reforms, which included a change in the status of payers, in line with the corporatisation throughout NZ health care during the early 1990s. IPAs, founded and owned by local GPs, were established to budget hold for diagnostic services and pharmaceuticals with a major focus on cost savings. Any cost-savings realised by IPAs could be spent on IT, infrastructure, practice registries and monitoring systems. This arrangement reinforced professional autonomy of providers, as they had control of funds and were able to build practice infrastructures (Glensor 2004; McAvoy and Coster 2005). IPAs quickly grew in economic and political power (Glensor 2004).

Since 1999, a shift in Primary Health Care policy put quality, equity, access and local involvement more squarely on the agenda. Primary Health Organisations (PHOs) were commissioned by the NZ PHC Strategy with the task of implementing the new

---

<sup>28</sup> For example, of 5,500 papers related to the topic of the effects of payment on primary care physician behaviour available to the Cochrane Collaborative, only eight papers representing four studies fulfilled their quality review criteria [Gosden T et al, 2000]. Conclusions from the review of the four studies were equivocal overall, but there was no firm support for the idea that FFS produced over servicing.

direction. Privately owned, but funded by government owned District Health Boards<sup>29</sup> (DHBs), PHOs have absorbed many GP-owned and governed IPAs (however this relationship is varied), and set forth a specific set of essential primary health care services to be provided to enrolled populations, requirements for administration, contracting, reporting of service provision and governance (McAvoy and Coster 2005). This take-over has occurred gradually, and slowly gained the support of a majority of GPs, however, there are still many challenges.

Among the challenges, are maintaining GPs' sense of professional autonomy in a context of increasing multi-disciplinary teamwork within the PHOs; replacement of GPs' self-governance arrangements with significant community, non-GP, and government representation on boards; and the linking of GP payment with capitation formulae weighted to encourage servicing of underprivileged areas. The capitation funding also raised the status of nurse practitioners, equal to GPs, for first-contact care.

Formative evaluations of the shift to PHOs, conducted by Victoria University, have indicated retention of goodwill and support for the PHO model and that capitation has provided a more flexible working environment, and reduced patient access problems. As the benefits of the new formulae are being realised, the PHO model has gained increased GP support. GP providers have suggested that the introduction of capitation was supported by poor processes and business rules leading to gaming and inaccurate payments, and smaller PHOs have not realised the economies of scale that have sustained larger organisations, resulting in some practices closing down. Individual GPs' exposure to financial risk differed across the phasing in of the new funding, which was addressed to some degree by the Ministry of Health with the introduction of a 12-month funding initiative to assist financially disadvantaged practices with the transition to PHOs (McAvoy and Coster 2005).

Generally, trust was built between providers and third-party funders as problems were ironed out, and some of the benefits such as increased practice revenues were realised. Compliance and administrative demands for new providers were onerous and insufficiently funded therefore the funders had to ensure that payment mechanisms were efficient and timely in order to maintain confidence. The funding and payment mechanisms were a source of dissatisfaction by many of the providers, asking for greater definition and clarity around the rules to qualify for particular funding. (McAvoy and Coster 2005).

In terms of risk and contracting, there was wide variability in levels and types of funding, particularly during phasing-in periods, creating uncertainty of revenues. Graduated funding formulae provided increased funding for PHOs in at-risk populations, improving accessibility through lower patient co-payments. However, poorer funded neighbouring PHOs suffered a loss, as patients shifted their enrolment across to the better funded organisations (McAvoy and Coster 2005).

Initially PHOs mainly contracted with individual GPs, and some GPs carried significant personal financial risks to finance health services, which were now subject to public governance requirements. Increasingly, general practices (as companies or other legal

---

<sup>29</sup> Established in late 2000, DHBs were charged with funding and providing health services, and improving the health status of their population. They are heavily government regulated, and are accountable to their community and to the minister [Glensor P, 2004].

structures) are becoming the unit of service provision through contracts with the PHO (McAvoy and Coster 2005).

Strategies addressing risk reduction include the ways that providers group themselves and form organisations in order to improve economies of scale for running a practice, and to disperse the risk of cost sharing with third party funders.

### **Competition**

A role for competition is not limited to markets that operate with strong demand-side mechanisms, like the US. In markets like the NHS, induced demand has very limited effects on cost control, practice location, and equity of access, however, competition operates in different and more subtle ways. There is competition between GPs for patients which to some degree may influence where GPs practice and how GPs group together. There is also competition within internal markets, between providers for the business of purchasers, and in some cases vice versa, which also influences relationships between third parties and GPs.

The way that competition influences relationships between the parties is moderated by the types of incentives provided through regulation and non-competitive means. It has been argued that some element of competition is required for relationships based on trust to evolve, rather than being based on dependency which can occur in non-competitive environments (Goddard and Mannion 1998). Reputations for trust worthiness are regarded as a capital asset and therefore worth having. Building trust and maintaining it can act as a mechanism to control costs through reducing the need for automated monitoring and full legal contracts. Conversely, the potential for losing a trustworthy reputation can act as an incentive to keep each party performing in a competent fashion (Goddard and Mannion 1998).

Unfettered competition has been shown to produce undesired outcomes such as mal-distributed services in areas of most need, contributing to access problems and health inequalities. However, controlled competition as seen within an internal market setting, (such as through UK GP fundholding in the 1990s) can offer a strategy to maintain cost efficiencies, and extract reasonable performance from providers (Goddard and Mannion 1998) as GPs are responsible for their own budgets and negotiate service provision for their patients.

Competition, in the form of competitive bidding can also be used in solving some problems such as long waiting lists for services through contracting with the private sector. For example, private GP walk-in centres set up near train stations in the UK and also in Canada, were set up initially to help overcome access problems. However, a recent landmark development in the UK demonstrates an extreme outcome of competitive bidding, resulting from inadequate community consultation processes, where a private US company outbid local GPs to run a practice in a small English mining town (Arie 2006). The PCT responsible for the tender has been accused of not consulting widely enough, silencing the voices of patients and local opposition, resulting in a legal battle in the High Court in London. The contract with the US Company was upheld and local GPs now fear being gradually squeezed out of future primary care bids by highly resourced foreign multi-nationals (Arie 2006). A clear message from this UK experience is the requirement of ensuring fair and transparent processes in order for the bidding process to remain competitive, and that trust between all parties is not destroyed.

## Cooperation

One flip-side to competition is cooperation. Across countries, moves toward more integrated approaches to primary health care delivery have called for increasing collaboration, and much more emphasis on quality improvement. Whilst some competitive edge is desirable, the benefits of reducing self-interest and opportunism through cooperation have also been recognised (Goddard and Mannion, 1998). For example, towards the end of the internal market in the UK, contracts were moving from 1 year contract to 3 year contracts, reflecting longer term relationships that helped reduce the transactions costs of frequent contract negotiations.

### 4.5.3 What are the governance arrangements of the relationship?

Like the GP-patient relationship, governance arrangements between third-parties and primary care providers can influence and also be influenced by many factors. In addition to physician accountability for quality patient care and safety, are broader responsibilities such as accountability relating to use of resources, meeting pre-specified quality criteria and reporting requirements.

Unlike clinical governance, where such activities may be self-directed and self-governed, the third-party or another body usually sets rules or regulations about how the relationship should be conducted. For example, federal or state government may legislate. Legislation may define new types organisations and funding arrangements and provide a broad framework under which specific relationships can operate. How these arrangements have an impact on the relationship between the parties will depend on many factors including what systems and processes are already in place to meet reporting requirements, the clarity of roles between the parties and the influence of other vested interests, including expectations from users.

For instance, in the Canadian health care system, governance power is currently limited. This is partly due to quality improvement initiatives not being a part of the culture, but also due to the piecemeal way that regionalisation<sup>30</sup> has been implemented. This issue is an important factor for governance because it has implications in determining accountability. RHAs are generally weak in terms of providing a governance structure. They are susceptible to changes in government, the clarity and extent of devolution of authority is ambiguous (as reported by board members and CEOs of RHAs), and they are poorly acknowledged by the public who bypass RHA boards and present their concerns direct to government (Lewis and Kouri, 2004). Recently, there has been a reconsolidation of authority at the provincial level in several provinces (Lewis and Kouri, 2004), however it is not clear exactly where accountability for meeting the goals of primary care reform rests. Governors are generally not effective in assessing performance because they do not have access to comprehensive and accurate information required, and they are not meaningfully held accountable for attaining health care goals.

---

<sup>30</sup> Regionalisation includes the centralization or decentralization of services (e.g. physical location / configuration) and the corresponding continuum of authority, ranging from consolidation to devolution. The aim of regionalization was to solve the problems of a top heavy, centralized bureaucracy through devolving authority to the provinces, and consolidating the dispersed power of numerous local health boards.

Contrasting sharply with the Canadian situation is the Quality Outcomes Framework (QOF) in the UK. The QOF is comprised of 146 clinical and organisational quality indicators organised under four overarching domains: clinical, organisational, additional services, and patient experience. For each indicator, performance is assessed in relation to achieving specific standards of care. A points system is used to translate achievement of the standards into a monetary value. The QOF is written into the GMS contract and is also present to some degree in the various other contract types available to Primary Care Trusts. Under the new contract, the QOF has the potential to comprise 25% of GPs income.

In the Netherlands, linking payment to performance indicators has also occurred. Over the last 15 years, the Dutch have developed, tested and validated practice level indicators for assessing quality of care. In 2005, these tools have been integrated with a new system of voluntary accreditation established and run by the Dutch College of Family Physicians and the independent Centre for Quality of Care Research (WOK) and links payment to performance indicators.

## 4.6 CONCLUDING COMMENTS

In our review of PC reform in five countries we found that common mechanisms were deployed to influence behaviour of providers and patients in the pursuit of common goals of improving quality, efficiency and accessibility of primary care. Within these overall aims of reform lay more immediate concerns of government and profession. These have their origins in the increasing volume and complexity of primary care work in the context of an epidemic of chronic illness. Solutions to these more immediate and pressing concerns are seen to lie in promoting the capacity of funders and the profession itself to engage in more planned and proactive approaches to primary care service delivery. Such planning commonly attempts to address issues of workforce distribution, skill mix and teamwork, while simultaneously attempting to promote patient choice and autonomy and devolve flexibility to regional levels to allow local innovation. Underpinning these changes remains a common desire to increase accountability and responsibility of the PC system for quality of care outcomes. Enhanced data and information management are crucial to all these distal and intermediate goals.

How each of these is addressed in the countries we studied can be seen to vary with the unique context, culture and history of each setting. Nevertheless, responses share sufficient commonality to be grouped within a small number of domains. Three key areas can be identified that may offer potential for innovation with the Australian system. The first two of these are underpinned by the notion of local flexibility to allow a range of responses to pressing concerns while at the same time promoting accountability. The first relates to the devolution of governance through the development of mid-level, regional PC organizations. Such organizations could take on a role in financial management, service delivery, coordination & organisation, local health provider recruitment, education and training and systems performance monitoring at a catchment and practice level. The second relates to the development of a wider range of optional GP and practice financing arrangements than currently exist to allow greater leverage in addressing workforce distribution problems. The third relates to the establishment of a clear quality framework to ensure that accountability and standards are maintained. Underpinning each of these three areas of potential, reform lies two others. These have to do with the establishment of sufficient IT infrastructure to support reform and the development and funding of a comprehensive evaluation plan to both support and build capacity for reform (through targeted evaluation and research for successive steps) as well as promote open transparent accountability of reform.

In the following chapter we turn to how each of these might manifest in the current Australian context.

## 5. DISCUSSION: CONTEXTUALISING KEY AREAS FOR PRIMARY CARE POLICY REFORM

### 5.1 OBJECTIVES

This chapter is designed to discuss and consider how the review and synthesis findings in Chapters 3 and 4 can be applied in the Australian context. In order to frame policy options with regard to what works, for whom, why and in what context, this chapter initially briefly presents views about what needs reform. This is then followed by a brief outline of findings from a policy linkage consultation process conducted to optimise the strategic relevance of review findings. We then present key potential areas for reforming comprehensive primary care delivery in Australia.

### 5.2 THE AUSTRALIAN PRIMARY CARE SYSTEM REFORM CONTEXT

Australia has a complex, decentralised and pluralistic health care system with a mix of public and private funding and delivery. The system reflects the policy influence of the Commonwealth at a federal level and the local need and delivery reality at the State level. A recent exchange tour (Ballantyne, Doggett et al. 2004) noted: “the system [health care system] reflects both the intentional “dynamic tension” between Commonwealth and State and the flexible nature of Australian “federalism” (p6). Inter-governmental cooperation is revisited and new mutual expectations are set out every 5 years by the Federal and State levels in the form of bilateral Australian Health Care Agreements (AHCA). Overall, Australia has taken an incremental approach to health sector reform, with recent reforms emphasising:

- Cost containment
- Improving the public/ private balance
- Efficiency and effectiveness; and
- Performance measurement

Numerous writers and organisations within Australia’s primary care setting have suggested key pressures/ tensions and or drivers of reform. For example, Swerissen (2004) stated that primary health and community care services face unique challenges due to pressures resulting from:

- the deinstitutionalisation of people with mental illness, disabilities and chronic disease;
- the introduction of new technologies for treatment and care;
- the recognition of social models of health and well-being;
- the increasing inequity of primary health and community care services;
- the limited evidence supporting the technical efficiency of primary health and community care services; and
- the lack of a consistent and comprehensive approach to improving; and monitoring quality across the primary health and community care services.

Powell- Davies (2005) have suggested six main factors that have contributed to changes in role of general practice and its relation to the health care system, including:

- Growing specialization and organisational complexity in the healthcare system;
- Change in healthcare system itself;
- Changing boundaries and additional components within the health care system;
- Changes to general practice itself;
- Increased role of government in health care; and
- Change in the need of the community

The recent Primary Health Care Position Statement by the Australian Divisions of General Practice (Australian Divisions of General Practice, 2005) also suggested key drivers for primary care reform such as:

- Rising health care costs ;
- Interface between primary & tertiary care;
- Health inequalities;
- Workforce shortage issues for GPs and other professions;
- Commonwealth- State divide; and
- Changing health care arrangements

Within the Australian primary care delivery setting, writers and organisations have also suggested key elements and options for reform.

For example, Swerissen (2004) while reviewing international literature to provide options for reform for the Victorian Government, suggested several key elements of reform that need to be considered:

- Planning for catchment needs;
- Funds pooling for catchments;
- Capitation and patient enrolment;
- Integrated purchasing and performance management systems;
- Disease pathways and managed care;
- Prevention and substitution; and
- Workforce and organisational development.

Swerissen (2004) goes further and suggests the need for “closer integration of clinical decision-making and purchasing for enrolled populations in primary care settings through funds pooling and local purchasing” (p40). Three key reforms were suggested including the development of:

- Joint planning and funds pooling;
- Primary care organisation contracts; and
- Integrated primary care organisations

In a similarly vane, the Australian Divisions of General Practice (Australian Divisions of General Practice 2005) in there Primary Health Care Position Statement suggested the following areas for reform:

- More accessible care
- Focusing on prevention and early intervention;
- Encourage better chronic disease management;
- Supporting integration and multidisciplinary care;
- Building evidence base for effective, quality primary health care; and
- Using technology to support best practice; and Recognizing & respecting variety of practice styles.

## 5.3. POLICY LINKAGE CONSULTATION PROCESS FINDINGS

A critical stage in this review was to identify what key policy levers were available within the Australian primary care setting to implement the key policy options. Commentators on the use of systematic reviews in policy making, have suggested that the views of all those involved in policy decision-making need to have input into this process (Burns 2005; Lavis, Davies et al. 2005; Martin and Strumberg 2005). We interpreted this as meaning that the views of policy advisors; policy analysts and policy implementers need to be obtained.

To optimise the strategic and practical usefulness of the policy options seventeen key individual primary care policy relevant informants throughout Australia were identified and contacted by the review team (as mentioned in Section 2.3.3).

The next section provides a brief summary of key themes that emerged from the key informants consultation process.

Overall key policy informants reported several key drivers of future policy reforms, including:

- the need for new workforce skills mix;
- the need for extended primary care frameworks; and
- the need for multidisciplinary team-based approaches.

When asked about their perceptions about future policy reforms, several suggestions were made including:

- An increase in primary contact providers;
- An increase in collaborative/multidisciplinary models of care;
- A shift to population health foci;
- A shift to blended payments systems;
- GPs becoming part of primary care; and
- Reforms that are broader than primary health care.

Policy informants also raised several issues when reflecting upon implementing areas for potential reform including:

- Recognising that the COAG process was a positive vehicle for implementing potential policy reforms;
- The existence of rural and remote differences;
- The Fee-For-Service payment system was unlikely to change, but could be complemented by other blended payment systems;
- The existence and array of Commonwealth and State specific issues; and
- The importance of timeframe (e.g., electoral cycle) in the implementation of any possible policy reforms.

## 5.4 KEY AREAS FOR POTENTIAL REFORM

The narrative review and synthesis process has identified several key areas of potential reform with regard to the primary medical health care system. Prior to outlining these areas, given the complex nature of narrative reviews, especially in topic areas where it is still innovative, it is important to reflect upon the limitations and realities of such a process.

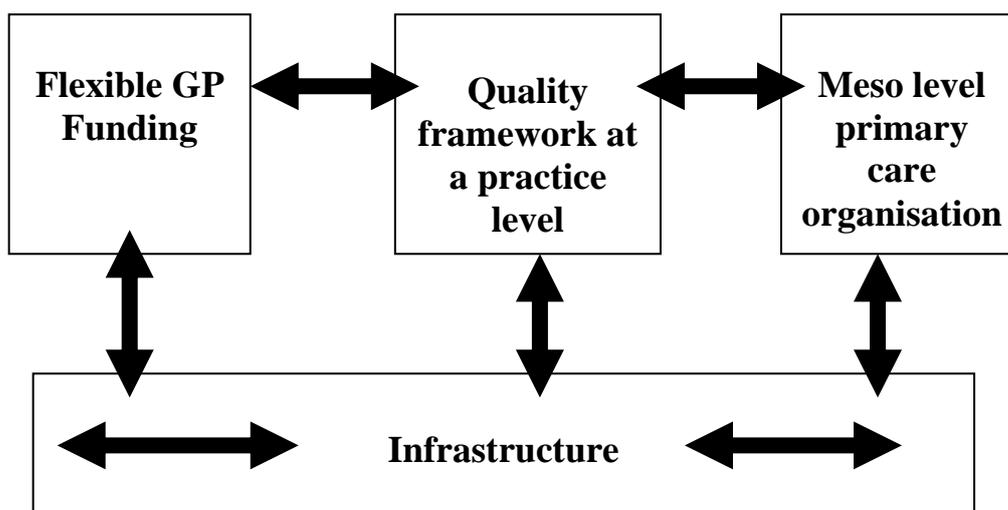
First, it is important to reflect upon the topic under review. Despite our review group re-focussing the original APHRCI review topic: *Review of Innovative Models for Comprehensive Primary Health Care Delivery* to *Review of Innovative Mechanisms for Comprehensive Primary Care Delivery*, several observations are necessary. The review topic was far too broad, due to the use of the terms models, comprehensive, and innovative. Furthermore, the review focused on at the systems level or at macro mechanisms and not at the individual provider or micro level. Similarly, the review focused on the role of general practice and not on what happens at patient interface.

Second, as mentioned in Chapter Two, the limited time-scale that the review (one-year) influenced the scope and the development and refinement of methods used to review and synthesise the evidence. Despite the practice of narrative approaches to review and synthesis evidence is growing, the limited formal guidance existed on there conduct at the time of this review, meant that the review was based more upon a pragmatic realist/narrative review approach rather than adhering to traditional principles underpinning realist/narrative reviews.

Third, it is important to acknowledge that the emerging key areas for potential reform had several other provisos. First, we acknowledge that the policy options are based on limited evidence, as there are clear gaps in the levels of evidence with regard to the implementation and evaluation of reforms. Often, available literature reflected aspirational reforms rather than actual reforms. Second, it has not been possible to link the various policy options to patient outcome nor to the effectiveness of primary care service delivery. Related to this proviso, the policy options are not patient focused. In other words, we have not been able to explicitly articulate what patients would make of or what difference the reforms would make to provision of care from a patients perspective.

The narrative review and synthesis process identified five key areas for potential policy reform, which can be visually represented as in Figure 14.

**Figure 14: Policy Options in Perspective**



## 5.4.1 Flexible GP funding

Evidence exists that supply-side mechanisms (e.g., funding GPs) are more effective in changing the primary care system, particularly where in health care the demand side is weak. It is also important that supply-side mechanisms and any new funding arrangements are attractive to GPs and other primary care professionals, thus actively seeking to improve recruitment and retention. This does not rule out the use of demand side policies, but they should not be the main focus of reform. Both the UK and NZ have moved to funding arrangements with GPs at the practice level and there are also such arrangements between US physicians and managed care organisations. The particular historical and local contextual factors vary in each country, thus funding arrangement and specifications (e.g. the range of services included, accountability arrangements, etc) also vary. In the UK, for example, the new General Medical Services (GMS) contract has been revised through a strong consultation process with the profession, building on previous quality standards work; is clearly aligned with overall NHS and general practice priorities; and is linked to IT support. There are a number of features of these funding arrangements that alter the relationship between third party payers and GPs, and that can be applied to the Australian setting.

Funding General Practices rather than individual GPs.

Delivering funding to groups of GPs and primary care teams encourages joint decision making, team working and discourages solo practice and there are likely to be efficiency and quality gains when working in groups and teams. When funding general practices, it is usually up to the practice how to allocate payments to GPs and other practice staff within the practice.

The Practice Incentive Program is one example in Australia of payments being made to practices rather than GPs and consideration should be given to the expansion of this program and its use to deliver funding to practices for a range of quality improvement initiatives. At the moment, PIP is used for infrastructure and is paid to practices.

Infrastructure payments could be increased to include payments for practice nurses, other professionals and perhaps premises/buildings and equipment in areas of workforce shortage. SIP payments, chronic disease management payments and other specific payments are based on the number of services provided of a specific standard and are paid through the MBS, i.e. to individual GPs. The SIP payments could be paid to practices rather than GPs and extended to other disease areas, similar to those included in the UK Quality and Outcomes Framework.

A plurality of funding mechanisms

GPs and General Practices should have a choice of funding arrangements with their third party payers. Different funding arrangements can be offered to accommodate variations in GPs working practices and styles which are likely to have a favourable impact on recruitment and retention. In the UK, GPs can choose General Medical Services or Personal Medical Services Contracts, with the latter including salaried GPs and practice-level contracts. GPs (or practices) should be able to opt in and out of different funding options depending on their changing circumstances. This helps enhance recruitment and retention of GPs who do not want to own their own business and who may want more regular and flexible working hours. This is particularly important given the feminization of the medical workforce. It is also very relevant in helping to provide services in remote and rural areas.

Community Health Services (CHS) in Victoria are an example of State funding being used to offer GPs an alternative type of fund. Some CHS employ salaried GPs and funding is available to fund with private GPs to involve them in Community Health

Services. The GPs work alongside a range of other health professionals. This is a workable model whose elements could be expanded using pooled Commonwealth-State funding and introduced in other states.

Changes to who delivers funding to GPs and General Practices.

The third is that funding arrangements should be between the General Practice and the regional primary care organisation or health authority, rather than with central government (although government, either State or Federal, would still need to allocate funds and provide a governance and accountability framework). This allows for local flexibility in the types of services funded and provided. For example, Primary Care Trusts (PCTs) in the UK are responsible for funding GPs under the General Medical Services Contract. This includes funding for essential services which all practices need to provide, but also 'additional' and 'enhanced' services, that practices can 'opt in' or 'opt out' of depending on their circumstances, with some of these priced locally and others nationally. Additional services might include cervical screening, immunization, maternity, or minor surgery. Enhanced services may include more specialised services or for specific populations. In the US physicians may be funded by an HMO or even several HMOs, in addition to the Federal Medicare and Medicaid programs. Primary Health Organisations (PHOs) in New Zealand also fund GPs directly.

In Australia, the Community Health Services model is an example of where GPs hold a fund with the State, rather than the Commonwealth. It is also not difficult to imagine these funds being managed by regional primary care organisations (see Section 5.4.3). Using Divisions of General Practice in this role would also be possible, although their structure and objectives would need to develop.

Issues and further developments

The options above could be pursued independently or as part of longer term strategy. The funding options above can also be linked to a quality framework that provides incentives for specific quality improvements (see section 5.4.2). The funds would also need to be established under a national framework linked to adherence to minimum standards and the provision of high quality care, incentives to be cost conscious, and the appropriate management and monitoring of funds and performance. Furthermore, none of the above options would be alternatives to the current MBS system of payment. The Commonwealth would continue to manage this program, but would also provide resources to States or to regional primary care organisations with aim of pooling with local funds to establish these new funding models.

### **5.4.2 A National Quality Framework**

All countries reviewed have focused on monitoring and improving the quality of primary care practices. Various frameworks (e.g. UK QOFs) and sets of practice-level performance indicators (e.g. Netherlands quality indicators) exist to measure clinical performance in the areas of prevention, disease management, and patient experiences.

A recent systematic review about performance measurement in healthcare concluded that the evidence for performance measurement and management at a systems level remains equivocal, largely due to inconsistency of definitions, approaches and evaluation design (Adair, Simpson et al. 2006). As indicated by the Adair et al, review there are numerous isolated examples of the successful use of performance measurement for quality improvement (two examples in primary care are (e.g. Solberg, Mosser et al. 1997; Nixon, Smith et al. 2006) however rigorous studies describing effective performance measurement practice are lacking (Adair, Simpson et al. 2006).

In general terms, indicators that are evidence-based, perceived as important to the organisation and delivery of care, and are locally appropriate (e.g. Nixon, Smith et al. 2006) are more likely to lead to change in practice. Whilst the issue of coupling indicators with strong financial incentives for individual practitioners is a controversial area, it also suffers from a lack of strong evidence (Gosden, Forland et al. 2000) however, it is an integral component of quality improvement systems in many countries including the UK and the US.

Evidence also exists that clear governance arrangements that connect policy development and implementation are key to the policy reform process, particularly relating to where the accountability for meeting the goals of primary care reform rests. A combination of regulatory (i.e. accountability, transparency) and integrated (e.g. joint budgets, planning, indicators) governance arrangements has been suggested. However it is also important to be mindful that performance measurement for quality improvement and accountability should be viewed as separate processes (Solberg, Mosser et al. 1997).

### What is happening in Australia

The Royal Australian College of General Practitioners (RACGP) have recently released a quality framework for Australian general practice (Booth, Portelli et al. 2005). This framework is based on an extensive review of international work around quality in the primary care setting (Booth, Portelli et al. 2005) and provides some broad recommendations covering individual practice, the setting of care, and the wider health system at regional and national levels. The framework recommends the use of continuing quality improvement (CQI) as one strategy to improve quality at the practice level, systematic processes to ensure a high functioning team, and relevant quality infrastructure support (Booth, Portelli et al. 2005).

The RACGP quality framework does not specify how or what to measure for quality improvement, however it provides a holistic, systems approach to considering relevant areas to focus on. A more prescriptive approach has been developed for the accreditation and performance monitoring of Divisions of General Practice. A recently developed National Performance Framework for Divisions of General Practice continues to be developed during its gradual implementation over 2005-08. Its staged implementation is linked to the Divisions' Funding Agreement. The Performance Framework aims to address issues of strategic direction, through use of an accreditation process for Divisions, and scope for the system through targeting specific National Priority Areas.

There exists a core set of indicators across nine National Priority Areas for Primary Care: access; integration; prevention/early intervention; chronic disease management; general practice support; quality support; consumer focus; governance; and workforce, however, Divisions may choose which of these they report on. Within these nominated areas are four levels of reporting: level 1 relates to Division organisational structures and processes; level 2 relates to general practice program structures and processes; level 3 relates to processes of care for patients, families and communities; and level 4 relates to intermediate outcomes for patients, families and communities. Currently there is no requirement for Divisions to report across all four levels for one National Priority Area however the requirements for reporting may alter in the future as the system becomes more developed.

At present, the performance indicators for levels 3 and 4 are less well developed and these are particularly pertinent at the level of general practice reporting. Whilst currently there appears to be no suggestion that general practice financing or individual GP payment will be linked to achieving specific performance levels, this possibility may emerge in the future when performance measures at this level can be agreed upon, similarly to the UK QOF.

## **1. Linking incentives to performance at the practice level**

In the UK, performance is directly linked to GP payment. There has however been considerable debate about how this process addresses quality and equity (e.g. Croxson, Propper et al. 2001) and in particular, the processes of ensuring quality improvement have not really been disentangled from processes of cost efficiency and accountability. Issues relating specifically to quality include concern about “un-incentified” conditions receiving less attention (Adair, Simpson et al. 2006) and inequity in access through better performing PCTs receiving more money and those in disadvantaged areas remaining under funded (Ward 2000).

Given that there is a lack of clear evidence at present about how financial incentives work, and many disadvantages emerging through the UK experience, alternative options may include linking performance with non-financial incentives like greater autonomy or spending latitudes (Ward 2000). Studies on financial incentives in public and private sectors support the idea that optimal incentives differ between these sectors. Higher powered financial incentives appear to be less optimal for public sector, including health, particularly due to aspects of the work such as multi-tasking, multiple principals, the difficulty associated with defining and measuring output, and the often undervalued intrinsic motivation of workers (Burgess and Ratto 2003). Optimising incentives is specific to the type of organisation. In the general practice setting, teamwork, and multitasking are both issues. Feasible incentives related to team working may involve assigning funding to improving practice infrastructure, new equipment, facilities, rather than individual financial incentives (Burgess and Ratto 2003).

## **2. Separating quality improvement from accountability processes**

In terms of performance measurement for accountability being linked with funding or any other type of incentive, the role of Australian Divisions of General Practice differs greatly to PCTs because they do not specifically contract with general practices.

Whilst Divisions do broker services (e.g. access to allied psychological services) there are currently no models of contracting directly with the general practice, or with individual GPs. Altering the relationship between Divisions and general practices would require an incremental approach, however, this issue of who should take on the governance role (i.e. accountability), separate from processes of quality improvement requires careful consideration.

If Divisions were to contract with general practices, like PCTs, then the relationship they currently have of providing support, education and evaluation will be very different. The dual roles of performance measurement and management, i.e. quality improvement and accountability should be separate. A role for Divisions in governing quality improvement in terms of only providing support to practices may be feasible.

### 3. Who drives the quality and accountability frameworks?

Options for overseeing performance management, particularly for accountability and allocation of funds, may be served by a body that is separate from assisting practices with their quality improvement activities. AHMAC, or the RACGP, may be feasible options. There is also a requirement to strengthen consumer representation.

### 5.4.3 The development of meso level Primary Care Organisations within Australia

Internationally “meso” level primary care organisations (PCOs) with a strong primary health care orientation have been developed that provide a link between the micro (where clinical care is delivered by individual providers) level, and the macro (systems-level where policy, funding and infrastructure activity occurs) level (Australian Divisions of General Practice 2005). As a concept, primary care organisations are not new, but the form they take, and the functions, scope and responsibilities they assume are widely debated, both internationally and within Australia.

These meso level organisations are referred to in:

- NZ as - Primary Health Organisations, Independent Practitioner Association
- UK as - Primary Care Groups, Primary Care Trusts,
- Canada as – Community Health Services, Family Health networks
- Scotland as - Managed Clinical Networks
- US as- Health Maintenance Organisations (US)

The functions that these primary care organisations may take vary within and between countries. For example in the UK the core functions of PCGs /PCTs have included: to improve the health of their local population; to develop primary and community health services; and to commission secondary and tertiary services for their local population.

In our review we found that regionally based primary care organisations (PCOs) can have a critical role in the implementation of policy reforms. For example these organisations can have a role in the management and delivery of primary care (PC) services, including: responsibility for planning, purchasing and performance management for their catchment; holding budgets and negotiating contracts and service agreements with general practices; providing a mechanism for bringing other primary care workers (nursing and allied health) together with GPs into joint responsibility and governance arrangements; and providing a mechanism for engaging the community in the planning and development of local primary care services. Such organisations need to be set within a clear legislative and administrative framework, and may have independent boards that include community representation. The review has also revealed several important issues that influence how such organisations function. These include: the size of these primary care organisations, how budgets are set, and how they support GP practices.

#### Factors contributing to the development and function of PCOs

Based on an evaluation of the implementation and early operation of PCGs and PCTS in the UK, several key factors emerged of relevance for the development of alternate PCOs including the process takes time, resources and the degree of stability in the wider policy context (Regen and Smith 2002). More specifically, these factors include:

- *The process of creating new primary care organisations take time*, even where organisations being formed from pre-existing organisations. There needs to be a focus on internal development (management support, clarifying roles and

functions of different elements of organisations and the creation of relationships with partner organisations)

- Policy context plays an important enabling role. If the policy context is rapidly changing, time and opportunity to reassess organisational design and development is crucial
- Importance of *securing and maintaining the commitment* of stakeholders to the PCOs
- Be clear about *overall purpose and constituency* For example are the PCOs mainstream bodies with a focus non primary care seeking to achieve wider health care system objectives.

Recently ADGP in releasing their Position Statement on Primary Health Care, commented that meso level primary care organisations can have a range of functions, which can be clustered into several categories (adapted from ADGP, 2005):

- Financial management
  - Allocation of regional budgets
  - Funds pooling
- Service delivery
  - After hours care
  - Disease management
  - Community engagement
  - Patient enrolment
  - Population health activities
- Service coordination & organisation
  - Brokering access to services
  - Commissioning services
  - Triage
  - Contracting with providers
  - Local/regional decision making
- Education and training
  - Education and training- continuous professional development
- Support
  - Professional recruitment and support
- Systems management
  - Data management
  - Monitoring quality

### The role of network organisations

Within the health care arena there is also a growing interest in the concept of '*network organisations*'. Networks range from the informal to the highly structured. Within health and social care Goodwin et al., (2004) identified four types of network organisations:

- *Learning and informational network* to share best practice and align policies and strategies between organisations
- *Coordinated health and social care networks* to promote service re-design through cross-institutional professional partnerships Eg Hospital and clinical networks .For example, in the UK, 'clinical networks' have developed that focus on the development of new linkages between primary, secondary and tertiary care. The idea of such 'network organisations' are increasingly being drawn into main stream health care policy and decision-making, particularly in Scotland where '*managed clinical networks*' exist (Goodwin et al 2004) (see Appendix 8). Three types of these networks have been suggested: enclave (shared

power, trust and commitment), hierarchical (authority run) and individualistic (networks to achieve certain tasks).

- *Integrated healthcare networks* that provide health insurance, outpatient and inpatient service and long-term care maintenance
- *Managed networks* which is a fully integrated model such as the Health Maintenance Organisation such as Kaiser Permanente in the USA that have the following functions:
  - A population defined by enrolment; contractual responsibility for a defined package of comprehensive health and social care services; financing on the basis of pooled multiple funding streams, closed network of contracted and /or salaried providers; emphasis on primary care; use of multidisciplinary teams working across the network with joint clinical responsibility for outcomes.

### Currently existing Primary Care Organisations in Australia

The next section provides a brief overview of the various forms of PCOs that already exist in Australia such as: Multi Purpose Services; NSW Area Health Services, Divisions of General Practice, WA Primary Health Partnerships; Community Health Services, Vic Primary Care Partnerships, General Practice Corporations.

*Multi-Purpose Services (MPSs)* Multi-Purpose Services are a subset of small rural health services that already operate under an integrated funding and accountability model across service types. The aim of the MPS program is to improve provision of services in small rural and remote areas by simplifying funding and accountability mechanisms and by providing a more flexible, co-ordinated and cost-effective framework for service delivery.

The concept involves pooling of State and Commonwealth program funds for health and aged care services. This allows a community to reconfigure services to better meet health needs and to provide staff with flexible work setting options across a range of services.

The amalgamation of acute, aged care, HACC and community health services gives MPS agencies considerable flexibility in choosing service delivery mechanisms appropriate to local circumstances. Monies provided can be pooled then allocated to specific service types based on local community need. Funding and accountability arrangements may be modified over time as the overall small rural health services funding and accountability approach is developed

*Area Health Services* In NSW area health services facilitates the conduct of public hospitals and health institutions and the provision of health services for residents. The functions of an area health service are generally to:

- promote, protect and maintain the health of the residents of its area;
- conduct and manage public hospitals, health institutions, health services and health support services under its control;
- give residents outside its area access to such of the health services it provides as may be necessary or desirable
- achieve and maintain adequate standards of patient care and services;
- ensure the efficient and economic operation of its health services and health support services and use of its resources; and
- consult and co-operate with other relevant services and organisations.

Area Health Advisory Councils (AHACs) are also being established in NSW for each area health service to provide clinicians, consumers and local communities a stronger voice in health decision making.

*Divisions of General Practice* Divisions of General Practice emerged from the 1992 General Practice Strategy as regionally-based organisations that provided a way for general practice as a profession to interact with other health care providers. More specifically Divisions were established to;

“provide the organisational structure for GPs to work together to improve quality and continuity of care, meet locals goals and targets, promote preventative care and respond more rapidly to changing community health needs. Divisions also provide GPs with a corporate identity, and method of influencing the organisations of health care delivery, a chance to utilise a broader range of skills, knowledge and expertise and an opportunity to work with other stakeholders on issues of common interest (McNally et al, 1995)

Divisions have no doubt played a key role in shaping current Australian general practice. Divisions have parallels in other countries such as IPAs in NZ, PCTs in UK, yet they differ due to their budget holding and other health service responsibilities. In the last few years there is growing interest within Australia in fundholding and regional planning led by primary care, and some of our informants have suggested that Divisions are like to take on new and innovative roles in Australia health care. Division roles in the implementation of several Commonwealth programs such as the EPC initiative and the Immunisation Strategy illustrate their importance in reform implementation.

There now are examples of Divisions of General Practice that highlight the capacity of Division to undertake alternate roles and functions (ref - via ADGP, presentation). For example:

- The *Sutherland Division of General Practice* conduct a GP exercise referral scheme that involves the Divisions to broker relationships with local government; engage communities and provide local health promotion solutions that fit with and support national agenda
- The *Kimberley Division of General Practice* runs a More Allied Health Services (MAHS) program specific to chronic disease care in rural areas that involves the Division to fundhold to provide access to relevant allied health services and multidisciplinary teams, and chronic disease care, and supporting comprehensive primary care
- As part of its primary mental health care work, the *NE Victorian Division of General Practice* has entered into purchaser –provider relationships with differing levels of government, fund holds existing funds and delivers integrated services; and supports clinical and social recovery and relapse prevention
- The *North and West QLD Division of General Practice* works in a remote area and is involved in pooling and holding funds to provide locally appropriate primary health care services to small remote communities, and to identify locals/regional needs and to provide innovative solutions to service delivery in remote areas.
- The Central, Australian Division which is now known as the *Central Australian Division of Primary Care*. The Division now has a multidisciplinary membership and governance structure

It appears therefore that there is potential for Divisions to have responsibility for planning, purchasing and performance management for their catchment; hold budgets

and negotiate contracts and service agreements with general practices; and provide a mechanism for bringing other primary care workers together with GPs into joint responsibility and governance arrangements..

Divisions of General Practice are also often referred to as the *'Divisions of General Practice Networks'* given their local knowledge and connections, and are well positioned to play a key role in strengthening the primary health care system. Overall, Divisions of General Practice can be regarded as a hybrid of networks . For example, Divisions with their local GPs, practice staff and local service providers can be regarded as an enclave with a shared commitment to primary care services delivery, enabling information exchange. Whereas, in the BOiMHC program, the Division network functions as a hierarchical network at a State level around the SBO as coordinator, with a specific aim of program dissemination and implementation. Within the Network there are also individualistic networks of Divisions that explore innovation in specific

In New Zealand some PHOs emerged out of existing IPAs, which closely resemble Divisions of General Practice in Australia.

*WA Primary Health Partnerships* In Western Australia, regional Primary Health Partnerships has been established between Population Health Units (in both hospitals and the community) and the Western Australian Divisions of General Practice network. These partnerships aim to improve collaboration between GPs and other primary health care providers, particularly in relation to planning, information sharing and needs assessment for patients.

*Victorian Primary Care Partnerships* The Victorian Primary Care Partnerships (PCPs) are part of a major reform in the way services are delivered in the primary care and community support services sector in Victoria. The main drivers for reforming primary care via PCPs include: the increasing health care costs; demand for services; and service system inefficiencies. Community Health Plans are the main mechanism PCPs use for service planning, co-ordination and partnerships and involve three key strategic elements. Within each of these elements there are specific strategic initiatives or projects:

- Partnerships- formally describes how providers and the community will work together to implement the plan. Strategic initiatives within this element include for example a GP Engagement and Service Linkage strategy.
- Service Coordination- describes how local systems and infrastructure, such as information management will enable services to be better coordinated to improve outcomes for people using the primary care system. Strategic initiatives within this element include for example Better Access to Services; Information Management and Local Service Information strategy.
- Integrated Service Planning- identifies the population health needs of the community and proposes strategies to address these needs. Strategic initiatives within this element include: Health Promotion, Disease Management, Older Persons Health Promotion and Quality Improvement.

Over 800 services have come together in 32 Primary Care Partnerships across all parts of Victoria to progress the reforms. Most PCPs have a semi-formal structure as a mechanism for bringing a wide range of primary health and community support agencies together. PCPs are often described as virtual organisations, as the formal partnerships arrangements entered into by participating organisations is in the form of MOUs that establish the roles and responsibilities of individual member agencies.

Governance arrangements mirror independent community organisations with broad memberships. In some PCPs individual member agencies are contracted to undertake specific tasks and projects, whereas other PCPs use a mix of approaches. Thus, PCPs provides another preexisting model of a meso level PCO that highlights the potential of primary care organisations to have not only alternate role and responsibilities but alternate forms (virtual and network like).

*Community Health Services* In Victoria community health services have become a major platform for the delivery of state-funded, population-focused and community-based health services. Community health services are defined as those agencies that receive Community Health Program Funding and deliver a range of other primary health and support services to meet local community needs. There are 100 CHS in Victoria that are independent CHCs and the remainder are mainly units or divisions of large health services (e.g., metro or rural health services and hospitals) (DHS, 2004).

The roles of CHS include:

- Provide leadership in improving health outcomes and reducing health inequalities of local communities
- Provide a platform for integrated community-based health services (inc PHC, ambulatory care, Chronic disease management and health promotion)
- Being a partner in broader health and community service system; and
- Provide services and programs

CHS, like PCPs, provide another alternative model of successfully functioning organisations that could play a role as meso level PCOs. Some of the PHOs in New Zealand emerged out of existing community health type organisations.

*General Practice Corporations* Since 1998 the corporatisation of general practice has been widely discussed, and several listed public corporations have captured a proportion of the Australian general practice market (Fitzgerald 2002). Corporatisation in this review means ownership by a company where the owner(s) does not work in the practice, but invests in it for profit (GPD-V, 2000). These corporations have entered into limited contracts with GPs, which have led to some GPs being re-located to centres linked directly with diagnostic, imaging and treatment services owned by the corporations. Examples of such corporations include: Sonic Healthcare, Endeavour healthcare, Revesco, Primary Healthcare and Mayne Nickless. The potential benefits of corporatisation include: reduced GP workload, improved practice organisation, improved quality of practice (GPD-V, 2000). Overall the benefits of general practice corporations appears to have not been realised due to a drops in share prices, earning performance has not been high, recent amendments to the privacy act that requires a patients consent for the transfer of medical records which have caused corporations to limited there activities. These results have led to mergers between corporations and other models of general practice organisations (Fitzgerald 2002) such as:

- General practice market –based cooperatives, where GPs share ownership of diagnostic and therapeutic services and benefit from the profits of those services
- Division-based cooperatives, where GPs co-locate, but retain ownership of their own practices (e.g. Health Connectiv Pty Ltd)

Thus, it can be seen that there is the potential to innovate in terms of the meso level organisation of primary care / general practice.

## Policy implications

In Australia a number of primary care organisations already exist that have alternate roles, functions and responsibilities, and that may pave the way for optimising implementation of PC systems reforms. Any consideration of the strengthening of meso level PCOs within the Australian PC system would clearly need to take account of the existing landscape and the unique historical features of the Australian context.

One option clearly is to further develop and strengthen the existing local and regional PCOs to become primary care organisations networks with legislated community boards, and multidisciplinary provider representation. Such strengthened organisations could have a stronger role in financial management; service delivery; service coordination and organisation; education and training; professional recruitment and support; and systems management performance monitoring at a catchment and practice level. Clearly improved systems for monitoring, auditing and accountability (see (see Section 5.3.2 Quality and Section 5.3.4 Infrastructure) would be required if this were to be considered.

There is a clear example in the New Zealand setting of how meso level PCOs can emerge from a plurality of existing and new organisations. A framework for PHOs was established that included legislated independent community boards and multidisciplinary provider representation. A range of existing organisations applied to become PHOs within the framework. Such a re-orientation of existing local regionally-based organisations (e.g., MPS, Area Health Services, Divisions, PCPs) to become PC virtual network type organisations that have a role in financial management, service delivery; service coordination & organisation; education and training; professional recruitment and support is also an option. Again, quality, capacity and accountability arrangements would be critical.

The UK provides an example where new PC organisations were established with a role in financial management; contracting and commissioning services; and systems management performance monitoring at a catchment and practice level.

The evidence suggest that the potential long term gain from the enhanced capacity to plan and develop services locally in response to identified community need, and to monitor and raise standards around quality of care at a regional level, will require an initial investment in building local capacity to adequately fulfill these roles, and a medium term investment of time is establishing inter-professional, professional-funder, and professional-community relationships.

### **5.4.4 Supporting and enabling reform through enhanced infrastructure**

Each of the three areas discussed as key issues in this chapter (the development of flexible contracting options, the strengthening of meso level governance of primary care and the progression of an enhanced quality framework) have broad implications for capacity of the primary care system to engage in such changes. *Capacity* is a broad term encompassing the ability of the primary care system to provide services that are high quality, effective, efficient, accessible and equitably distributed (Centre for General Practice Integration Studies, 2006). In this broad sense *infrastructure* to support capacity can include the physical resources supporting service delivery, the organizations that support and resource service delivery as well as the relationships and other elements that “glue” the system together (Rudd & Watts, 2005). It is difficult to disentangle the elements of capacity and infrastructure in reforms we reviewed. All

innovation and reform aims to support and enhance service delivery and each has implications for building the capacity of the system to respond to reform options.

In this section we specifically draw together material in relation to information technology and information management as well as some reflections on size and capacity of general practices. These two related elements of infrastructure emerged as a key factors in supporting the reform themes we identified in our review.<sup>31</sup> Electronic health information (or e-health) systems that can securely and effectively exchange data can significantly improve how clinical and administrative information is communicated between healthcare providers. Such systems have the potential to deliver substantially greater safety, quality and efficiency. The potential for effective development of IT systems at a national level depends in part on possible economies of scale which in turn depend on the size and capacity of practices

### Findings related to infrastructure

#### Information Technology /Information Management

In terms of the framework introduced in chapter 4, IT investment and maturity was an important element of mechanisms that focused on altering characteristics of all three relationships we examined (GP-patient, GP-other health professional and GP-funder). Thus IT was an important enabling and supporting factor for mechanisms aimed at achieving long term reform goals of improving access and equity, enhancing quality and increasing efficiency.

New Zealand and the UK illustrated particular issues related to IT investment. We identified no formal evaluations of these investment strategies but a large amount of commentary and descriptive material.

#### ***New Zealand***

Issues related to IT systems were crucial in the NZ reforms we examined. Informants suggested that reforms built upon the substantial advances made earlier within Independent Practitioner Associations. IPAs had developed sophisticated recall and reminder systems, disease registers, as well as the ability to merge and manage practice registers, collate and analyse prescribing and testing data and provide individualised feedback to their members. This not only made the move to PHOs more feasible but ensured IPAs played a strong role in that evolution.

Nevertheless the capacity of PHOs to provide accurate and robust information on a range of data continues to impede progress in the development of PHOs. In particular this covers data important to funding arrangements. Inaccurate patient enrolment data and large swings in patient enrolment registers as attempts are made to clean the enrolment lists and catch up with patient movements has led to anxiety about financial risk and security, eroding trust between GPs and practices, PHOs and funding bodies (District health boards). The collection of clinical data to inform health planning and monitor quality standards is at an even less developed stage.

---

<sup>31</sup> Issues related to workforce are not discussed here. We discuss skill mix within our three policy themes, and workforce issues are specifically covered by another APHCRI spoke. Organisational structures to support service delivery are specifically covered within our policy theme of Regional primary care governance.

### ***England***

The NHS in the UK has the most fully developed and articulated IT investment strategy. The NHS Connecting for Health Program (National Health Service, 2006) is in the midst of a £6 billion investment over a six year period in developing a network and system designed to support an integrated suite of initiatives. These include initiatives aimed at supporting patient choice and access to care, quality and efficiency of care and broader population health monitoring and planning.

Patient choice and access initiatives include the NHS Care Record Service and the Choose and Book initiative. The NHS Care Record Service will build a core of essential patient record data that will be held centrally, ensuring complete transportability of patient information. Choose and Book will allow interface at the point of GP care with secondary hospital clinic booking services to individualize patient entry to secondary care services. Care efficiency and quality initiatives include electronic transmission of prescriptions, X-ray and other image transfer and archiving services and GP quality management and analysis systems. The latter will allow local analysis of quality process of care and clinical care as well as feeding into the national quality outcomes framework reporting requirements. Population health monitoring and planning will be served by aggregated data to which secondary users will have access.

Two important issues relating to centralization of this strategy have been highlighted recently in the UK. The first of these relates to the level at which purchasing and planning occurs. There are large potential savings in the development of a national coordinated network. In the UK, investment in large system wide network (N3) to replace locally negotiated contracts underpinning the NHS network are estimated to save up to £900 million over a seven year period. While the general trend in NHS reforms is to allow local innovation, flexibility and choice, the NHS recently returned overall governance of its IT investment to within the NHS. The previous arms length arrangement where the NHS set broad parameters and allowed local arrangements to evolve was felt to be adding significant unnecessary cost.

At a regional level, it was found that leaving investment in IT to practices was retarding investment, despite a 70% reimbursement to practices for money spent. Now PCTs own all the hardware and software and plan investment regionally. A pluralist set of available software packages are all compatible with the QOF search engines which interrogate practice databases on a regular basis to retrieve quality data. Large practices top up IT investment but the regional planning and investment ensures universality.

### ***Other countries***

In other countries we identified smaller examples of IT playing a critical enabling role in reforms. For example IT investment is central to the development of teams based approaches within the Chronic Care Model in the USA. IT systems are important not only in the use of recall and reminder systems so central to this model, but assist in supporting self care (e.g. providing individualised patient feedback) and can assist in community and population based approaches to chronic disease management and prevention. Enhanced IT systems were important in allowing the exchange of clinical information that underpinned the development of virtual Family Practice Networks in Canada.

### Practice size and capacity

The issues raised above in relation to IT planning and investment at a national and regional level is also seen in relation to other aspects of primary care infrastructure, particularly practice size. It is difficult to get data on the range of practice sizes in all countries, particularly in the market oriented US system where such a plurality of organisational structures exists.

Data is available for the UK and provides a case study. In the UK there has been a long and more recently (over the last two years) rapidly accelerating trend to larger practices and partnerships. The number of partnerships of 7+ has quadrupled from 4 to 15%. The proportion of single handed practices has fallen from 32 to 22%. Over a third of all unrestricted principals in the UK (providing a full list of services under the GMS) now work in practices of six or more, compared with only 12% in 1980. Partnerships of three or less GPs now represent only 53% of total partnerships in England and Wales, compared with 70% in 1991 (Royal College of General Practitioners 2006).

Within the UK reforms, there is concern with the capacity of practices, the range of primary care staff practicing at the premises and the sort of premises that they work from (Royal College of General Practitioners 2006). There is an average of 2.2 practice staff per FTE GP, about a quarter of who are involved in direct patient care. This includes nurses, dispensers, physiotherapists, chiropodists, counsellors and complementary therapists. Many premises have been judged to be of substandard quality. An aspect of this judgment that they were not co-located with dispensing or social services (NHS 2006). In 2000 the UK Government announced 1 billion pounds to invest in premises. Nearly 3000 have been or are being refurbished since then.

Average practice list size ranges from 4,929 in Northern Ireland to 6,250 in England. The UK data suggest that larger partnerships can handle a high average number of patients per GP compared to smaller practices. The optimal size, scope and capitalization of a practice probably depends to a great extent on a range of external factors (local demographic profile etc) as well as the range of activities and responsibilities the practice assumes (e.g. undertaking special procedural interests, extensive after hours cover etc). The issue with optimal size is to do with the relationship between costs and outputs/outcomes. Economic theory suggests that there is U-shaped relationship between average cost and outputs. For small practices, fixed costs (infrastructure) are spread amongst a relatively small number of patients/services, so average cost per patient is high (therefore inefficient). As size increases and output expands, average costs fall and economies of scale are achieved. After a certain minimum average cost (the theoretical bottom of a u-shaped curve) and certain level of output, average costs begin to rise again due to 'diseconomies of scale', i.e. the organisation becomes difficult to manage etc. There is also a similar argument for quality of care and volume provided by a practice: bigger practices have more experience with specific diseases as they see more patients etc and may then have a higher quality. This relationship is important and can be seen at work in the Australian context (see below).

### Current related developments in Australia

A number of recent studies within Australia have highlighted the critical role IT will play in reform and development within primary care, as well as highlighting the relationship to practice capacity. A study of practice capacity (Centre for General Practice Integration Studies 2006) to provide chronic disease care found that internal factors that are positively associated with quality care included:

- IM/IT maturity (use of computers to support clinical care IE moving beyond use of computers simply to support appointment systems and prescribing)
- Maturity and sophistication of business and financial systems in the practice
- Use of teams within the practice, specifically involvement of reception staff in clinical care support

External factors that are associated with quality of care included:

- Clinical linkages to other health care services and providers

Clearly there is an issue of capacity related to size and capitalization. This study found that smaller practices had better scores for quality of care. Nevertheless larger practices had higher internal and external capacity scores. When these were present, quality of care of larger practices was comparable to smaller practices. Smaller practices may be less able to take up investment in infrastructure. This is clearly a complex issue. With the increasing use of IT and electronic communication/records it can be difficult to define a practice. Canada provides the example of virtual networks. These are geographically separate but can share resources such as knowledge (patient history, expertise,). In the US low-overhead solo practices supported by IT can sometimes be a workable model in successfully providing services in rural/remote areas and other areas that are underserved, and are financially more viable and portable than large HMOs in these specific settings.

Each of the factors identified in the above study is in part dependent on IT investment, crucially the role played in linking providers with resources and services beyond the practice. This important issue of interoperability has been highlighted by Liaw & Tomlins (2005)(see below).

A scoping study of the development of quality indicators for Divisions of General Practice (DGP) (Sibthorpe, Glasgow et al. 2004) also highlighted the implications for investment in IT capacity. This study describes principles for the development of quality indicators at DGP level. It also sets out guiding principles for the wider development of quality indicators particularly that they should be planned, form part of overall DGP reporting, be relatively easy and seamless to report and serve national HPAs. To achieve this would require further development of IT and IM at both DGP and practice level, as well as the normalization of reporting into routine practice at a DGP and practice level.

They suggested that for the national priority domain indicator data, an institutional base for collation, quality assurance, analysis and reporting would need to be identified and resourced. The report also suggest that IT support for a Divisions quality framework does not necessarily have to come from DGPs themselves. Indeed such support infrastructure support could be tendered out by Government and met by a range of other providers e.g. PCPs, CHS AHSs etc.

The implication from both studies described above is that if increased quality and reporting on quality is required, further investment in supportive infrastructure is required or at least re-orienting existing infrastructure to serve this purpose (e.g. specifying accountability for such infrastructure support in DGP contracts if DGPs are to be the bodies who contact to provide it).

There have certainly been small and innovative IT initiatives that have spread to a system wide level. In response to the Review of the role of DGPs, the Government established the performance and development pool (\$1.6 mill in 2005-6) (Australian Divisions of General Practice, 2006) with the aim of building capacity in the DGP network across a range of priority areas. One of these projects included the development of the Divisions Health Atlas. This has been taken up by the PHIDU development of Division Pop Health profiles (Public Health Information Development Unit 2005) but the issue remains both the capacity of DGPs to use these and accountability for using these. The point remains that infrastructure development needs to go hand in hand with the development of a national quality framework and other supportive capacity initiatives.

In a review of the development of information systems in primary care (Liw and Tomlins 2005) there emerges a clear sense that while GP computing use is increasing, the use for clinical purposes lags well behind its use for administrative, billing and prescribing purposes. The ideal picture of seamless, integrated clinical information systems that effortlessly capture data on process of care and health status at the point of contact with individuals and that allow aggregated data to be assembled for the purposes of research and health service planning at a population level is far from the current reality

These authors highlight the critical issue of interoperability. At the heart of this review is a concern about the lack of generic open standards based systems. The lack of technical consistency in the field (and regulation and benchmarking to assist in promoting consistency) is a negative influence on the efficiency of information management in general practice (and potentially a threat to patient outcomes). They also suggest that the withdrawal of funding for DGP IT officers has worsened and fragmented IT investment effectiveness.

These authors suggest that the greatest challenge to GP informatics is the lack of a link between informatics developments and a clear policy framework that provides incentives to meet quality standards either in the direct adoption and use of IM/IT or the indirect utilisation of IM/IT in meeting clinical and other standards. They call for consistent and sustained investment in developing clinical IM systems and in developing and maintaining standards based architecture rather than leaving this to the market place. This, along with silos within Govt funding of small stand-alone non-standards based IM/IT projects leads to a very fragmented scene that does little to promote long term sustainable solutions.

Since that review there have been a number of significant developments. The national implementation of e-health policy is the responsibility of the National Health Informatics Group (NHIG), an AHMAC sub-committee. The issue of national standards and interoperability has been taken up to some extent. HealthConnect is the body responsible for this issue (Department of Health and Ageing, 2006). It has two major strategies. A national approach is pursued through the National E-Health Transition Authority. Secondly \$60 million has been allocated to Broadband for health, (so far

with 6700 uptake amongst GPs and pharmacies and ACCHS's) (Department of Health and Ageing, 2006).

Rudd and Watts (2005) provide an overview of other aspects of infrastructure in Australian general practice. They paint a picture of a relatively uncoordinated mix of national and regional level organizations with a relatively unplanned flow of funds available for practice infrastructure development channelled through a range of untargeted mechanisms to a plurality of practice structures. In particular there is little planning capacity held at a governmental level to influence investment in infrastructure at a practice level and little ability to link this in any way to quality improvement. Additionally it is not possible to obtain good quality national data about the employment of practice managers or nurses within general practice.

### Policy implications

Our review suggests that one plank of a raft of reform options that could be considered is a review of the approach taken to investment in practice infrastructure.

Evidence suggests that the development of sophisticated data collection, transfer and management capacity as well as consideration of the optimal size of practices are two key enabling elements of infrastructure. Larger regional approaches to the purchasing of hardware may offer advantages of economies of scale and interoperability issues, while ensuring the Commonwealth invest in the necessary infrastructure to allow greater input into planning and primary care service development in the future. Any further investment in IT either at a Division of General Practice or practice level would need to be linked to reform in the areas of contracting, governance, quality of care and accountability arrangements.

The issue of practice size and capacity is complex. The implication may be that if larger size practices are a goal of reform for a range of other reasons (e.g. risk management, as an element of workforce recruitment and retention strategies, issues of governance, capacity to plan and meet the needs of larger population groups etc) then maintaining practice capacity to meet quality of care outcomes in relation to chronic disease is likely to require significant investment in infrastructure, particularly IT, and the development of multidisciplinary teams.

Currently the Commonwealth plays little role in developing the infrastructure of the major element of the primary care system it funds. The Commonwealth has established in principle the notion that it may contribute to GP infrastructure in ways other than through subsidising patient fees, as it has done so through elements of the PIP (such as funding of IT establishment costs). It may be that to be able to drive reform may require investment in both these elements of infrastructure.

## 6. CONCLUSION

A narrative review and synthesis of evidence of innovative models for comprehensive primary care delivery was conducted. Four key areas for potential policy reform have been identified, based on a review of evidence from five countries with diverse primary care systems (New Zealand, United Kingdom, Netherlands, Canada and the USA).

Several provisos need to be considered: the options are based on limited evidence on effects on costs and outcomes; the evidence often reflects aspirational rather than actual reforms; and their implementation would need to take into account the existing landscape and the unique historical features of the Australian primary care context. The options are proposed as the basis for directions of possible reform, towards which movement may be incremental or substantial. Implementation of reforms may be optimised via intergovernmental processes such as Parliamentary inquiries (via Senate Select Committees); the Council of Australian Government (COAG) process; or the Australian Health Care Agreements process.

Key areas for potential policy reform included:

- 1. Flexible GP funding.** Evidence exists that supply-side mechanisms (e.g., funding GPs) are more effective in changing the primary care system. Policy options include: funding General Practices rather than individual GPs; having a plurality of funding mechanisms for General Practices; and having new funding arrangements between General Practices and regional primary care organisations.
- 2. Quality frameworks at a practice level.** Evidence of the effectiveness of quality frameworks and practice-level performance indicators is equivocal. Policy implications include: caution with linking incentives to performance at the practice level; and need to separate quality improvement from accountability processes.
- 3. Meso-level primary care organisations (PCOs):** Evidence exists that strong primary health care systems are best based on a regional form of governance. Policy implications include: consideration of the appropriate level of governance for reformed contracting with primary care providers, located at state level or strengthening existing organisations. Principles include community and multidisciplinary representation; capacity to play a role in financial management, service delivery, service coordination, education, training and support, and performance monitoring.
- 4. Infrastructure:** Evidence exists that size and scope of primary care groupings is a key infrastructure issue in primary care systems. Infrastructure is a key factor in supporting reforms. Policy implications include: a National approach to interoperable e-health systems; flexible GP funding, governance; quality of care and accountability arrangements; and incentives to move towards optimal size and scope of primary care provider organisations.

### **Emerging Issues**

The above options could be pursued independently or as part of longer term strategy. The options are also not mutually exclusive. For example the flexible GP funding option could be linked to a quality framework that provides incentives for specific quality improvements in both infrastructure and service provision. The funds would also need to be established under a national framework linked to adherence to minimum standards and the provision of high quality care, incentives to be cost conscious, and the appropriate management and monitoring of funds and performance by a meso-level primary care or integrated organisations. Similarly the infrastructure option underpins reforms with regard to funding, quality and the organisation of primary care delivery. Some of these options already exist in Australia but on a small scale. Further work should examine each option in more detail, including exploring the interdependencies between them.

## REFERENCES

- Amos and Doran (2002). "Department of Health <http://www.dh.gov.uk/PolicyAndGuidance/OrganisationPolicy/PrimaryCare/ManagingPractitionerAppointments/fs/en>, date accessed 13 March 2006."
- Anderson, J. B. and C. A. Sotolongo (2005). "Implementing Advanced Access in a Family Medicine Practice: A New Paradigm in Primary Care." *New Caledonia Medical Journal* 66(3): 223-225.
- Appleby N, Dunt D, et al. (1999). General practice integration in Australia. *Australian Family Physician*. 28: 858-863.
- Arie, S. (2006). "Can GPs compete with big business?" *British Medical Journal* 332: 1172-1173.
- Beaulieu, M.-D. (2004). *Organizing Primary Care Reform: Getting Doctors to Work Together and with Others. Implementing Primary Care Reform: Barriers and Facilitators*. R. Wilson, S. Short and J. Dorland. London, Published for the School of Policy Studies by McGill-Queen's University Press: 139-151.
- Bloor, K. and A. Maynard (1998). "Rewarding healthcare teams." *British Medical Journal* 316: 569-570.
- Bodenheimer, T., A. Majeed, et al. (2003). "Primary care in the United States: Innovations in primary care in the United States \* Commentary: What can primary care in the United States learn from the United Kingdom?" *BMJ* 326(7393): 796-799. [10.1136/bmj.326.7393.796](https://doi.org/10.1136/bmj.326.7393.796).
- Bodenheimer, T., E. H. Wagner, et al. (2002). "Improving Primary Care for Patients With Chronic Illness [10.1001/jama.288.14.1775](https://doi.org/10.1001/jama.288.14.1775)." *JAMA* 288(14): 1775-1779.
- Booth, B., R. Portelli, et al. (2005). *A quality framework for Australian general practice*. Melbourne, The Royal College of General Practitioners.
- Bourqueil, Y., A. Marek, et al. (2005). *Health Economics Letter: questions. Issues in health economics*. Paris, Institute for Research and Information in Health Economics.
- Buetow SA (1995). What do general practitioners and their patients want from a general practice and are they receiving it? A framework. *Social Science & Medicine*. 40: 213-221.
- Burgess, S. and M. Ratto (2003). "The role of incentives in the public sector: Issues and evidence." *Oxford Review of Economic Policy* 19(2): 285.
- Burns, A. (2005). "Recognizing the needs and roles of the key actors." *Journal of Health Services Research & Policy* 10(1): 53-54.
- Campbell M, Fitzpatrick R, et al. (2000). "Framework for design and evaluation of complex interventions to improve health." *British Medical Journal* 321: 694-696.
- Canadian Institute for Health Information (2005). *Research and Reports: Highlights*. Canadian Institute of Health Information.
- Canadian Nurses Association (2002). *Role of the Nurse Practitioner Around the World. Fact Sheet*. Ottawa, Ontario.
- Centre for General Practice Integration Studies (2006). *Cross Sectional Study of GP Capacity to Provide Quality Chronic Disease Care*. Sydney, University of NSW. 2006.
- Champlain District Health Council (2004). *Primary Care in Champlain District "A Foundation for Planning": updated Technical Report*, Champlain District Health Council: 1-28.
- Christakis DA (2001). Does Continuity of Care Matter? *West J Med*. 4: 175.
- Cinota, J. (1999). "Developing 'group thinking' in a multispeciality group." *Family Practice Management* 6: 45-49.

- Cooper, R. A., P. Laud, et al. (1998). "Current and Projected Workforce of Nonphysician Clinicians." *JAMA* 280(9): 788-794.
- Crane, S. D. (2005). "Low-Overhead Practice Models and the Uninsured: Harnessing the Power of Small Scale to Address Large Unmet Health Needs." *New Caledonia Medical Journal* 66(3): 205-207.
- Croxson, B., C. Propper, et al. (2001). "Do doctors respond to financial incentives? UK family doctors and the GP fundholder scheme." *Journal of Public Economics* 79(2): 375-398.
- Cumming, J., A. Raymont, et al. (2005). Evaluation of the Implementation and Intermediate Outcomes of the Primary Health Care Strategy First Report, Health Services Research Centre, Wellington, Victoria University of Wellington.
- Davies, C., P. Anand, et al. (2005). Links between Governance, Incentives and Outcomes: a Review of the Literature. Links between Governance, Incentives and Outcomes. Walton, UK, School of Health and Social Welfare, The Open University: 1-165.
- Dawson, D. and M. Goddard (1999). "Long-Term Contracts in the NHS: A Solution in Search of A Problem?" *Health Economics* 8: 709-720.
- Department of Health (2005).  
["http://www.dh.gov.uk/PolicyAndGuidance/OrganisationPolicy/PrimaryCare/ManagingPractitionerAppointments/fs/en."](http://www.dh.gov.uk/PolicyAndGuidance/OrganisationPolicy/PrimaryCare/ManagingPractitionerAppointments/fs/en)
- Edsall, R. L. (2004). "Open Access: Whatever You May Think, It Works." *Family Practice Management* 11(5): 17.
- Endsley, S., M. Magill, et al. (2002). "Creating a lean practice." *Family Practice Management* 13(4).
- Fitzgerald, P. D. (2002). "General practice corporatisation: the half-time score." *eMJA* 177(2): 90-92.
- Forrest, B. R. (2005). "Access Healthcare: A Model to Provide Improved Access to High-Quality and Affordable Healthcare." *New Caledonia Medical Journal* 66(3): 208-211.
- Gardner, A. and G. Gardner (2005). "A trial of nurse practitioner scope of practice doi:10.1111/j.1365-2648.2004.03273.x." *Journal of Advanced Nursing* 49(2): 135-145.
- Glensor, P. (2004). "New Zealand primary health care policy and the role of a non-government organisation." *Australian Journal of Primary Health* 10(3): 76-82.
- Goddard, M. and R. Mannion (1998). "From Competition to Co-operation: New Economic Relationships in the National Health Service." *Health Economics* 7: 105-119.
- Gosden, T., F. Forland, et al. (2000). "Capitation, Salary, fee-for-service and mixed systems of payment: effects on the behaviour of primary care physicians (Review)." *The Cochrane Database of Systematic Reviews*(Issue 3. Art No.: CD002215. DOI: 10.1002/14651858.CD002215).
- Haggerty JL, Reid RJ, et al. (2003). Continuity of care: a multidisciplinary review. *British Medical Journal*. 327: 1219-1221.
- Hays R (1999). Integration in general practice. *Australian Family Physician*. 28: 989 & 1077.
- Heffler S., Smith S., et al. (2005). "US health spending projections for 2004 to 2014." *Health Affairs*.
- Hjortdahl P and Borchgrevink C (1991). Continuity of care: influence of general practitioners' knowledge about their patients on use of resources in consultations. *British Medical Journal*. 303: 1181-1184.
- Hjortdahl P and Laerum E (1992). Continuity of care in general practice: effect on patient satisfaction. *British Medical Journal*. 304: 1287-1290.

- Hooker, R. S. (2003). Non-physician clinicians: The US Experience: implications for physician workforce policies. International Medical Workforce Conference, Oxford, London.
- Illiff, D. (2003). "Solo Practice: The way of the future." *Family Practice Management* 10(9).
- Iron, K. (2006). Moving Toward a Better Health Data System for Ontario. ICES Investigative Report. Toronto, Institute for Clinical Evaluative Sciences.
- Johnston, C. (2005). Strategies for Achieving Change in General Practice. Report of a Study Trip to England, Victoria University.
- Komives, E. M. (2005). "Clinician-Patient E-mail Communication: Challenges for Reimbursement." *New Caledonia Medical Journal* 66(3): 238-240.
- Lavis, J., H. Davies, et al. (2005). "Towards systematic reviews that inform health care management and policy-making." *Journal of Health Services Research & Policy* 10(S1): 35-48.
- Lewis, S. and D. Kouri (2004). "Regionalisation: Making sense of the Canadian Experience." *Healthcare Papers* 5(1): 12-31.
- Liaw, S. and R. Tomlins (2005). Developments in information systems. General Practice in Australia: 2004. R. Pegram, J. Daniel, M. Harris et al. Canberra, General Practice Branch, Department of Health and Aged Care: 544-586.
- Lomas, J., J. Woods, et al. (1997). "Devolving authority for health care in Canada's provinces: 1. An introduction to the issues." *Canadian Medical Association* 156(3): 371-7.
- Martin, C. M. and W. E. Hogg (2004). "How family physicians are funded in Canada - GP funding Viewpoints." *MJA* 181(2): 111-112.
- Martin, C. M. and J. P. Strumberg (2005). "General Practice - chaos, complexity and innovation." *Medical Journal Australia* 183(2): 106-109.
- McAvoy, B. R. and G. D. Coster (2005). "General Practice and the New Zealand Reforms - Lessons for Australia?" *Australia and New Zealand Health Policy* 2(26).
- Ministry of Health (2005). A difference in communities: Whats happening in Primary Health Organisations. Wellington, Ministry of Health.
- Moore, G. (2006). "Creating a high-performing clinical team." *Family Practice Management* 9(2): 29-32.
- Moore, G. and J. Showstack (2003). "Primary Care Medicine in Crisis: Toward Reconstruction and Renewal." *Ann Intern Med* 138(3): 244-247.
- Mundinger, M. O., R. L. Kane, et al. (2000). "Primary Care Outcomes in Patients Treated by Nurse Practitioners or Physicians: A Randomized Trial 10.1001/jama.283.1.59." *JAMA* 283(1): 59-68.
- Newton, W., C. Dubard, et al. (2005). "New Developments in primary care practice." *North Carolina Medical Journal* 66(3): 194-204.
- NHS (2006). NHS Local Improvement Finance Trust. London, NHS.
- O'Hare, D. C. and J. Corlett (2004). "The Outcomes of Open-Access Scheduling." *Family Practice Management* 11(2): 35-38.
- Pawson, R. (2001). Evidence Based Policy: I. In Search of a Method. London, University of London, ESRC UK Centre for Evidence Based Policy and Practice.
- Phillips, R. L., M. S. Dadoo, et al. (2005). "Adding More Specialists Is Not Likely To Improve Population Health: Is Anybody Listening?" *Health Affairs* 24(Web Exclusives): 111-115.
- Pilotto LS, McCallum J, et al. (1996). Sequential continuity of care by general practitioners: which patients change doctor? *Medical Journal of Australia*. 164: 463-466.

- Powell-Davies, G., W. Hu, et al. (2005). "Developments in Australian general practice 2000-2002: what did these contribute to a well functioning and comprehensive Primary Health Care System?" *Australia and New Zealand Health Policy* 3(1). Public Health Information Development Unit (2005). *Division of General Practice Profiles*. Adelaide, Public Health Information Development Unit, University of Adelaide.
- Ratto, M., S. Burgess, et al. (2001). *Team-Based Incentives in the NHS: An Economic Analysis*. CMPO Working Paper Series No. 01/37. Bristol, Department of Economics, University of Bristol.
- Regen, E. and J. Smith (2002). "Developing primary care organisations: Lessons from the English NHS." *Health Care & Informatics review Online*. *Delivering Primary Health Care Services: English and New Zealand Perspectives*. 6(1).
- Reid, M. A. (2002). "Reform of the Australian Health Care Agreements: progress of political ploy?" *Medical Journal Australia* 177(6): 310-312.
- Romanow, R. J. (2002). *Building on values: the future of health care in Canada - final report*. Saskatoon, Saskatchewan, Commission on the Future of health care in Canada.
- Rothman, A. and E. H. Wagner (2003). "Chronic Illness Management: What Is the Role of Primary Care?" *American College of Physicians - American Society of Internal Medicine* 138(3): 256-261.
- Royal College of General Practitioners (2006). *Profile of UK General Practitioners: Information sheet*. London, RCGP.
- Royal College of General Practitioners (2006). *Profile of UK Practices: Information sheet*. London, RCGP.
- Rudd, C. and I. Watts (2005). *The industry of general practice: its infrastructure. General Practice in Australia: 2004*. R. Pegram, J. Daniel, M. Harris et al. Canberra, General Practice Branch, Department of Health and Aged Care: 358-419.
- Safran, D., I. Wilson, et al. (2002). "Primary care quality in the Medicare program: Comparing the performance of Medicare Health maintenance organisations and traditional fee-for-service Medicare." *Archives of Internal Medicine* 162: 757-765.
- Sandy, L. G. and S. Schroeder (2003). "Primary Care in a New Era: Disillusion and Dissolution?" *Ann Intern Med* 138: 262-267.
- Saultz JW and Albedaiwi W (2004). *Interpersonal continuity of care and patient satisfaction: A critical review*. *Annals of Family Medicine*. 2: 445-451.
- Scott, A. (2004). *Innovative Primary Care Models to Improve Access and Outcomes*. Statewide Health Workforce Symposium.
- Sheaff, R., J. Schofield, et al. (2003). *Organisational Factors and Performance: A review of the literature*. *Organisational Factors and Performance: A Review of the Literature*.
- Shortt, S. (2004). *Primary Care Reform: Is there a Clinical Rationale? Implementing Primary Care Reform: Barriers and Facilitators*. R. Wilson, S. Shortt and J. Dorland. London, Published for the School of Policy Studies by McGill-Queen's University Press: 11-25.
- Sibthorpe, B., N. Glasgow, et al. (2004). *Advice on a national quality and performance system for divisions*. Canberra, Australian Primary Health Care Research Institute, ANU.
- Spann, S. (2004). "Task Force Report 6. Report on Financing the New Model of Family Medicine." *Annals of Family Medicine* 2(S1): 1-21.
- Spencer, D. C. (2005). "Innovations in the Practice of Primary Care: Communicating with Patients through E-mail." *New Caledonia Medical Journal* 66(3): 241-243.
- Starfield, B. (2004). *Summing up: primary health care reform in contemporary health care systems*. *Implementing primary care reform: barriers and facilitators*. R.

- Wilson, S. Short and J. Dorland. Kingston, ON, McGill-Queen's University Press for School of Policy Studies, Queen's University: 151-164.
- Starfield B (1998). "Quality-of-Care Research: Internal Elegance and External Relevance." JAMA 280(11): 1006-1008.
- Sturmberg JP (2000). Continuity of care: towards a definition based on experiences of practising GPs. Family Practice. 17: 16-20.
- Sturmberg JP (2004). (letter). British Medical Journal.
- Sturmberg JP and Schattner P (2001). Personal doctoring: Its impact on continuity of care as measured by the comprehensiveness of care score. Australian Family Physician. 30: 513-518.
- Swerrisen, H. (2004). "Australian primary care policy in 2004: two tiers or one for Medicare?" Australia and New Zealand Health Policy 1(2): 1-6.
- Swerrisen, H. and C. Livingstone (2004). General Practice and Medicare: Options for Reform. A report for the Department of Premier and Cabinet. Melbourne, Australian Institute for Primary Care.
- Watson, D. E., H. Krueger, et al. (2005). Planning for Renewal: Mapping Primary Health Care in British Columbia. Vancouver, Centre for Health Services and Policy Research, The University of British Columbia: 1-135.
- White, M. (2001). Nurse Practitioner/Advance Nursing Practice Roles in the U.K. London, Royal College of Nursing.
- Willis, E., C. Judith, et al. (2000). "Working relationships between practice nurses and general practitioners in Australia: a critical analysis doi:10.1046/j.1440-1800.2000.00071.x." Nursing Inquiry 7(4): 239-247.
- World Health Organisation (2006). "Working together for health: the World Health Report."
- Zweifel, P. and W. G. Manning (2000). Moral Hazard and Consumer Incentives in Health Care. Handbook of Health Economics: Chapter 8. 1: 410-449.

## APPENDICES

### APPENDIX 1: REALIST REVIEW AND PROGRAM LOGIC FRAMEWORK

#### Box 1: Realist Review & Synthesis Questions

**Theory:** What theories/assumptions implicitly or explicitly underlie models or mechanism of actions?  
**Steps:** What steps need to be in place to ensure alignment of inputs, activities, outputs and outcomes?  
**Actors:** Who and what is the thinking and reasoning of key players?; Who and what influence do powerful players have on development, implementation and sustainability of models?  
**Context:** Within what context have models been developed, implemented and intended to be sustained?  
**Implementation:** To what extent have models (mechanisms of action) been implemented as intended?; and What factors have influenced implementation of models?  
**Change:** How have models evolved and adapted in relation to the context?  
(Adapted from Pawson et al (2001). Realist review. JHSR&P, 10(1), 21-34)

#### Box 2: Primary Health Care Delivery Logic Model Dimensions

**Inputs**  
**Activities**  
**Outputs**  
**Immediate outcomes**  
**Intermediate outcomes**  
**Final outcomes**  
(adapted from Watson et al (2005) Results-based logic Model for Primary Health Care, CHSRF)

APPENDIX 2: EVIDENCE REFORM FORM

**SIREN Evidence Review Form (15/3/06)**

Country: \_\_\_\_\_ Reviewer name: \_\_\_\_\_

Evidence Number & Title: \_\_\_\_\_

**Evidence Type:**

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Government report | <input type="checkbox"/> Published article   | <input type="checkbox"/> Book/Book chapter |
| <input type="checkbox"/> Technical report  | <input type="checkbox"/> Unpublished article | <input type="checkbox"/> Abstract          |
| <input type="checkbox"/> _____             | <input type="checkbox"/> Editorial           | <input type="checkbox"/> Conference        |

**Evidence Focus: level I** (does it focus on)

- |  |   |
|--|---|
| <input type="checkbox"/> Health Care systems | <input type="checkbox"/> Reform commentary        |
| <input type="checkbox"/> PHC systems         | <input type="checkbox"/> Reform evaluation        |
| <input type="checkbox"/> PHC policy          | <input type="checkbox"/> Reform systematic review |

**Evidence Focus: level II** (does it focus on PHC)

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Financial reforms | <input type="checkbox"/> Organisational reforms | <input type="checkbox"/> Governance reforms |
|--|---|---|

**Evidence Focus: level III** (does it focus on PHC)

- |   |  |
|---|--|
| <input type="checkbox"/> Theory/assumptions                     | <input type="checkbox"/> Actors / key player                       |
| <input type="checkbox"/> Inputs (\$, material, human resources) | <input type="checkbox"/> Activities (policy, management, clinical) |
| <input type="checkbox"/> Outputs (products & services)          | <input type="checkbox"/> Outcomes (short and long term)            |

**Quality of Evidence**

**Relevance at country level** (whether document addresses :

- PHC system reform theories     PHC system reform context
- PHC system innovation tensions

**Rigor at document level:** (whether document):

No	Yes	Somewhat
Contributes to knowledge base (understanding of mechanism of action)	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
Defensible in design (research questions and strategy)	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
Rigorous in conduct (data collection, analysis & interpretation)	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
Credible in claims (plausible argument and counter arguments made)	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>

## APPENDIX 3: POLICY LINKAGE CONSULTATION PROCESS (28/7/06)

### **Narrative Review of Innovative Models for Comprehensive Primary (Medical) Health Care Delivery**

#### Interim Key Findings & Policy Recommendations<sup>32</sup>

This work was commissioned by the Australian Primary Health Care Research Institute (APHCRI) to review and synthesise systematically knowledge about innovative models for comprehensive primary medical health care delivery to inform Australian primary health care policy. This interim report has been prepared specifically for the policy linkage consultation process to optimise the strategic and practical usefulness of the policy recommendations. ***Based on this consultation process we recognise that the final policy recommendations may change.*** Overall this work reviewed evidence from five countries: UK, New Zealand, Netherlands, Canada and the US with the aim to address the following original questions:

- What types of innovative models for comprehensive primary health care delivery exist nationally and internationally?
- What factors influence the development, implementation and sustainability of these models?
- How do we address barriers and enhance facilitators to implement the models?
- What do we know about the influence of interface issues on the models, such as the Commonwealth / State funding arrangements?
- What influence do the various innovative models have on the key dimensions of comprehensive primary health care delivery?
- What do we know about the costs and benefits of the innovative models as compared to existing primary health care models?
- What policy levers are available within the current Australian primary health care setting to implement the models?

Through the initial evidence review process, there arose a recognition that the notion of **models** of PMHC delivery can usefully be conceptualised as a range of **mechanisms** that change and add value (ie innovate) to the characteristics of the **relationships** between the main actors (e.g., GPs and patients; third party funders of primary care and primary care providers) within the PHC system. Based on this premise, the review was refocused to explore:

- What innovative mechanisms exist within the PMHC system?
- What contextual factors influence the development, implementation and sustainability of these mechanisms?
- What impact do these mechanisms have?
- What do we know about the costs and benefits of these mechanisms?
- What policy levers are available within the current Australian primary medical health care setting to implement the mechanisms?

**This document represents an attempt to synthesise a narrative review of complex, variable quality and multi-faceted evidence from five country specific documents and an overall synthesis report.**

---

<sup>32</sup> Despite the term 'policy recommendations' being used, the term 'policy options' was intended in keeping with the principles underlying narrative reviews.

## THE ISSUE

The importance and role of the primary (medical) health care (PMHC) system within the wider health care system is recognised. PMHC systems are constantly being reformed in response to pressures arising from system inequity, inefficiency and sub-optimal quality. Despite a multitude of internationally commissioned reports informing reforms, to date no Australia-relevant review of innovative models (mechanisms) for comprehensive PMHC delivery has been conducted.

## KEY FINDINGS- CONTEXTUAL

Policy reforms need to address several contextual factors:

- The complexity, interdependence and dynamic nature of the PMHC system and its components need to be taken into account when planning, implementing and evaluating new reforms;
- Local contextual factors related to the: health care system (pressures; market orientation; structure and funding arrangements; reform agendas); GP profession (positioning; mobilization); other primary care providers status; government (priorities; commissioning of reviews; announcement of new PMHC funding); reform history; and community (confidence and satisfactions with systems and engagement in policy reform processes) potentially influence the development, adoption, implementation and sustainability of new reforms; and
- Policy reforms need time for consolidation prior to instigating further policy reforms, to avoid 'policy fatigue' and missed reform opportunities.

## KEY FINDINGS: POLICY RECOMMENDATIONS

On the basis of our detailed narrative review and synthesis of country experiences, mechanisms and evidence, six main broad recommendations have emerged. These are:

- a flexible GP Contracting System at a practice level;
- new roles for Divisions of General Practice;
- a national quality framework;
- investment in practice infrastructure;
- Government commissioning of systems reviews and consultation processes; and
- Government commissioning evaluations of organisational reform opportunities.

Overall new funding is required into PHMC delivery to support any of the above policy recommendations. **We recognise that the recommendations need to also be viewed in light of recent and significant investments into the primary medical health care system.**

### *1. A flexible GP contracting system at a practice level*

Evidence exists that supply-side mechanisms (eg., contracts with GPs) are more effective in changing the primary care system, particularly where in health care the demand side is weak. It is also important that supply-side mechanisms and any new contractual arrangements are attractive to GPs and other primary care professionals, thus actively seeking to improve recruitment and retention. This does not rule out the use of demand side policies, but they should not be the main focus of reform. Both the UK and NZ have moved to contracting arrangements with GPs at the practice level. The particular historical and local contextual factors vary in each country, thus

contracting arrangement and specifications (eg the range of services included, accountability arrangements, etc) also vary. In the UK, for example, the new General Medical Services (GMS) contract has been revised through a strong consultation process with the profession, building on previous quality standards work; is clearly aligned with overall NHS and general practice priorities; and is linked to IT support.

GP contracting arrangements have an impact on GP practices in terms of the quality and service options that GPs provide. In particular they offer flexibility to organize clinical services locally in way that makes best use of practice resources such as task substitution with increased and enhanced roles for nurses. The flexibility could include the Commonwealth, States, or regional Primary Care Organisations contracting with practices rather than individual GPs (see 2 below), and offering alternative contracts that would differ in the types of services they covered and the type of payment arrangements to GP practices (e.g. blended, block payments, FFS, salaried), although blended payments are widely regarded as better than any single type of payment scheme. A plurality of contracts can be offered to accommodate variations in GPs working practices and styles which are likely to have a favorable impact on recruitment and retention. Each of the contractual choices above would need to be linked to adherence to minimum standards and the provision of high quality care, incentives to be cost conscious, and the appropriate management and monitoring of the contracting process.

Contracting arrangements in UK and NZ are both based on an enrolled register of patients that facilitates continuity of care, enhanced information exchange, and facilitates reporting and accountability. In the Australian setting incentives could be provided for patients to enroll, such as guaranteed bulk-billing, whilst retaining the ability of patients to change GPs if they wish. Enrollment could be offered to specific groups of patients, i.e. those with chronic disease, the elderly and disadvantaged. A flexible contracting system at a practice level may also offer a vehicle for joint funds pooling between Commonwealth & States.

**Recommendation:** The development of flexible GP contracting arrangements at a practice level that are linked to a quality framework, based on voluntary enrolment of patients or specific patient groups, and linked to IT support and investment.

### *2. New roles for Divisions of General Practice*

Evidence exists that regionally based primary care organisations can have a critical role in the implementation of policy reforms. Examples of this exists in the UK (Primary Care Trusts), NZ (Primary Health Organisations and Canada (Community Health Centres). These organisations can have a role in the management and delivery of PMHC services, including: responsibility for planning, purchasing and performance management for their catchment; holding budgets and negotiating contracts and service agreements with general practices; and providing a mechanism for bringing other primary care workers (nursing and allied health) together with GPs into joint responsibility and governance arrangements. These organisations are set within a clear legislative and administrative framework, such as independent community boards. The review has also revealed several issues that need addressing including: the size of these primary care organisations, how budgets will be set, how they will support GP practices. In Australia, Division of General Practice are ideally suited to take up these roles.

**Recommendations:** the establishment of a process through which Divisions of General Practice move to become Divisions of Primary Care with legislated community based governance and multidisciplinary health provider representation and that have a role in the budget holding, contracting, management and monitoring of performance of primary (medical) care at a catchment and practice level.

### *3. A national quality framework*

All countries we reviewed have focused on monitoring and improving the quality of primary care practices. Various frameworks (eg UK Quality Outcomes Framework-QOF) and sets of practice –level performance indicators (eg., Netherlands quality indicators) exist to measure clinical performance in the areas of prevention, disease management and patient experiences. Evidence exists that indicators that are evidence-based, perceived as important to the organisation and delivery of care, and coupled with strong financial incentives (eg., QOF) are more likely to lead to change in practices. Evidence also exist that governance arrangements that connect policy development and implementation are key to the policy reform process. For example, a combination of regulatory (ie accountability, transparency) and integrated (via joint budgets, planning, indicators etc) governance arrangements (eg UK QOF) has been suggested.

**Recommendations:** The development of a national quality framework that is evidence-based, covers important aspects of the process of care, some clinical outcomes and equity measures and aligned to financial incentives. This could be commenced and developed in an incremental fashion based on an expansion of the current PIP/SIP payments.

### *4. An investment in practice infrastructure within the primary medical health care system*

Investment in practice infrastructure, (including information technology (IT) and management system, continuous medical education and training, and team working) is significant component of policy reforms in all countries reviewed. Predominantly due to concerns about the system capacity to provide comprehensive PMHC. Practice infrastructure is required at several levels: primary care organization (eg Division of Primary Care) at at the practice level. For example, at the practice level, IT & IM systems have been found to be key to supporting integrated care policies, information sharing between GPs and patients, and the interface between primary and secondary care leading to increased health system responsiveness. Examples include the use of electronic medical records (EMRs) to improve information sharing between GPs as well as quality of care monitoring, support contractual arrangements and national priority setting, and patients, decisions support systems to facilitate use of clinical practice guidelines and “Choose & Book electronic booking system, to facilitate treatment and referral options between primary and secondary care.

**Recommendation:** Significant new investment in practice infrastructure is needed at the Division of Primary Care and practice level tied to contracting, governance, quality of care and accountability arrangements.

### *5. Government commissioning of PMHC system reviews and consultation processes*

Governments in all counties have at some stage commissioned taskforces, reviews, reports and consultation processes of both specific aspects and of the ‘whole’ of the PMHC system reform opportunities. For example, the UK led reform of the NHS with a change of Government with a consultation process and development of a number of

white papers that individually were incremental but together represented a coherent reform package aligned with broad objectives. Other examples of government commissions include in NZ (NZHS, NZDS, NZPHS) and Canada (Romanov report). Evidence exists that these commissions have been instrumental in initiating and furthering policy reforms in those countries.

**Recommendations:** Government consider strategically commissioning reviews and consultation processes of primary (medical) health care system reform opportunities that collectively inform a coherent reform package aligned with intended system objectives.

*6. Government investment into evaluations systems that provide timely and strategic monitoring of implementation of organisational reforms.*

Evidence exists for the benefits of alternate PMHC delivery organisational arrangements including: gate-keeper, multidisciplinary team-based and non-physician substitution-based approaches. Overall, limited implementation evaluative evidence exists of these organisational reforms relevant for the Australian setting. Furthermore, these approaches differ greatly in their purpose, nature, logic and outcomes. Thus, rather than commission more pilots and demonstration projects, some evidence suggests that purpose specific evaluation systems (possibly IT based) can potentially provide timely and strategic feedback with regard to the implementation of organisational reforms.

**Recommendations:** Government investment is needed into establishing evaluations systems (possibly IT based) that provide timely and strategic monitoring of the implementation of organisational reforms.

## KEY INFORMANTS REVIEW CONSULTATION PROCESS

We would appreciate your reflections upon the following questions:

**1. What policy reforms do you see occurring within the Australian primary (medical) health care system within the next five years?**

**Prompt:**

- What financial, organisational and governance related reforms?
- Is there any match between our review recommendations and these anticipated reforms?

**2. Which policy recommendations stand out as being possible within the current Australian primary (medical) health care system?**

**3. What key financing changes need to occur within the Australian primary (medical) health care system to make the review recommendations occur?**

**4. What key organisational changes need to occur within the Australian primary (medical) health care system to make the review recommendations occur?**

**5. What key governance changes need to occur within the Australian primary (medical) health care system to make the review recommendations occur?**

**6. What else is going on outside the Australian primary (medical) health care system that needs to be taken into account to make the review recommendations occur?**

**THANK YOU FOR YOUR TIME AND COMMITMENT**

For further information please contact: Lucio Naccarella (03-8344 4535, [l.naccarella@unimelb.edu.au](mailto:l.naccarella@unimelb.edu.au)). On behalf of the SIREN Team (Dr John Furler, Tony Scott, Prof. Doris Young, Donna Southern, Lauren Prosser,) Department of General Practice, The University of Melbourne

## APPENDIX 4: INNOVATIVE MODELS FOR COMPREHENSIVE PRIMARY HEALTH CARE DELIVERY - CONTEXT SETTING: UK

**Anthony Scott\*\* , Lucio Naccarella\* , Donna Southern\* , John Furler\* , Lauren Prosser\* , and Doris Young\***

**The Department of General Practice\* and the Melbourne Institute of Applied Economics and Social Research\*\* ,**

**The University of Melbourne**

### Introduction

This document is a pilot of the scoping phase of our project. In keeping with a realist review approach, it is the first stage in attempting to understand what primary health care reforms have been made and to understand how and why they have succeeded or not in relation to the particular context and setting in which they were introduced. This document focuses on the UK health care system, and our plan is to repeat this process for the US, Canada, Netherlands, New Zealand, and possibly other European countries.

### Aim

The aim of this document is to develop a broad contextual understanding of health care and primary health care reform and innovation within the UK, and to highlight key areas where we intend to focus subsequent enquiry in the second or mid phase of our review. These may be areas of particular interest that seem to be important to our developing argument, or they may be areas where evidence is scanty and we need to undertake further searching to clarify if there are lessons to be learnt from that particular area of reform.

The document is for both internal use, and is also designed to form the basis for engaging with members of our international reference group.

Our destination, through this first scoping stage, the second deeper searching mid-project phase and final refining and recommendations phase is to arrive at answers to our research questions:

- What types of innovative models for comprehensive primary health care delivery exist nationally and internationally?
- What factors influence the development, implementation and sustainability of these models?
- How do we address barriers and enhance facilitators to implement the models?
- What do we know about the influence of interface issues on the models, such as the Commonwealth / State funding arrangements?
- What influence do the various innovative models have on the key dimensions of comprehensive primary health care delivery?
- What do we know about the costs and benefits of the innovative models as compared to existing primary health care models?
- What policy levers are available within the current Australian primary health care setting to implement the models?

### Method

This scoping stage involves a scan of the literature, black and grey, to identify key papers and reports that describe and bring some critical evaluation to health care and PHC reform (in this case in the UK).

We confine our search to developments since 1990.

We also focus our scoping within PHC to material within which General Practice forms a key (although not the only) component.

Another important matter that emerges in developing this context setting document is: What terms and definitions will we use in this review. For example, several terms are used: primary health care; primary care; primary medical care; primary health and community care.

Our analytic framework at this stage is broadly based on our identification of common challenges and areas of reform that have dominated PHC reform internationally across this time. In other words we bring *a priori* thematic areas of interest and have focused on what responses the US has made within these broad domains.

These broad areas of interest relate to organisation, financing and governance arrangements and their effects on quality / outcomes, cost control / efficiency, and equity / access.

Our subsequent analysis will draw on two other frameworks, although they inform our thinking at this stage. Firstly, we draw on realist review approaches and ask what was the theory underlying any reform, what is known of the context and key factors that played an important role and what is known about what really happened in the field when a reform was introduced. Secondly, we will also draw on a logic framework and examine inputs, outputs, and outcomes as a way of answering our research questions.

### *The health care system in the UK (summary)*

The UK has a National Health Service (NHS) that provides comprehensive and universal (free of charge) access to health care on the basis of need rather than ability to pay. The NHS is funded through general taxation and is run by the Department of Health. There are also private healthcare providers in the UK, where patients pay for this through insurance or when they use their services.

The structure of the NHS has undergone considerable change over the last few years. The private sector now has a role in supplying and funding buildings and services within the NHS. The power to make important decisions about local healthcare is also being devolved to local communities. There are significant differences in how the NHS works between the different countries of the UK – Wales, Northern Ireland and Scotland.

Key decisions about local healthcare are taken by local branches of the NHS but overall strategy is left to the Department of Health and other regional bodies.

## Structure of the NHS:

- **Secretary of state for health** is responsible for the NHS in England
- **Department of Health:** is responsible for the overall planning, regulation and inspection of the health service and develops health care policies
- **Strategic health authorities (SHAs):** 28 strategic health authorities exist to look after the healthcare of their region. They are the link between the Department of Health and the NHS and make sure that national health priorities (eg cancer programs) are integrated into local health plans.
- **Primary and secondary health services:** are provided by local NHS organisations called "trusts" and these are directly accountable to the strategic health authorities. Primary care covers everyday health services such as GPs' surgeries, dentists and opticians and these are delivered by "primary care trusts". Secondary care refers to specialised services such as hospitals, ambulances and mental health provision and these are delivered by a range of other NHS trusts.
  - **Primary care trusts** decide what health services their area needs and have responsibility for making sure these are delivered efficiently PCTs receive about 75% of the NHS budget. They also control funding for hospitals, which are managed by NHS trusts called "acute trusts". (see next section).

**NHS trusts** run most hospitals and are responsible for specialised patient care and services, such as mental health care. The trusts' role is to make sure that hospitals provide high quality health care and spend their money efficiently and some pay for private treatment to clear backlogs and waiting lists. Different types of trusts exist: **acute trusts** (look after hospitals that provide short-term care, such as Accidents and Emergencies, maternity, surgery, x-ray); **care trusts** (work in health and social care and services, such as mental health services); **mental health trusts** (provide, such as psychological therapy and specialist medical and training services for people with severe mental health problems) **ambulance trusts** (responsible for providing transport to get patients to hospital for treatment); **foundation trusts** (that enable hospitals to run themselves ie they have more freedom and financial flexibility and less central control and monitoring).. By 2008 the government hopes that all NHS trusts will be able to become foundation trusts.

**Private healthcare:** is smaller than the NHS and differs in structures of accountability. It provides GPs nursing homes, ambulances, hospitals and medical specialists, but it does not follow national treatment guidelines and health plans and it does not have responsibility for the health of the wider local community. It involves: **Private health insurance:** Membership of health insurance schemes accounts for a large proportion of private health treatment. Many employers offer membership of such schemes or people pay for it themselves.

**Secondary care in the private sector:** Specialised health treatment such as hospitals, mental health provision and care for the elderly, is served by the private sector. While people may be registered with an NHS GP, the private sector is often used for secondary care and

**Private hospitals:** are provided by private hospital groups and the NHS also provides a number of private patient units within its hospitals. They are not regulated by the national inspection bodies that monitor NHS organisations.

## Health care system reforms

Major challenges facing health care system

- Large increases in public spending on the NHS with debate on its effects
- Implementation of new contracts for hospital doctors, GPs and all other NHS staff
- Impact of European working time directive (reducing hours worked by hospital doctors) on health care delivery
- Ongoing reform of medical training

## Primary Care in the UK 1990-2006

### Introduction

A number of key and fundamental reforms of the structure and financing of primary care occurred between 1990 and 2005. This was mainly focused on GPs and GP practices, but also drew in other health and social care professionals, and strengthened the primary care team and their relationship with the rest of the health care system. Many of these reforms were in the context of broader health care reforms, although others were more independent. These 15 years represent an intense period of continuing structural reform in health care and primary care, with the costs and benefits of such reforms still a subject of debate. There have been two parallel developments throughout the period that have heavily influenced the structure and practice of primary health care: i) the way GPs are remunerated, and ii) the involvement of GPs in the broader health care system. Changes to the way GPs are remunerated affected the territories of the UK equally. However, the nature of GPs' involvement in the broader health care system began to diverge across the territories of the UK after devolution in 1997. These two developments will be discussed in detail following a brief overview of the key changes.

### Overview of key changes.

There were two particular reforms that affected primary care in the early 1990s: a revised GP contract introduced in 1990 and the introduction of an internal market for health care, including GP fundholding, in 1991. It is important to note that the GP contract involved changes to the method of GPs' personal remuneration received from the NHS, whilst GP fundholding was largely separate to personal remuneration and involved devolving a budget to GPs to cover the hospital referral and prescribing costs of their patients. Both reforms were introduced by the Thatcher government without the support of the medical profession. Both sets of reforms also started a period of general growth in resources devoted to primary care services, with expenditure on primary care growing faster than expenditure on hospital care (Miller, Craig et al. 1999). Both sets of reforms encouraged GPs to broaden the services they provided to patients, with the term 'primary care-led NHS' and 'shifts in the balance of care', underlying much of the rhetoric of the period up to 1997. The thinking was that GPs are the best advocates for their patients, and so it was important to involve GPs more in the care their patients received in hospital and after discharge.

Both of these reforms evolved in a number of ways up until 1997, when a new Labour government was elected. Since then, the nature of GPs' remuneration has continued to change such that in 1999 GPs were able to 'opt out' of the national contract and become salaried, and in 2004 a new contract was introduced with a shift in emphasis to rewarding quality of care. After the internal market was abolished in 1997, the purchaser-provider split remained in England and GPs continued to be involved in purchasing through the introduction of Primary Care Groups in 1999, which evolved into much larger 'fundholders' called Primary Care Trusts in 2002 who commissioned or

purchased care from NHS and range of other providers. A move to GP Commissioning, similar to GP fundholding, was introduced in 2005. Scotland, Northern Ireland and Wales moved to a more co-operative and financially integrated health care system whilst retaining the emphasis on a strong primary care sector with geographically-based groupings of GPs. In Scotland in particular, there was a strong move to reducing health inequalities and increasing co-operation across sectors.

### Changes to GPs' remuneration.

The remuneration of GPs has been determined by the Doctor's and Dentists' Review Body, a statutory organisation that gathers evidence from all parties (principally the Department of Health and the British Medical Association) and recommends that annual percentage increase in Intended Average Net Remuneration (IANR) for GPs that is to be delivered through the remuneration system. This operates as a global budget cap on the funding of GP services with any significant cost increases 'clawed back' in the following year's payments. Most GPs were independent contractors to the NHS, although in reality almost all of their incomes and costs were received from the NHS. GP partnerships also could claim for the costs of employing Associate or Assistant GPs or GP locums, who were employed on a salaried or more casual basis. Before 1990, GPs were paid through the General Medical Services (GMS) contract using a blended system of payment based on the number of patients registered with them (capitation payments) a number of fixed annual 'allowances' and a schedule of fees. The allowances included a group practice allowance, seniority allowance, and supplementary allowances for out of hours care. Fees were paid for providing maternity care, immunization, cervical screening, practicing in rural areas, and night visits amongst other things. Re-imbursments for practice costs were also paid, such as IT, practices nurses, and cost-rent allowances for premises. These cost re-imbursments generally did not change until 2005. There were a number of main changes embodied in the 1990 contract (Hughes 1993; Silcock and Ratcliffe 1996; Ellis and Chrisholm 1997).

- 1) To provide incentives to GPs compete with each other for patients and therefore increase the quality of care provided through increasing the proportion of income from capitation payments (from 46% to 60% of total income) and making it easier for patients to switch doctors;
- 2) To shift the emphasis towards prevention and health promotion activities, through the introduction of financial incentives (target payments for cervical screening and immunization, sessional payments for health promotion clinics, and annual health checks for the elderly and new patients).
- 3) Group practice and other allowances were abolished and monies diverted into additional capitation payments.
- 4) Sessional payments for GPs performing minor surgery were introduced.

These new activities provided an opportunity for increased roles for other members of the primary health care team, such as nurses, which was re-inforced by GP fundholding. The lack of guidance on the format of health promotion clinics (and subsequent cost blowouts) led to them being more highly regulated and partly replaced in 1993 by new sessional payments for chronic disease management (asthma and diabetes), with individual consultations able to counted towards a session. In 1996, deprivation payments were introduced in the form of an increased capitation payment for patients who lived in four types of deprived area (low to high deprivation). Until 1996 GP payments and cost allowances were administered by 90 Family Health Services Authorities, who had a largely administrative function of distributing payments

to GPs, dentists and optometrists. They were merged with the 191 District Health Authorities in 1996 to form Health Authorities.

A new labour government in 1997 continued with a number of proposed changes to GP remuneration through the introduction of Personal Medical Services (PMS) in 1998. This gave GPs an option to 'opt out' of the national General Medical Services (GMS) contract. The thinking behind the PMS scheme was a reduction in red tape and a preference of some younger GPs not to be tied to partnerships thus increasing recruitment and retention and labour market flexibility, particularly for GP practices in more deprived areas (Gosden, Sibbald et al. 2003). GP practices were able to propose local contracts with Health Authorities where GPs moved from being independent contractors to salaried employees of the Health Authority. These changes were therefore not directly related to providing incentives to increase quality of care, although in practice salaried contracts required GPs to undertake many of the activities contained within the GMS contract such that there was little change in behaviour (Gosden, Sibbald et al. 2003) Other studies published by the National Primary Health Care and Development Centre (NPCRDC) also examined the effect of PMS on recruitment/retention and GP job satisfaction (Leese and Young 1999; Sibbald B and C 2002).

Several contract forms are available to PCTs to contract for Primary Health Care services, PMS, APMS, GMS. The different contract forms are seen as a framework by Government that enable PCTs to provide a flexible approach to PHC services. The Government looks to PCTs to use this framework to develop services that offer greater patient choice, improved access and greater responsibilities to the specific needs of the community.

The PMS is between a PCT and a provider, which can be a non-GP practice, a PCT service division or some other agency. It's designed to enable innovative ways of meeting general practice-type needs of particular populations. The PMS has been modified so it aligns with 2004 GMS contracts in terms of funding levels and provides access to QOF payments.

In 2002 the Department of Health commissioned research units to evaluate the PMS pilots. Gosden et al (2000) evaluated PMS Pilots, specifically the impact of salaried GP contracts on GP recruitment, retention and GP behaviours, and the financial implications of this for the NHS. Key findings included:

- PMS offer non-financial incentives – reduced hours work and freedom from A/H and admin responsibilities
- the flexibility of salaried contracts enables employers to achieve better match b/w workers and their jobs.
- Impact on recruitment, retention, work effort, and quality was modest but positive
  - Recruitment success to salaried posts was similar to that achieved by urban deprived practices generally
  - Approx 70% of GPs appointed to a salaried post remained in that post for 1 yr, compared to nationally 30% of practices experienced change of partners
- Overall job satisfaction among salaried GPs was equivalent to that for GP principals nationally. But salaried GP more satisfied with aspect of work, e.g. hours of work
- List sizes inc at a lower rate in PMS compared with GMS practices

- GPs in PMS spent less time on admin, more on pt care and inc number of consultation provided, provided shorter consultations and less likely to prescribe compared with GPs in GMS
- Part-time access slightly better in PMS but quality was the same
- Overall salaried status inc GP productivity and had little or no impact of other aspects of GP behaviour or quality of care provided
- Limited budgetary information meant no clear conclusions regarding value for money. However, as salaried GPs take little responsibility for practice administration, more non-GP management resources may be needed in salaried PMS practices than standard GMS practices

In 2004, the GMS contract was wholly replaced by a new system of blended payments (British Medical Association 2003; Roland 2004). This was motivated by a desire to increase the quality of service provision and provide more flexibility in the range of services that GPs can provide whilst maintaining access. This was accompanied by a 33% increase in spending on primary care over a three year period. The contract is now between the local Primary Care Trust (which replaced Health Authorities in 2003) and the GP practice, rather than the individual GP.<sup>33</sup> The basis for capitation payments was changed from using only the number of patients on the GPs list to using the number on the list adjusted for a number of characteristics reflecting need and costs through a weighted capitation formula. This was intended to more closely reflect population needs and deprivation, with resources following population needs rather than where GPs happen to be located. This forms part of a new 'Global sum' that comprises about 75% of a GPs income. Many of the old fees for activities such as night visits, contraceptive and maternity services, deprivation payments, minor surgery, rural practice payments, have now been replaced with this formula. The formula adjusts a practice's list for the age and gender of the population, measures of need (morbidity and mortality), nursing home consultations, rurality and a market forces factor. There is now a 'menu' of services which practices can choose to provide. Essential services are provided by all practices, and include the usual treatment of illness, the terminally ill and the management of chronic disease. Additional services are those that most practices are expected to provide, but can 'opt out' of, in consultation with their PCT, and include mainly preventive services such as childhood vaccination/immunization, cervical screening, and minor surgery. Enhanced services are those services that have to be provided and managed by the PCT who commissions GP practices to provide the services. GP practices can 'opt in' to provide these services which include but are not limited to: flu immunization, anti-coagulant monitoring, drug and alcohol misuse services, intra-partum care, and care for homeless. There may also be other local more specialised services that the PCT may wish to commission from practices or from other providers, including those in the private sector. Practices can also opt out of providing out of hours care, with the PCT having the responsibility to provide this service. Enhanced services are not part of the global sum and national fees have been negotiated for these activities.

The main innovation with the 2004 contract, however, is the quality and outcomes framework (QOF) which is intended to comprise 25% of income. This comprises 146 clinical and organisational quality indicators. For each indicator, performance is assessed in relation to achieving specific standards of care. Achievement of these standards is translated into points, with each point worth around £75 (in 2004/5). The

---

<sup>33</sup> In Scotland, the contract is with one of the 15 NHS Boards.

QOF includes four domains; clinical (550 points), organisational (184 points), additional services (36 points), and patient experience (100 points). There are 10 clinical areas: CHD/LVD, hypertension, diabetes, stroke, hypothyroidism, epilepsy, asthma, COPD, mental health and cancer. Each indicator is split into structure, process and outcome indicators based on evidence of best practice. For CHD, the indicators range from having a register of patients, through to recording smoking, BP and cholesterol, and then on to patients on beta blockers and ACE inhibitors. There are 'holistic' points awarded for achievement across all four domains, thereby encouraging more comprehensive service provision.

The contract is also accompanied by an NHS pension, full reimbursement of IT costs, a suite of demand management initiatives (e.g. encouraging self-care), and investment in premises, modifications to the career structure and job flexibility, and the continuation of a salaried option.

### GP contracts and contracting

The GMS contract impacts on general practice and GPs in the following ways (Johnston 2005):

- As contracts are practice-based and not with individual GPs, provides autonomy to practices in terms of how practices use resources to meet pt needs;
- Practices can opt out of certain service responsibilities e.g. after hours cover;
- Obligations & risk associated with after hours coverage and responsibility for IT investment transfer to PCT;
- New enhanced PHC services are to be contracted out by PCTs (e.g., minor surgery, care for homeless);
- GMS based on an enrolled register of points, which drives global fund, which covers cost of most services provided and is largest part of practice funding; and
- GMS focus on quality outcome through Quality Outcomes Framework (QOF) which provides additional funding for achievement of organisations and service standards.

GP practices response to QOF included (Johnston 2005):

- Practices tidied up registers, clinical notes and record keeping;
- Focus more on key priority point groups;
- Opt out of provision of after hours care;
- Practice talking with neighboring practices about joint initiatives: enhanced service contracts;
- Increased nursing and administration staff; and
- Review skill mix in practices, with view to increase nurse staff.

Debate exists whether QOF has resulted in an improvement in care as opposed to better reporting and / or a manipulation of data. Others suggest that the NHS has set too low targets and little return for additional funding.

The rapid influence of the new GMS contract may be related to:

- GMS negotiated with BMA and actively endorsed by members. A national referendum of GPs pre-implementation supported the new contract;
- GMS builds on previous work, like focus on quality standards, which aligns with work on clinical governance;
- GMS addressed specific GP issues e.g., GPs to opting out of after hours care;

- QOF indicators were evidence-based where possible and perceived as important to organisations and delivery of general practice services;
- Significant level of new funding was applied to the QOF; and
- Indicators targets are considered achievable by general practice and support was provided to practices by PCTs to help capitalise on new funding.

Overall the new contract success is linked to its logic being consistent with general practice priorities and not the incentives, but it motivated general practice (Johnston 2005).

New contract also supports subtle repositioning of general practice and asserts the NHS service agenda for PHC and strengthens accountabilities. The new contract draws general practice into the NHS, however does so in the role of contractor and the Pacts role as commissioner. It engages directly with the practice.

Johnston (2005) suggests that the new contract has increased the specialization of staff and encouraged a narrowing (some say fragmentation) of the scope of general practice i.e. GMS changes the role of general practice from The provider of PHC to a community, to A provider of PHC services within a community.

New GMS contract has implications for employment roles and structures. Johnston (2005) notes that the new contract and the QOF encourages use of specialised nursing and administration skills sets because of the priority on delivering organised care for chronic conditions. New roles such as 'Community matrons" i.e. nurses who are case managers with responsibility for vulnerable patients with complex needs. The new GMS and QOF has led to the rising importance of PHs as they required good practice management to maximize funding.

### **Changes to GPs' relationship with the rest of the NHS**

#### **1991-1997. The internal market and GP Fundholding**

The introduction of the NHS internal market in 1991 had a major impact on the nature of the relationship of GPs with the rest of the health care system. It signaled the beginning of a trend over the next 15 years that gave GPs more of a say in how primary care and hospital services were managed. At the start of the 1990s the system of referral was dominated by custom and GPs had little concern for the effect of their referral decisions on costs and quality of care provided by hospitals. GP Fundholding meant that GP practices could choose to hold a budget from which they could 'purchase' outpatient and hospital care and drugs for their patients. The economic rationale behind this was to make GPs more aware of the (opportunity) costs of their decisions regarding prescribing and referral. This was set within the context of the internal market which divided the NHS into purchasers and providers. Purchasers (District Health Authorities and GP Fundholders) could purchase hospital and outpatient care on behalf of their patients. Purchasers would define contracts with providers (NHS Hospital Trusts) and could place their contracts with any provider, with the intention of providing incentives for providers to offer low cost and high quality care in order to attract the business of purchasers. Purchasers would also have a fixed budget and thus would be given an incentive to explicitly set priorities for their population in terms of the amount, cost and quality of the care they did or did not purchase.

The ability of GPs to have control of a proportion of a hospital budget therefore increased their ability to 'strike better deals' with hospital consultants, and potentially refer to other hospitals if they were not happy with the service, to provide services themselves if appropriate (e.g. minor surgery, 'outreach' outpatient clinics), or to specialize in certain areas (e.g. shared care for chronic diseases). This may result in GPs reducing their referral and prescribing costs and increasing the quality of care for patients. In so doing, hospitals would be encouraged to provide higher quality of care and at lower cost (i.e. offer lower prices to attract revenue), thus improving efficiency. The extent to which these benefits were realized in practice was dependent on a number of factors.

1) The uptake and evolution of GP Fundholding. GP fundholding was voluntary and in 1991 there were relatively strict criteria about those practices that could be granted fundholding status. The first waves of GP fundholders were more likely to be larger, better organized and entrepreneurial practices, although these criteria were gradually relaxed between 1991 and 1997. In order to encourage uptake, the referral and prescribing budgets of GP fundholders were arguably generous, so that easy and early 'savings' could be made (e.g. switching to prescribing of generics). There was also some evidence that in the year before fundholding status was granted, GPs increased their referral and prescribing activity to inflate their future budget (initially budgets were determined partly on the basis of historical activity but then moved to weighted capitation) in mid 1990s (Whynes 2005). GP non-fundholding practices referral and prescribing activity was still funded by the District Health Authority and so nothing really changed for the patients of these practices. DHA's contracts with hospitals largely reflected past activity. Over time, some GP non-fundholding practices grouped together to increase their purchasing power, and although they did not have a budget, these larger groupings did exert some influence on DHA purchasing practices. Most non-fundholding practices did hold an 'indicative' prescribing budget. Throughout the 1990s, GP fundholding also evolved, with some practices merging into 'multifunds' to increase their purchasing power and others taking advantage of the 'Total Purchasing' pilots (Mays, Goodwin et al. 1997; Wyke, Myles et al. 1999), where the budget under control of the practice(s) was expanded to cover a wider range of hospital and community-based services. The emerging inequity between the patients of GP Fundholding practices and GP non-fundholding practices, for example GP fundholding patients had shorter waiting times for hospital treatment, was cited as the main reason why GP Fundholding and the internal market were abolished when the new Labour government came to power in 1997. This heralded a new era of co-operation rather than competition underpinned by the desire to equalizing access for patients no matter which GP practice they happened to be registered with. In reality, the market was already evolving towards larger GP-led purchasing organisations which were the precursors of Primary Care Groups and Trusts in England, and which led to the full abolition of the purchaser provider split in Scotland and Wales (see below).

2) The type of contracts and available information to support them. The internal market created a demand for information on population need for health care services and the most cost-effective ways to meet this need. Investment in IT to support the internal market occurred too slowly to have an effect. Initially, there were to be a number of different types of contracts between purchasers and providers ranging from cost per case to block contracts. The latter simply replicated the status quo in terms of the level of activity and its total cost, and were more likely to be used by DHAs. Cost volume and cost per case contracts were more likely to be used by GPs. Nevertheless, throughout the period there was the impression that contracting simply followed the

status quo and contracts were based on past levels of activity and quality. There was a dearth of information on costs and effectiveness which was needed to support more sophisticated contracts. The annual cycle of contracting was also costly to GPs and to DHA purchasers and by 1997 many contracts were moving to a three year basis. The transactions costs and lack of good information was one cited reason as to why the expected benefits of the internal market did not materialize.

3) The extent of competition. For the incentives of competition to be effective, it is necessary that GPs and DHA purchasers had alternative providers from which to choose. In many areas of the UK, there was only one local NHS Hospital Trust which exhibited a degree of monopoly power over purchasers. There were instances of DHAs and GPs sending patients further a field, but this depended on the trade-off patients were willing to make between distance and waiting times. If there were any benefits of GP purchasing, they were more likely to occur in more densely populated urban areas where there were more providers to choose from (Damiani, Propper et al. 2005; Propper, Burgess et al. forthcoming) (for Financial Incentive literature see Croxson, Propper et al. 2001; Dusheiko, Gravelle et al. 2003).

### **1997-2006. Primary Care Groups, Trusts and devolution**

The new Labour government in 1997 heralded a number of structural and funding changes that were likely to have far reaching effects of the operation of the health care system. In political terms, many of these changes were 'new' directions and new policies, such as the 'abolition' of the internal market. In practical terms, they represented the maturing of earlier reforms supplemented by the introduction of a rigorous performance management culture, particularly for hospitals, but also for primary care as enshrined in the 2004 GP contract. These policy directions were given impetus following the Shipman murders, the Bristol child heart surgery cases, and other cases that saw a renewed focus on quality, patient safety and minimum standards. In addition, devolution in 1999 saw the structure of the health care systems in Scotland, Wales and Northern Ireland diverge. The political rhetoric after 1997 was one of co-operation rather than competition and a focus on reducing health inequalities and disparities. Much of this was driven by the NHS Plan (2000) in 2001 and the following NHS Modernisation Agenda. This is against a background of unprecedented increases in NHS expenditure following the Wanless Report (2002).

In England, Primary Care Groups (PCGs) and Primary Care Trusts (PCTs) were established in 1999 following the publication of 'The New NHS' (Secretary of State for Health 1997) after the election of the Labour government. This signalled the end of GP fundholding and other GP purchasing organisations although the purchaser provider split remained. 481 PCGs were established in April 1999 with 17 of these becoming PCTs a year later. They covered an average of 100,000 population. They held a unified budget and would commission care on behalf of their patients for hospital and community health services, community prescribing costs, and general medical services infrastructure costs. The unified budget meant they could virge between budget headings, thus providing more financial flexibility. In one sense PCGs were similar to GP fundholding except that budgets would be held at a much higher level than just the GP practice and PCGs would include all GP practices, thus ensuring universal coverage of the population. They also had a responsibility to not only commission care on behalf of their patients but to also address health inequalities. Independent PCGs would be known as Primary Care Trusts (PCTs) who would be responsible for the commissioning of all primary and secondary care services with a fully integrated budget. The

management of PCTs would be formalised by a Board comprising general practitioners, community nurses, managers, social services representatives, and lay members.

Following mergers of PCGs and PCTs into larger organisations, 302 PCTs were established (and replaced all existing PCGs) in 2002 each covering an average population of 180,000 (Department of Health 2001). They distribute 80% of NHS expenditure with PCT budgets based on a need-based weighted capitation formula. PCTs replaced Health Authorities, which had an increasingly marginal role as PCGs/PCTs evolved. Their increasing size and formality has reduced the involvement of GPs in their management and their size has arguably reduced their effectiveness in commissioning. 28 Strategic Health Authorities were also introduced to monitor standards and targets.

Johnston (2005) notes that PCTs employ relationships as a primary method for influencing general practice which involves two main strategies that provide a mechanism involving GPs and general practice in PCTs priorities, planning & decision-making (engagement), and second, providing support services to practices i.e. build, a symbiotic relationship with practices that enable PCTs to achieve its objectives (eg., bus support functions- HR, IT, financial management, prescribing). The Audit Commission (cited in Smith and York 2004) revealed that PCTs engagement with general practice varied. For example, not all PCTs align with general practice. For example, some PCTs driven by strategic priorities around acute demand management or cost control, but led to less GP engagement. PCTs, however were vice versa and felt powerless to effect change due to lack of relationship with general practice.

Since 2002, there has also been an increased emphasis on target setting and performance standards in the NHS, including targets for PCTs. This is based on a 'star' rating system from zero to three stars. The incentives associated with these ratings have been strong, and include Chief Executives of Trusts losing their jobs and Trusts being able to access further funding and autonomy. PCTs are assessed alongside NHS Hospital Trusts. PCTs have a different set of indicators with the key targets including access to a GP, access to a primary health care professional, drug misusers accessing treatment, waiting times for elective inpatients, financial management, 4-week smoking quitters, outpatient waiting times, and time spent in A&E (Health Care Commission 2005).

### **Performance indicators and reporting**

The QOF is another example of an indicator system- it led to rapid change in care when coupled with strong financial incentives- it's respected as it's evidence-based and there is consensus that it covers aspects of general practice that should be managed.

### **Information system initiatives**

Information Technology (IT) and Information Management (IM) are key elements of the UK government health strategy. IT and IM relate to information sharing as a route to integrated patient care (National health records) and providing an interface between primary & secondary care (Choose & Book – i.e. PHC clinician and patient uses choose & book during a consultation to identify treatment options available at various hospitals and then to book the care and organise pre-clinic diagnostic workup). IT and IM has a responsibility to PCTs.

The most recent commissioning innovation is the introduction of practice-based commissioning (Department of NSW Health 2004). Starting in 2005, this devolved part of the PCT's budget for hospital services, prescribing and community health services down to practices (Smith and Mays 2005). This closely resembles GP fundholding. However, it is designed to underpin the policy of increasing responsiveness to patients, through two evolving reforms, including patient choice and also new funding arrangements for hospitals based on case-based payment (HRGs and 'Payment by Results'). The latter reflects an improvement in the quality of costing and activity information on which to base contracts. The patient choice policy is again based on developments in IT and in the measurement of performance that are being used to underpin the responsiveness of primary care and hospital services to patients. A further difference is that by the end of 2006, it is the intention to have universal coverage of practice-based commissioning, thus avoiding the 'two tier' service criticism of GP fundholding. Many see this as the evolution of the 1990s internal market but with a better information base.

When one combines Choose and book with Practice-based Commissioning (PBC), and it is anticipated that groups of practices will look critically at care pathways patients travel and accordingly make decisions about services they want hospitals to provide.

The next policy iteration see PCTs amalgamate and shed their provider responsibilities (Smith and Mays 2005). Johnston (2005) comments that GPs see this as further isolating PCTs from general practice. Others see this as being compensated for by the reintroduction of fundholding in the form of PBC. The tension exists between prioritising relationships over results, which may lead to under-achievements.

### Next Policy Steps

The next most significant steps in the reform process, which is the subject of the new NHS Whitepaper (late 2005) and the full implementation of PBC by end of 2006. White paper is expected to propose a reduction in the number of PCTs from 300 to 140 and to shed their provider functions. The objective being to strengthen PCTs purchasing function to make them more effective in managing the health of their population i.e. PCTs will be funders only and large to engage with acute service providers and foundation trusts (Wyke, Myles et al. 1999).

### Tensions that exist:

- Change to PCTs will change way they interact with general practices- limited role;
- PBC will involve general practice in the organisation of both primary and secondary care. For example, practices will be given budgets to manage groups of practices are expected to collectively manage budgets, focus on issues such as avoidable hospital admission and demand for acute services rather than elective & outpatient services.

### Key Lessons (from Johnston 2005)

- New GMS contract strongly driving change and effectiveness due to its alignment with NHS & general practice interests;
- Performance indicators were found helpful but not public reporting of PCT performance i.e. need to provide assessment within an organisation development context rather than within a contract performance framework;

- IT investments need to be focused on developing infrastructure for integration of service providers and regulation of the acute sector.

According to Johnston (2005) the major drivers of change in the accessibility, quality and choice of general practice services are expected to be the use of market mechanisms and the selection of other types of provider organisations. The new contract tools allow PCTs to do this. However, few PCTs use these, due to lack of commissioning capacity and unwillingness to upset local providers, networks and GPs. The new white paper reforms (amalgamation of PCTs and devolving provider functions) may remove these barriers.

Three key reforms have led to improved systems of care for chronically ill:

- The National Service Frameworks (NSFs) - evidence base, set standards that have to be met by PCTs, hospital and other providers of care and take a broad view of health improvement, covering primary, secondary prevention, diagnosis, treatment and rehabilitation. NSFs exist for cancer, CHD, diabetes, MH, older people, pediatrics intensive care, renal services etc. NSFs in conjunction with access, quality targets, technologies and programs to reduce medical error rates (clinical governance);
- The GP contract;
- Nurse substitution.

Maynard, McKee & Nolte, (2006) note 3 key challenges in UK:

- Fragmentation of the NHS;
- Difficulties in managing simultaneously multiple morbidities of chronic ill;
- Perverse financial incentives which reward isolated rather than integrated care practice by individual practitioners and teams.

According to Jones (2006) problems facing UK Primary Care include:

- Major financial problems;
- Discontinuity in personal, clinical and organisational care;
- Lack of commitment, time energy altruism;
- Confrontational relationship with medicine and within medicine;
- High reported burn out rates and psychological problems;
- Low reported levels of morale and job satisfaction;
- Micro-management, bureaucratic overload;
- The NHS in Crisis=- policy reform fatigue, focus on choice not quality, financial mis-management, under funded, public/private partnership in health care?

Jones (2006) discussion points:

- Importance of patient registration/capitation- the population denominator
- Generalisability of success of incentives in primary care (QOF)
- Does choice drive up quality?
- Politication of NHS
- Will under funding and rising costs be addressed by another 'internal market'
- How reconcile private providers within philosophy of NHS?

### **Scotland Health and Primary Health Care**

However, in Scotland Wales and Northern Ireland, the situation is much different. After devolution in 1999, the purchaser provider split was removed in the territories. In Scotland, hospitals and health boards once again become fully integrated in the financing and provision of NHS services. Service development was to take place, not

through contracting or commissioning, but through collaborative strategic planning (Hopton and Heaney 1999). In Scotland, the management boards of NHS hospital trusts and Health Boards merged into NHS Boards in 2002. In primary care, local health care co-operatives (LHCCs) were formed comprising local groups of GP practices who helped co-ordinate services and were responsible for some types of budgets and helped managed community nursing services, but did not hold budgets for secondary care. LHCCs were voluntary, although the majority of GP practices joined a co-operative. This was also against the context of the introduction of Managed Clinical Networks (which also came to exist in England). These were more informal structures focussed around main disease areas and were firmly clinically led (Hamilton, Wyke et al. 2005). In 2005, LHCCs developed into Community Health Partnerships which had a renewed focus on the integration of primary, specialist and social care (<http://www.show.scot.nhs.uk/sehd/chp/Pages/CHPPolicyBackground.htm>). The emphasis was firmly on partnerships and trust rather than arms length commissioning of services and so represent a completely different model of the organisation of health services compared to what emerged in England.

### Managed Clinical Networks

The concept of Managed Clinical Networks (MCNs) was first set out in the report of the Acute Services Review (1999) by the Scottish Executive who provided a strong vision and mandate to promote the development of what it termed 'managed clinical networks'. The review saw the development of MCNs as the most important strategic issue for acute services in the NHS in Scotland (Cropper, Hopper et al. 2002). This review was followed the same year by Management Executive Letter who were issued to introduce and promote the development of MCNs throughout NHSScotland (Scottish Executive 2002).

MCNs were developed as virtual organisations with a purpose of improving the quality of care, clinical outcomes, the patient experience and reducing inequalities in access to services and incidence of disease (NHS Scotland 2003). MCNs are commonly defined as:

*'linked groups of professionals and organisations from primary, secondary and tertiary care, working in a coordinated manner, unconstrained by existing professional and Health Board Boundaries, to ensure equitable provision of high quality clinically effective services throughout Scotland'* (Baker and Lorimer 2000 p.1152).

MCNs multi-disciplinary approach is seen as an advantage for service planning as they bring together a range of networks that would not normally come into contact with each other (Scottish Executive 2002; NHS Scotland 2005). The mechanism was developed to deliver services additional to a hospital or PCT (NHS 2005). The development of an MCN has no geographical boundary and can be established at a local, regional or national level.

MCNs have core principles (developed through MEL, 1999) in which each network has to meet in order to be recognised as a managed clinical network. These principles are as follows (Scottish Executive 2002):

- Prior to the establishment of an MCN formal approval must be sought from the NHS Board when at a local level. When establishing a MCN at a national level it needs to be discussed with the National Services Division of the Common Services Agency and SEHD's National Workforce Committee.

- Developing an MCN requires at the outset a small team of people to drive process (project management approach). The project manager ideally has a clinical background, management and project management skills, experience in a multi-disciplinary environment and assumes the role of Lead Clinician within the network. Each network should produce a written annual report available to the public
- Each network must have a defined structure which sets out the points at which the service is to be delivered, and the connections between them;
- Each network must have a clear statement of the specific clinical and service improvements which patients can expect as a result of the establishment of networks;
- All evidence must be documented within the network and must be committed to the expansion of evidence base;
- Must be multidisciplinary and seek clarity about the role of each professional in each network
- Each network should have patient representation in its management arrangements;
- Clear policy on the dissemination of information to patients and the nature of this information;
- Each network must be a quality assurance programme acceptable to the Clinical Standards Board for Scotland, which has a role in controlling consistency of standards and quality of treatment across all MCNs;
- All health professionals in the Network must participate actively in audit;
- Educational and training exchanges between those working in the community and primary care to those working in hospitals or specialist centres. Networks are encouraged to develop appropriate affiliations to universities, the Royal Colleges and NHS Education for Scotland;
- All networks must include arrangements for the movement of staff in ways which improve patient access, and enable professional skills to be maintained.

Clinical information systems (IT) have been noted by the Scottish Executive (2002) as being a key success of the MCN framework. The information technology can:

- Provide more accurate and timely information on the results of patient care and treatment in real time for the multi-disciplinary team;
- Connect patients with their carers for multiple purposes: health education, disease prevention, health promotion and disease management;
- Promote professional education and agreed clinical guideline implementation; and
- Facilitate the tracking of patients through the health care system for the purposed of audit and quality improvement.
- Builds on already available information technological information that are disease specific.

### References

- Baker, C. D. and A. R. Lorimer (2000). "Cardiology: the development of a managed clinical network 10.1136/bmj.321.7269.1152." *BMJ* 321(7269): 1152-1153.
- British Medical Association (2003). "Investing in general practice. The new general medical services contract. <http://www.bma.org.uk/ap.nsf/Content/investinggp>."
- Cropper, S., A. Hopper, et al. (2002). "Managed clinical networks

- 10.1136/adc.87.1.1." Arch Dis Child 87(1): 1-4.
- Croxson, B., C. Propper, et al. (2001). "Do doctors respond to financial incentives? UK family doctors and the GP fundholder scheme." Journal of Public Economics 79(2): 375-398.
- Damiani, M., C. Propper, et al. (2005). "Mapping choice in the NHS: cross sectional study of routinely collected data  
10.1136/bmj.330.7486.284." BMJ 330(7486): 284-.
- Department of Health (2001). "Shifting the balance of power,  
<http://www.dh.gov.uk/PolicyAndGuidance/OrganisationPolicy/PrimaryCare/PrimaryCareTrusts/fs/en.>"
- Department of NSW Health (2004). Practice based commissioning: Engaging practices in commissioning.
- Dusheiko, M., H. Gravelle, et al. (2003). The effect on budgets on doctor behaviour: evidence from a natural experiment. CHE Technical Paper Series 26, The University of York.
- Ellis, N. and J. Chrisholm (1997). "Making sense of the redbook."
- Gosden, T., F. Forland, et al. (2000). "Capitation, Salary, fee-for-service and mixed systems of payment: effects on the behaviour of primary care physicians (Review)." The Cochrane Database of Systematic Reviews(Issue 3. Art No.: CD002215. DOI: 10.1002/14651858.CD002215).
- Gosden, T., B. Sibbald, et al. (2003). "Paying doctors by salary: a controlled study of general practitioner behaviour in England." Health Policy 64(3): 415-423.
- Hamilton, K., S. Wyke, et al. (2005). "A Managed Clinical Network for Cardiac Services: set-up, operation and impact on patient care." International Journal of Integrated Care 5: 1-15.
- Health Care Commission (2005). Primary Care Trust Overview.
- Hopton, J. and D. Heaney (1999). "Towards primary care groups The development of local healthcare cooperatives in Scotland." BMJ 318(7192): 1185-1187.
- Hughes, D. (1993). "General Practitioners and the new contract: promoting better health through financial incentives." Health Policy 25(1-2): 39-50.
- Johnston, C. (2005). Strategies for Achieving Change in General Practice. Report of a Study Trip to England, Victoria University.
- Jones, R. (2006). Healthcare Reforms in the UK: Implications for Australia? KCL & Monash, Monash University, Melbourne.
- Leese, B. and R. Young (1999). Disappearing GPs? Is there a crisis in recruitment and retention of general practitioners in England? National Primary Care Research and Development Centre (NPCRDC).
- Maynard, A., M. McKee, et al. (2006). "Models of Care: Some European Perspectives."
- Mays, N., N. Goodwin, et al. (1997). "What is total purchasing?" BMJ 315(7109): 652-655.
- Miller, P., N. Craig, et al. (1999). "Measuring progress towards a primary led NHS." British Journal of General Practice 49(444): 541-545.
- NHS (2005). Evaluating models of organisation and delivery of health services., SDO.
- NHS Scotland (2003). Partnerships For Care: Scotland's Health White Paper. Edinburgh, NHS Scotland.
- NHS Scotland (2005). "Our vision for the NHS is to reapply its founding principles with vigour to meet the needs of the people of Scotland. Delivering for Health means a fundamental shift in how we work, tackling the causes of ill-health and providing care which is quicker". Scottish Executive. Edinburgh, NHS Scotland.
- Propper, C., S. Burgess, et al. (forthcoming). "Extending choice in the English health care system Journal of Social Policy." Journal of Social Policy, version available: <http://www.bris.ac.uk/Depts/CMPO/people/biopropper.htm>.

- Roland, M. (2004). "Linking Physicians' Pay to the Quality of Care -- A Major Experiment in the United Kingdom  
10.1056/NEJMp041294." N Engl J Med 351(14): 1448-1454.
- Scottish Executive (2002). Promoting the Development of Managed Clinical Networks in NHS Scotland. Scottish Executive Health Department.
- Secretary of State for Health (1997). The new NHS. London, Stationary Office.
- Sibbald B and B. C (2002). General Practitioner Job Satisfaction in England. National Primary Care Research and Development Centre (NPCRDC).
- Silcock, J. and J. Ratcliffe (1996). "The 1990 GP contract -- meeting needs?" Health Policy (1) 36(2): 199-207.
- Smith, J. and N. Mays (2005). "Primary care trusts: do they have a future?  
10.1136/bmj.331.7526.1156." BMJ 331(7526): 1156-1157.
- Smith, P. C. and N. York (2004). "Quality Incentives: The Case Of U.K. General Practitioners  
10.1377/hlthaff.23.3.112." Health Aff 23(3): 112-118.
- The NHS Plan (2000). A plan for investment. A plan for reform. London, Stationary Office, [www.nhs.uk/nhsplan](http://www.nhs.uk/nhsplan).
- Wanless, D. (2002). Securing our future health: taking a long-term view. Final Report. London, HM Treasury.
- Whynes, D. (2005). Economic Analysis of Primary Care: Abstracts of published papers. Nottingham, Department of Health: Economic and Social Research Council: 1-14.
- Wyke, S., S. Myles, et al. (1999). "Total Purchasing, community and continuing care: lessons for future policy developments in the NHS." Health and Social Care in the Community 7(6): 394-407.

## APPENDIX 5: NEW ZEALAND PHC REFORM: THE DEVELOPMENT AND IMPLEMENTATION OF PRIMARY HEALTH ORGANISATIONS

**John Furler\* , Lucio Naccarella\* , Donna Southern\* , Anthony Scott\*\* , Lauren Prosser\* , and Doris Young\***

**The Department of General Practice\* and the Melbourne Institute of Applied Economics and Social Research\*\* ,**

**The University of Melbourne**

### **Aim**

The aim of this document is first to provide a broad contextual understanding of health care and PHC reform and innovation within NZ and then to describe key features of the development of Primary Health Organisations (PHO), a major strategy of recent PHC reforms in NZ. PHOs represent a major shift in the funding, governance and organisational structure of PHC in NZ. The development of PHOs and existing evaluations of their implementation so far provide key lessons for Australian PHC reform about important factors supporting or acting as barriers to such reform and innovation. They provide an illustration of the tensions that can develop when implementing such major reform.

### *Method*

This NZ context document, like the other country specific documents of this report, was developed from a search of the literature, black and grey, to identify key papers and reports that describe and bring some critical evaluation to health care and PHC reform (in this case in New Zealand). We confined our search to developments since 1990. We also focus within PHC on material within which General Practice forms a key (although not the only) component.

### **Terms and definitions**

Reform in NZ has been pursued under the umbrella of a key policy, the New Zealand Primary Health Care strategy (King 2000; Ministry of Health 2001). The decisions to adopt this term, with all its WHO connotations, was made after previous attempts at policy reform located specifically within the field of general practice failed to take hold, and after strong representation from other professional groups, particularly nursing groups.

### **Analysis**

The analytic approach drawing on the country specific documents as resource documents is described in detail in Chapter 3 of the report. In developing each country specific document, our analytic framework was broadly based on identification of common challenges and areas of reform that have dominated PHC reform internationally since 1990. These broad areas of interest relate to organisation, financing and governance arrangements and their effects on quality/outcomes, cost control/efficiency, and equity/access. These a priori thematic areas of interest framed our search for policy and system reform in New Zealand in response to these broad domains.

## Health care reforms in NZ since 1990

The following is largely based on the work of Devlin et al (2001), Ashton (1999) and French et al (2001).

### Drivers of reform

Broadly, the 1990s in New Zealand were dominated by a radical experiment introducing a quasi-market model to health care. This change was partly in response to a growing recognition of problems and tensions facing all nations at that time. These included having to address the issue of finite resources and rationing of health care. Technical possibilities outstripped the possibility of any health service to deliver all possible health services to everyone. Changing social structures with a loosening of supportive informal and community networks accompanied by the perception of the rising chronic illness epidemic heightened this resource dilemma (Fraser and Scott 1998). There were local political and community perceptions of broad ranging inefficiencies and lack of accountability in the old system, in particular long hospital waiting lists. Specific concerns were also raised by one review in relation to equity of access to services, a lack of choice and responsiveness in the system, a lack of efficiency, stemming in part from the dominance of medical practitioners in controlling the structure and organisation of health care. Morale within the health system, stemming from inflexible bureaucracy and poor management was also seen to be a problem (Fraser and Scott 1998). Finally, in the late 1980s and early 1990s out of pocket expenses were high and costs were uncapped. The solution to these problems was felt at that time to lie in the introduction of market style reforms, where price signals would drive efficiency and equity. This was congruent with developments internationally at the time.

### Market reforms: Purchaser-provider split

In 1993 the 14 government Area Health Boards were replaced by 4 purchasing Regional Health Authorities (RHA) and public hospitals were semi-corporatised, given a "for profit" status as Crown Health Enterprises (CHE). The purchasing RHAs were accountable to a separate minister from the provider CHEs. RHAs negotiated contracts with providers, including GPs (ie via IPA's - see below).

This period of reform is largely felt to have been disappointing in its outcome, particularly in relation to secondary care. Ashton's (1999) analysis suggest that Public health expenditure rose very slowly and only through adhoc injection of funds as RHAs slowly realised that the payments they were making to CHEs did not cover costs. Efficiencies did not materialise and CHE deficits rose, as they focused mainly on ancillary rather than clinical services and expectations were over-optimistic. Hospital waiting lists rose, Private insurance became less affordable. Targeting subsidies through an administratively complex Community Services Card was poorly taken up. Accountability between purchaser and provider improved but democratic accountability to the community worsened as elected boards were disbanded. Work morale relationships worsened with an "antagonistic relationship between managers and clinicians".

### Progress towards health targets was very slow.

In terms of the public hospital system then, the reforms were less successful than hoped, for a number of reasons. These include an excessive focus on activity and service outputs rather than quality of care and health outcomes, and a failure to account for the different cultures of managerial and clinical worlds. There was a

“crucial lack of buy-in amongst health professionals and the general public” (Devlin, Maynard et al. 2001). What was achieved was a boost to infrastructure (particularly IT in primary care – see below) within the system and an opportunity for Maori providers to have a voice.

Costs as a percentage of GDP did rise slowly during this period (1992-96) as did consumer out of pocket payments (currently running at about 16%). Even so, at the end of the reform period, expenditure was still less than 1989.

### Changes in primary care over this time

On the other hand, from a primary care perspective, many saw this as “an important maturing period ... – including the start of ‘organised general practice’ (through IPAs – see below), the rapid growth of Māori and Pacific-led providers and the growth of the ‘third sector’. Prior to this period there had been virtually no contracting with Government by groups of GPs – at the end of the period contracting by organised groups of practices was the norm. Without this the next stage of strategic development would probably not have been possible.” (Marwick, Personal communication)

Independent Practitioner Associations (IPAs), GP organisations with some similarity to Divisions of General Practice and Primary Care Trusts in the UK, were established in 1992-3 as a response to and as a part of these internal market reforms. They did achieve cost savings in the primary care sector through management of prescribing and diagnostic services (Malcolm (2004) says this was never called fundholding), although there was concern about the effect on patient outcomes. This is dealt with more fully below. In fact “this introduction – often for the first time – of management at the primary (care) level was an important change that was largely welcomed.” (Marwick – personal communication). One important factor in this may be that, whereas in the previous public hospital based reforms, clinicians felt excluded by increased managerial involvement, in primary care practices were still by and large owned by practitioners. This ownership may have been an important factor in the relationship between policy makers, funders and practitioners.

IPAs evolved and matured in the context of market reforms (and were driven to some extent by professional self interest). Nevertheless IPAs have been important elements in reforms that have at the same time challenged the dominance of the profession. It seems worth noting the way existing structures were mobilised by the policy reform process with an eye to much wider long term reform goals (see below).

### Post 1996, a retreat from market reform

In 1996 the system was significantly reshaped and key market elements were dropped in the face of this apparent public hospital sector failure, and in the context of NZ’s first proportionally elected government, with a more centre political orientation. The legislated need to be as successful and efficient as comparable businesses that are not owned by the Crown (in fact most CHEs were never profitable), for example, was removed from hospitals, and a single centralised health funding authority was established. Over this period costs rose again to approach 8.2% of GDP.

## Current governance, organisational structure and funding arrangements

### The NZ Health Strategy and District Health Boards

With the election of a labour led coalition Govt. in 1999 a further round of reform has been undertaken, accompanied by a significant increase in health care funding. Publicly this has been based on the wish to improve local community and provider involvement in decision making and on the wish to reduce inequalities in health between Maori/Pacific Islander populations and Non-Maori/Pacific Islander. These changes were accompanied by the announcement of significant new funding for health care (again, see below).

Current arrangements were established following the release of a draft New Zealand Health Strategy in 2000 for public consultation and discussion (King 2000). This document established seven principles, six service priority areas, nine goals and fifty objectives for health and health care in New Zealand.

The proposed structural changes attempted to address identified shortcomings in what preceded and incorporated theory and principles underpinning the work of the new Government as reflected in the strategy document. For example, ensuring local health professional and community “buy in” has involved the establishment of 21 new District Health Boards (DHBs) with a largely locally elected membership. A stated focus on equity has meant that DHBs must have at least 2 Maori members. Funding to the boards is based on a population formula weighted for need (see below). Issues of fragmented care have been approached by integrating health and social care services organisationally at the DHB level and by integrating purchaser and provider functions to some extent at the district level.

DHBs have responsibility for both health and social care services in their area. Principles governing the funding of DHBs include a focus on planned service provision and improving health for a defined population, fund holding for all health services (except for maternity, public health and disability), and a commitment to the reduction of health inequalities. The national Government retains responsibility for national policy and planning, regulation, overall monitoring, standards and accountability, while there is a voluntary national quality accreditation system. DHBs have both a purchaser arm (negotiating contracts with GPs and with a range of other providers eg pharmacists, labs, Maori and Pacific providers etc) and a provider arm (Public hospitals and public health and disability services).

### Primary Health Care within the above context

The following is based on the work of the Ministry Health Publication (King 2000), Marwick (2002), McAvoy and Coster (2005), Malcolm et al (1999a), (1999b), Malcolm (2004), Sibthorpe (2001) and (Glensor 2004).

PHC reforms have naturally enough mirrored changes going on within health sector reform in NZ more generally. This is true of changes in governance, organisational structure, and funding arrangements.

### Independent Practitioner Associations

Primary care in NZ is dominated by private for-profit general medical practices with services provided on a fee for service basis. As in Australia, GPs act as gatekeepers to secondary and tertiary services. For public secondary services, referrals (other than

acute services) must come from a GP and the same tends to happen for people who attend a private specialist appointment.

In the early 1990's primary care was important to health care reform in that it was seen by government as a potential mechanism of managing the new market elements and in particular as a way of reducing costs from prescribing and diagnostic services. IPAs emerged in the early 1990s within the context of the market reforms, specifically as bodies established to hold budgets for diagnostic services and pharmaceuticals. IPAs were local groups of GPs, with some similarity to Divisions of General Practice (DGPs) in Australia, although they were/are owned and controlled by their members. Medical professional organisations were initially suspicious of IPAs since they agreed to contract with the Government funders (RHAs) at a time when the profession generally were very wary that such contracts meant losing professional independence. However, the achievement of significant financial benefits accruing to the IPAs (and thus to their GP owners) mainly through savings from managing budgets was crucial in overcoming this opposition.

Ashton (1999) suggests that cost savings of between 8-23% were achieved. IPAs were required to spend these savings primarily on the development of new and innovative services in collaboration with other local providers and other developments aimed at improving access. A range of risk management arrangements applied at this time. Some IPAs carried true budgets with all the associated risks, but many held only notional funds with little real attached. (Personal communication – John Marwick). The goodwill engendered between funders and providers during this period through generous approaches to governance and risk management may have been important in engaging the profession in subsequent reforms.

It is generally agreed that IPAs made significant progress in introducing IT infrastructure to the sector, merging practice registers, developing IT systems from monitoring and providing feedback on quality issues.

During this period another important change was that a number of practices shifted to a capitation form of funding. This provision of optional funding arrangements and the experience developed within the profession may have been an important factor in the way the profession has largely embraced the more widespread reform that has come with the shift to PHOs (see below).

### Third providers

NZ has a strong third sector, a group of provider organisations (some known as community trusts, others arising from Union Health Centres funded in the 1980s by the previous Labour Government) aimed at meeting the needs of underserved populations, including Maori and Pacific Islander and low income and deprived populations. They arose in the context of growing awareness of significant health inequalities experienced by Maori and Pacific Islanders and socioeconomically deprived groups, as well as an awareness of the maldistribution of the GP workforce. They are important for our discussion in that they have provided something of a model for more recent developments in the sector. They kept the issue of health inequity and health care access in the public eye. They differ from IPAs in their philosophical commitment to population health, community development, multidisciplinary and salaried provider arrangements. Over the 1990s they were in competitive relationship with IPAs for the provision of services and government funds as well as for reasons related to these ideological differences. The similarity between these third providers in NZ and

Aboriginal Community Controlled Health Services in Australia and Community Health Centres (particularly in Victoria) is easy to see.

### Other primary care providers

Nurses play a significant role in the PHC sector in NZ. The NZ Govt has subsidised the employment of practice nurses in NZ general practices since the 1970s. This covered notionally about half the cost of employing a nurse. Originally this was rurally targeted program but then became universal (again, the similarity between this and recent developments in Australia is apparent). Consequently there are similar numbers of practice nurses in NZ as there are GPs.

Public health nurses are based in public health units, child health within NGOs and midwives work as independent professionals, in groups or alone. A small but growing number of nurse practitioners with limited prescribing rights also exist, undertaking work that would be done by doctors in many countries. Clearly this presence of nurses within the sector has been an important factor in enabling the strong multidisciplinary focus of subsequent reforms.

The PHC strategy and the key role of Primary Health Organisations (PHOs)  
The focus on the role of primary care within health care reform in NZ shifted with the move to local involvement and the focus on access and equity that characterised the period since 1999. The NZ Health Strategy strongly emphasised primary care as central to the health care system. The PHC strategy again explicitly focuses on reducing inequalities, addressing population health outcomes, improving access to PHC, better coordinating and integrating care with a focus on collaboration between providers, and ensuring the community are participating and engaged.

The NZ PHC Strategy established PHOs as the bodies responsible for implementing PHC reform, and they have absorbed some IPAs. Other IPAs remain, though with changed functions. Some provide management services to support PHOs, some have changed their governance to become PHOs, while others remain as another player within a PHO. These changes were driven by GP members accepting the benefits of PHO status, either through having a greater voice in health care planning or increased funding for the majority.

PHOs are funded by the DHBs to provide a specified set of essential primary health care service to an enrolled population. PHOs are geographical, not for profit, and have an enrolled population, initial enrolments being made through primary care (GPs) providers. The strategy sets out minimum requirements for PHOs: They must show evidence that local community (consumers and providers) are able to influence decision making of the PHO, that services are targeted to those with highest need particularly Maori. A minimum set of services for a PHO to provide is specified which includes personal medical services and population based services.

One of the most significant changes for general practice under PHOs was the move for the Government portion of income to shift from fee for service claims to capitation payments. This was made more acceptable to GPs by several factors. Firstly, by the early 1990s Government subsidies had been eroded by inflation to the point that in many cases they represented quite a small part of practice income. At the same time fairly strong competition between practices and quite high patient fees meant rising market resistance limited doctors' ability to increase incomes either by raising fees or seeing patients more frequently. Incomes in many practices fell at the end of the

1990s and were certainly well behind comparable hospital salaries. In these circumstances, capitation of the Government portion of funding was attractive since it offered assured income without having to see patients more frequently. Moreover, these early local capitation systems had no way to cross-match between practices to ensure that individual patients were only enrolled once. Those practices that negotiated local capitation arrangements were seen to be doing well so that by the time that the Primary Care Strategy was proposed the idea was no longer as threatening as it once had been. In these circumstances the financial realities coincided with the arguments advanced by academics, policy-makers and funders that capitation was a better way of funding if population initiatives were important. Of course, since patient co-payments still represent up to half of the cost of a GP visit even under PHOs, in fact the system is a blend of Government capitation accompanied by patient fee-for-service – and the financial incentives are therefore blended too.

Enrolment was undertaken through people's first point of contact with the service. In most cases this was the GP so the GPs patient registers were taken as initial enrolment lists and the PHO had 3 years in which to tell their population about PHOs and provide them with the ability to opt out. It has been suggested that consumers were apparently less enamoured with the concept of enrolment than were GPs and providers. However by mid 2005, some three years after the first PHO was established in July 2002, 93% of the population were considered enrolled.

PHO funding explicitly follows the commitment to reducing inequalities. Two formulae exist, an access and interim formula. Access funding is available to PHOs where >50% of their enrollees are Maori, Pacific Islander or from deprivation deciles 9 or 10 (the most deprived deciles). In these PHO a higher capitation amount is paid to the PHO, who must then negotiate with the GPs and providers in the area to reduce patient out of pocket costs. In these PHOs, the Community Services Card is not operational, as the policy is based on universalist principles. Transitional funding (to all other PHOs) sees lower capitation amounts being paid but higher amounts for CSC holders. It is planned that all PHOs move to the access formula.

Most PHOs (65 out of the current 81) are also implementing the Care Plus programme for individuals with identified high needs for primary care (expected to be 2 hours of care in six months) – usually because of chronic conditions. The funding available for the programme covers 5% of people nationally though at the PHO level the number of expected patients varies depending on the enrolled population. PHOs receive significantly higher funding to provide higher levels and more managed care for these patients (about \$200 extra funding per patient per year) (New Zealand Ministry of Health 2004).

Key features in the implementation of these reforms seem to have been their progressive nature (ie they were not introduced in an all or none fashion at a single time point), their underpinning by national strategic documents after extensive discussion that set out a clear goal and direction and the fact that DHBs and PHOs have been allowed considerable freedom to innovate, apply local solutions and travel at their own pace.

### Evaluation of reforms

The following is largely drawn from the commissioned evaluation of the NZ PHC strategy (Cumming, Goodhead et al. 2003; Cumming, Raymont et al. 2005), (Perera, McDonald et al. 2003)

#### District health Boards level

The evaluation identified broad understanding of and support for the directions of the reforms (ie reorientation of the system to PHC, a population focus, community participation and focus on decreasing inequalities) by both DHB staff and the public.

They did identify a number of tensions in structural arrangements. These were related to the fact that Districts were largely the same as the areas covered by their predecessor public hospitals – the CHEs and their successors the Community and Health Services. This means that DHBs were often seen by those in primary care as being likely to focus primarily on their hospital provider role rather than their funding role. There still remains a lot of uncertainty in the organisational arrangements between DHBs and the Ministry. Relationships and outcomes seemed better where planning and budgeting time frames are synchronised. Concerns about out of date data used in calculating funding also complicated relationships at this level. Overall there was also a sense that to really devolve responsibility to a regional DHB level would take time.

The evaluation noted tensions in governance arrangements. These centred around issues of capacity and accountability. There was concern that DHBs lacked the capacity and tools to effectively manage budget and responsibility to effect change and reform. There was concern about Board members capacity, clarity of roles (perceived dual constituency), conflicts of interest, and the over-burdensome committee structure. Behind this lies a concern that Maori remain under-represented on DHB Boards. In general it was felt that simple representation on the Board was a less effective strategy for involving community than a planned series of structured and targeted community based planning processes.

The evaluation identified broad agreement with the PHC strategy at the DHB level, but there were concerns regarding the perceived inadequate consultation leading up to PHO establishment, lack of explicit guidance in setting up PHOs, insufficient funds in the start up phase and equity with the two formulae (access and interim) being used for funding. Behind this lay a concern that small innovative organisations might not survive the reform process (see below)

#### PHO level

At the PHO level, the evaluation again identified broad support for the overall directions of the PHC strategy. The evaluation noted that overall there is a perception that access to services as a result of reduced financial barriers has improved for disadvantaged people, and importantly, flexibility of service delivery arrangements had been fostered and is evolving under the new organisational and funding arrangements.

An important achievement so far has been the establishment of good community representation at the PHO board level. Issues related to PHO governance included a concern that medical professionals continue to dominate (this is particularly seen to be limiting the development of new and alternative and extended nursing roles, where employed-employee relationships between GPs and nurses continue to be influential.

Concern exists in relation to the way enrolment has been developed and linked to funding in that PHO income has varied significantly as equalisation (claw back of funds) arrangements come into play when patients visit GPs that they are not enrolled with. This is a problem when a patient may enrol with a practice in an interim funded PHO and see little change to the costs they face to visit a GP, and may cross to an access funded PHO and see a provider operating under a reduced up front fee structure. This suggests that two tier structure has created some perverse incentives that may need to be addressed through moving all providers and PHOs onto the same funding arrangements (ie bringing interim funded PHOs up to the same level of funding and associated fee reduction requirements as the access PHOs). This has become something of a contentious issue. The Govt wants assurance that the increased funding accompanying wider application of the access formula will mostly go to reducing the patient co-payments and expects these PHOs to show that they have reduced fees accordingly.

Interprofessional issues continue at times (see above re nursing roles). The evaluations noted inter-professional tensions related to the perceived power of IPAs, and a concern that reforms had the potential to further disadvantage small struggling Maori providers. Most IPAs remain though many have changed their functions (eg some provide management services to support PHOs, others have changed their governance to become PHOs, while others remain as another layer within a PHO).

Boundaries are also an issue. Some providers need to deal with more than one PHO and there is often more than one over-lapping PHO in an area.

In general the community embraced the idea of enrolment. Possibly the fact that the existing GP registers was used is the key. Enrolment took place at practice level and most people were able to identify a primary care practice at the time formal enrolment started.

### Challenges

One particular challenge noted for the DHBs is managing risk, particularly across those DHBs with smaller and more dispersed populations (a similar challenge is described for PHOs – see below).

McAvoy and Coster (2005) neatly outline challenges in the near future for reforms that attempt to create a broader PHC structure and system that includes GP. These include

- GPs fear of loss of autonomy as the GP dominated IPA moves to a multidisciplinary PHO with significant community and non-GP governance input.
- GP fear of loss of autonomy as capitation funding places practice nurses on an equal footing with GPs as a point of first contact for care
- Concerns about the funding levels for undertaking one of the PHO specified roles i.e. “Managing referred services”. There are concerns that with inadequate levels of funding and inadequate information systems that prescribing and diagnostic services will be cut. This is tied up with concerns about the setting of a minimum population size for PHOs to allow risk management (they suggest 100,000 as a minimum)
- Ensuring consistency in contracting arrangements between PHOs and DHBs

- Promoting public understanding and acceptance of enrolment and reducing duplicate enrolment
- Anticipated GP workforce shortages
- GPs fears of financial risks, especially those facing GPs in small PHOs. GPs and practices in larger PHOs seem to be benefiting financially and from management support.

Other concerns noted have included

- Capitation payments can result in under-servicing & cream-skimming
- Community car sector do not believe DHBs have a sufficient understanding or interest in community care to make wise allocative decisions
- Concerns about pre-primary care and community development aspects of non-govt/non-profit organisations receiving funding and addressing access issues
- Need for ministry of health to have strong regulatory powers to manage 21 DHBs
- The purchaser – provider arrangements may lead to wasteful duplication and foster competition
- Ensure DHBs expenditure is based on need
- Concerns about ability of government to administer the system and ensure accountability

Summarising the evaluation work from Victoria University, it is suggested that providers retain goodwill and support for the PHO model of PHC, are finding freedom from fee-for-service which has been a positive benefit in making work more flexible and that consumers are experiencing lower out of pocket expenses and better access. McAvoy and Coster suggest that key lessons for Australia are

- The need for a national PHC strategy
- The need for active engagement with GPs and GP organisations
- Recognition of implementation costs
- The need for infrastructure support including IT
- The need for robust governance arrangements
- The need to address issues related to critical mass in PHO size

### References

- Ashton, T. (1999) The health reforms: To market and back In *Redesigning the welfare state in New Zealand : problems, policies, prospects* (Eds, Boston, J., Dalziel, P. and St. John, S.) Oxford University Press, Auckland, N.Z. ; New York, pp. xi, 356.
- Cumming, J., Goodhead, A., Barnett, P., Walker, T., Clayden, C., Churchward, M., Simonsen, K., Ashton, T., Boulton, A., Russell, M., Perera, R., Fa'alau, F., Asiasiga, L., Cunningham, C., Lungle, S., Murphy, C., Cochrane, M., French, S. and Davis, J. (2003) *Interim Report on Health Reforms 2001 Research Project*, Victoria University of Wellington, Wellington
- Cumming, J., Raymont, A., Gribben, B., Horsburgh, M., Kent, B., McDonald, J., Mays, N. and Smith, J. (2005) *Evaluation of the Implementation and Intermediate Outcomes of the Primary Health Care Strategy First Report*, Health Services Research Centre, Victoria University of Wellington, Wellington

- Devlin, N., Maynard, A. and Mays, N. (2001) New Zealand's new health sector reforms: back to the future? *BMJ* 322 (7295), 1171-4.
- Fraser, D. and Scott, J. (1998) Unshackling the hospitals *New Zealand Medical Journal* 111 (1071), 305.
- French, S., Old, A. and Healy, J. (2001) *Health Care Systems in Transition- New Zealand*, European Observatory on Health Care Systems, Copenhagen
- Glensor, P. (2004) New Zealand primary health care policy and the role of a non-government organisation *Australian Journal of Primary Health* 10 (3), 76-82.
- King, A. (2000a) *The Future Shape of Primary Health Care: A discussion document*, Ministry of Health, Wellington
- King, A. H. (2000b) *The New Zealand Health Strategy*, Ministry of Health, Wellington
- Malcolm, L. and Mays, N. (1999) New Zealand's independent practitioner associations: a working model of clinical governance in primary care?[see comment] *BMJ* 319 (7221), 1340-2.
- Malcolm, L., Wright, L. and Barnett, P. (1999) *The development of primary care organisations in New Zealand. Report prepared for the Ministry of Health*, New Zealand Government, Ministry of Health,
- Malcolm, L. A. (2004) How general practice is funded in New Zealand *Medical Journal of Australia* 181 (2), 106-7.
- Marwick, J. (2002) *The New Zealand PHC Strategy: Presentation to DoHA and The Health Inequalities Research Collaboration PHC Network*, Canberra
- McAvoy, B. and Coster, G. (2005) General Practice and the New Zealand Health Reforms: Lessons for Australia *Australia and New Zealand Health Policy* 2 (26), <http://www.anzhealthpolicy.com/content/2/1/26>.
- Ministry of Health (2001) *The Primary Health Care Strategy*, Ministry of Health, New Zealand,
- New Zealand Ministry of Health (2004) *Care Plus: An overview*, Ministry of Health, Wellington
- Perera, R., McDonald, J., Cumming, J. and Goodhead, A. (2003) *Primary Health Organisations - The First Year*, Health Services Research Centre, School of Government, Victoria University of Wellington, Wellington
- Sibthorpe, B. (2001) Models of primary health care *New Doctor* 74.

## APPENDIX 6: INNOVATIVE MODELS FOR COMPREHENSIVE PRIMARY HEALTH CARE DELIVERY CONTEXT SETTING: CANADA

**Donna Southern\***, **Lucio Naccarella\***, **John Furler\***, **Lauren Prosser\***,  
**Anthony Scott\*\***,  
**and Doris Young\***

**The Department of General Practice\* and the Melbourne Institute of Applied Economics and Social Research\*\*, The University of Melbourne**

### Background

Canada's national healthcare system is highly decentralised, delivered via its ten provinces and three territories, each representing a unique system in their own right with respect to the financing, administration, delivery modes and range of public health services provided. Within each province and territory, health care delivery is highly centralised, as these governments have primary, but not exclusive, jurisdiction over all aspects of health service planning, management and regulation, and broader policy planning (Marchildon 2005)

The healthcare system is predominantly funded by taxation and is underpinned by the Canada Health Act which promotes universal access to all, for medically necessary healthcare,<sup>34</sup> regardless of ability to pay, delivered in an equitable and responsive way. The scope of the Act is limited to a focus on hospital and physician care, not including homecare and pharmaceuticals.

Whilst the funding of Canada's single-payer healthcare system is predominantly through government funded Medicare, there is a proportion of private healthcare spending (approximately 30%) which usually covers prescription drugs, dental and eye-care. Governments fund most healthcare services through provincial insurance plans covering all medically necessary hospital and physician care. Most hospitals are owned by non-for-profit organisations such as community and religious groups. The health care system costs approximately \$95 billion annually, 9.5% of GDP, including health promotion and preventive health services and technology intensive hospital care (Lewis 2002).

Primary care is provided to varying degrees by hospital in/out patient units, hospital emergency departments, and community sites such as Community Resource Centres, community mental health, public health and telehealth, it is however, family physicians and general practitioners in solo or group practices based in the community who provide the bulk of primary care in Canada. However, their gate-keeping role is soft. There is no patient registration with patients permitted to access specialist care without a medical referral, albeit resulting in a lower payment to specialists (Mullin F 1998).

---

<sup>34</sup> Medically necessary care has never been defined, and services deemed necessary vary between provinces

Despite the softer stance on gate-keeping to secondary care, most Canadian citizens choose to maintain an ongoing relationship with a family physician or general practitioner, (Mullin F 1998) thereby maintaining the centrality of primary care in the health care system.

### General health system issues

The virtues of the Canadian health care system have been extolled by many for its strong focus on social justice<sup>35</sup> and a well-organised, universal, publicly financed health insurance system, established in the 1960's (Mullin F 1998) with high levels of public satisfaction (Blendon RJ 2002). Canadian Medicare had reached political iconic status, capturing the attention of health policy reformers in countries such as Australia, the UK, and the US (Tuohy CH 2002). However, in the 21<sup>st</sup> Century, it has not escaped the need for reform, with noted reductions in accessibility to primary and hospital care<sup>36</sup> and rising public concern (Tuohy CH 2002).

For instance, as detailed in the Romanow report (2002) approximately 12% of Canadians (with considerable geographic variation) report having unmet healthcare needs and millions do not have access to a family physician, with long waiting times for access to emergency departments, surgery and diagnostic services fuelling increased patient dissatisfaction (Martin and Hogg 2004; Marchildon 2005). In addition to access issues and growing patient discord, physician morale is also low, with reported high levels of dissatisfaction (The Janus Project 2004).

The main issues to be addressed have been identified as: improving accessibility to patients' usual or preferred primary care provider; to expand the scope of primary care providers to reach beyond the curative, medical model to incorporate health promotion and prevention activities; and increasing the reach of primary care services to rural and remote areas in need.

Proposed strategies for implementing health system change have adopted a regionalisation framework which involves varying degrees of health system decentralisation at the province level, with devolution of funding from the provincial governments to regional health authorities (RHAs). The introduction of RHAs aimed to reduce the fragmented approach to health service provision by consolidating the power held by numerous highly localised health boards. RHAs were granted responsibility for resource allocation based on the health needs of their population (Lewis and Kouri 2004; Marchildon 2005).

### The role of primary care in health system reform

The regionalisation strategy represents the largest structural reform since the introduction of Medicare, yet it does not include physicians' services (Lewis and Kouri 2004). The vast majority of family physicians are publicly funded through Medicare and therefore operate outside of the RHA financing system (Marchildon 2005).

Family physicians have retained the principle responsibility for primary care in Canada because they continue to deliver the bulk of primary care, most often being the first

---

<sup>35</sup>Access to medical care is based on need irrespective of ability to pay [Hutchison B, 2001 #523]

<sup>36</sup>There is no parallel privately funded system in Canada [Flood CM, 2001 #526].

point of access to the health care system, and are the only profession legally permitted to prescribe a full range of pharmaceuticals (Marchildon 2005).

Primary care has provided a logical entry point for governments to lever health system change because it is publicly funded (Fooks 2004). A little more than a decade ago, the policy levers mainly focussed on physician payment, with proposed shifts from fee for service (FFS) to capitation and other alternatives (Ontario Health Review Panel 1987; Government of British Columbia 1991). The thinking underpinning these types of reforms was to alter the volume-driven incentive that fee-for service produced along with its limiting effect on diagnosis and treatment (Marchildon 2005). However, change to primary care delivery up until the late 1990s was very limited, attributable to the FFS policy legacy<sup>37</sup> and the strong influence of physician opinion on health system reform. The dominance of small group and solo FFS physicians had placed them in a privileged position in health policy formation with their associations often shaping, delaying or preventing change along with a notable absence of other stakeholders in the development of primary care policy (Hutchinson, Abelson et al. 2001).

Health system reform efforts since 2000 have again placed primary care in the spotlight, with its improvement deemed as “crucial to the renewal of health services” (Health Canada 2003). Improving primary care is supported by public opinion procured through a consultation process conducted by the Romanow Commission (Maxwell 2002; Romanow 2002; Maxwell, Rosell et al. 2003). Also bolstering support for primary care as a key focal point for health system reform is a growing body of evidence, drawn broadly from within North America and Western Europe (Starfield 2004).

### Drivers of change

A strong driver for Canadian health care reform relates to regaining public confidence and improving their satisfaction because health issues are particularly salient in provincial government elections (Lewis and Kouri 2004). However, patient satisfaction generally equates with issues of accessibility, rather than a critical appraisal of service quality, or a focus on population health.

The necessity of modernizing the Canadian health care system to meet these latter less electorally sensitive goals drives reform to varying degrees. Although current realities such as changing population health needs, incorporating a prevention and health promotion focus, and targeting under-served populations and communities are well recognised (Health Services Restructuring Commission 1999; Marchildon 2005), these are subject to inconsistent political will (Hutchinson, Abelson et al. 2001; Lewis and Kouri 2004). Cost containment and restraint are also key issues for health care renewal.

The earlier focus on physician payment structures had resulted in limited primary care reform (Fooks 2004). However, the general broadening of focus to a primary health

---

<sup>37</sup> FFS is the “founding bargain” between the medical profession and government, leaving little scope for reshaping the organisation and delivery of primary care through altering payment structures [Hutchinson B, 2001; Fooks C, 2004].

care<sup>38</sup> philosophy has resulted in some significant shifts. For example, the changing of laws to allow nurse practitioners to deliver a broad range of primary care services, and some major investments in primary health care service organisation and information infrastructure (Marchildon 2005).

This renewed primary health care focus seemed to be preceded by a search for the ideal model of primary health care delivery, as opposed to retaining a diversity of models. An initial injection of federal funding into a series of pilot projects to test and evaluate innovative models of primary care delivery marks the beginning of this search. Between 1997 – 2001, the federal Health Transition Fund (HTF) provided \$150 million to support 141 pilot projects at the province and territory levels. Of these projects, 65 related specifically to primary health care (Mable and Marriot 2002).

The projects were evaluated using a framework consisting of six elements: access, quality, integration, health outcomes, cost-effectiveness, and transferability. The key lessons from the HTF projects are summarised in a report written for Health Canada by Lewis (2002). Essentially, rather than identifying a definitive model, the main success of the projects was to raise the profile of the issues of research uptake and implementation, creating partnerships, and approaches that will make contributions to future research (Lewis and Fooks 2002).

It is not clear as to what recommendations have since been adopted from the HTF pilot projects. However, shortly following the HTF pilot, in an environment of increased health funding, the federal government agreed to ramp up funding to support primary health care renewal. \$800 million was put into the Primary Health Care Transition Fund to support these efforts. Over a six year period (2000 – 2006) the PHCTF is supporting provinces and territories in their efforts to reform the primary health care system. The funding provides support for transitional costs associated with introducing new approaches to primary health care delivery.

The new approaches incorporate a range of identifiable mechanisms<sup>39</sup>. These include mechanisms of health system funding (e.g. private / public, regionalised / global, which impact on the types of reform strategies that can be implemented); provider payment systems (e.g. fee-for-service, capitation); organisational systems (e.g. patient rostering, open access); and performance systems (e.g. incentives and penalties).

---

<sup>38</sup>Primary care can be thought of as what Family Physicians do – the diagnosis, treatment and management of health problems with the bulk of services delivered by physicians. Primary health care can be described as including primary care, but also including the broader determinants of health such as sickness prevention and health promotion activities that are provided by physicians and others in a team-based environment [Fooks, 2004].

<sup>39</sup> The term mechanism refers to an approach to doing things that can be described independently of the context of its application, and directly transferred to another setting. For example, a payment mechanism is FFS. This differs to a service contract which is an example of a strategy containing a payment mechanism. The contract is context specific as it cannot be applied to other settings without some modification. An example of an organisational mechanism is patient rostering, which may make up part of an organisational strategy such as an HSO. Patient rostering can be applied elsewhere, however the HSO is dependent on contextual factors.

When combined, these mechanisms make up various distinct models of primary care delivery.

### Alternative models of primary care delivery

Stemming from early calls for primary care renewal and the more recent financial support provided by the Primary Health Care Transition Fund, numerous approaches to primary care delivery have evolved. Whilst a fully integrated model of primary care delivery (e.g. Figure 1) has been described, its implementation remains aspirational (Health Services Restructuring Commission 1999; Leatt, Pink et al. 2000; Shamian and LeClaire 2000), with incremental, piecemeal implementation of some new components and the refinement of existing structures and processes.

In a formal sense, an integrated delivery system (IDS) such as that which exists as a formal structure in the US, would cross regional health boundaries thus posing numerous problems for the Canadian setting (Shamian and LeClaire 2000). However, in principle, the components of an IDS can operate within an RHA framework, and these provide the basis of the idealised integrated model outlined below.

**Figure 1 Idealised integrated primary care model [source: Shamian and LeClair, 2000]**

**Components of a fully integrated primary care model:**

- 1. Membership**
- 2. Consumer choice**
- 3. Funding link to consumer**
- 4. System competition**
- 5. System management**
- 6. System funding**
- 7. Financial incentives**
- 8. Primary care focus**

Across Canada there are many identifiable models of primary care delivery, with physicians as the main service provider. In Ontario alone there are 16 models of primary care delivery (LaPierre March 2006). Whilst not an exhaustive list, an example of the diversity of models currently operating across Canada, the range of services they provide, and some of the mechanisms that they employ.

Generally, these models can be grouped under two broad headings: the Professional Models and the Community Models (Canadian Health Research Services Foundation 2003). Professional Models describe an approach to primary healthcare delivery that aims to deliver medical services to patients who seek it. Within this classification there are the Professional Contact Models and the Professional Coordination Models. Community Models include Community Health Centres (CHCs) and Local Community Service Centres (CLSCs) which aim to improve the health of geographically defined populations through providing a set of required medical, health, social and community services (Canadian Health Research Services Foundation 2003).

### The Professional Models

The Professional Contact Model classically involves physicians operating their own practices, being paid on a FFS basis through Medicare (Canadian Health Research Services Foundation 2003). Physicians are funded based on the number of contacts with patients, not on consultation length. This model is currently most dominant, with examples of the model being private practices and walk-in medical clinics that serve as the patient's gateway to the healthcare system (Canadian Health Research Services Foundation 2003).

The distinguishing characteristics of the Professional Contact Model are that it is designed to deliver primary care to people who arrive at the physician's office, there are rarely other health professionals co-located on site, usual physician remuneration is through FFS, clinical information sharing is limited to within the immediate site, and there are no formal mechanisms to facilitate either patient follow-up or integration of services (Canadian Health Research Services Foundation 2003).

The Professional Coordination Model aims to provide continuous services over time, with patients who subscribe to a healthcare organisation. It is characterised by its mixed payment mechanisms to physicians (per capita, sessional fees, and FFS), there is a care-giving team, and a care coordinator to provide follow up and continuity of services to patients, there is more information sharing, and there is a designated liaison person to provide service integration (Canadian Health Research Services Foundation 2003). This model is reasonably uncommon in Canada, and can be likened to an Health Maintenance Organisation (HMO) common in the US. The closest example of this model in Canada is Ontario's Health Service Organisations (HSOs) (Canadian Health Research Services Foundation 2003).

The newest Professional Coordination model is the Family Health Network / Groups (FHNs), introduced in 2001 by the Ministry of Health and Long Term Care (MOHLTC), which aims to improve access to health services via 24 / 7 access to primary care services and better coordination of health care information in both rural and urban locations. A Family Health Group (FHG) is comprised of at least three physicians practicing together, although not necessarily co-located, but within a reasonable geographical distance. FHNs operate under contract with the MOHLTC and participation by physicians is voluntary. Physicians can choose from either a blended or FFS remuneration model, and they receive payment for continuing medical education, practice information technology, as well as preventive care bonuses (Champlain District Health Council 2004).

Patients join a network by signing an agreement that their family physician and their physician's network will look after their primary care needs. Information sharing among physicians within the network is facilitated by software, allowing them to access medical histories without the patients' primary care physician having to be present (Champlain District Health Council 2004).

Other initiatives are consistent with improving the dominant Professional Contact model, with a focus on improving access and information management systems. These initiatives include combining alternative payment structures with full-time access to essential services, and fast-tracking the development of telehealth applications in rural, remote and northern areas (Shortt 2004)

### The Community Models

As already indicated, Community Models operate under a broader Primary Health Care philosophy, than do Professional Models. Typical of Community Models are health service centres governed by public representatives. These centres obtain lump sum funding, usually from a RHA. The RHA oversees the organisation of all healthcare services within its province or territory and allocates resources to primary healthcare and services for other levels of care (Canadian Health Research Services Foundation 2003).

Team approaches to providing primary care are a typical feature of this type of model, and the tasks of the team extend beyond providing individual medical care, encompassing primary health care goals such as for example health promotion. Physicians and other team members are usually paid sessionally.

### Some key mechanisms of primary care models

The diversity of primary care models both within and between each province and territory has been likened to a “dog’s breakfast” (Birch April, 2006). Despite the variation of model types, some of which is necessarily due to widely divergent local contexts, there are some common objectives being addressed and some common elements within the models that can be identified. The objectives being addressed are generally aimed at improving the integration of primary care services and to extend the reach of services beyond the medical, curative model of health care to encompass health promotion, prevention, rehabilitation, and supportive care (Shortt 2004).

The common elements within the models can be thought of as mechanisms that can be broadly classified under the headings of health system funding; governance or performance systems (e.g. how incentives or penalties are applied in order to meet particular outcomes and manage risk); practitioner payment systems (e.g. FFS, capitation); and organisation systems. These are discussed in turn.

### Health system funding

On a superficial level, the mode of health system funding is the least variable aspect of the Canadian health care system. The preservation of the public, single payer system is a fundamental insignia of the country’s social conscience and as such it underpins current primary care reform. There are no fiscal intermediaries (like insurance companies in the US) between the government and providers (Hundert 1998) and proposals to introduce more private payers have been met with the criticism of contravening the Canada Health Act (Spurgeon 2006). Only those services not covered by the public system can be purchased through private insurance plans, which are often offered by employers. Canada is the only developed country that has a public system without formal recognition of a private-sector provision of services (Leatt 2004). It is illegal for private clinics to provide services covered by the public system but some clinics do so (Spurgeon 2006).

Whilst the health care system is funded and administered publicly, there is scope for wider variation across provinces and territories in how primary, secondary, tertiary and rehabilitation services are organised, aligned, funded and integrated (Hundert 1998). This variation is particularly pertinent due to the widespread adoption of Regionalised

Health Authorities (RHAs)<sup>40</sup>, which provide a structure under which provinces administer a broad range of health care services and their integration, including disease and injury prevention activities, priority setting for health services, resource allocation, and the management and operation of hospitals, community health centres, home-care programs and other long-term care facilities (Leatt 2004)<sup>41</sup>. A decade ago, the federal government introduced regionalisation, devolving most authority to the provincial governments. Provincial governments have responsibility and accountability for the organisation and delivery of health services. The process of regionalisation has been highly variable across provinces<sup>42</sup>. Different responsibilities have been assigned to the formal RHAs established in nine provinces. Ontario has not adopted a formal RHA structure, however, a different pattern of authority distribution has been used<sup>43</sup> (Leatt 2004).

### Public versus private funding debate

Under the Canada Health Act, it is illegal to bill patients for any services and procedures that are covered under Medicare. The universal health plan does not include certain services such as adult dental care, prescription drugs, and optometry. Also, the included procedures are covered by Medicare only under conditions of medical necessity. As waiting lists for many medically necessary procedures are very lengthy, there is considerable debate about the ethics of prohibiting user fees as a means to circumvent waiting lists.

In June 2005, the Chaoulli decision by the Supreme Court of Canada overturned a Quebec law preventing people from purchasing private health insurance to pay for medical services available through Medicare. Under the Chaoulli ruling, the outlawing of private health insurance contravenes the Quebec Charter of Rights guaranteeing the right to security of the person, causing undue suffering and in some cases death. Despite this major ruling, there has been considerable resistance within Quebec to its broad application, and certainly debate is heated as to its application at a national level (Hadekel 2006). However, pressure to introduce user-fees nationally are mounting from a number of provinces, with Quebec's Health and Social Services Minister urging public debate about this issue (Seguin 2006).

---

<sup>40</sup> Regional Health Authorities (RHAs) are loosely defined by the geographical area covered by the authority or the size and characteristics of the population being served, however, some other types of RHAs have been formed to focus on specific population groups (e.g. mental health, cancer care, cardiac care) [Leatt P, 2004].

<sup>41</sup> The aim of regionalization was to provide an organizational solution to the problems of fragmentation and incoherence in the health care system recognized throughout the 1980s. RHAs aim to consolidate authority previously distributed among many programs and communities [Lewis S and Kouri D, 2004].

<sup>42</sup> There is no common definition of a health region, no uniform understanding of what services should be regionalized, and no consensus on governance [Lewis S, and Kouri D, 2004].

<sup>43</sup> Ontario is regarded as the "control" province in the regionalization experiment because it has not introduced formal RHAs. However, regional structures are in place through district health councils which have planning authority. A key issue for Ontario has been defining what constitutes a region. Professional associations, district health councils, public health units and government itself have different geographic boundaries to their regional bodies [Leatt P, 2004].

Quebec has recently experimented with private health care in primary care and also whole hospitals and emergency wards have opted out of the public system. Quebec has the highest number of private clinics which deliver publicly funded care.

Despite the entrenched federal legislation against privately funded health care, Alberta is seen as the most progressive in proposals for health care reform, and has experimented considerably with increasing the role of the private sector, with the introduction of private clinics that are allowed to bill patients for some of the cost of a procedure. A radical reform proposed by the Premier Ralph Klein, dubbed the Third Way policy, would allow physicians to work in both public and private health streams., however, this proposal has recently been quashed.

### Governance

Governance draws together a range of mechanisms, with the aim of quality control, regulation, accountability and risk management. It is impossible to talk about governance in the Canadian context without also discussing regionalisation.

Theoretically, regionalisation has two main axes – the centralisation or decentralisation of services (e.g. physical location / configuration) and the corresponding continuum of authority, ranging from consolidation to devolution (Lewis and Kouri 2004). The aims of regionalisation in Canada were to solve the problems of a top heavy, centralised bureaucracy through devolving authority to the provinces, and also consolidating the dispersed power of numerous local health boards.

Since the introduction of regionalisation throughout Canada during the 1990's, its implementation has been piecemeal and varied across provinces (Lomas, Woods et al. 1997). Wide variation currently exists regarding the degree of service decentralisation with levels of associated authority often being less devolved, creating a problem of responsibility without authority (Lomas, Woods et al. 1997; Lewis and Kouri 2004). This issue is an important factor for governance because it has implications in determining accountability. RHAs are generally weak in terms of providing a governance structure. They are susceptible to changes in government, the clarity and extent of devolution of authority is ambiguous (as reported by board members and CEOs of RHAs), and they are poorly acknowledged by the public who bypass RHA boards and present their concerns direct to government (Lewis and Kouri 2004).

Governance power is limited. Recently, there has been a reconsolidation of authority at the provincial level in several provinces (Lewis and Kouri 2004), however it is not clear exactly where accountability for meeting the goals of primary care reform rests. Governors are generally not effective in assessing performance because they do not have access to comprehensive and accurate information required, and they are not meaningfully held accountable for attaining health care goals.

Furthermore, the healthcare culture has not yet fully embraced quality improvement. Quality improvement initiatives appear to be under-resourced with the national spending around 2-3%, compared to 10% for some of the American non-profit HMOs. Performance measurement is at best rudimentary (Lewis and Kouri 2004) and population based data is currently inadequate for informing quality improvement, particularly at the local level (Iron 2006).

The issue of quality improvement is currently on the government agenda, with the MOHLTC<sup>44</sup> Information Management Strategy released in December 2005, supporting accountability and quality improvement initiatives. The limitations of the population based health data currently routinely collected are well recognised and require a long term solution. A report by the Institute for Clinical Evaluative Sciences has recommended the development of a centralised electronic data management system, to enable the tracking of all health system usage, adopting information management systems much like those used in tracking retail products, and credit and debit cards (Iron 2006).

However, the adoption of any measures for quality improvement requires the endorsement and consent of practitioners, as well as the public. It is therefore incongruous that regionalisation has not included family physicians' services, given that physicians have enormous power in terms of public credibility and the authority to make decisions that drive expenditures. In this regard they could be leading many aspects of primary health care reform (Lewis and Kouri 2004).

Given that physicians work outside of the RHA fold, it is not surprising that current performance based incentives have little impact on reforming primary health care. Fee-for-service remains the dominant payment system. RHAs have little control over the supply and distribution of physicians, who continue to operate autonomously as small businesses.

## Financial / payment mechanisms

In Canada, current thinking about improving primary care has not shifted far from alternative physician payment structures (Fooks 2004) with a number of different models proposed in recent times (Martin and Hogg 2004). The National Physician Survey (NPS)<sup>45</sup> provides the break down of physician remuneration types for services other than on-call services (Table 1) however, there exists wide geographical variation across provinces and territories. Although FFS continues to be the predominant form of remuneration for physician services (Tuohy 2002; Martin and Hogg 2004; Canadian Institute for Health Information 2005) it is being gradually phased out by some provinces, replaced by alternative payment contracts (Shortt 2004).

**Table 1 Method of remuneration among Canadian family physicians, 2004**

Remuneration type	Proportion of Family Physicians receiving at least 90% of income through remuneration type
<b>Fee-for-service</b>	<b>52.4%</b>
<b>Salary</b>	<b>7.1%</b>
<b>Sessional</b>	<b>4.5%</b>
<b>Service contracts</b>	<b>1.7%</b>
<b>Capitation</b>	<b>0.6%</b>
<b>Not 90% of any one method</b>	<b>28.1%</b>

<sup>44</sup> Ministry of Health and Long-Term Care

<sup>45</sup> Conducted in 2004 by the College of Family Physicians of Canada, the Canadian Medical Association, and the Royal College of Physicians and Surgeons of Canada, a little over one third (11,000) of Canadian family physicians responded.

Alternative payment structures combine FFS, capitation (lump sum payment per patient managed over a given period), salary, sessional and other funding arrangements (Martin and Hogg 2004). Less common funding arrangements include block funding and service agreements. Block funding involves the negotiation of annual budgets for a physician group, usually associated with a medical centre. Service agreements are a strategy used to recruit and retain physicians in rural or remote areas and involve a combination of payments including FFS, alternative remuneration and contractual payments (Martin and Hogg 2004).

There is limited evidence on the effect of payment mechanisms on the quality of clinical care, or on short- to intermediate-term differences in health status of patients (Shortt 2004). In a recent systematic review, the authors stated that some aspects of physician behaviour changed in response to altered funding arrangements, however, no link to any benefit to patients could be ascertained (Safran, Wilson et al. 2002).

### Organisational mechanisms

There are several mechanisms that have been identified as contributing to a better integrated primary care delivery system through either sharing work load, enhancing the range of available services, improving accessibility, and improving information flow.

#### Multidisciplinary team-based care

A high proportion of family practitioners (approximately 70%) describe themselves as working in some form of group practice, however, the statistics do not reveal the conditions of group practice, such as the level of teamwork, shared vision, shared clientele, and shared tasks and activities which are required to necessitate successful teamwork (Beaulieu 2004). There is resistance among some family physicians, more notably in urban locations, to working in groups with up to 46% remaining in solo practice (Beaulieu 2004). As described by Beaulieu, the experience of working in a group practice, and a teamwork approach are not necessarily synonymous (Beaulieu 2004). There are a variety of philosophies about group practice, and successful team structures which are also reflected in the organisational arrangements for multidisciplinary team-based care (Cinota 1999). For example, given the reluctance of some family physicians to work in groups, the concept of Family Practice Networks (FPN) have been introduced which allow physicians to participate in real or virtual groups, linked through IT to facilitate transfer of information (Beaulieu 2004). This type of arrangement, seen for example in the Ontario Family Health Groups and the Alberta Primary Care Initiative contrasts with the group practice philosophy that underpins the Family Medicine Groups (FMGs) in Quebec and the Family Health Networks in Ontario (Beaulieu 2004).

#### Nurse Practitioners

The profession of Nurse Practitioner (NP) in Canada is relatively recent with the enactment of the new nursing law in 2002, which recognises the title of NP (Bourguell, Marek et al. 2005). In Canada, the NP is defined as a registered nurse with advanced competencies gained through additional education and practice that enables the provision of health education, health promotion, the delivery of preventative and wellness care, diagnose and treat minor acute illnesses and injuries and monitor stable chronic diseases. Prescribing is limited to some types of medication for common illnesses and certain types of ultrasound, X-ray and laboratory tests (CHUM 2002). There is strong empirical evidence in support of the NP role in terms of its effectiveness, safety and appropriateness in providing first-contact care to patients with undifferentiated health problems. A number of studies conducted in various

developed countries, including Canada, showed that patients expressed more satisfaction with NPs compared with physicians. NPs spent more time with patients and ordered more tests however, no differences were found in the number of prescriptions, return visits or referrals to specialists (Shortt 2004 p.15)

A role for NPs in improving access to primary care in rural and remote communities, and providing relief and on-call coverage for physicians in communities with limited access, has been proposed by health bureaucrats (Health Services Restructuring Commission 1999). This niche role consists of a number of new tasks (e.g. in education, prevention, advice and limited prescribing), not the suite of traditional tasks handed over by doctors. Traditionally, cooperation between nurses and physicians in private medical practice has been limited with nurses having a medical auxiliary role, collecting basic information, histories, and triaging patients (Bourgueil, Marek et al. 2005). As such there is considerable reticence about the widespread integration of NPs into the delivery of Canadian primary care, which is due in part to practice boundary issues, liability concerns, and funding (Shortt 2004).

The recent establishment of Family Medicine Groups in Quebec, Family Health Networks and Family Health Groups in Ontario, has encouraged an extended role for the NP, with specific funds being provided for this purpose (Bourgueil, Marek et al. 2005).

### Patient rostering

Patient rostering refers to the formal enlisting of patients on the roster of a designated practice, much like patient registration in the UK. The theory underpinning patient rostering is that bonding between patients and care providers will facilitate enhanced continuity of care (Shortt 2004). However, as a majority of Canadians are self-affiliated with a practice or family physician, formalised rostering may prove to be an administrative exercise rather than serving to improve continuity of care (Shortt 2004). There are no incentives or penalties in place to accompany rostering that would differentiate this approach from the current FFS system. One exception to this is Ontario's Health Service Organisations, where capitation negotiation regulations are in place for physician's whose patients seek healthcare elsewhere (Shortt 2004).

### Enhanced / Expanded Access

One component of primary care reform is to enhance patient access, which currently is inadequate evidenced by often inappropriate use of emergency departments and the forced use of walk-in clinics for care outside of usual clinic hours (Shortt 2004). Part of the primary care reform mandate is extended hours of clinic operation and augmented out of hours service. The use of telephone triage by nurse practitioners is a typical example of out of hours service (Shortt 2004).

### Electronic Medical Records

The general enhancement of information technology is a significant component of primary care reform across Canada. Included is the generation of patient specific information included in electronic medical records (EMRs), knowledge based systems such as clinical practice guidelines, and decision support systems which aim to guide practitioners in the management of clinical problems (Shortt 2004). EMRs are a key innovation in improving information transfer between sites of care, and have been proposed as a part of a solution to currently poorly integrated health data management systems (Iron 2006). There is considerable evidence that supports the a role for information technology in enhancing certain aspects of primary care delivery,

such as electronic hospital discharge summaries, if they contain the right information and are received by the physician in a timely fashion (Shortt 2004). However, the initial cost to set up EMRs both in terms of money and personnel pose an obstacle to its widespread uptake.

## References

- Beaulieu, M.-D. (2004). Organizing Primary Care Reform: Getting Doctors to Work Together and with Others. Implementing Primary Care Reform: Barriers and Facilitators. R. Wilson, S. Short and J. Dorland. London, Published for the School of Policy Studies by McGill-Queen's University Press: 139-151.
- Birch, S. (April, 2006). "Personal Communication."
- Blendon RJ (2002). Inequities in Health Care: A five-country survey. Health Affairs: 182-191.
- Bourgueil, Y., A. Marek, et al. (2005). Health Economics Letter: questions. Issues in health economics. Paris, Institute for Research and Information in Health Economics.
- Canadian Health Research Services Foundation (2003). Myth: An ounce of prevention buys a pound of cure. Mythbusters. Ottawa, Canada, Canadian Health Research Services Foundation.
- Canadian Institute for Health Information (2005). The Status of Alternative Payment Programs for Physicians in Canada. 2002-2003 and Preliminary Information for 2003-2004, Canadian Institute for Health Information.
- Champlain District Health Council (2004). Primary Care in Champlain District "A Foundation for Planning": updated Technical Report, Champlain District Health Council: 1-28.
- CHUM (2002). The Team in Primary Care: A new vision, newways to work. Record of Proceedings, Montreal, September 19 & 20.
- Cinota, J. (1999). "Developing 'group thinking' in a multispeciality group." Family Practice Management **6**: 45-49.
- Fooks, C. (2004). Implementing Primary Care Reform in Canada: Barriers and Facilitators. Implementation of Primary Care Reform, School of Policy Studies, Queen's University, Kingston, ON.
- Government of British Columbia (1991). British Columbia Royal Commission on Health Care and Costs: Closer to Home. Victoria, Government of British Columbia.
- Hadekel, P. (2006). Health-care ruling being ignore: MD. Toronto Star. Toronto. **2006**.
- Health Canada (2003). 2003 First Ministers' Accord on Health Care Renewal. Health Care System. **2006**.
- Health Services Restructuring Commission (1999). Primary Health Care Strategy: Advice and Recommendations to the Honourable Elizabeth Witmer, Minister of Health, December.
- Hundert, M. (1998). ""Vertical Integration"...Little Applicability in Canada." Hospital Quarterly: 5.
- Hutchinson, B., J. Abelson, et al. (2001). "Primary Care In Canada: So Much Innovation, So Little Change." Health Affairs **20**(3).
- Iron, K. (2006). Moving Toward a Better Health Data System for Ontario. ICES Investigative Report. Toronto, Institute for Clinical Evaluative Sciences.
- LaPierre, L. (March 2006). "Personal Communication."
- Leatt, P. (2004). "Making sense of the Canadian experience: Potential impact of regionalisation." Healthcare Papers **5**(1): 12-31.
- Leatt, P., G. H. Pink, et al. (2000). "Towards A Canadian Model of Integrated Healthcare." Healthcare Papers **1**(2): 13-35.

- Lewis, L. (2002). *Sharing the Learning: The Health Transition Fund. Synthesis Series: Supporting and Evidence-Based Future in Canadian Health Care*. Ottawa, Health Canada.
- Lewis, S. and C. Fooks (2002). *A Primer on Reforming the Canadian Health Care System: A Discussion Paper Prepared for the Canadian Cancer Society and the National Cancer Institute of Canada*, Canadian Cancer Society: 1-42.
- Lewis, S. and D. Kouri (2004). "Regionalisation: Making sense of the Canadian Experience." *Healthcare Papers* **5**(1): 12-31.
- Lomas, J., J. Woods, et al. (1997). "Devolving authority for health care in Canada's provinces: 1. An introduction to the issues." *Canadian Medical Association* **156**(3): 371-7.
- Mable, A. L. and J. Marriot (2002). *Sharing the Learning: The Health Transition Fund. Synthesis Series: Primary Health Care*. Ottawa, Health Canada.
- Marchildon, G. P. (2005). "Canadian health system reforms: lessons for Australia?" *Australian Health Review* **29**(1): 105-119.
- Marchildon, G. P. (2005). *Health Systems in Transition*. Copenhagen, WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies: 1-151.
- Martin, C. M. and W. E. Hogg (2004). "How family physicians are funded in Canada - GP funding Viewpoints." *MJA* **181**(2): 111-112.
- Maxwell, J. (2002). *Citizens' dialogue on the future of health care in Canada. Report prepared for the Commission on the Future of Health Care in Canada*. Ottawa, Canadian Policy Research Networks.
- Maxwell, J., S. Rosell, et al. (2003). "Giving citizens a voice in healthcare policy in Canada." *BMJ* **326**: 1031-1033.
- Mullin F (1998). The 'Mona Lisa' of Health Policy: primary care at home and abroad. *Health Affairs*. **17**: 118-126.
- Ontario Health Review Panel (1987). *Toward a shared direction for in in Ontario*. Ontario.
- Romanow, R. J. (2002). *Building on values: the future of health care in Canada - final report*. Saskatoon, Saskatchewan, Commission on the Future of health care in Canada.
- Safran, D., I. Wilson, et al. (2002). "Primary care quality in the Medicare program: Comparing the performance of Medicare Health maintenance organisations and traditional fee-for-service Medicare." *Archives of Internal Medicine* **162**: 757-765.
- Seguin, R. (2006). Quebec minister urges a health care user-fee debate. *The Globe and Mail division*. Toronto, Phillip Crawley. **2006**.
- Shamian, J. and S. J. LeClaire (2000). "Integrated Delivery Systems Now or....?" *Healthcare Papers* **1**(2): 66-75.
- Shortt, S. (2004). *Primary Care Reform: Is there a Clinical Rationale? Implementing Primary Care Reform: Barriers and Facilitators*. R. Wilson, S. Shortt and J. Dorland. London, Published for the School of Policy Studies by McGill-Queen's University Press: 11-25.
- Spurgeon, D. (2006). "Radical reforms may end Canada's public health service monopoly 10.1136/bmj.332.7541.569-b." *BMJ* **332**(7541): 569-b-.
- Starfield, B. (2004). *Summing up: primary health care reform in contemporary health care systems. Implementing primary care reform: barriers and facilitators*. R. Wilson, S. Short and J. Dorland. Kingston, ON, McGill-Queen's University Press for School of Policy Studies, Queen's University: 151-164.
- The Janus Project (2004). "family physicians meeting the needs of tomorrow's society. Results of the National Family Physician Surveys, 1997/98 and 2001. Regional Reports."

Tuohy, C. H. (2002). "The costs of constraint and prospects for health care reform in Canada  
10.1377/hlthaff.21.3.32." Health Aff **21**(3): 32-46.  
Tuohy CH (2002). The Costs of Constraint and Prospects for Health Care Reform in  
Canada. Health Affairs. **21**: 32-46.

## APPENDIX 7: INNOVATIVE MODELS FOR COMPREHENSIVE PRIMARY HEALTH CARE DELIVERY CONTEXT SETTING: NETHERLANDS

**Lucio Naccarella\*, Donna Southern\*, John Furler\*, Lauren Prosser\*, Anthony Scott\*\*, and Doris Young\***

**The Department of General Practice\* and the Melbourne Institute of Applied Economics and Social Research\*\*,**

**The University of Melbourne**

This document is part of the first stage of the review and attempts to understand what primary health care (PHC) reforms have been made and to understand how and why they have succeeded or not in relation to the particular context and setting in which they were introduced. This document focuses on the Netherlands.

### Aim

Our aim in this document is to develop a broad contextual understanding of health care and PHC reform and innovation within Netherlands and highlight key areas where we intend to focus subsequent enquiry in the second or mid phase of our review. These may be areas of particular interest that seem to be important to our developing argument, or they may be areas where evidence is scanty and we need to undertake further searching to clarify if there are lessons to be learnt from that particular area of reform .

Our destination, through this first scoping stage, the second deeper searching mid-project phase and final refining and recommendations phase is to arrive at answers to our research questions:

- What types of innovative models for comprehensive primary health care delivery exist nationally and internationally?
- What factors influence the development, implementation and sustainability of these models?
- How do we address barriers and enhance facilitators to implement the models?
- What do we know about the influence of interface issues on the models, such as the Commonwealth / State funding arrangements?
- What influence do the various innovative models have on the key dimensions of comprehensive primary health care delivery?
- What do we know about the costs and benefits of the innovative models as compared to existing primary health care models?
- What policy levers are available within the current Australian primary health care setting to implement the models?

### Method

This scoping stage involves a scan of the literature, black and grey, to identify key papers and reports that describe and bring some critical evaluation to health care and PHC reform (in this case in Netherlands). We confine our search to developments since

1990. We also focus our scoping within PHC to material within which General Practice forms a key (although not the only) component.

Our analytic framework at this stage is broadly based on our identification of common challenges and areas of reform that have dominated PHC reform internationally across this time. In other words we bring a priori thematic areas of interest and have focused on what responses Netherlands has made within these broad domains.

These broad areas of interest relate to organisation, financing and governance arrangements and their effects on quality/outcomes, cost control/efficiency, and equity/access.

Our subsequent analysis will draw on two other frameworks, although they inform our thinking at this stage. Firstly we draw on realist review approaches and ask what was the theory underlying any reform, what is known of the context and key factors that played an important role and what is known about what really happened in the field when a reform was introduced. Secondly we will also draw on a logic framework and examine inputs, outputs and outcomes as a way of answering our research questions.

### *Brief description of Dutch health care system*

The Dutch health care system has been characterised as a 'social insurance system' that is loosely organised, government has a limited role in the provision of care, and people have direct access to all elements of the system (Dutch Council of the Netherlands, 2004). Van de Ven & Schut (2000) characterises the Dutch health care system as having private initiative and private enterprise, and detailed government regulation. In 2003, 9.8% of gross domestic product was spent on health care, which is below the spending levels in Germany, France and Canada (OECD, 2005). The share of GDP spent on health has remained fairly constant since 1980 (Exter, Hermans et al. 2005).

Netherlands has a private health care system, with primary care physicians and practices, hospitals, nursing homes, mental health and other health care organisations negotiating contracts and budgets with various health insurers.

Prior to January 2006, the Dutch health insurance system was divided into 'three compartments', governed by different bodies:

- **Compartment One**- a national health insurance that provides cover for expensive, uninsurable and long-term health care paid for under the Exceptional Medical Expenses Act (AWBZ)
- **Compartment Two** a compulsory sickness funds that covers acute medical care paid for under the compulsory Health Insurance Sickness Fund Act (ZFW). 64% of the population have compulsory health insurance, 31% take out private insurance voluntarily;
- **Compartment Three** – a voluntary supplementary health insurance that offers private health insurance for medical services not covered by the ZFW or AWBZ.

The 2nd compartment, separated into compulsory insurance for those under a certain income and a rather large segment for private insurance, has repercussions on the funding side with regard to equity, and has been the impetus for reform initiatives over the last 15 years.

From January 2006, the sickness funds no longer exist. Instead, the Netherlands now has an obligatory national insurance with basic insurance for the whole population, on top of which a person can choose from a variety of modules (Geert-Jan Dinant 2006). GP services are part of the insured package for the whole population, to a maximum of nine sessions (Bakker 2006). There is no maximum for GP consultations. According to Groen (2006) under the new regulations, insurers cannot refuse coverage to any citizens, but can compete on price and quality and offer packages with additional services. Citizens pay an annual fee of approx \$1,200 to \$1,300 for the basic insurance, with a no-claim of about \$275. Subsidies for the premiums are available for low-income citizens.

Overall, the Dutch health care system is complex to describe, and constantly undergoing debate and reforms with regard to the possible integration or separation of its different parts.

### Dutch health care system reforms

The Dutch health care system is known to have key problems. Schippers, a member of the 1999 Dutch Social and Economic Committee, cited in Civitas (2002) provided a summary of these key problems including:

- Multiple aims of the health care system;
- Inefficient bureaucracy with limited opportunity for innovation;
- Focus on the system rather than on the patient;
- Limited real freedom of choice for patients;
- Quality of care deteriorated due to limited choice;
- System promotes health inequalities;
- Increasing costs exacerbated by greater inefficiency;
- Shortage of labour; and
- Supply driven care cannot satisfy demand.

Since the late 1980s the Dutch health care system has been in a constant state of reforms, with the focus being on guaranteeing universal access to care by establishing and gradually expanding social health insurance schemes (Schut and Wynand 2005).

Van de Ven & Schut (2000) suggests four main reasons for these Dutch health care reforms including:

- The existence of uncoordinated and multiple financing structures, mechanisms and regulations for health care and social welfare
- The lack of incentives for efficiency of producers of care, consumers and insurers;
- The detailed regulation of capacity planning in health care; and
- The existence of different insurance schemes with different premium structures and an unregulated competitive market for private health insurance.

There has been an increasing shift in the Netherlands from government to the private sector (*delegation or functional decentralization*), as well as a transfer of competencies from central to provincial/ local governments (*devolution or territorial decentralization*).

The 1986 Dekker Plan was designed to achieve a balance between accessibility (equity) and market orientated financial incentives (efficiency). The plan recommended

removing the divisions between cover under the ZFW. The changes were to be phased in from 1989, with the gradual disappearance of the distinction between sickness funds, private insurance and public servant schemes. This attempt to unite all social and private health insurance schemes into a single mandatory scheme.

In 1990 the Simons Plan amended the Dekker Plan and basically proposed compulsory health insurance for everyone and regulated competition. The major goal of the reforms was that insurers would be cost-and quality-conscious buyers of care on behalf of their members.

Debate exists about the extent to which the reforms and transformation have occurred, under the Simons Plan. Schippers (cited in Civitas 2002) comments that many of the key components of the Dekker report failed in the early 1990s, mainly due to strong opposition from health insurers, employers and physicians. Van Het Loo (1999, cited in Civitas 2002) argued that the transformation has been rapid & real where traditional relationships have been given way to a more market oriented health care system. Whereas, Schipper (cited in Civitas 2002) argues that although the reforms were full, of market orientated rhetoric, proposals have not been implemented and many were reversed by subsequent coalition governments. However, the policy trend has been towards markets and competition. Van de Ven & Schut (2000 p.9) suggest that "The main effect of the health care reforms has been a large number of mergers between health insurers and hospitals and a considerable reinforcement of regional cooperation among health care providers.

In 1995 the Dutch government announced several new health care reforms. Including that within the compulsory health insurance there should be not one, but two regulatory regimes. To contain cost and improve efficiency, the government also announced an independent system of indication setting and the introduction of a system of personal budgets for certain patients, so that these patients could buy their care out of their own budgets (van de Ven and Schut 2000).

In 1999, the Dutch Social and Economic Council (SER) produced a report on a system of transfer payments in the medical insurance sector and on the health care management model as it relates to each individual's own responsibility (Social and Economic Council 2000 (SER)).

The SER proposed a shift of health care services from the first to the second compartment, so that only expensive care is covered in the first; meanwhile the third compartment remain the same. More importantly the SER report emphasised that future health care must be demand driven, so that:

- no monopoly insurers exist
- no monopoly providers exist
- conditions that encourage innovation; and
- more possibilities for innovative financing.

A review by Civitas (2002) points out that a transition to a demand driven model requires, a socially responsible system with a sound financial base. The present system of supply, price and budget management needs to be replaced by a demand-driven, competitive, open-market system.

For the transition, the SER proposed the introduction in 2005 of a compulsory national health insurance for curative care. A system that rests on a system of financial solidarity between high income and low income groups, and between high risk and low risk groups. The SER proposal was aimed at radically changing the 2<sup>nd</sup> compartment of the Dutch health care system.

The move to a demand-driven model, required a new management model, to prevent monopolies and oligopolies in the provision of care (Civitas 2002). Major government changes are required in relation to supply controls and pricing, while maintaining existing quality control legislation and avoiding geographical shortages in the oversupply of expensive technologies. The SER also specifically insisted that the restriction of access to medical training be lifted.

During the 1990s, many reforms were implemented that paved the way for health insurance for the whole population, such as the Health Insurance System Act of 1992 which transferred cover for certain services (for example, pharmaceuticals) to the AWBZ (these were transferred back a few years later). Other reforms included introducing open enrolment and dissolving sickness funds' regional monopolies, which increased patients' choice of third-party payer. On the other hand, mergers among both insurers and hospitals have decreased patients' choice.

In 2001 the Dutch government released a plan "*A Question of Demand*" (cited in Civitas 2002) that echoing the SER report. It aimed to make health care more consumer driven by giving consumers more free choice, to increase competition in health care and to enhance the role of health insurers in the management of health care. The new plan further sought to change radically the Dutch health insurance market, but did not affect the fundamental problem of supply side constraints.

More recently, in December 2004 legislation was passed that introduced a compulsory standard insurance policy for everyone (Health Insurance Act in Social and Economic Council 2000) and a compensation scheme (Health Care Allowance Act in Social and Economic Council 2000), scheduled to come into effect on 1 January, 2006.

Overall, Van de Ven & Schut (2000) comment that there has been "slow" progress of the health care reforms for at least four reasons including:

- the resistance from interest groups who have powerful lobbies. Furthermore, Dutch health policy is characterised by a diffuse decision-making structure without clear-cut power;
- the chosen implementation strategies had triggered growing political opposition in the early 1990s;
- there was no urgent need for a quick reform, as the reorganisation of the health care system was aimed at advanced medical technology, an ageing population and an increase in GDP going to health care; and
- the technical complexity of reforms was very high and was seriously underestimated.

Maarse et al (2002) has commented that the Dutch health care delivery system suffers from a lack of capacity, in particular, the absence of powerful incentives to do things better. Re-organising health care delivery, by creating more room for innovation by liberalising the tight regulation of capacity planning would probably be a better way of improving performance than restructuring health insurance.

Schut & Van de Ven (2000 p572) have also suggested that Dutch health policy is likely to “remain focussed on both macro-cost containment by demand and supply constraints and on improving micro-efficiency by expanding the role of market forces”.

Over the last decade the Dutch ministry of health has also had a major focus on reducing health inequalities in the Netherlands. Packages of policies and interventions have been recommended to improve accessibility and quality of healthcare services. However, Mackenbach & Stronks (2002) cautions that the Dutch government consideration of health care financing system reforms could actually lead to reduced coverage of health care for those insured under the current public scheme, which would jeopardise equal financial accessibility.

### Overview of Primary Health Care (PHC) in the Netherlands

In the Netherlands, general practice based primary health care has been defined as:

Primary care is generalist care, consisting of general medical, paramedical and pharmaceutical care, nursing and supportive care, and non-specialised mental and social health care, with preventive and health educational activities linked into these forms of care  
(Health Council of Netherlands, 2004)

A range of health professionals work in primary care. However, it is widely recognised that primary care is mainly provided by general practitioners (GPs). GPs maintain independent and mostly solo practices in the community and have an average of 2300 patients on their lists (Busse, Dixon et al. 2002). However, the number of group practices and health centres (staffed by GPs, social workers, physiotherapists) are increasing. GPs are also typically members of locum groups consisting of 8-10 members which provide out-of-hours services as well as substituting for each other.

Patients are able to choose their family physician, but beginning in 2006, patients must register with a specific primary care practice.

Since approximately 2 years there are is now a specific out-of-hours service, locally or regionally organised, so that GP's do not work out-of-hours anymore. This is considered as a major improvement in working conditions of GP's.

**Organisational arrangements:** GPs are the central gatekeepers for specialised care and dominant figures in the health care system (Van Weel 2004). In the new insurance system (1<sup>st</sup> January, 2006) the formal requirement of a referral exists for the whole population, whereas, in the past it only existed for publicly insured patients (60% of the population) (Busse, Dixon et al. 2002; Bakker 2006).

Each patient is supposed to be on a GP patient list and must be referred to specialist physicians or a hospital by their GP. The impact of gate-keeping is illustrated by the low referral rate (primary care constitutes two out of three ambulatory care contacts). 95% of problems presented in primary care are handled by the regular GP practices (Cardol, van Dijk et al. 2004). Patients are referred to specialists in only 6% of contacts (Busse, Dixon et al. 2002), whereas, referral rates to surgical specialists are relatively high. Physician-patients contacts, including specialist care, have been around 5.7 per capita per year in the 1990s (about 0.5 higher than in the 1980s) (Busse, Dixon et al.

2002). The average number of annual patient contacts is higher for sickness fund patients than for privately insured patients. Overall in 2000 there were 5.9 contacts with GPs per capita, which is slightly less than the European Union average (Busse, Dixon et al. 2002). Overall there is a low prescription rate, with a prescription being given in only two-thirds of contacts (Busse, Dixon et al. 2002). Drugs are prescribed for slightly more than half of all diagnoses only, compared to 75% to 95% in other European countries (Busse, Dixon et al. 2002).

Most family physicians work in private practices, with a majority (88%) working solo or in small, group practices (2-3 partners). But capacity problems are leading to large group practices. Grol (2006) suggests that in the near future, health care centres with 4-6 GPs, 1-2 nurses, and other professionals (eg., physiotherapists, pharmacists) caring for about 10, 000 to 15, 000 patients and working in close collaboration with local hospitals will be the norm.

Nearly all practices use electronic medical records and an increasing number use software to identify and track patients who have chronic conditions or are at risk of developing them.

Netherlands has launched a variety of local and regional initiatives aimed at improving care for patients with chronic conditions. For example Van Uden (2005) mentions:

- Over 30% of practices now employ Nurse Practitioners to manage care for patients with chronic conditions
- Use specific services or labs to monitor and track chronic patients
- Adopting evidence –based guidelines, critical pathways and care protocols
- Institute self-management and educational programs
- Developing collaboration among primary care and hospitals facilities.
- 

**Payment system:** For GP's the payment system changed in January 2006. Until then, sickness funds reimbursed GPs through annual capitation payments for publicly insured patients on their lists, while private patients paid GPs a fee per consultation and were then reimbursed by insurers (Bakker 2006).

Capitation fee payments encourage delivery of care that is tailored to individual needs. Van Weel (2004 p110) points out that the general practice profession considers the capitation fee payment as the "prevailing frame of reference on which professional standards are based".

From January 2006 onwards, the payment system is a mix of capitation and fee per consultation for the whole population, plus a negotiable reimbursements for practice costs depending on services offered, staff employed, and quality and efficiency indicators.

Bakker et al (2006) summarised the major challenges for primary care as including:

- ageing populations leading to more chronically ill and thus an increasing demand on general practice;
- changing supply, with more female GPs working part-time
- changing balance between a growing and changing demand and GPs who intend to work less

Bakker et al (2006) argues that these challenges exist within a context where there is:

- a shift from supply side policy to demand side policy, which has been related to an increase of patient choice and better informed patients, that has led towards a demand-oriented system. Bakker et al (2006) suggests that an implication of this shift, is that GP gate-keeping might not be a sustainable system in the long run. However, presently, this is not an issue of debate. In circles of health policy making there is high awareness that health services cannot be dealt with as any consumer service and that choice needs to be limited. Also patient organisations support this point of view.
- a shift from self-governance by professionals to management both by third parties within primary care. ie particularly since January 2006, with the new insurance system. Bakker et al (2006) notes that performance indicators are a way of governing health care that shifts autonomy and power from professionals to management. *Implications of this shift on GPs or primary care is unclear?*

## Trends in primary care

According to Bakker et al (2006) the growing and changing demands in primary care have led to longer patient lists (increase of 10% from 1987 – 2001) and higher consultation rates (increase of 10% from 1987 – 2001). In response, certain changes have occurred:

- *changing consultation patterns*
  - halved GP home visits
  - tripled GP telephone consultations
  - increase in percentage of GPs with a walk-in consultation hour
- *delegation of tasks to practice assistants and practice nurses (PN)*. In 2004 almost 40% of general practices have a PN doing checkups of diabetes, hypertension and COPD patients. Nurse-led walk-in-centres have also recently been established as freely accessible for people with minor illness.

## Primary Health Care Reforms

PHC reforms intended for 2006 (according to Grol 2006):

- greater reliance on market forces and competition;
- compulsory national basic insurance for all population;
- insurers competing on price and quality to attract clients;
- reimbursement of primary care: mix of capitation per patient, fee per services, and potential rewards based on indicators of quality and efficiency;
- increasingly insurers contracting with primary care practices and hospitals based on price, quality and level of accreditation; and
- move towards integrated, multidisciplinary primary care centres.

## Quality Development Reforms

Dutch quality development among health care providers has been largely self-regulated. The 1995 Quality Institutions Act began to change this by offering a framework for quality arrangements and improvement, and mandated that:

- every profession and organisation in health care set standards for optimal care;
- develop strategies for monitoring and improving care; and

- create systems to enable public reporting to the health care inspectorate, through annual quality report and to patient organisations.

Different sets performance indicators are now being developed by the inspectorate for health care, insurers, professional bodies of physicians, and patient organisations, creating confusion.

Several quality improvement initiatives have occurred in primary care:

- *development of clinical practice guidelines and education for professionals*- Over 80 clinical guidelines have been developed for primary care. Adherence to guidelines is better than in the UK and US
- *practice-level performance indicators* - In last 15 years (mid 1990s) efforts to develop, test and validate indicators, assessment tools and instruments to measure clinical performance, prevention, management of services and patients experiences with care. Evaluation tools have been integrated within a new system of voluntary accreditation, established in 2005 and run by the Dutch College of Family Physicians and the independent Centre for Quality of Care Research (WOK). This system of (pay for performance quality indicators) will be transformed into a more formal system of obligatory recertification, with an independent body responsible for the process. Accreditation will be used as the basis for contracting and licensing of practices. Recent experiments reveal that about 10% of practice income can come from the quality indicators
- *local collaboratives or "quality circles"* – developed in mid 1980s is still a preferred method for continuing quality improvement in primary care. ie a local collaborative comprises of 8-12 professionals- multidisciplinary teams of physicians, dentists, midwives, community nurses who meet regularly to discuss clinical guidelines and performance, establish local consensus, exchange best practices and make plans for change. Studies by Geboers (1999a; Geboers, van der Horst et al. 1999) and Beyer et al (2003) report positive results for the effectiveness of local collaboratives.
- *outreach visits, practice support* – another quality improvement strategy is peer visits to practices by trained providers (nurses, GPs) to provide training, feedback, materials, teaching staff to carry out continuing quality improvement, and other support to ensure that guidelines are implemented and care improved.

### Financial arrangement reforms

With respects to the remuneration system for GPs, in 1995 the government announced the implementation of the Biesheuvel-committee recommendations, including, to replace the fee-for-service GP payment system by a remuneration system with less incentives to induce demand ie., the introduction of a flexible system of bonuses, related to efficiency and other performance indicators. However, Ven de Ven & Schut (2000) report that a flexible system of bonuses was never realised. Several reasons have been suggested for the lack of success of the flexible system of bonuses: namely:

- GPs considered it unethical to need financial incentives to improve efficiency. GPs claimed an overall higher income which would allow them to perform well, irrespective of incentives. Recent financial incentives to prescribe certain generic medicines of low price and good quality– a financial incentive provided for by the health insurer – are embraced by a minority of GPs and rejected by the majority. This illustrates the issue of professional autonomy (Massener April 2006)

Policymaker attempts to change capitation payment have largely been resisted by the general practice profession (Van Weel 2004). Recent moves to change health care financing, via the introduction of a form of patient co-payment for health care received, at 25% of GP costs for consultations and more for secondary care. The objective being to encourage patients to take more responsibility for their own health and consult a GP less often. However, this move did not take place. To the contrary, with the introduction of the new health insurance system, a bonus for the premium payer has been introduced: when an insured person makes no use of secondary care or of drugs prescriptions by secondary care providers, he can claim a restitution of 255 euro per year (the average premium is 90 euro per month). However, in order not to create financial pressure to NOT make use of Primary Care, GP consultation does not affect the restitution (Massener April 2006).

Bakker et al (2006) notes that the capitation fee which is being maintained under the 2006 health insurance reforms, enables GPs to have responsibility for their practice population.

Alternative forms of payment have developed, namely: GPs in salaried employment. This has emerged due to GP dissatisfaction with being both practitioners and managers. However, Van Weel (2004) cautions that the trend toward salaried GPs, highlights an obvious disadvantage of the capitation fee payment system, which covers costs and GPs income at the same time, without conditions attached. In other words, the capitation fee covers a full-time equivalent practice assistant, irrespective of hours employed. However, the rapid increase in female GPs preferring part-time and salaried positions and private contractor status are issues. This has led to GP costs increasing, due to need to train more GPs.

Van Weel (2004) also argues that new developments in medicine have to be included in the package covered by the capitation fee. However, few financial incentives exist for GPs and practice to innovate their care, impacting on care of illness prevention, high risk screening, and investment in practice support (eg Practice Nurses). In recent years the capitation fee has increased for certain groups (eg elderly), becoming an indirect incentive to provide more proactive services (eg., preventative home visits) for these groups.

Van Weel (2004 p111) also comments that in the absence of financial support/lack of financial incentives, given the low rates of prescribing and the high rate of computerisation among Dutch general practices, "the payment system is not the sole determinant of GP performance, and that corporate identity and health care structure may also play a vital role".

### Organisational arrangement reforms

As mentioned above in the Netherlands, GPs have a central position in the health care system, via their gate-keeping function. However, problems of communication between care providers are recognised. This has resulted in problems in patient education (patients receive different information), discontinuity in care (waiting times & lack of stream of patients through health care system); less efficient use of resources. Causes have been identified, namely: the organisational boundaries between (generalist) primary and (specialist) secondary care (Calnan, Hutten et al. 2006). Additional problems include: the broad range of tasks that GPs perform (Moll van Charante. 2002 cited in Calnan et al 2006). Including, preventative activities, acute curative care, care for chronic conditions, emergency care thus, all of which required

coordination. Overall workload is considered a threat to the position of GPs as gatekeepers in the Dutch health care system.

Calnan et al (2006) points out that the challenge of coordination of care has been addressed by:

- strengthening the gate-keeping position of GPs and;
- the development of new organisational models of integrated care (transmural care).

**Strengthening the gate-keeping position of GPs:** General practice has been dominated by individual practices. However, since beginning of the 1990s, organisational changes in general practice have been introduced. For example, all general practices are now part of so-called GP-groups (HAGROs), that negotiate with hospitals and participate in coordinating related projects. *HAGROs are very diverse in volume and activities and function as loose networks rather than as strong structures. Evaluations of HAGROs were not located.* GPs also participate in so-called FTOs – groups of GPs, pharmacists that discuss and coordinate the prescription of drugs. Since 2002, yearly, DGV, the Netherlands Institute for Responsible use of Medicines, assesses the quality of the 800 FTO groups that operate. There are 4 quality levels. The highest level is reached when the group makes agreements on prescription practices and installs a control system; at the lowest level the groups just meet without much preparation and without a systematic follow up. The FTOs are supported by DGV with funding coming from the Ministry of Health, Welfare and Sport (Massener April 2006).

With regard to pharmaceutical care, in several places, GPs have also authorised the pharmacist to be the first point of access in case of repeat prescription (Bakker 2006). The introduction of PNs from 1998 (employed to coordinate special groups of patient eg- diabetes) are also seen to strengthen the central coordinating function of general practice.

In recent years the organisation of emergency and out-of hours primary care has changed from practice-based to large scale GP cooperatives. Drivers for the reorganisation of out-of hours care came from the profession, motivated by dissatisfaction with the organisation of out of hours primary care services and high workload. In these GP cooperatives telephone triage is standard procedure. A patient satisfaction study by Van Uden et al (2005) revealed that patients were generally satisfied with the out of hours care, but that patients with telephone advice only were less satisfied than those attending the cooperative or receiving a home visit.

**Development of new organisational models of integrated care (transmural care).** Since mid 1990s, attempts have been made to create new organisational forms of “integrated care” to improve the quality and efficiency of health care system. The notion of ‘transmural care’ emerged via a bottom-up approach, as it the professions recognised that cooperation and communication between primary and secondary care could only be realised at a local and regional level (Calnan, Hutten et al. 2006). Transmural care originated as the Dutch answer to integration in health care.

Transmural care is defined as care attuned to the needs of the patient, provided on the basis of close collaboration (cooperation and coordination) between primary and specialist care provider, with joint overall responsibility and the specification of

delegated responsibilities (NRV/CvZ, 1995, cited in Calnan, Hutten et al. 2006). The process depends on direct interpersonal relationships.

A number of general changes in terms of financing of primary care and secondary care were proposed, which could directly benefit initiatives for integrated care. The main problem to solve the integrated care is the (organisational) gap between primary and secondary health care – achieved through new forms of care.

Many forms of transmural care exists, some are organised in special groups – palliative care networks – which are in the community and GPs play a central coordinating role. Evaluation findings reveal positive outcomes, such as, increased continuity of care, more cost effectiveness, higher patient satisfaction (Calnan, Hutten et al. 2006). The bottom up approach has led to regional variation in the provision of health care services. Some regions have only a few transmural initiatives, while in other regions so called “chains of care” exist ie regional cooperatives of different care providing organisations, which work together on a formalised or institutional basis. The impact of new transmural initiatives on the gate-keeping position of GPs is not clear yet. Calnan et al (2006) point out that problems still exist in the daily routine of care provision, such as the financial system which is not tailored to integrated care, and a shortage of care providers in primary care and secondary care.

Van der Linden et al (2001) reports that the transmural care approach has become widely practiced part of the Dutch health care system and have yielded positive results in healthcare. However, transmural care appears to be largely nursing orientated, and primarily cure-orientated field. Van der Linden et al (2001 p119) cautions that “a true comprehensive approach including all medical components from first contact to discharge from medical care and covering people’s social and housing need as well as their medical ones has not been achieved as yet”.

Van der Linden (2001 p119) also points out that in several regions, formalised “chains of care are being created including integrated information and financing systems”. Her study confirmed that the advantages of transmural care in terms of quality and efficiency improvement is as yet not available. She concludes by suggesting that if positive effects in quality and efficiency are sought, “the provision of transmural care should be encouraged more strongly by top-down measures. Most probably, a clear financial incentive is need to ensure the provision of a full range of transmural care services nation-wide” (p120)

Bakker et al (2006) points out that an important condition to provide integrated care is the development of electronic patient records (90% of GPs work with computerised patient records). Despite this, Bakker et al (2006) suggests that there needs to be linking between the GP records with the GP cooperatives and to link the medications records between relevant providers.

## Impact of health care system reforms on PHC

(personal communication, Jan De Massener, 2006).

There are many possible answers to these questions, depending on one's perspective. From the point of view of GP's, the experiences are mixed. The health insurance companies increasingly are expected by the government to take responsibility for quality of care. GP's – and other health professionals – feel that as an assault on their professional autonomy. They have been in the forefront of quality improvement in health care for decades, and feel that this did not earn them the confidence they deserve. The administrative burden of reporting and accounting to the health insurance companies adds to the aversion. While government policies try to stimulate GP's to work in health centres or at least group wise – in a country where still a large amount of GP's work in a solo practice – there are insufficient concomitant (financial) support measures. In addition, the permanent change and accumulation of tasks – from being attentive to avian flu to suicide prevention – without adequate financial compensation has created an atmosphere in which GP's feel exploited and misunderstood. There was wide participation in GP strikes in 2005, the conflict between government and GP's was a severe one in the Dutch context and relations remain strained. After the introduction of the out-of-hours support services during the earlier years 2000. the satisfaction of GP's increased, as measured amongst others by a reduction of cases of burn out. From 2004 onwards however, the number of burn out cases among GP's started to increase again.

The introduction of the new health insurance system in 2006 has lead to new conflicts between GP's (represented by the national GP Association) and the Health Insurers. The issue is the transition arrangements which again put an administrative burden on Primary Care. For Primary Care providers, thus GP's and other professions, the new insurance system itself is little contested, there are no objections to he introduction of a mix of fee for service and capitation fee.

From the perspective of government and health insurers, Primary Care is a valuable part of the health system that needs to be sustained and supported. However, GPs are seen as insufficiently entrepreneurial and innovative, partly because they have an individual interest – especially those who work in a solo practice – in the way the practice is managed and partly because they have insufficient eye for the need for change. An important proportion of GPs has a problem to say goodbye to their status as local dignitaries and to accept that they just offer services in a market oriented economy. That is the crux of the problem. Other GPs, especially females who want part time work, are happy to work in a salaried position.

As long as the medical professions function as a guild, that protects the professional groups from competition, there is certainly no market in the sense of choice for the patients and competition in quality and price.

Patient organisations certainly value the merits of Primary Care as it currently is. However, they emphasise the need for a diversification of the response of Primary Care because demand is becoming more diverse.

## Contextual issues for Australian primary health care policy formation

In summary, several key contextual issues need recognition:

- Dutch health care is moving to a demand driven, competitive and open market system. Over the last decade, the major health care reforms have included:
  - a shift of responsibility for purchasing care from government to insurers
  - a move towards more competition among providers of care; and
  - a combination of market and non-market elements in health care.
- The Dutch government has focussed on restructuring health insurance to improve the performance of the health care system, rather than building capacity for innovation via incentives.
- The popular GP capitation fee payment system, is being challenged by alternative payment systems (eg., co-payment and salaried employment)
- The challenge of coordination of care has led to new bottom-up voluntary organisational forms of integrated care (eg. groups of providers, transmutal care, chains of care). However, the ability of such new forms of care providing 'a comprehensive approach' and the need for top-down requirements and incentives are debatable.
- For GPs to provide integrated, comprehensive and continuous care, patients need to be listed with a single GP, GP needs to be a member of a PHC team and is supported by fully linked patient records.
- A health care system with accessible primary care as a first point of entry for all, delivered in small to mid sized centres that are fully integrated into the wider health care system, may offer the best guarantee for cost effective patient care
- Need a balance between external, authority-driven systems for quality improvement and internal professionally led systems
- Policymakers need to integrate initiatives within a single, widely accepted quality improvement system
- Despite policymakers seeking immediate revolutionary change, sustained change demands long term strategies, policies and support – the Primary care quality program in the Netherlands has been for 15 years and its success is partly due to the consistency of its approach
- Education, training and support are needed to ensure that evaluation and quality improvement is understood
- As quality improvement research is limited, need to invest in health services research and research capacity building focussing on quality improvement

## References

- Bakker, D. H., .de., Groenewegen, P.P., Hingstman, L., Sluijs, E.M., van de Velden, L.F.J (2006). "Primary health care in the Netherlands: current situation and trends." Unpublished.
- Beyer, M. e. a. (2003). "The Developments of Quality Circles/Peer Review Groups as a Method of Quality Improvement in Europe: Results of a Survey in 26 European Countries." Family Practice **20**: 443-51.
- Busse, R., A. Dixon, et al. (2002). The Netherlands: Health Care Systems in eight countries: trends and challenges. London, The London School of Economics & Political Science.
- Calnan, M., J. Hutten, et al. (2006). The challenge of coordination: the role of primary care professionals in promoting integration across the interface. Primary Care in the

- Drivers Seat? Organizational Reform in European Primary Care. R. Saltman, A. Rico and W. Boerma, Open University Press: 85-105.
- Cardol, M., L. van Dijk, et al. (2004). "Primary care: What is the gatekeeper doing? (Dutch) Utrecht: NIVEL). Cited in Grol, R. (2006) *Health Care Systems in Transition - Netherlands*. The Commonwealth Fund."
- Civitas (2002). *Towards a Sound System of Medical Insurance? Consumer driven healthcare reform in the Netherlands: The relaxation of supply-side restrictions and greater role of market forces.* <http://www.civitas.org.uk/pdf/dutch.pdf>.
- Exter, A., H. Hermans, et al. (2005). *Health Care Systems in Transition - HiT Summary: Netherlands*. R. Busse, E. van Ginneken, J. Schreyogg and W. Wisbaum, European Observatory on Health Systems and Policies.
- Geboers, H., R. Grol, et al. (1999). "A model for continuous quality improvement in small scale practices." *Qual Saf Health Care* **8**(1): 43-48.
- Geboers, H., M. van der Horst, et al. (1999). "Setting up improvement projects in small scale primary care practices: feasibility of a model for continuous quality improvement." *Qual Saf Health Care* **8**(1): 36-42.
- Geert-Jan Dinant (2006). "Personal Communication."
- Grol, R. (2006). *Quality Development in Health Care in the Netherlands*, Centre for Quality of Care Research, Radboud University Nijmegen Medical Centre: 1-12.
- Maarse, H. (2002). "Health Insurance Reform (again) in the Netherlands: Will it succeed." *Euro Observer Autumn* **4**(3).
- Mackenbach, J. P. and K. Stronks (2002). "A strategy for tackling health inequalities in the Netherlands  
10.1136/bmj.325.7371.1029." *BMJ* **325**(7371): 1029-1032.
- Massener, J. (April 2006). "Personal Communication."
- Moll van Charante., D., DMJ., Ijzermans, C.J., Klazinga, N.S (2002). "The changing role of the Dutch general practitioner, Chap 5 in Saltman, R.G., Rico, A., & Boerma, W. (2006)." Cited In Calnan, Chap 5 in Saltman, R.G., Rico, A., & Boerma, W. (2006).
- Schut, F. T. and P. M. M. Wynand (2005). "Rationing and competition in the Dutch health-care system." *Health Economics* **14**(S59-S74).
- Social and Economic Council, S. (2000). "Towards a sound system of medical insurance."
- van de Ven, W. P. M. M. and F. T. Schut (2000). *The first decade of market orientated health care reforms in the Netherlands*. Rotterdam, Institute of Health Care Policy and Management, Erasmus University.
- van der Linden, B., C. Spreeuwenberg, et al. (2001). "Integration of care in The Netherlands: the development of transmural care since 1994." *Health Policy* **55**: 111-120.
- van Uden, C., A. Ament, et al. (2005). "Patient satisfaction with out-of-hours primary care in the Netherlands." *BMC Health Services Research* **5**(6).
- Van Weel, C. (2004). "How general practice is funded in The Netherlands." *MJA* **181**(2): 110-111.

## APPENDIX 8: INNOVATIVE MODELS FOR COMPREHENSIVE PRIMARY HEALTH CARE DELIVERY - CONTEXT SETTING: USA

**Donna Southern\***, **Lauren Prosser\***, **Lucio Naccarella\***, **John Furler\***,  
**Anthony Scott\*\***,  
and **Doris Young\***

**The Department of General Practice\* and the Melbourne Institute of Applied Economics and Social Research\*\*, The University of Melbourne**

### Introduction

This document is a pilot of the scoping phase of our project. In keeping with a realist review approach, it is the first stage in attempting to understand what primary health care reforms have been made and to understand how and why they have succeeded or not in relation to the particular context and setting in which they were introduced. This document focuses on the US health care system, and our plan is to repeat this process for the UK, Canada, Netherlands, New Zealand, and possibly other European countries.

### Aim

The aim of this document is to develop a broad contextual understanding of health care and primary health care reform and innovation within the US, and to highlight key areas where we intend to focus subsequent enquiry in the second or mid phase of our review. These may be areas of particular interest that seem to be important to our developing argument, or they may be areas where evidence is scanty and we need to undertake further searching to clarify if there are lessons to be learnt from that particular area of reform.

The document is for both internal use, and is also designed to form the basis for engaging with members of our international reference group.

Our destination, through this first scoping stage, the second deeper searching mid-project phase and final refining and recommendations phase is to arrive at answers to our research questions:

- What types of innovative models for comprehensive primary health care delivery exist nationally and internationally?
- What factors influence the development, implementation and sustainability of these models?
- How do we address barriers and enhance facilitators to implement the models?
- What do we know about the influence of interface issues on the models, such as the Commonwealth / State funding arrangements?
- What influence do the various innovative models have on the key dimensions of comprehensive primary health care delivery?
- What do we know about the costs and benefits of the innovative models as compared to existing primary health care models?
- What policy levers are available within the current Australian primary health care setting to implement the models?

### Method

This scoping stage involves a scan of the literature, black and grey, to identify key papers and reports that describe and bring some critical evaluation to health care and PHC reform (in this case in the US).

We confine our search to developments since 1990.

We also focus our scoping within PHC to material within which General Practice forms a key (although not the only) component.

Another important matter that emerges in developing this context setting document is: What terms and definitions will we use in this review. For example, several terms are used: primary health care; primary care; primary medical care; primary health and community care.

Our analytic framework at this stage is broadly based on our identification of common challenges and areas of reform that have dominated PHC reform internationally across this time. In other words we bring *a priori* thematic areas of interest and have focused on what responses the US has made within these broad domains.

These broad areas of interest relate to organisation, financing and governance arrangements and their effects on quality / outcomes, cost control / efficiency, and equity / access.

Our subsequent analysis will draw on two other frameworks, although they inform our thinking at this stage. Firstly, we draw on realist review approaches and ask what was the theory underlying any reform, what is known of the context and key factors that played an important role and what is known about what really happened in the field when a reform was introduced. Secondly, we will also draw on a logic framework and examine inputs, outputs, and outcomes as a way of answering our research questions.

### The US Health Care System

#### Brief background

The US health care system is characterised by a mixture of privately and publicly funded health care systems, regulated through a complex combination of state and federal levels (Koperski 2000). It is predominantly a private sector driven health system with a market-based approach based strongly on health care technology, which emphasizes competition through consumer choice (McLoughlin V, 2001). The private sector comprises a little over 55% of health expenditure (McLoughlin V, 2003).

In the United States, Family Practitioners provide primary care along side other primary care providers such as medical internists, paediatricians, and according to some observers, obstetrician / gynaecologists. Although family doctor training programs are well structured and rigorous, they are typically hospital based with little community exposure, retaining a procedural focus. Unlike Australia and the UK, there exists no unified professional organisation equivalent to the Royal College of General Practitioners which attempts to bring cohesion to the profession (Koperski 2000).

Generally, the role of the Family Practitioner does not include that of gate-keeper, as there is no requirement for patients to obtain a referral letter in order to access secondary services. A central gate-keeping role for the Family Practitioner is, however, typical in some large health service organisations (primarily where the practitioner is

paid by salary or capitation) (Koperski 2000). The gate-keeper role is controversial, viewed by some as an obstacle to patient choice and redundant in a system that supports specialism. A number of large health service organisations (many of which are profit-making) have options that allow patients to avoid primary care physicians in seeking specialty care (Mullin F 1998). In many places the gate-keeper model has been abandoned in favour of strategies that support replacement of the physician by non-physician clinicians to provide higher volume, lower-level primary care functions and moving physicians into specialty niches, such as hospitalist roles (Saltman RB and Figueras J 1998; Bindman and Majeed 2003).

Health care access is provided through publicly funded programs such as Medicare for the elderly and Medicaid for the poor, but access to care through these programs is dependent upon various qualifiers and for the poor, largely at the discretion of individual states. The US health care system is unique in that there is no universal coverage, and the health insurance system is not regulated by a publicly accountable body. The federal government does little to regulate health services, apart from the Medicare programme. Policies for health services devolve to the state level, which tends to be limited to making policy decisions about Medicaid for the poor. States may regulate private insurance, however, only Minnesota restricts the ability of profit-making insurance companies to market insurance in the state. Few states now require community rating which previously prohibited insurance companies from charging higher premiums to sicker people (Starfield 2005).

### Calls for overhauling the US health care system

There has been general consensus for many years that the US health care system is in need of renewal (Bureau of Labor Education 2001; Kendall 2005; National Coalition on Health Care 2005) because it is expensive, inefficient and inequitable.

Major issues relate to the cost. The US health care system is, by far, the most expensive in the world (Bureau of Labor Education 2001; Irvine 2002), spending approximately 16 % GDP on health care in 2004, forecasted by economic analysts to reach 20 % by 2015 (Borger, Smith et al. 2006). Reasons for such high costs include the rising cost of medical technology, prescription drugs, and administrative costs<sup>46</sup> due to complexities of multiple payers (Bureau of Labor Education 2001).

In an attempt to control ever-increasing costs resulting from fragmentation of services, practitioners are increasingly scrutinized for adherence to the quality of care standards for technical interventions largely related to the underperformance of presumably indicated procedures. It is a telling reality that, while it is specialists that are largely responsible for the increasing intensity of care that generates excessive costs from performing procedures that are *not* indicated, that these standards are applied to primary care rather than to specialty care and that they mainly address under-use of interventions rather than overuse of non-indicated ones (Starfield April 2006).

There are also serious access issues, with a large percentage of under/uninsured estimated to be in excess of 45 million (Geyman 2005) or approximately 1 in 6 Americans (Fuchs and Emanuel 2005). There is no universal health coverage for all citizens and insurance coverage is highly variable by state and employment status.

---

<sup>46</sup> Administrative costs are estimated to be between 19.3 to 24.1% of total dollars spent on health care [Bureau of Labor Education, 2001].

Those in low paid jobs where employers do not provide cover cannot afford coverage (Geyman 2005).

### General reform issues

Debate about how to reform the US health care system centres on whether reform should be comprehensive<sup>47</sup> or incremental, and whether the financing, or the organisation and delivery of care should take precedence (Fuchs and Emanuel 2005). Incremental reform includes a multitude of proposals such as: employer mandates<sup>48</sup>; subsidies<sup>49</sup>; expansion of current eligibility criteria for Medicare and Medicaid programs<sup>50</sup>; Health Savings Accounts (HSAs)<sup>51</sup>; managed competition<sup>52</sup>; and quality incentives<sup>53</sup> (Fuchs and Emanuel 2005). Comprehensive reform proposals include: individual mandates with subsidies<sup>54</sup>; single payer proposals<sup>55</sup>; and universal voucher systems<sup>56</sup>.

The debate over national health insurance (i.e. comprehensive reform) has lasted almost a century (Quadagno 2005). Calls for system-wide reform continue to sound from all family medicine professional organisations, leading professional organisations in general internal medicine and paediatrics, and the national Institute of Medicine (IOM), which is part of the honorary National Academy of Sciences (Institute of Medicine 2001; Michener 2004; Newton, Dubard et al. 2005). For various reasons, incremental reform has been the mainstay of the US health care system and continues to be so. Policy-making at the national government level continues to be market-oriented and there is no evidence that it is moving away from this orientation.

---

<sup>47</sup> The main goal of comprehensive reform proposals is universal health insurance coverage.

<sup>48</sup> Mandates that all employers above a specified size offer their workers health insurance are a strategy to reduce the number of uninsured in the population.

<sup>49</sup> Subsidies, through tax credits are provided to the uninsured to purchase insurance in the individual market.

<sup>50</sup> For example, raising the income level for eligibility for Medicaid and lowering the age for eligibility for Medicare.

<sup>51</sup> HSAs were enacted in 2003 under the Bush administration. HSAs are designed to help individuals save for qualified medical and retiree health expenses on a tax-advantage basis.

<sup>52</sup> Managed competition refers to the purchasing by employers of a range of health plans for their employees. Only the value of the premium of the low-cost plan is counted as tax-exempt income by the employee. Those choosing more expensive plans have to treat the excess as taxable income. In theory, employees have more incentive to choose the cheapest plan, providing pressure on the expensive plans to lower their prices.

<sup>53</sup> Quality incentives work through financial incentives that pay for performance, and subsidies to providers to install EMRs.

<sup>54</sup> Proposed individual mandates refer to the government mandating that every citizen have health insurance that meets some minimum standard, which may involve providing tax credits or subsidies to the poor to enable them to purchase insurance.

<sup>55</sup> Single payer proposals encompass numerous versions ranging from simply expanding the current reach of Medicare across all age groups through to including dental services, long-term care, prescription drugs and comprehensive mental health care. Under such proposals, private health insurance would be restricted or eliminated.

<sup>56</sup> Universal Healthcare Vouchers (UHV) combine publicly funded social insurance for basic care with important elements of choice and competition. UHV are proposed to replace Medicare, Medicaid and means-tested health programs.

In his most recent State of the Union address, the President proposed: 1) increased use of electronic records and information technology; 2) changes to US medical malpractice laws to cap damages; and 3) health savings accounts (HSAs) (Anonymous 2006). Whilst the use of electronic records and information technology are strongly advocated by health professionals, it does not provide the solution for systemic reform. HSAs are controversial, described by some commentators as regressive, due to supporting an already ingrained consumerism ethos to healthcare. These reform policies therefore do not support an integrated, organised approach to health system reform and do not address most health system issues (Anonymous 2006).

Because of the absence of universal financial access to health services, most advocates of reform focus on insurance issues; cost issues are a concern, (Fuchs and Emanuel 2005) but there has been little coalescence of opinion on the need for fundamental system reform despite repeated consensus of the population on the need for it (Anonymous 2006; Starfield April 2006). The pro-specialty orientation of the system appears firmly entrenched with those advocating for a greater primary care role largely marginalised by interest groups (specialty organisations, medical academia, insurance companies, medical device manufacturers, pharmaceutical companies); large businesses are the only constituency interested in more fundamental reform, primarily because health insurance in the United States has been a benefit paid in part by employers, and increasing costs are making it difficult for manufacturers to compete on price in the world market (Starfield April 2006). Ideally, both fundamental reform and cost issues should be addressed in concert. There is a vast body of evidence supporting the organisation of health care delivery around primary care (Starfield April 2006). Reform issues relating specifically to primary care are discussed below.

### Primary care and reform

A comparison of the organisation of US and UK health care systems by Bindman A, and Majeed A, (2003) highlights some key issues for the US. The introduction of managed care contracting without commensurate decrease in referrals to, and use of, specialists has not abated escalating costs i.e. the hoped-for benefit of gate-keepers (Bindman and Majeed 2003; Sandy and Schroeder 2003; Showstack J, Lurie N et al. 2003). In response, US managed care organisations are now phasing out the gate-keeping role of physicians, as this has proved to be unpopular among consumers and therefore a marketing problem for managed care organisations, along with claims that either refute, or prevaricate the benefits of this role. Solutions have been sought in increasing niche carving, and disease / case management. Essentially, managed care organisations are focussing on the development of new team arrangements and specialists, such as hospitalists, to perform tasks that had been performed by the primary care physician (Bindman and Majeed 2003).

The phasing out the physician gate-keeper role has been in response to marketplace pressures rather than as a result of government-led reforms, or based on evidence. In their concluding remarks, Bindman and Majeed call for evidence demonstrating the need for primary care physicians amid increasing specialism. Presenting evidence of the value of a central role of the primary care physician is a big issue for the US health care system which is dominated by specialists. There is a clear division between supporters and detractors of a primary care-oriented health system. The controversy surrounding this role has stimulated action by the US federal government, considering a "patient's bill of rights" requiring health care organisations to give patients freer access to specialists (Forrest 2003).

Despite assertions that primary care has failed to increase quality and reduce health care costs (Sandy and Schroeder 2003) and secondary preventive services (Chen et al 2000; Anderson & Wagner, 2003), the evidence is otherwise (Starfield et al., 1998; Milbank Quarterly, 2005). The role of the primary care physician is strongest in determining who is well, and not in need of specialist services, thereby reducing the incidence of unnecessary treatments, procedures and illnesses attributable to medical error. Comparisons made across countries support better health outcomes and lower costs within countries with stronger primary care systems.

### Models of primary care delivery

Models of primary care delivery in the U.S. can be categorised broadly under a raft of formal vehicles involving the configuration of structures, linkages and finances that have been developed in response to the efforts of health care reform, targeting the supply side<sup>57</sup> of health care delivery. These aim to manage the utilisation and costs of health care (Montalto M, 1997; Starfield B, 1998) and are generally categorized under the umbrella of managed care.

Managed care, originating from the US, is present in many countries under various formats and funding arrangements. Variable features of managed care include: the almost universal inclusion of a gate keeping role for primary care physicians; capitation to health service organisations but continued fee-for-service payments to physicians; user fees; consumer education; medical practice guidelines; greater use of non-physician substitution where possible; enhanced clinical information systems; and telemedicine as an extension of primary care services (Starfield B, 1998).

### Main targets for reform

In the absence of any proposal for basic system reform, several US innovations in micromanagement are receiving attention.

Within primary care, reform strategies have tended to be incremental, generally with a focus on alternative physician remuneration and micro-level organisation and delivery of care. They include 1) different modes of physician remuneration and increasing incentives for primary care practice; 2) a focus on wellness models (i.e. patient centred care; preventive care; case management) and health care teams; 3) consumer-directed health care (CDHC) or “personal responsibility and choice” (Geyman 2005) and 4) alternative scheduling procedures, such as advanced, or open appointment systems (Bodenheimer, Majeed et al. 2003). In addition, substitution practices, for example, the promotion of nurse practitioners and physician assistant programs aiming to enhance the productivity and cost effectiveness of physician practice have proliferated (Bodenheimer, Majeed et al. 2003).

### Physician remuneration

Physician remuneration remains predominantly fee-for-service (FFS). This mode of remuneration is argued to produce perverse incentives for patient care, because it favours shorter, problem-based visits and increased patient volume rather than a comprehensive approach to patient care (American Academy of Family Medicine 2004; Phillips 2005). Blended payment models combine FFS with patient management fees or other forms of capitation, to help support patient management and coordination have

---

<sup>57</sup> ‘Supply side’ refers to the approach to health policy decisions that aim to alter incentives to provide services.

been suggested (Ginsburg 2003; Phillips 2005). Payment for performance like that instituted in the UK, rewards physicians for reaching pre-set quality targets and is also being considered as an option under Medicare (Davis 2005; Phillips 2005).

### Wellness models and health care teams

As in many developed countries responding to a broadening of primary care to encompass primary health care goals primary care teams have emerged. In the US, solo practices once accounting for three-quarters of all community practices, have been largely replaced by group practices (Newton, Dubard et al. 2005) and interdisciplinary, collaborative teams which accommodate a growing non-physician workforce, are becoming increasingly established.

The Chronic Care Models (CCM), developed by a US group, build on teams, incorporating integrative systems of care that include computerised information for reminders, feedback about patients' physiological monitoring, registries to help planning individual and population-based patient care and peer support groups to help patients self-manage their illness. Under CCMs, team members have a clear division of labour, with appropriate training so that non-physician members can effectively participate in the planned management of patients (Bodenheimer, Majeed et al. 2003). There are tensions however, around the role of the primary care physician, teams, and the further specialisation within teams and chronic care models (Moore and Showstack 2003). Proponents of increasing specialism argue that CCMs make the role of the primary care physician redundant. Those that support primary care argue that the role of the primary care physician is enhanced as the hub of the chronic care team (Bodenheimer, Majeed et al. 2003; Rothman and Wagner 2003).

### Consumer directed health care

Consumer directed health care (CDHC), another US development, is likely to be, at least in part, a strategy to increase the market appeal of health plans and in some forms places more financial responsibility on individuals and their families for their own health care decisions through increased cost-sharing (Geyman 2005). CDHC is a different and separate philosophy to patient-centred care, as it promotes a consumerism ethos in seeking health, whereas patient-centred care promotes the fostering of a 'primary care home'. There is some evidence to suggest that CDHC discourages use of preventive care, delays needed care, and encourages stockpiling of medications (Geyman 2005).

### Open access

A management innovation, open access, or advanced access scheduling allows patients to be seen the same day. Each morning, about half of doctors' appointments slots are open. Patients calling for an appointment are offered an appointment on the same day. Both urgent and routine problems are seen on the same day, reducing the need for nursing triage (Bodenheimer, Majeed et al. 2003).

### Substitution

Substitution practices involve the promotion of a non-physician clinical workforce and niche roles, including hospitalist roles that take on certain tasks traditionally conducted by the primary care physician (Sandy and Schroeder 2003).

In the US, evolution of a non-physician clinical (NPC) workforce began during the 1960s, as an innovative strategy to cope with a shortage of primary care physicians. The American Medical Association had proposed using military-trained personnel as

assistants to physicians in a bid to ease the medical workforce shortage. Military medical care had been maximised in combat zones with personnel trained in medical care and with an expanded role for nurses. Thus the NPC workforce was founded with military-trained personnel returning home from combat (Hooker 2003).

Contemporary non-physician clinicians (NPCs) include nurse practitioners (NPs), clinical nurse specialists (CNSs), certified nurse midwives (CNMs), certified registered nurse anaesthetists, physician assistants (PAs) and also a range of complimentary and allied health professionals such as chiropractors, acupuncturists, naturopaths, optometrists and podiatrists (Cooper, Laud et al. 1998). However, NPs and PAs tend to be the most visible collaborators with primary care physicians (Hooker 2003). These types of innovations have been referred to by some as “disruptive innovations” to primary care through perpetuating increasing specialism, particularly where the service can be delivered faster, better, or cheaper (Sandy and Schroeder 2003)

### Innovative US Health Delivery Systems

Primary care delivery in the US is characteristically decentralised and also richly diversified, with many permutations and combinations of the basic models of primary care delivery mentioned above. The dominance of private sector health programs means that innovation and new technology are continually evolving, and there is more innovation in health care financing and coverage than in countries where the health sector is controlled by government. Most of the innovations in US health policy are aimed at engaging market forces and consumer power in reshaping the system (Irvine 2002).

This diversity of approaches makes it impossible to characterise the US health services system. A few notable models, however, deserve special mention.

### The US Veterans Health Administration

The US Veterans Health Administration (VHA) has received recent media attention, being described as a “useful” example for reform because it has adopted a “universal, integrated system” reaching across all areas of healthcare (Kruger 2006).

The VHA is a federally funded nationwide health care system. It is the largest integrated health care delivery system in the US, catering to the health needs of more than 4.5 million eligible veterans (Queen, Mittman et al. 2004). The VHA originally operated under highly centralised, military-style top-down management, with healthcare services organised around hospitals. There was emphasis on medical specialisation, technology, biomedical research and acute inpatient services. Pressure for change came from several areas, including Congress in response to a cost-benefit analysis. There were also rising complaints from veterans’ organisations of inadequate and inconsistent VHA services including long waits to see a doctor, being treated with a lack of respect, and long hospital stays for conditions that could be treated in an outpatient setting (e.g. cataract removal) (Young 2000).

In 1995, the VHA began a transformation from a hospital-based, specialty-focussed health care system to one with a strong primary care orientation (Young 2000). One of the most innovative aspects of this transformation was the creation of 22 Veterans Integrated Service Networks (VISNs pronounced as “visions”) which served to consolidate and streamline its 173 independent (and often competing) hospitals, over 400 clinics, 133 nursing homes, over 200 counselling centres and various other facilities (Young 2000).

The VISNs emphasised primary care and a role for generalist physicians, with their goal to: “..have all patients assigned to a dedicated generalist physician, or physician-led team of caregivers, responsible for providing readily accessible, continuous, coordinated and comprehensive care.”

With the VISNs came a number of service improvements including telephone advice services, a vast reduction in paperwork and the simplification of processes. Cost savings were realised with bulk-purchase agreements for goods and services, and a pharmaceutical prime vendor program (Young 2000). Along with these changes came regional devolution of management with responsibility for all VHA activities within a geographic region resting on the VISNs. The VISNs promote integration of resources and the expansion of community-based access points for primary care. There are strategic alliances between neighbouring VHA medical centres, sharing agreements with other governmental providers, and other relationships, including direct purchases from the private sector (Young 2000).

Another innovative feature of the VISNs is that they are in part virtual healthcare centres. They deliver services through contractual agreements with other institutions, thereby not needing to rely on ownership of assets and employment of their own professionals.

### Kaiser Permanente

Kaiser Permanente (Kaiser) is the United State's largest non-profit healthcare system, serving 8.2 million members in nine US states and the District of Columbia (Scott, Rundall et al. 2005). Comparisons between KP and the National Health System (NHS) of Britain are frequently drawn (Feacham, Sekhri et al. 2002; Light and Dixon 2004) with Kaiser's performance rated better in terms of access, treatment and waiting times (Feacham, Sekhri et al. 2002). Explanations for Kaiser's better performance are related to integration across all components of healthcare, treatment provided at the most cost-effective level of care, market competition, and advanced information systems (Berwick 2002; Dixon 2002; Enthoven 2002; Feacham, Sekhri et al. 2002; Ham, York et al. 2003). The development of the Kaiser integrated model was founded on a wellness model of health care, a whole of systems approach, and team based treatment. Historically, it evolved out of necessity in a hostile market environment, beginning as a cost-effective, integrated approach that aimed to keep workers healthier and treating their problems earlier, prior to them becoming ill (Hendricks 1993). Due to its prepaid, fixed-budget design, it was widely opposed. Kaiser doctors were barred from existing facilities so that the organisation had to build all of its own facilities. It became a fully contained delivery system with its own full time doctors, nurses and staff (Ham, York et al. 2003).

Under the Kaiser model, doctors design and run services and determine how the budget is spent, with all doctors (from primary, secondary and tertiary care) sharing bottom-line responsibility, i.e. all doctors hold the entire budget and manage clinical services. All health providers are paid salary with small, team based bonuses for meeting performance targets. Clinical governance results through the recruitment and training of managers who share the same goals (Ham, York et al. 2003).

Organisation of patient care is generally provided on site in multi-specialty health centres, where primary care teams work with specialty nurses and doctors, laboratory and imaging technicians, and with the pharmacy team. Integration of services is also supported by shared electronic data systems (Ham, York et al. 2003).

### The Future of Family Medicine: A Collaborative Project of the Family Medicine Community

The Future of Family Medicine (FFM) project, initiated in 2002, draws together 7 national family medicine organisations<sup>58</sup> and aims to develop a strategy, to transform and renew the discipline of family medicine to meet the needs of patients in a changing health care environment.

There are 6 task forces that focus on the following areas respectively: 1) Patient expectations; 2) Medical education; 3) Practice development; 4) Marketing and communicating the role of family practice within medicine and healthcare; 5) Family medicine's leadership role in shaping the future the health care delivery system; and 6) Practice reimbursement and finance issues (Kahn 2004).

Recommendations of the FFM project were a "New Model of Practice" that adopts an integrative model of primary care delivery, organised around a "relationship-centred, personal medical care home" for patient care (Martin and Avant 2004). Whilst the New Model in its entirety is currently hypothetical, different scenarios have been simulated specifically for the family physician group and some components of the New Model are already available and in use, such as open access and online appointment scheduling (Michener 2004).

The New Model is composed of a number of practice innovations ranging from open access scheduling, chronic disease management systems, electronic health records, and outcomes analysis (Table 2) (Martin and Avant 2004).

---

<sup>58</sup> The 7 organizations are: American Academy of Family Physicians (AAFP), American Academy of Family Physicians Foundation (AAFPF), American Board of Family Practice (ABFP), Association of Departments of Family Medicine (ADFM), Association of Family Practice Residency Directors (AFPRD), North American Primary Care Research Group (NAPCRG), and Society of Teachers of Family Medicine (STFM).

**Table 2 Characteristics of the New Model of Family Medicine [source: Martin JC, et al. 2004]**

<b>Characteristic</b>	<b>Description</b>
Personal medical home	The practice is a personal medical home for each patient, ensuring access to comprehensive, integrated care through an ongoing relationship.
Patient-centred care	Patients are active participants in their health and health care. The practice has a patient-centred, relationship-oriented culture that emphasises the importance of meeting patients' needs, reaffirming that the fundamental basis for health care is "people taking care of people".
Team approach	An understanding that health care is not delivered by an individual, but rather by a system, which implies a multidisciplinary team approach for delivering and continually improving care for an identified population.
Elimination of barriers to access	Elimination, to the extent possible, of barriers to access by patients through implementation of open scheduling, expanded office hours, and additional, convenient options for communication between patients and practice staff.
Advanced information systems	The ability to use an information system to deliver and improve care, to provide effective practice administration, to communicate with patients, to network with other practices, and to monitor the health of the community. A standardised electronic health record (EHR), adapted to the specific needs of family physicians, constitutes the central nervous system of the practice.
Redesigned offices	Offices should be redesigned to meet changing patient needs and expectations, to accommodate innovative work processes, and to ensure convenience, comfort, and efficiency for patients and clinicians.
Whole-person orientation	A visible commitment to integrated, whole-person care through such mechanisms as developing cooperative alliances with services or organisations that extend beyond the practice setting, but which are essential for meeting the complete range of needs for a given patient population. The practice has the ability to help guide a patient through the health care system by integrating care – not simply coordinating it.
Care provided within a community context	A culturally sensitive, community-oriented, population-perspective focus.
Emphasis on quality and safety	Systems are in place for the ongoing assessment of performance and outcomes and for implementation of appropriate changes to enhance quality and safety.
Enhanced practice finance	Improved practice margins are achieved through enhanced operating efficiencies and new revenue streams.
Commitment to provide family medicine's basket of services	A commitment to provide patients with family medicine's full basket of services – either directly or indirectly through established relationships with other clinicians.

Financing the New Model is also currently under investigation, with simulation of financial models at both a practice level and a societal level (Spann 2004). Alternative physician reimbursement models were simulated including FFS, and a mixed reimbursement model including compensation for advice provided over e-mail and for chronic disease management, and the introduction of quality based incentives.

The simulation indicated an overall increase in revenue by 26%, maintaining the current FFS reimbursement model. Increases in physician compensation could be further increased depending on the levels of compensation for e-visits, and introduced incentives. A mixed reimbursement model incorporating an annual per-patient fee, a chronic care bonus, and an overall performance bonus could potentially increase physician reimbursement by 66% about current levels. The cost of implementing the New Model ranged from \$23,442 to \$90,650 per physician, depending on the assumed magnitude of lost productivity due to changing over to an electronic medical record. The financial impact of enhanced use of the New Model on US health care was estimated to decrease health care costs by 5.6%, or a national savings of \$67 billion per year (Spann 2004).

### The North Carolina Developments – engaging a New Model

The North Carolina Medical Journal has produced a special edition to highlight examples of recent local developments in the delivery of primary care that are consistent with the “New Model of Practice” proposed by the FFM project described above, that show promise in advancing access to quality care or enhancing the financial viability of community practices (Newton, Dubard et al. 2005).

Six specific categories of developments include: 1) downscaling and simplifying practice organisation; 2) electronic health records in primary care practice; 3) use of disease management protocols; 4) the use of advanced access scheduling; 5) community-wide, collaborative care delivery models; 6) the use of electronic communication with patients via e-mail and other uses of the Internet. Each of these categories is discussed in turn.

### Downscaling and simplifying practice organisation

Solo practices have been declining (Newton, Dubard et al. 2005) however, there is a contingent of family practitioners embracing solo practice, and with the aid of information technology low-overhead practice models have become a viable alternative to large health service organisations (Crane 2005). Low-overhead models are solo practices providing personalised service to patients, using Advanced Access scheduling, electronic medical records, communication technology and lean systems to manage non-physician tasks (Endsley, Magill et al. 2002; Iliff 2003). Due to the low over-head costs, they report profitability at volumes and/or in locations that more traditional practices find difficult (Crane 2005).

For example, urban-based Solo Practice 1 hires no staff and utilising Advanced Access scheduling, electronic medical records and lean management systems averages 12 patient visits per day (half the average volume) reports sustaining meaningful patient interactions and improved management of chronic needs whilst maintaining a salary of more than \$150,000. This practice also accepts insurance (Moore and Showstack 2003).

Solo Practice 2, also an urban practice, has demonstrated similar results. This practice accepts cash payments only, requiring patients with insurance to file their own claims for reimbursement. Patients are charged a flat rate of \$45 per visit. Lab tests are charged based on cost and yield the practice a profit of \$15 per test. The practice nets \$165,000 per year with a practice volume of 15 patients a day, 44 weeks of the year (Crane 2005).

Practice 3 is a high-volume, low-overhead practice model situated in an isolated rural community. It employs three staff however, the overhead is still lower than Medical Group Management Association benchmarks. This practice bills 15% of its patients on a sliding scale (\$10 per visit) and a large proportion of Medicaid and Medicare patients. Rent on the premises is low, through a community church, equipment has been donated or obtained second hand, and administrative overhead is paid through lab revenue from a local provider group (Crane 2005).

These practice models provide examples of operating cost effectively, and providing a responsive, patient-centred service. Solo practice does not however, equate with isolated practice, with teamwork and planned care important features of the model (Moore 2006). Low-overhead models have been suggested as one possible solution to improving primary care access in areas of lower SES, higher unmet health needs and un-insurance, because they are relatively portable due to their simplicity. However, they may not provide a cost effective solution for the poor covered by Medicare or Medicaide. Accepting patients covered by public insurance adds complexity and cost to the low-overhead practice (Crane 2005).

### Advanced Access scheduling

Advanced Access scheduling is an administrative model that emphasises patients being seen on the same day that they call for an appointment. It operates on the principle of doing today's work today, and not having patient's wait for appointments (Anderson and Sotolongo 2005).

Whilst changing to this scheduling procedure requires a significant cultural shift among providers, and a period of time to clear the backlog of appointments, it has demonstrated benefits, at least anecdotally, of improved patient and provider satisfaction, improved patient access to their preferred provider, a reduction in lower acuity consultations, and a reduction of patients who do not keep their appointments (Anderson and Sotolongo 2005; Edsall and Adler 2005; Forrest 2005). Simulated economic analyses indicate that open-access scheduling increases physician income while it reduces physician hours (Spann 2004).

Empirical evidence supporting open access scheduling was provided by a pilot study conducted across Minnesota Allina Medical Clinics (AMC)<sup>59</sup> with 12 pilot sites, comprising practices ranging in size from four to 80 physicians. The effects of open access scheduling were tracked using patient data over 3 years (including the period prior to, during, and after the launch of open access) obtained on every patient visit at 23 AMC sites. An algorithm based on 18 months of patient-visit histories and a patient telephone survey was developed, to determine the match between patients and their preferred physician. The outcomes tracked included: panel count, appointment demand, provider capacity, patient-to-primary care physician match, and patient visits. The results were: more patients seeing their own physician, more productive patient visits, increased physician compensation due to higher charges in place for matched visits (i.e. visits that match patients with their preferred provider), and an overall net gain in revenue for practices was realised. Patients at the 12 pilot sites used fewer urgent care services and reported improved satisfaction (O'Hare and Corlett 2004).

---

<sup>59</sup> AMC delivers primary and specialty health care to 500,000 patients annually at 40 locations throughout Minnesota.

## References

- Adair, C. E., E. Simpson, et al. (2006). "Performance Measurement in Healthcare: Part II - State of the Science Findings by Stage of the Performance Measurement Process." Healthcare Policy **2**(56-79).
- American Academy of Family Medicine (2004). The New Model of Primary Care: Knowledge Bought Dearly. Official Policy of the American Academy of Family Physicians, American Academy of Family Physicians: 1-10.
- Anonymous (2006). "The state of US health-care reform." The Lancet **367**: 541.
- Ashton, T. (1999). The health reforms: To market and back. Redesigning the welfare state in New Zealand : problems, policies, prospects. J. Boston, P. Dalziel and S. St. John. Auckland, N.Z. ; New York, Oxford University Press: xi, 356.
- Australian Divisions of General Practice (2002). "An Australian Model for General Practice and GP Financing: Discussion Paper, No. 1, ADGP, Canberra."
- Australian Divisions of General Practice (2005). Primary Health Care Position Statement. Manuka, Australian Division of General Practice: 1-36.
- Baker, C. D. and A. R. Lorimer (2000). "Cardiology: the development of a managed clinical network  
10.1136/bmj.321.7269.1152." BMJ **321**(7269): 1152-1153.
- Bakker, D. H., .de., Groenewegen, P.P., Hingstman, L., Sluijs, E.M., van de Velden, L.F.J (2006). "Primary health care in the Netherlands: current situation and trends." Unpublished.
- Ballantyne, M., M. Doggett, et al. (2004). Report on Key Learnings Study Visit to Australia 2004. A Joint Project of: Canadian College of Health Sciences and The Change Foundation: 1-35.
- Berwick, D. (2002). "Commentary: Funding is not the only factor." British Medical Journal **324**: 142-143.
- Beyer, M. e. a. (2003). "The Developments of Quality Circles/Peer Review Groups as a Method of Quality Improvement in Europe: Results of a Survey in 26 European Countries." Family Practice **20**: 443-51.
- Bindman, A. B. and A. Majeed (2003). "Primary care in the United States: Organisation of primary care in the United States  
10.1136/bmj.326.7390.631." BMJ **326**(7390): 631-634.
- Birch, S. (April, 2006). "Personal Communication."
- Blendon RJ (2002). Inequities in Health Care: A five-country survey. Health Affairs: 182-191.
- Bloom, A. (2000). "Context and lead up to health reform. In A Bloom (ed). Health Reform in Australia and New Zealand, Oxford University Press, Melbourne, p22."
- Borger, C., S. Smith, et al. (2006). "Health Spending Projections Through 2015: Changes On The Horizon." Health Affairs - Web Exclusive: W61-W73.
- British Medical Association (2003). "Investing in general practice. The new general medical services contract. <http://www.bma.org.uk/ap.nsf/Content/investinggp>."
- Bureau of Labor Education (2001). The U.S. Health Care System: Best in the World, or just the most expensive?, Bureau of Labor Education, University of Maine, Orono, Maine.
- Busse, R., A. Dixon, et al. (2002). The Netherlands: Health Care Systems in eight countries: trends and challenges. London, The London School of Economics & Political Science.
- Calnan, M., J. Hutten, et al. (2006). The challenge of coordination: the role of primary care professionals in promoting integration across the interface. Primary Care in the Drivers Seat? Organizational Reform in European Primary Care. R. Saltman, A. Rico and W. Boerma, Open University Press: 85-105.

- Canadian Health Research Services Foundation (2003). Myth: An ounce of prevention buys a pound of cure. Mythbusters. Ottawa, Canada, Canadian Health Research Services Foundation.
- Canadian Institute for Health Information (2005). The Status of Alternative Payment Programs for Physicians in Canada. 2002-2003 and Preliminary Information for 2003-2004, Canadian Institute for Health Information.
- Cardol, M., L. van Dijk, et al. (2004). "Primary care: What is the gatekeeper doing? (Dutch) Utrecht: NIVEL). Cited in Grol, R. (2006) Health Care Systems in Transition - Netherlands. The Commonwealth Fund."
- CHUM (2002). The Team in Primary Care: A new vision, newways to work. Record of Proceedings, Montreal, September 19 & 20.
- Civitas (2002). Towards a Sound System of Medical Insurance? Consumer driven healthcare reform in the Netherlands: The relaxation of supply-side restrictions and greater role of market forces. <http://www.civitas.org.uk/pdf/dutch.pdf>.
- Crabtree, B., W. Miller, et al. (1998). "Primary care practice organization and preventive services delivery: A qualitative analysis." Journal of Family Practice **46**(5): 403-409.
- Cropper, S., A. Hopper, et al. (2002). "Managed clinical networks 10.1136/adc.87.1.1." Arch Dis Child **87**(1): 1-4.
- Cumming, J., A. Goodhead, et al. (2003). Interim Report on Health Reforms 2001 Research Project. Wellington, Victoria University of Wellington: 1-112.
- Cumming, J., A. Raymont, et al. (2005). Evaluation of the Implementation and Intermediate Outcomes of the Primary Health Care Strategy First Report, Health Services Research Centre,. Wellington, Victoria University of Wellington.
- Damiani, M., C. Propper, et al. (2005). "Mapping choice in the NHS: cross sectional study of routinely collected data 10.1136/bmj.330.7486.284." BMJ **330**(7486): 284-.
- Davis, K. (2005). "A 2020 Vision of Patient-Centered Primary Care." Journal of General Internal Medicine: 953-957.
- Department of Health (2001). "Shifting the balance of power, <http://www.dh.gov.uk/PolicyAndGuidance/OrganisationPolicy/PrimaryCare/PrimaryCareTrusts/fs/en>."
- Department of NSW Health (2004). Practice based commissioning: Engaging practices in commissioning.
- Derber, R. and A. Baumann (2005). EICP - Barriers and Facilitators to Enhancing Interdisciplinary Collaboration in Primary Health Care. Enhancing Interdisciplinary Collaboration in Primary Health Care.: 1-35.
- Devlin, N., A. Maynard, et al. (2001). "New Zealand's new health sector reforms: back to the future?" BMJ **322**(7295): 1171-4.
- Dixon, J. (2002). "Commentary: Funding is not the only factor." British Medical Journal **324**(142-143).
- Douven, R. (2004). "Risk adjustment in the Netherlands: An analysis of insurers' health care expenditures. Discussion Paper 39, Netherlands Bureau for Economic Policy Analysis."
- Dusheiko, M., H. Gravelle, et al. (2003). The effect on budgets on doctor behaviour: evidence from a natural experiment. CHE Technical Paper Series 26, The University of York.
- Edsall, R. L. and K. G. Adler (2005). "An EHR User-Satisfaction Survey: Advice From 408 Physicians." Family Practice Management **12**(9).
- Ellis, N. and J. Chrisholm (1997). "Making sense of the redbook."
- Enthoven, A. (2002). "Commentary: Competition made them do it." British Medical Journal **324**(143).

- Exter, A., H. Hermans, et al. (2005). Health Care Systems in Transition - HiT Summary: Netherlands. R. Busse, E. van Ginneken, J. Schreyogg and W. Wisbaum, European Observatory on Health Systems and Policies.
- Feacham, R., N. Sekhri, et al. (2002). "Getting more for their dollar: a comparison of the NHS with California's Kaiser Permanente." British Medical Journal **324**: 135-43.
- Fooks, C. (2004). Implementing Primary Care Reform in Canada: Barriers and Facilitators. Implementation of Primary Care Reform, School of Policy Studies, Queen's University, Kingston, ON.
- Forrest, C. B. (2003). "Primary care in the United States: Primary care gatekeeping and referrals: effective filter or failed experiment? 10.1136/bmj.326.7391.692." BMJ **326**(7391): 692-695.
- Fraser, D. and J. Scott (1998). "Unshackling the hospitals." New Zealand Medical Journal **111**(1071): 305.
- French, S., A. Old, et al. (2001). Health Care Systems in Transition- New Zealand. Copenhagen, European Observatory on Health Care Systems.
- Fuchs, V. R. and E. J. Emanuel (2005). "Health Care Reform: Why? What? When?" Health Affairs **24**(6): 1399(15).
- Geboers, H., R. Grol, et al. (1999). "A model for continuous quality improvement in small scale practices." Qual Saf Health Care **8**(1): 43-48.
- Geboers, H., M. van der Horst, et al. (1999). "Setting up improvement projects in small scale primary care practices: feasibility of a model for continuous quality improvement." Qual Saf Health Care **8**(1): 36-42.
- Geert-Jan Dinant (2006). "Personal Communication."
- Geyman, J. P. (2005). "Family Medicine and Health Care Reform." American Family Physician.
- Ginsburg, P. B. (2003). "Payment and the Future of Primary Care." Annals of Internal Medicine **138**: 233-234.
- Goodwin, N., E. Peck, et al. (2004). "Managing Across Diverse Networks of Care: Lessons from other sectors. Policy Report. Health Services Management Centre, University of Birmingham."
- Gosden, T., B. Sibbald, et al. (2003). "Paying doctors by salary: a controlled study of general practitioner behaviour in England." Health Policy **64**(3): 415-423.
- Government of British Columbia (1991). British Columbia Royal Commission on Health Care and Costs: Closer to Home. Victoria, Government of British Columbia.
- Grol, R. (2006). Quality Development in Health Care in the Netherlands, Centre for Quality of Care Research, Radbound University Nijmegen Medical Centre: 1-12.
- Hadekel, P. (2006). Health-care ruling being ignore: MD. Toronto Star. Toronto. **2006**.
- Ham, C., N. York, et al. (2003). "Hospital bed utilisation in the NHS, Kaiser Permanente, and the US Medicare Programme: analysis of some routine data." British Medical Journal **327**: 1257-61.
- Hamilton, K., S. Wyke, et al. (2005). "A Managed Clinical Network for Cardiac Services: set-up, operation and impact on patient care." International Journal of Integrated Care **5**: 1-15.
- Health Canada (2003). 2003 First Ministers' Accord on Health Care Renewal. Health Care System. **2006**.
- Health Care Commission (2005). Primary Care Trust Overview.
- Health Services Restructuring Commission (1999). Primary Health Care Strategy: Advice and Recommendations to the Honourable Elizabeth Witmer, Minister of Health, December.
- Hendricks, R. (1993). A model for national health care: the history of Kaiser Permanente. New Brunswick, NJ, Reutger University Press.

- Hopton, J. and D. Heaney (1999). "Towards primary care groups The development of local healthcare cooperatives in Scotland." *BMJ* **318**(7192): 1185-1187.
- Hughes, D. (1993). "General Practitioners and the new contract: promoting better health through financial incentives." *Health Policy* **25**(1-2): 39-50.
- Hundert, M. (1998). ""Vertical Integration"...Little Applicability in Canada." *Hospital Quarterly*: 5.
- Hutchinson, B., J. Abelson, et al. (2001). "Primary Care In Canada: So Much Innovation, So Little Change." *Health Affairs* **20**(3).
- Institute of Medicine (2001). *Crossing the Quality Chasm: A new health system for the twenty-first century*. Washington, DC, National Academy Press.
- Irvine, B. (2002). Background Briefing on US Healthcare, Health Policy Consensus Group.
- Jones, R. (2006). *Healthcare Reforms in the UK: Implications for Australia?* KCL & Monash, Monash University, Melbourne.
- Kahn, N. B. e. a. (2004). "The Future of Family Medicine: A Collaborative Project of the Family Medicine Community." *Annals of Family Medicine* **2**(S1): 3-32.
- Kendall, D. (2005). Fixing America's Health Care System: A Progressive Plan to Cover Everyone and Restrain Costs. *Policy Report*, Progressive Policy Institute: 1-14.
- King, A. (2000). The Future Shape of Primary Health Care: A discussion document. Wellington, Ministry of Health.
- King, A. H. (2000). The New Zealand Health Strategy. Wellington, Ministry of Health.
- Koperski, M. (2000). "The state of primary care in the United States of America and lessons for primary care groups in the United Kingdom." *British Journal of General Practice* **50**: 319-322.
- Kruger, P. (2006). Veterans Health Administration Provides "Useful" Example for Health Care Reform. *Public Health New*: <http://www.kaisernetwork.org>.
- LaPierre, L. (March 2006). "Personal Communication."
- Leatt, P. (2004). "Making sense of the Canadian experience: Potential impact of regionalisation." *Healthcare Papers* **5**(1): 12-31.
- Leatt, P., G. H. Pink, et al. (2000). "Towards A Canadian Model of Integrated Healthcare." *Healthcare Papers* **1**(2): 13-35.
- Leese, B. and R. Young (1999). Disappearing GPs? Is there a crisis in recruitment and retention of general practitioners in England? *National Primary Care Research and Development Centre (NPCRDC)*.
- Lewis, L. (2002). Sharing the Learning: The Health Transition Fund. *Synthesis Series: Supporting and Evidence-Based Future in Canadian Health Care*. Ottawa, Health Canada.
- Lewis, S. and C. Fooks (2002). A Primer on Reforming the Canadian Health Care System: A Discussion Paper Prepared for the Canadian Cancer Society and the National Cancer Institute of Canada, Canadian Cancer Society: 1-42.
- Light, D. and M. Dixon (2004). "Making the NHS more like Kaiser Permanente." *British Medical Journal* **328**: 763-5.
- Maarse, H. (2002). "Health Insurance Reform (again) in the Netherlands: Will it succeed." *Euro Observer Autumn* **4**(3).
- Mable, A. L. and J. Marriot (2002). Sharing the Learning: The Health Transition Fund. *Synthesis Series: Primary Health Care*. Ottawa, Health Canada.
- Mackenbach, J. P. and K. Stronks (2002). "A strategy for tackling health inequalities in the Netherlands  
10.1136/bmj.325.7371.1029." *BMJ* **325**(7371): 1029-1032.
- Malcolm, L. and N. Mays (1999). "New Zealand's independent practitioner associations: a working model of clinical governance in primary care?[see comment]." *BMJ* **319**(7221): 1340-2.

- Malcolm, L., L. Wright, et al. (1999). The development of primary care organisations in New Zealand. Report prepared for the Ministry of Health, New Zealand Government, Ministry of Health.
- Malcolm, L. A. (2004). "How general practice is funded in New Zealand." Medical Journal of Australia **181**(2): 106-7.
- Marchildon, G. P. (2005). "Canadian health system reforms: lessons for Australia?" Australian Health Review **29**(1): 105-119.
- Marchildon, G. P. (2005). Health Systems in Transition. Copenhagen, WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies: 1-151.
- Martin, J. C. and R. Avant, et al., (2004). "The Future of Family Medicine: A Collaborative Project of the Family Medicine Community." Annals of Family Medicine **2**(1): 3-33.
- Marwick, J. (2002). The New Zealand PHC Strategy: Presentation to DoHA and The Health Inequalities Research Collaboration PHC Network. Canberra.
- Massener, J. (April 2006). "Personal Communication."
- Maxwell, J. (2002). Citizens' dialogue on the future of health care in Canada. Report prepared for the Commission on the Future of Health Care in Canada. Ottawa, Canadian Policy Research Networks.
- Maxwell, J., S. Rosell, et al. (2003). "Giving citizens a voice in healthcare policy in Canada." BMJ **326**: 1031-1033.
- Maynard, A., M. McKee, et al. (2006). "Models of Care: Some European Perspectives."
- Mays, N., N. Goodwin, et al. (1997). "What is total purchasing?" BMJ **315**(7109): 652-655.
- McAvoy, B. R. and G. D. Coster (2005). "General Practice and the New Zealand Reforms - Lessons for Australia?" Australia and New Zealand Health Policy **2**(26).
- McDaniel, R. R. and M. Walls (1997). "Diversity as a management strategy for organizations: a view through the lenses of chaos and quantum theories." Journal of Management Inquiry **6**(4): 371-83.
- Mehrotra, A., R. A. Dudley, et al. (2003). "WHAT'S BEHIND THE HEALTH EXPENDITURE TRENDS?" doi:10.1146/annurev.publhealth.24.100901.141008." Annual Review of Public Health **24**(1): 385-412.
- Michener, L. (2004). "New Models of Care In Family Medicine." Annals of Family Medicine **2**(6): 613-615.
- Miller, P., N. Craig, et al. (1999). "Measuring progress towards a primary led NHS." British Journal of General Practice **49**(444): 541-545.
- Miller, W. L., Crabtree. B.F., et al. (1998). "Understanding change in primary care practice using complexity theory." Journal of family Practice. **46**: 369-376.
- Ministry of Health (2001). The Primary Health Care Strategy, Ministry of Health, New Zealand.
- Moll van Charante., D., DMJ., Ijzermans, C.J., Klazinga, N.S (2002). "The changing role of the Dutch general practitioner, Chap 5 in Saltman, R.G., Rico, A., & Boerma, W. (2006)." Cited In Calnan, Chap 5 in Saltman, R.G., Rico, A., & Boerma, W. (2006).
- Mullin F (1998). The 'Mona Lisa' of Health Policy: primary care at home and abroad. Health Affairs. **17**: 118-126.
- National Coalition on Health Care (2005). Building a Better Health Care System, A report from the National Coalition on Health Care.
- New Zealand Ministry of Health (2004). Care Plus: An overview. Wellington, Ministry of Health.
- NHS (2005). Evaluating models of organisation and delivery of health services., SDO.

- NHS Scotland (2003). Partnerships For Care: Scotland's Health White Paper. Edinburgh, NHS Scotland.
- NHS Scotland (2005). "Our vision for the NHS is to reapply its founding principles with vigour to meet the needs of the people of Scotland. Delivering for Health means a fundamental shift in how we work, tackling the causes of ill-health and providing care which is quicker". Scottish Executive. Edinburgh, NHS Scotland.
- Nixon, D., M. Smith, et al. (2006). "Delivery improved chronic disease in primary care: An affordable, achievable and sustainable pragmatic approach for primary care." New Zealand Family Practice **33**(2): 108-114.
- Ontario Health Review Panel (1987). Toward a shared direction for in in Ontario. Ontario.
- Perera, R., J. McDonald, et al. (2003). Primary Health Organisations. The first year (July 2002 - June 2003) from the PHO perspective. Wellington, Health Services Research Centre/Te Hikuwai Ranguahau Hauora, School of Government, Victoria University of Wellington.
- Phillips, R. L. (2005). "Primary care in the United States: problems and possibilities 10.1136/bmj.331.7529.1400." BMJ **331**(7529): 1400-1402.
- Plsek, P. E. (2003). "Complexity and the adoption of innovation in health care. Paper presented at Accelerating Quality Improvement in Health Care, Washington DC, 27-28 Jan."
- Productivity Commission (2005). "Australia's Health Workforce, Research Report, Canberra."
- Propper, C., S. Burgess, et al. (forthcoming). "Extending choice in the English health care system Journal of Social Policy." Journal of Social Policy, version available: <http://www.bris.ac.uk/Depts/CMPO/people/biopropper.htm>.
- Quadagno, J. (2005). One Nation Uninsured: Why the U.S. has no national health insurance. New York, Oxford University Press.
- Queen, L., B. Mittman, et al. (2004). "Overview of the Veterans Health Administration (VHA) Quality Enhancement Research Initiative (QUERI)." Journal of American Medical Information Association **11**(5): 339-343.
- Roland, M. (2004). "Linking Physicians' Pay to the Quality of Care -- A Major Experiment in the United Kingdom 10.1056/NEJMp041294." N Engl J Med **351**(14): 1448-1454.
- Royston, G., A. Dost, et al. (1999). "Using system dynamics to help develop and implement policies and programmes in health care ion England. Systems Dynamics review," **15** **3**: 293-313.
- Saltman RB and Figueras J (1998). Analyzing the evidence on European health care reforms. Health Affairs. **17**: 85-108.
- Schut, F. T. and P. M. M. Wynand (2005). "Rationing and competition in the Dutch health-care system." Health Economics **14**(S59-S74).
- Scott, J., T. G. Rundall, et al. (2005). "Kaiser Permanente's experience of implementing an electronic medical record: a qualitative study." British Medical Journal **331**: 763-765.
- Scottish Executive (2002). Promoting the Development of Managed Clinical Networks in NHS Scotland. Scottish Executive Health Department.
- Secretary of State for Health (1997). The new NHS. London, Stationary Office.
- Seguin, R. (2006). Quebec minister urges a health care user-fee debate. The Globe and Mail division. Toronto, Phillip Crawley. **2006**.
- Shamian, J. and S. J. LeClaire (2000). "Integrated Delivery Systems Now or....?" Healthcare Papers **1**(2): 66-75.
- Showstack J, Lurie N, et al. (2003). "Primary care: the next renaissance." Ann Intern Med **138**(3): 230-2.

- Sibbald B and B. C (2002). General Practitioner Job Satisfaction in England. National Primary Care Research and Development Centre (NPCRDC).
- Sibthorpe, B. (2001). "Models of primary health care." New Doctor **74**.
- Silcock, J. and J. Ratcliffe (1996). "The 1990 GP contract -- meeting needs?" Health Policy (1) **36(2)**: 199-207.
- Smith, J. and N. Mays (2005). "Primary care trusts: do they have a future? 10.1136/bmj.331.7526.1156." BMJ **331(7526)**: 1156-1157.
- Smith, P. C. and N. York (2004). "Quality Incentives: The Case Of U.K. General Practitioners 10.1377/hlthaff.23.3.112." Health Aff **23(3)**: 112-118.
- Social and Economic Council, S. (2000). "Towards a sound system of medical insurance."
- Solberg, L. I., G. Mosser, et al. (1997). "The three faces of performance measurement: improvement accountability and research: joint commission." Journal on Quality Improvement **23(3)**: 135-47.
- Spurgeon, D. (2006). "Radical reforms may end Canada's public health service monopoly 10.1136/bmj.332.7541.569-b." BMJ **332(7541)**: 569-b-.
- Starfield, B. (2005). "The Primary Solution: Put doctors where they count." Boston Review: 1-7.
- Starfield, B. (April 2006). "Personal Communication."
- Statistics Netherlands (2005). "Statistical Year Book 2005. Statistics Netherlands: Voorberg, 2005. <http://www.cbs.nl/NR/rdonlyres/83467D4F-F630-4D46-82DD5A0DEB3FC46C/0/2005a3pub.pdf>."
- Strauss, A. L. and J. Corbin (1998). Basics of qualitative research: techniques and procedures for developing grounded theory, Sage, London.
- Sweeney, K. and F. Griffiths (2002). Complexity and healthcare: an introduction, Radcliffe Medical Press Ltd.
- The Janus Project (2004). "family physicians meeting the needs of tomorrow's society. Results of the National Family Physician Surveys, 1997/98 and 2001. Regional Reports."
- The NHS Plan (2000). A plan for investment. A plan for reform. London, Stationary Office, [www.nhs.uk/nhsplan](http://www.nhs.uk/nhsplan).
- Tuohy, C. H. (2002). "The costs of constraint and prospects for health care reform in Canada 10.1377/hlthaff.21.3.32." Health Aff **21(3)**: 32-46.
- Tuohy CH (2002). The Costs of Constraint and Prospects for Health Care Reform in Canada. Health Affairs. **21**: 32-46.
- van de Ven, W. P. M. M. and F. T. Schut (2000). The first decade of market orientated health care reforms in the Netherlands. Rotterdam, Institute of Health Care Policy and Management, Erasmus University.
- van der Linden, B., C. Spreeuwenberg, et al. (2001). "Integration of care in The Netherlands: the development of transmural care since 1994." Health Policy **55**: 111-120.
- van Uden, C., A. Ament, et al. (2005). "Patient satisfaction with out-of-hours primary care in the Netherlands." BMC Health Services Research **5(6)**.
- Van Weel, C. (2004). "How general practice is funded in The Netherlands." MJA **181(2)**: 110-111.
- Wanless, D. (2002). Securing our future health: taking a long-term view. Final Report. London, HM Treasury.
- Ward, S. (2000). "Counting on Quality." Nursing Standard **14(52)**.

Whynes, D. (2005). *Economic Analysis of Primary Care: Abstracts of published papers*. Nottingham, Department of Health: Economic and Social Research Council: 1-14.

Wolstenholme, E., D. Monk, et al. (2004). "Using systems dynamics to influence and interpret health and social policy in the UK."

Wyke, S., S. Myles, et al. (1999). "Total Purchasing, community and continuing care: lessons for future policy developments in the NHS." *Health and Social Care in the Community* **7**(6): 394-407.

Young, G. J. (2000). *Transforming Government: The Revitalization of the Veterans Health Administration*. 2000 Presidential Transition Series. Boston, Boston University.