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THE CONTRIBUTION OF APPROACHES TO ORGANISATIONAL CHANGE IN OPTIMISING THE PRIMARY HEALTH CARE WORKFORCE

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INTRODUCTION

THE CHALLENGE FOR WORKFORCE PLANNING

The workforce in health care systems worldwide will be under unrelenting pressure because of:

- the increasing proportion of the population over the age of 65
- new trends and technologies for health care delivery
- the emphasis on effectiveness and efficiency
- the need for changing traditional professional roles
- global and national workforce shortages for at least the next decade

Successful workforce policies, particularly with generation X and Y will depend not only on remuneration, but on the organisational culture of the workplace. How do we create a workplace where they can do their best work? Strong leadership, a humanistic culture, and an affiliative, team working climate are all required to secure workforce stability and to attract talent.

Delivering high quality services in the face of an ageing population with chronic diseases will require effective use of the resources already available in the primary health care system. Integration across organisational boundaries, multi-disciplinary team working, co-ordination of care, information technology, financial resources and information management with quality improvement activity will all be necessary.[1-2]

The Council of Australian Governments (COAG) recognises many of these concerns. The Federal Treasurer commented that health spending is *"the biggest financial challenge that we are going to face over the next 20 to 30 years."* [3]

This has led to the Human Capital Reform Recommendation 8:

"That COAG accept the principle that improving the effectiveness of the health sector is necessary to enhance significantly overall productivity, given the health sector accounts for nearly 10 per cent of GDP, and is expected to grow as a proportion of GDP." (p.7)[4]

Internationally, it is increasingly recognised that structural changes alone will not secure significant gains in health care performance.[5] This report looks at how to improve function in health care performance rather than structure.

PRIMARY CARE: THE SCOPE OF THIS REPORT

Primary care in this report largely refers to general practices but can also be taken to encompass other health professionals, to whom the general practitioner refers, usually allied health in private practice or employed by State health. It follows that the main challenge for the workforce in primary care is to manage chronic diseases occurring in an ageing population. We review government policy, set out the challenges, and explore the potential contribution of organisational development (OD) as a way of improving coordination, integration and teamwork. We examine how OD on its own it is not a 'magic bullet' but one of a number of ways that better chronic disease management can be brought about.

THE ORGANISATION OF AUSTRALIAN GENERAL PRACTICE

General Practitioners (GPs) are independent contractors, single-handed or working in groups, often supported by practice managers, practice nurses, and other staff. They may own their business, or work for a corporate. Organisationally, general practices are entrepreneurial, flat structures. They are small businesses except that Medicare forms the largest part of their income. Through MBS item numbers government enacts its policy which we analyse below.

Formed in 1992, Divisions of General Practice have played a fundamental role in shaping general practice by providing support and resources, sometimes through interaction with other State and Commonwealth agencies. Membership is voluntary for GPs but virtually all participate to benefit from the developments provided. The role of Divisions has been crucial in implementing a number of Commonwealth programs.[6] For the purpose of this report, we regard both Divisions and practices as organisations.

WHAT IS THE STRATEGIC ROLE OF PRIMARY CARE?

Primary care is generally an individual's first point of contact with the health system and is central to improving health outcomes for the Australian community. A strong primary care system is the key to providing quality health care for all Australians, since almost everyone will use some form of primary care in any one year.

Primary care can include general practice, a range of allied health services, community health and community pharmacy. The community relies on primary care to be accessible, to provide quality, evidence-based management of health problems and to actively co-ordinate care with other services as appropriate, including specialist and aged care services. Primary care is well positioned to help prevent health problems and ensure early intervention by encouraging healthier lifestyles, providing screening services, and taking steps to prevent relapse.

THE BURDEN OF CHRONIC DISEASE AND THE CONTRIBUTION OF PRIMARY CARE

The burden of chronic disease in Australia is increasing rapidly. Soon chronic disease will account for 80% of the disease burden and 80% of health care costs. The national approach has two elements:

1. The National Chronic Disease Strategy which provides the overarching framework of national direction for improving chronic disease prevention and care across Australia

2. Five supporting National Service Improvement Frameworks that cover the national health priority areas of asthma; cancer; diabetes; heart, stroke and vascular disease; osteoarthritis, rheumatoid arthritis and osteoporosis

The National Chronic Disease Strategy recognises that general practice has a central role in prevention, detection and management. Investing in primary health care, especially general practice by enhancing its ability to manage chronic disease can significantly improve outcomes. The strategy recognises that early detection of the disease should be seen as a multidisciplinary task for all existing primary health care services and not just general practice. Implementation will require considerable change in how teams work in general practice and therefore, they will require organisational development.

The Strategy and Frameworks do not contain implementation strategies. It is envisaged that practical implementation strategies will be the responsibility of individual jurisdictions in order to reflect the wide variation in health systems and other circumstances.

CHRONIC DISEASE MANAGEMENT PROGRAM 2005

The Government introduced new Medicare items to replace the existing Enhanced Primary Care Items. The new items will make multidisciplinary care planning and access to allied health services easier for GPs and their patients. In the first instance, a GP will be able to develop a 'GP management plan' to help a patient with chronic illness. For patients with complex care needs, this plan may be supplemented by a 'team care plan' which would involve allied health workers.[7]

Practice nurses and Aboriginal Health Workers are able to assist GPs in the preparation of GP management plans. A team care plan involves at least two other health care providers such as a physiotherapist, dietician, or diabetes nurse educator. Under team care plans, these allied health professionals are able to access the allied health professional MBS item.[7]

AUSTRALIAN GOVERNMENT 2005-06 BUDGET

In 2005-06 the key strategic directions for the Department included:[8]

- promoting a culture of quality improvement in primary care to improve health outcomes, reduce lifestyle risk factors and better manage chronic and complex conditions

- strengthening national infrastructure for integrating and supporting primary care through improved arrangements for the Divisions of General Practice network

- supporting and strengthening the primary care workforce by providing renewed support for programs such as Practice Nurses in Rural and Remote areas

KEY STRATEGIC DIRECTIONS FOR 2007-08

In 2007-08, the Australian Government will implement initiatives to improve the community's access to primary care services, and help people with a chronic disease achieve a better quality of life by:[9]

- helping people self-manage their chronic conditions

- supporting general practices to manage the care of people with chronic disease

- improving access to primary mental health services

WHY ORGANISATIONAL DEVELOPMENT?

There is currently no generally agreed-on definition of the term "organisational development". The form of OD which many health professionals are familiar with is a workshop or retreat where a skilled external facilitator assists participants to achieve organisational goals. In the literature, the term is used by some authors to represent any program of development within an organisation that is designed to meet either organisational or personal objectives. Others use the term to refer only to comprehensive organisation wide development programs that embrace common principles and approaches based on knowledge gained from applied behavioural science.[10-13]

The definition of OD that we used in this review is from Rothwell and Sullivan:[14]

"Organisational development is the application of behavioural science action research and systems theory to human systems, to increase the internal and external effectiveness of the organisation, especially in managing change, using participative processes that involve all those affected."

In recent years, OD has emerged as a way of helping organisations improve by managing effectively the changes they need to make. OD is about getting the shape of the organisation and its services right. It is also about changing the nature of the organisation and the way it works to provide services. OD is about systems and processes, but it is also about behaviour.

Ultimately organisational development can provide a focus for continuous improvement by raising performance which leads to better health outcomes.

THE ROLE OF ORGANISATIONAL DEVELOPMENT

In chronic disease management, aspects mentioned in the National Strategy that would benefit from OD are:

- managing change towards multidisciplinary care
- care planning, coordination and review
- integrated primary health care networks
- adopting standard procedures for referral
- focusing services away from acute care onto chronic disease management

OD has the potential to improve the patient's journey through the system. Developing strategic partnerships at regional and local level will also require OD facilitation.

OD is widely used by industry, but its use in health services especially primary care is less evident. Nevertheless convincing evidence points to its contribution to organisational maturity in primary care. Performance in health care organisations is inextricably linked to culture and leadership. This evidence is strong for both safety and quality as measures of performance. In the review we have focused on how OD can contribute to delivering better outcomes in chronic disease management because that is where the evidence is strong and the policy requirement greatest.

Interventions in the health policy area are often complex, for instance, reorganisation occurring simultaneously with changes in remuneration. In 1990, the UK government introduced an emphasis on capitation, target payments, funding for buildings and practice nurses to undertake disease management clinics, and an obligation for practices to undertake clinical audit. Each of these components of a new contract contributed to organisational sophistication in UK general practice. The Independent Practitioner Associations (IPAs) in New Zealand have had similar effects.

Professor Nick Mays (Interview June 2007):

"IPAs provided a lot of development opportunity for practices especially clinical effectiveness including use of IT in clinical audit. By the end of five years something like 80% of doctors had played a part in running the IPA. They played a big role in improving clinical standards. Pauline Barnett from the Christchurch medical school wrote a Ph.D. on organisational development in IPAs. She found the level of engagement was very high adding credibility to the concept of IPAs as value adding to primary care. Towards the end of the five years IPAs started getting contracts for hospital admission avoidance programs which is when things were really getting interesting."

Improving the effectiveness of the primary care workforce will require major organisational changes for their implementation. The aims of this review are:

- to examine the evidence for approaches to organisational change and their effectiveness in primary health care, particularly for chronic disease management
- to review how these approaches to organisational change can support the achievement of policy in primary care
- to determine how they can be applied efficiently and cost effectively in Australia

METHOD

The evidence was examined for the effectiveness and cost-effectiveness of the use of organisational development (OD) for organisational change in the general economy (public and private businesses). No restrictions were placed on the countries or settings in which electronic search of the literature was conducted, but key participants were only interviewed in Australia, Canada, England, Netherlands, New Zealand, Scotland, and Wales.

Details of the methodology are given in Appendix 1. According to Mays *et al.*,[15] policy-makers and managers have always used a wide range of sources of evidence in making decisions about policy and the organisation of services. However, they are under increasing pressure to adopt a more systematic approach to the utilisation of the complex evidence base. Decision makers must address complicated questions about the nature and significance of the problem to be addressed; the nature of proposed interventions; their differential impact; cost-effectiveness; acceptability and so on. This means that Cochrane-style reviews alone are not sufficient. Rather, they require access to syntheses of high-quality evidence that include research and non-research sources.

There is no single, agreed framework for synthesising such diverse forms of evidence, and many of the approaches potentially applicable to such an endeavour were devised for either qualitative or quantitative synthesis or for analysing primary data or both. Mays *et al.*[15] argue that although there is controversy about the legitimacy and feasibility of combining the findings of research studies that use different methods, they adopt a 'subtle realist' perspective and suggest that while there may be multiple descriptions or explanations of phenomena, these ultimately relate to some underlying reality or truth. And hence, synthesis is accepted as promoting a greater understanding.

Narrative synthesis is a relatively new approach. By adopting a systematic, transparent approach to the review and in attempting to use synthesis to generate new insight, this report is a form of narrative synthesis rather than a narrative review. To synthesise this complex literature and evidence, we used meta-narrative mapping, a six-phase process developed by Trisha Greenhalgh and colleagues.[16] The phases of meta-narrative mapping technique are: planning, searching, mapping and appraisal (see Appendix 1).

We assembled a multidisciplinary research team whose background encompassed the key research traditions relevant to the question. The research team comprised three academic general practitioners with experience of three countries, a health and organisational psychologist, two health economists, and an expert in primary care workforce development. We developed the initial research questions, and set a series of face-to-face review meetings including input from external peers and experts in diverse domains.

Our Australian reference group comprised four senior Health Department officials, two directors from the Hay Group, and an organisational development consultant, the director of a medical consulting firm, and a hospital director of physiotherapy. The international reference group comprised experts from five countries: Netherlands, New Zealand, England, Scotland, and Australia. Face-to-face interviews were conducted with 25 experts in these countries, and in Canada and Wales. The interviews were audiotaped with the interviewees' permission, and transcribed for further analyses.

We did literature searches, screened abstracts for useful papers, read the full papers that seemed relevant, and decided which would remain in the study. Also we included sources known to the investigators that were made available from our reference group, experts and key informants. A search of titles, abstracts and related keywords was conducted using terms shown in the Appendix 1. Searches were performed on relevant databases and websites, and the search strategy was repeated for all the journals listed on, published, or aggregated by major publishers listed in Appendix 1. Keyword and title searches for grey literature were conducted through search engines (primarily Google) and private industry sites (Hay Group).

The titles and abstracts of all studies identified through this search strategy were scanned for relevance. Full copies were obtained of all papers which appeared from their abstracts to be relevant to the review. These studies were read and their relevance determined by the research team through an examination of the intervention design, the study population, the setting and country in which the research was conducted. The reference lists of all relevant studies and reviews were hand searched for possible references for further studies. This process was repeated for all relevant studies (a process known as 'snowballing'). We also received a large number of unpublished reports through our key informants.

RESULTS AND DISCUSSION

The results report the available evidence on the usefulness of organisational development as an approach to organisational change in general practice settings in Australia, particularly at improving quality practice. Policy implications follow the summary of key findings.

ORGANISATIONAL DEVELOPMENT

Starting with our research questions about effectiveness of organisational change techniques in primary care, the evidence is very limited. A search of available literature found very few studies that have examined the use of organisational development, action research, organisational learning, or project management in general practice, let alone any studies that report effectiveness or cost-effectiveness. Further, as the outcomes associated with these approaches to organisational change are both quantitative (e.g., measurable increases in profitability in business settings) and qualitative (e.g., improvements in morale and staff satisfaction), the benefits gained from these OD interventions in general practice may not always be in a form that can be used to directly determine their cost-benefit.[1]

Our key informants repeatedly told us that the literature would not contain very much useful information on OD because research might be reported under other headings, social interventions do not lend themselves to randomised trials, and much of OD has gone straight from theory into business practice.[17-19]

Professor Martin Roland (Interview June 2007):

"Organisational development is not a term that is widely used in general practice. Quite a lot of things are OD, but described as something else. If you look at EPOC interventions for changing clinical practice, many of them could be described as OD. If you go down that route you'll find a lot of evidence." [20-24]

The studies that have been summarised in the literature review in this report are the best that are currently available. While they do not provide numeric measures of effectiveness or detailed cost estimates, they address the issue of effectiveness in terms of issues and obstacles that would need to be addressed, as part of the process of implementation of these approaches.

IS OD EFFECTIVE AND COST-EFFECTIVE IN THE GENERAL ECONOMY?

There is some evidence available for the effectiveness of OD in the general economy. In the business setting OD is widely used to help organisations achieve their performance, which is measured by "the bottom line" – this may be expressed as dividend for shareholders, profitability, or success in re-orientating the business within the marketplace (see Appendix 4). Not surprisingly, little is published in scientific literature and indeed, for similar reasons, health care organisations have little motivation to publish in scientific literature.[17-19] In the field of government policy, politicians expect results in a shorter time scale than is available for such research.

The general effectiveness of the use of OD by businesses has been summarised in a series of reviews and meta-analyses that date back to the late 1970s.[11, 25] A list of these studies and summary of the results are presented in Appendix 4. Robertson and Senviratne[26] undertook a meta-analysis of evaluations of organisational development projects to determine whether there was any evidence that OD interventions may be less effective in public (government owned) organisations than in the private sector. They found OD interventions were equally effective in both settings, but noted that effective organisational change may be harder to achieve in public sector organisations. There is also a recognition that organisations are often at different stages of readiness for OD.

EVIDENCE FOR OD FROM HEALTH CARE

The only published studies of the use of OD in health care settings from countries with health care systems comparable to Australia, come from the United Kingdom and Netherlands. Edmonstone and Havergal[27] briefly critiqued the form of organisational development that has been used by the National Health Service (NHS) in the UK from the mid 1970s. No studies of the use of OD in primary care could be located for either Canada or New Zealand. There is very little published research on the use of project management as an approach to organisational change in health care, other than for the implementation of updated information technology systems.[11, 28] NHS Institute for Innovation and Improvement uses project management as an OD approach including GPs.[29] Critics would say that learning is not retained after the project.

The UK literature on OD in health care is centred on the general practice setting, but consists mostly of descriptive or theoretical studies.[10, 30-33] We found very few studies that critically assessed the use of OD and no studies that reported effectiveness or cost-effectiveness in general practice settings.

Our key informants fill this gap in the literature for us highlighting the contribution of OD to organisational maturity in primary care in UK and New Zealand. Performance in health care organisations is inextricably linked to culture and leadership, which can be influenced by OD.[34] This evidence is strong for both safety and quality as measures of performance[35, 36] (vide infra). In the review we have mainly focused on how OD can contribute to delivering improved quality in chronic disease management because that is where the need is greatest [1] and the evidence is strong (see page 15).

ORGANISATIONAL CHANGE THEORIES

There is nothing so practical as a good theory (Kurt Lewin[*]).

We review the theory here because it adds to our understanding of how OD might contribute practically to primary care. Many explanations have been given for how OD works. According to van de Ven and Poole,[37] four types of organisational change theories exist. Systems theories emphasise the interrelatedness of parts of the organisation and the need for measurement and feedback of data to stimulate change. Organisational development theories emphasise the need to engage people in change processes. Complexity theories emphasise the need to view change as a process of constant, non linear adaptation. Social worlds theories suggest that change emerges as a function of negotiation and renegotiation between two or more social worlds.

These four types of theories have been applied to varying degrees to organisational change in general practice. Rydderch[2] argued that organisational indicators in the context of any health system should be defined by a strategic framework that recognises a place for four different types of quality improvement activity:

- Systems driven improvement based on achieving competence against a clearly defined set of standards for the organisation of general practice that may reflect the threshold, or reflect superior performance

- Organisational development driven improvement based on achieving longer-term adaptability, achieving competence in areas such as effective team working, participative decision-making and problem solving

- Complexity driven improvement based on following the path of continuous modifications as the future unfolds

- Social worlds driven improvement based on recognising and shifting the political and managerial context that determines the balance of investment in each of the above three areas in any given country.

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[*] Kurt Lewin's (1890-1947) work had a profound impact on social psychology and, more particularly for our purposes here, on our appreciation of experiential learning, group dynamics and action research.

This framework moves debate beyond arguments about which theory has most explanatory power and instead takes a contingency approach suggesting that the choice of theory to be applied will be dictated by the level and the nature of change. Organisational development theories which emphasise engagement may help those who are managing change to gain acceptance and engender ownership of the process by participating practices such as the changes necessary for better chronic disease management.[38, 39]

THE USE OF OD IN GENERAL PRACTICE

There have been dramatic changes in the structure of general practices in the United Kingdom in the last 50 years. They have gone from single practitioners with patient lists, to professional partnerships and practice teams, where general practitioners collaborate with nurses and management staff, who in many cases are housed together in purpose-built buildings. While there are wide variations in the form of these practices and the degree of integration and teamwork within them, it is now generally agreed that improvements in quality of care delivered by these general practices can only come about through a process of organisational development. [10, 40]

The move to organisational development in general practices was also driven by the increasing realisation that continuing professional development for general practitioners, in the form of passive educational events, was not an effective means of changing clinical processes as it failed to take into account health and organisational priorities at the practice level, as well as staff mix and skill base.[41, 42] It is now accepted that real improvements in the quality of care delivered by general practices, will only come about as a result of integrated care processes, that take into account the skills and knowledge of all members of the practice.[43-46] These improvements in quality will entail a move from uni-professional learning, where doctors and nurses undergo professional development in isolation, to multiprofessional, practice based learning, where all the members of the practice undertake professional development activities together as a team.[10, 42]

The use of Practice Professional Development Plans (PPDPs) linked to personal learning plans in general practices was first proposed in 1997 by the Chief Medical Officer in England to address the demonstrated ineffectiveness of passive medical educational strategies. PPDPs were based on ideas from applied behaviour science (specifically, theories` of organisational development) and principles of effective adult learning. They were developed to provide a means for multiprofessional learning that was relevant to system-wide needs that were identified by the various professionals who make up general practices.[42, 47, 48]

Atkins, Duffy and Bain [49] undertook a research project in a sample of practices in Tayside, Scotland which had produced PPDPs, to establish how this process could be facilitated. It was clearly demonstrated that not all practices were ready or able to go through the process of OD. A series of articles were published between 2000 and 2006 by a group in Wales that followed the development, application, measurement and implementation of PPDPs in general practice. The results of their feasibility study[42] provided support for the view that the use of PPDPs could bring about effective change in general practice, particularly because they were linked to personal learning plans (PLPs.) Changes in funding occurred before evaluation of outcomes was completed. In the last two papers in the series Rhydderch *et al*. [50] and Elwyn *et al*. [40] detailed the development, testing and use of an instrument, the Maturity Matrix, that could be used to assess the degree of OD achieved in general practice. The Maturity Matrix is under trial in several countries including Australia[†].

[†] While interviewing Prof. Glyn Elwyn who originated PPDPs, the authors were offered the opportunity to join the international group of investigators and to test the Maturity Matrix in Australia.

THE IMPORTANCE OF ORGANISATIONAL CULTURE

Organisational culture focuses on that which is shared between people within organisations, for example:

- beliefs, values, ideologies, attitudes and norms of behaviour
- routines, traditions, customs, symbols, ceremonies, and rewards
- meanings, narratives, and sense-making

These shared ways of thinking and behaving help define what is legitimate and acceptable within any given organisation and guide the many discretionary behaviours of health care professionals.

Writing about cultures for performance in health care, Mannion, Davies and Marshall[34] used the competing values framework (CVF) to study the link in acute trusts and primary care trusts of the NHS. All primary care practices showed a dominant clan culture.

Table 1: Competing values model of culture types for organisations

	Organic processes: Flexibility, individuality, spontaneity		
Internal maintenance: Smoothing, Integration	**Clan**	**Developmental**	**External positioning:** Competition, Differentiation
	Hierarchy	**Rational**	
	Mechanistic processes: Control, order, stability		
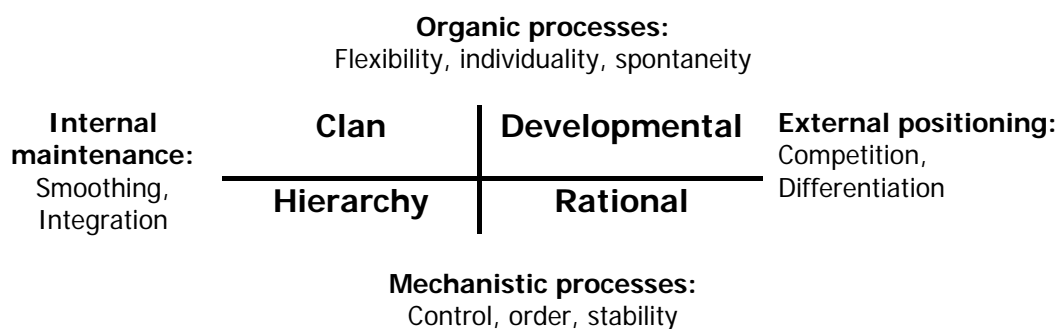
Source: Mannion, Davies and Marshall. (2005) *Cultures for performance in health care*, pp. 162-163.

Table 2: Cultural typology derived from the competing values framework: A model of cultural congruence for organisations

Clan/group	Adhocracy/open/developmental
Dominant attributes: cohesiveness, participation, teamwork, sense of family *Leader style:* mentor, facilitator, parent-figure *Bonding:* loyalty, tradition, interpersonal cohesion *Strategic emphases:* towards developing human resources, commitment, morale	*Dominant attributes:* creativity, entrepreneurship, adaptability, dynamism *Leader style:* entrepreneur, innovator, risk-taker *Bonding:* entrepreneurship, flexibility, risk *Strategic emphases:* towards innovation
Hierarchy/empirical	**Market/rational**
Dominant attributes: order, rules and regulations, uniformity, efficiency *Leader style:* co-ordinator, organiser, administrator *Bonding:* rules, policies and procedures, clear expectations *Strategic emphases:* towards stability, predictability, smooth operations	*Dominant attributes:* competitiveness, goal achievement, environment exchange *Leader style:* decisive, production- and achievement-oriented *Bonding:* goal orientation, production, competition *Strategic emphases:* towards competitive advantage and market superiority

Source: Scott, Mannion, Marshall and Davies. Does organisatinal culture influence health care performance? A review of the evidence, *J Health Serv Res Policy*, 2003, p. 112

Their study found significant quantitative associations between existing cultures and various aspects of performance, as well as evidence of a variety of mechanisms whereby such associations may be mediated. The CVF typology highlighted the different cultural types may be more or less able to perform, depending on the aspects of performance valued within the culture.

Culture and performance seem to be linked in substantive and important ways; these are many, varied, contingent, and bi-directional. The policy implications of their study are:

- culture matters and is a suitable target for change

- organisational culture appears to be linked to performance in a contingent manner

- there are important cultural differences between apparently high and apparently low performing NHS trusts

- leadership is paramount; requisite leadership style is a function of current performance

- an active human resources function [OD] underpins the formation and maintenance of performance conducive cultures.
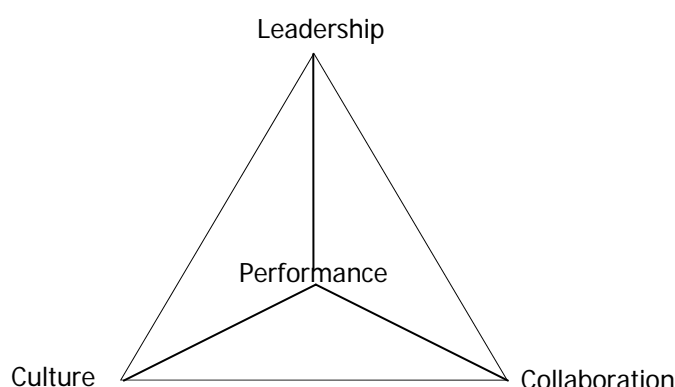
Figure 1 Relationship between leadership, culture, collaboration and performance.

DEVELOPING SAFETY CULTURES AND THE REDUCTION OF ERROR

Patient safety has become an important health care issue in Australia, the UK, the US, and more recently in Canada. The identification and reduction of harm has become a major priority for health care providers, and much research has focused on the incidence of adverse events and medical error in hospital environments. [51, 52, 53, 54] Although general practice is the usual point of entry into the health care system in Australia, and over 80% of the population visit a GP at least once in any year, little research attention has been given to improving patient safety in primary care. Studies that have examined medical error have shown a high frequency of adverse drug events in patients attending general practice. [55, 56]. But there are important differences between care in hospitals and the situation in general practice. Medical errors in general practice occur in administrative systems, laboratory and diagnostic imaging processes, and as a result of shortfalls in the knowledge and skills of different care providers, as well as medication errors. [57, 58]. Risk management in general practice then becomes a responsibility for all members of the practice team.[59] Further, initiatives to improve patient safety are reliant on committed leadership, teamwork, and promotion of a safety culture. [38, 60, 61]

Alongside the increased attention given to patient safety and medical errors is a growing recognition within health care of the importance of transforming organisational culture to improve patient safety. A model that shows great promise for understanding safety culture in general practice settings is that developed by Westrum.[62, 63] He proposed that one way of distinguishing organisational cultures is the way in which information is handled by organisations, and identified three levels of organisational culture: pathological, bureaucratic, and generative (see Table 3).

Table 3: How organisations process information

Pathological	Bureaucratic	Generative
Power oriented	Rule oriented	Performance oriented
Low cooperation	Modest cooperation	High cooperation
Messengers shot	Messengers neglected	Messengers trained
Responsibilities shirked	Narrow responsibilities	Risks are shared
Bridging discouraged	Bridging tolerated	Bridging encouraged
Failure --> scapegoating	Failure--> Justice	Failure--> inquiry
Novelty crushed	Novelty --> problems	Novelty implemented

Source: Westrum. A typology of organisational cultures, *Quality and Safety in Health Care,* 2004. p.ii23.

Other researchers extended this framework and applied it to safety culture, so that a range of safety behaviours can be identified at five levels of organisational safety culture.[64] This theoretical framework underpins the Manchester Patient Safety Framework used in the UK.[65] The Manchester Patient Safety Framework (MaPSaF) was developed by the University of Manchester to assess safety culture in general practices and primary care organisations in the UK. The instrument is completed individually and can be used as a team based self-reflection and educational exercise.

It uses nine dimensions of patient safety including:

- Overall commitment to quality and patient safety

- Investigating patient safety incidents

- Organisational learning following a patient safety incident

- Communication about safety issues

- Team working around safety issues

In summary, promoting a culture of safety has become a prime indicator of high quality health care systems. The main criteria for performance excellence for health care organisations are the provision of a patient focus, clear and visible values and high performance expectations by the organisation's senior leaders.[66] Indeed strong leadership in hospitals is positively associated with greater clinical involvement in quality improvement,[67, 68] but little is known about the role of leadership in general practice. In Primary Care Trusts in the UK, a strong link between leadership, culture and performance has been described.[34] It remains to be seen how leadership, culture and performance within general practice are related and how they contribute to assure a culture of safety.

ORGANISATIONAL LEARNING AND LEARNING ORGANISATIONS

The term 'organisational learning' was coined by Argyris and Schon [69] to reflect their conceptualisation of organisations as organisms that can adapt and develop in response to changing internal and external environment conditions. This ability is a function of the learning and development of the individuals that make up the organisation, together with the mechanisms and processes within the organisation that promote, build on, retain and deploy knowledge. Learning organisations are ones in which this form of learning and organisational development is promoted as a core characteristic.[11, 70, 71]

To date there is little published evidence that organisational learning has been fully implemented in any setting and hence no published evidence of its effectiveness, but NHS Education Scotland is working with practices using OD techniques to see if they can become Learning Organisations. The majority of available articles involving its application in health care settings are not empirical or evaluative reports, but discussions of theory and possible issues and barriers associated with the implementation of organisational learning.[11]

In line with the notion of quality improvement and performance assessment, ideas about the learning organisation and communities of practice seem to offer the potential to increase learning capacity and capabilities across the whole health care system. The concept of learning practices has been influenced by theories such as Senge's notion of the Learning Organisation, Dixon's organisational learning cycle and Cohen and Sproll's work on organisational learning.[72-74]

Leading researchers in the area of learning organisations in health care, Rushmer, Davies and colleagues [31-33] described what it would mean for instance for a practice to become a *learning practice*. The authors have defined a learning practice as "a GP (or similar) unit where individual, collective and organisational learning and development is systematically pursued according to Learning Organisation principles, in order to enhance service provision in a way that is increasingly satisfying to its patients, staff and other stakeholders." [31]

Implicitly, a practice that learns is also going to be safer and be able to improve continuously. Here we explore the processes needed for a practice to *become* a learning practice, identifying the actions needed to establish more effective learning routines followed by an examination of the contextual requirements needed to enable such transitions to take place. Taken together, these papers present a blueprint for radically different organisations that are capable of responding to challenges for high quality health care. Through extensive efforts and integration of literature from several domains of psychology, social sciences and management, the authors have also described nine cultural characteristics of a learning practice including:

1. *Tolerance of mistakes* to encourage innovation and take measured risks
2. *Belief in human potential* and the recognition of results, encouragement of members, and valuing personal and professional development
3. *Recognition of tacit knowledge* and valuing the experience of members
4. *Openness* to knowledge sharing, feedback and communication
5. *Trust* between managers, leaders and staff

These characteristics are equally applicable to metropolitan, rural, remote, large or small organisations. In addition to the cultural factors, the authors have also identified five structural characteristics of learning practices:

- flatter hierarchies
- team work structures
- incentives and rewards for learning
- better information and communication networks
- the introduction of research and development budgets and programs

The work sets out the structural, procedural and cultural characteristics of organisations that have 'learnt how to learn.'

Central to this is the development of a tool by Rushmer and colleagues [34, 75] that can assess the extent to which any given practice has already adopted the characteristics of a learning practice. The tool is theoretically rooted but has undergone extensive testing for its acceptability and technical properties. Called the Learning Practice Inventory (LPI), the tool is designed to be completed by every member of the health care team, and produces profiles of the perceived learning structures, processes and culture within it.

THE EFFECTIVE ORGANISATION AND GOOD QUALITY HEALTH CARE

Primary care has been defined as "the first point of contact for patients seeking health services, provided in a community setting, by health care professionals who are generalists rather than specialists, in ways that promote continuity over time or longitudinal contact between patients and health care professionals." [76] According to Barbara Starfield,[77] a health system oriented towards primary care is more likely to produce better health outcomes at a lower cost and with greater patient satisfaction.

Although there is not much research showing a direct relationship between the quality of primary care and the effective organisation, evidence for this can be found when approaching the primary care literature from a disease specific perspective rather that an organisational perspective. This is especially evident in the literature on chronic disease management.

Griffin and Kinmonth's [78] review of care for patients with diabetes complications found that schemes of care with less well developed organisation resulted in adverse outcomes for patients compared with patients treated in secondary care settings. With regard to cardiovascular preventative services, a survey of organisational arrangements in 95 general practices in the Netherlands concluded that there were substantial barriers to quality improvement in cardiovascular preventative services. Overcoming the barriers requires clinical leadership, clinical information systems, delivery system designs and decision support for team members are all components thought to be crucial for improved service delivery.[79-81] A meta-analysis of interventions used in chronic disease management found that education for practices, feedback to practices about patient experiences and a proactive approach to reminders were all commonly used strategies for improving the quality of care. [82] Effective organisation is essential for well planned and timely interventions, and to best utilise the skill mix within a practice.

COLLABORATIVE CARE MODELS

Collaborative care models are based on principles of chronic disease management. Focusing on mental health, Hickie and McGorry [83] argue there is now clear evidence that effective delivery of primary care depends on the model of care used. Multidisciplinary and integrated collaborative care has been found to be more effective than individualised medical care. The authors describe collaborative care as

"...a multifaceted intervention involving combinations of 3 distinct professionals working collaboratively within the primary care setting."

For the management of depression and anxiety in primary health care, a collaborative care model includes a planned and comprehensive approach based on chronic disease management principles, and greater involvement by non-medical specialists such as case managers, nurse practitioners, psychologists and other mental health professionals. The model also has some important organisational and professional elements. They include:

- Clinician education
- Dissemination and implementation of treatment or management guidelines
- Use of case screening procedures
- Reconfiguration or roles within primary care
- Earliest appropriate use of specialised psychological or psychiatric assessment or brief psychological interventions
- Case management, reminder systems and other active follow-up schemes (telephone or e-health-based) to enhance continuity of care and adherence to treatments
- Consultation-liaison or other methods of improving working relationships between primary and specialist/secondary services
- Formal integration of services, including collocation and common clinical governance schemes
- Support for patient education, self-monitoring and consumer based decision tools

Particularly strong evidence for the effectiveness of the collaborative model in the treatment of depression comes from Gilbody *et al.*,[84, 85] Hunkeler *et al.*,[86] and Meredith *et al.*[87] They conclude that tailored collaborative care actively engages patients in the treatment of depression, and delivers substantial and persistent benefits, including less depression, better physical health and an enhanced quality of life.

FEE-FOR-SERVICE: THE CONSEQUENCES FOR THE WORKFORCE AND CHRONIC DISEASE MANAGEMENT

Ed Lawler's [88] work features pay as an OD strategy which is why we discuss it here. Despite criticism, Australian general practice remains largely fee-for-service.[43, 83, 89] In the introduction we describe how recently introduced fees aim to enhance chronic disease management. The fees include payments to GPs for preparing GP management plans which involve care given by other health professionals. It is paradoxical that this review looks at workforce in a system which uses fee-for-service that raises activity and reduces workforce availability without any evidence of improved outcomes.[90-92]

Chronic disease management requires good teamwork. What is the impact of fee-for-service on teamwork? Incentives at the organisational (rather than the individual) level can be used to promote increased use of systems and processes of care required in chronic disease management. The Quality and Outcomes Framework in the UK is a striking example of payment for team performance.[93] (See Appendix 5) Fee-for-service is unsuitable for developing the team care required for disease management. It is also detrimental to effective use of the work force.[92]

Professor Nick Mays (Interview June 2007):

"My favourite quote is from Jamie Robinson, the Berkeley health economist who said, 'the three worst ways to pay doctors are salary, capitation and fee for service.' You need a payment system that maximises the benefits of these different forms of payments and minimises the downsides. I would have a variety of payments; capitation, fee-for-service, bonuses and infrastructure payments in my contract and I would play around with the relationship between them."

"You have got to decouple remuneration from the person providing the service (GP or practice nurse) so the payment has to go to the team and that implies a fairly substantial role for capitation so that you get that discussion in the group about who is best placed to do which parts of the work in chronic disease management."

In Australia, Hickie and McGorry [83] argue that within general practice, a more proactive and creative approach is required in order to develop new service structures that deliver collaborative care and that these service providers need to be supported by government to take on the change and not fall back into expensive, individualised fee-for-service medical care.

Direct financial incentives at the individual GP level are designed to promote specific behavioural changes in individual GP interactions with patients. These incentives may well encourage GPs to improve the quality of their care in the short run, but may not necessarily lead to improvements in the infrastructure and systems of care that are more likely to lead to sustained improvements in the long term. There is also a strong view in the literature that financial incentives alone cannot be an effective tool for quality enhancement. This rests on both a concern that financial incentives should not create a conflict of interest between revenue and the quality of care given to patients and on the importance of providing GPs with the means of delivering the improvements sought (e.g., through evidence-based guidelines, infrastructure support, and organisational change).

ORGANISATIONAL CHANGE THEORY AND THE USE OF INDICATORS IN GENERAL PRACTICE: THE EVOLUTION OF ACCREDITATION

The evidence suggesting that quality and safety problems are caused in part by system failures has led to an emerging focus on the organisational aspects that are necessary for improving the quality and safety of health care. Performance measurement to raise awareness of existing practice is an important driver of improvement. Indicators have been defined as measurement tools "used to monitor and evaluate the quality of important governance, management, clinical and support functions." Their use is increasingly viewed as an important element of quality improvement programs in the primary care systems of many countries. [2]

Four steps to improve organisational aspects are:

- definition of performance criteria
- development of indicators and methods of assessment
- practice visits to collect data against indicators
- feedback to the practice

Van den Hombergh[94, 95] was the first to develop a reliable, valid indicator set known as the 'visit in practice' method to assess practice organisation. It involves assessment using indicators covering premises and equipment, service and organisations, record-keeping, delegation and collaboration, and quality improvement activities. This work assumes that a general practice is a system consisting of a number of variables that can be measured by indicators.

APPROACHES TO QUALITY IMPROVEMENT OF ORGANISATIONS USING ASSESSMENT

Different approaches have been effective in recruiting practices and helping them to improve using standards as guidelines and certificates as rewards. There are a number of different assessments in use, but due to the lack of systematic review and appraisal, we do not know what the outcomes of assessment (accreditation) are. What is known is that it is unlikely that any one strategy for organisational assessment on its own is able to achieve sustained quality improvement and that multiple strategies are needed.[2] Accreditation or measurement against standards of specific indicators remains the predominant model for improving quality in the primary care system of many countries including Australia where 95% of general practices participate in formal accreditation. Unfortunately standards of clinical care are not assessed.

QUALITY IMPROVEMENT DRIVEN BY OD

Quality improvement driven by organisational development focuses on empowering and involving practice teams in problem solving. This approach is more construct than content driven, describing competence using non-specific terms such as "team working", "problem-solving" and "effective communication." In recent years, accreditation systems have included issues such as effective team working alongside more concrete issues. One problem is that the assessment of a construct is more difficult than assessment of a concrete issue. It has to be inferred rather than observed. In addition, many psychometric measures are not designed to be used in a summative way. Organisational development may be most helpful used in educational settings to aid practices going through a transition when effective team working is more important than ever. The price for relevance to a local setting can be the lack of an aggregate picture across a number of practices.

Improving quality in primary care demands a cultural shift from undertaking discrete projects towards an agreement to embrace continuous organisational learning.[41, 96, 97] The balance of activity between systems, organisational development and complexity will be determined by the power balance in the quality improvement agenda of the wider health system. The tensions between accreditation and improvement can be best understood from this perspective.

Essentially it means a shift of power: less "top down" and greater encouragement given to encouraging ownership of change at the "lower" individual, team and organisational level.[63, 98, 99] Many managers are unwilling to give up that power.

The prevalent model for quality improvement internationally seems to be systems theory. Systems can potentially create too much homogeneity reducing the potential for innovation to emerge. There is a balance to be struck between this approach and a more futures-focused approach anticipating and making sense of likely changes. This illustrates the need for educational and values driven approaches built around organisational development that improve individual and system performance.

ORGANISATIONAL ASSESSMENT IN GENERAL PRACTICE

Organisational assessment (accreditation) is an integral part of quality assurance and quality improvement activity in general practice, but it remains unclear whether the assessments designed to be used for externally led quality assurance can also be used for internally led quality improvement and visa versa. Change related to the systems and structures of health care may lead to improvements in patient care. Organisational assessment is becoming an accepted feature of life in general practice. Integrating infrastructure, human and financial resources, information technology, and quality improvement activity can enable a practice to target its resources to the needs of patients particularly with respect to preventative care and also to the needs of staff with respect to a satisfactory working environment.

Externally led quality assurance and internally led quality improvement are not distinct activities but can be viewed as two end points along a spectrum. The degree to which quality assurance and improvement activities are integrated within a country's health system is determined by many factors that operate differently in different contexts. Organisational assessment for the purpose of quality assurance lies at one end of the spectrum. It is reliant on external assessment based on evidence, and primary stakeholders are typically government and health insurance companies.

At the other end of the spectrum, organisational assessment is conducted for the purpose of practice driven quality improvement, the emphasis is on continual development, self-assessment, local identification of problems and their likely solutions. Organisational assessments are treated by a practice team as an opportunity to learn, which may result in matching skills and resources of team members with local initiatives or opportunities. The purpose is to foster collaboration and to motivate team members to try new ways of doing things. Improvement may not turn out as originally planned and there may be novel, unforeseen developments. The need for a structured approach to make changes is important, but both the planning and structure for achieving improvement is driven and owned by the practice.

A previous review of the literature suggests that the middle ground of the organisational assessment spectrum is occupied by professionally led assessment mechanisms in Australia (AGPAL and GPA), Canada, the Netherlands, New Zealand, and the UK. In these countries, accreditation mechanisms are used both to recognise past achievements and to catalyse future quality improvement.

Any one approach to improving the quality of health care on its own is unlikely to make a sustained impact. The concern is that external assessment stifles the potential for internally led quality improvement (see Appendix 5). On the other hand, an over reliance on internally led improvement does not enable practices to compare and learn from each other, nor does it reassure external stakeholders. Nowhere is this tension more apparent than in the middle ground occupied by professionally led accreditation schemes. One proposed solution is to keep quality assurance and quality improvement as separate activities within a co-ordinated systems-based framework. There is some evidence that professional bodies are addressing this point.[2] For instance the Quality Team Development award is designed to complement the quality practice award from the Royal College of General Practitioners in the UK, placing much more emphasis on stimulating local, continuous development, owned by the practice.[100]

FUTURE CHALLENGES FOR PRIMARY HEALTH CARE

The National Chronic Disease Strategy implies a shift towards a primary care led health system due to the pressures of both increasing health cost for chronic disease management and the wish to improve public health through preventative work. Delivering this shift demands effective integration of organisational resources such as human resources, multi-disciplinary team working and co-ordination of care, information technology, financial resources and information management with quality improvement activity.[101]

The increasing evidence for a relationship between organisation and care has led to a growing interest in how primary care is organised, and in the organisational assessment of primary care practices. Such assessments take place in the Europe, the Commonwealth countries and the UK, and are viewed as tools to help practices develop effective organisational systems to support health care delivery (see Appendix 6).[5, 30]

There is very little research that examines practice culture and the processes that encourage high performance.[102] A review of health care quality strategies in the US and UK,[101] stresses the importance of multilevel approaches to change through four core properties: leadership at all levels; pervasive culture that supports learning; emphasis on development of effective teams; and greater use of information technologies for continuous improvement and external accountability.

Although organisational assessment plays a key role in quality improvement, a systematic literature review of organisational assessments [103] found that though several instruments have been developed to improve practices, there is a need for tools that stimulate internal development. The researchers concluded that while professionally led accreditation was well-developed, approaches to internally led quality improvement are less well-developed. The use of the Learning Practice Inventory allows practices to gauge their capability and encourages them to work on internal development.[34, 75]

The assessments combine standard settings for organisations with practice visits as mechanisms to evaluate these practices against the standards. Increasingly, as in Australia, European practices engage in assessments for the purpose of accreditation, quality improvement, licensing or payments. There is much to be learned about the extent to which theories of organisational change can contribute to design and use of organisational assessment in general practice.

SUMMARY OF KEY FINDINGS

1. The evidence from the general economy for the usefulness of OD is strong, but there is not so much published evidence available for primary care. Interviewing key participants gave a high yield of information about the role of OD, including in primary care

2. Leadership, culture, climate and collaboration drive performance, which in turn influences leadership, culture and collaboration

3. OD can contribute to factors which lead to a culture of quality improvement and safety

4. OD can improve chronic disease management through better teamwork, collaboration, integration, development of networks and "virtual" clinics. Commonly this is done through training clinical leaders

5. OD on its own is not a "magic bullet". It requires a supportive system of remuneration which values teamwork. Fee-for-service operates negatively on teamwork and adversely affects the effectiveness of workforce

6. Practice assessment (accreditation) is a complementary approach to organisational development for quality improvement.

POLICY IMPLICATIONS

If the policy recommendations in this report were implemented, the press release from the Department might read:

More dollars for chronic diseases. Lives saved, gaps in the health system plugged![‡]

Chronic disease management done well undoubtedly saves lives and is economically worthwhile. The shortcomings of the present system are well-known and most of the solutions have been described.[43] They include effective financial incentives; evidence based clinical guidelines, an enhanced role for practice nurses and allied health professionals, good IT systems, adequate space in practice buildings, coordination, integration and teamwork. OD is not a magic solution for all these problems but it certainly can help.

There is strong evidence from the general economy for OD contributing towards organisational performance, and it is used extensively by others in health care, both overseas and in the Australian hospital sector. In Australia, we have not yet given much thought to OD for primary care. By improving the patient journey from general practice to hospital and back, from Commonwealth to State funded health services, in developing clinical pathways that deliver the best care, OD can make a significant contribution.

We have drawn the link between leadership, culture, climate and collaboration which drive performance.[34, 59, 104] The question is how to bring these improvements about. Our research points to two policy interventions which go hand-in-hand: courses in clinical leadership and team development. Both improve culture and collaboration.

Australia is one of the first countries to have accreditation, albeit voluntary. The inclusion of clinical outcomes and systems of care would contribute to better performance. The National Primary Care Collaboratives have delivered much improved performance in the management of two chronic conditions: coronary heart disease and diabetes.

Professor Martin Roland (Interview June 2007):

"If you're looking for an example (of OD), then the Collaboratives would be a good start. significant evidence of success with the people that take part."

Dr. Dale Ford, Clinical Director at the Improvement Foundation (Interview August 2007):

"Although the first-round of the Collaboratives led to great improvements in the management of two chronic diseases, we have learnt that concentrating on those who attend the workshops has limited effect if the remainder of the practice team isn't ready for change. I believe that a clinical leadership program and team development for the practices are our next important steps. Initially we would work with the willing from the first three waves of practices."

"Divisions of General Practice vary greatly in their ability to support practices with the changes that are necessary to improve management of chronic diseases. It is a matter of urgency that Divisions are able to get up to speed in how to support practices in achieving the necessary changes."

"Divisions need training in the principles and practicalities of quality improvement along with the team and leadership skills. It is my view that funding for Divisions needs to be tied to achievement of these outcomes."

[‡] We are grateful to Mr Robert Wells for this idea.

Professor Tricia Greenhalgh (Interview July 2007):

"For too long we thought that if we train all the individuals, the organisations will improve. We haven't worked enough at the organisational level. In order for something to happen differently in an organisation it has to be routinised. What is a routine? A routine is a repetitive sequence of interdependent actions involving multiple actors. A routine is what you need for chronic disease management. Routines are what are required for collaborative care."

LEADERSHIP

Leadership creates an environment in which people do their best work.[105-111] Part of that environment is collaboration; leadership means leading people.

Dr Kevin Woods, Director General, NHS Scotland (Interview April 2007):

"What you need is a clinical leadership program."

Zoe van Zwanenberg CEO Scottish Leadership Foundation (Interview July 2007):

"What convinces people like Kevin Woods about the value of clinical leadership courses is that without active engagement of clinicians and clinical leadership it won't happen (improved service for patients). Conversely he has seen huge quality improvement programs flounder because they were not led by clinicians."

Research has identified the pivotal role of leadership. In this context, it is the role of clinical leaders which determines the culture, climate, collaboration and performance in health care. In Australia, the concept is not new. The Building on Quality project offered a developmental opportunity for a number of leading Australian GPs who are still actively engaged in improving general practice.

For many years, based on the work of Dr Donald Berwick at the Institute for Health care Improvement in Boston, clinical leadership programs have been run by Dr Brent James for South Australia and Professor Ross Wilson at Royal North Shore Hospital in Sydney. In 2006 Queensland Health embarked on the largest exercise in OD ever seen in Australian health care: 600 senior leaders and 4500 middle managers have participated in a leadership course, 360 degree appraisal and coaching. Leadership training in the hospital sector is not new, but currently nothing similar is offered for leadership in Australian primary care.

In the UK, leadership programs have been offered for GPs since the mid-1990s. In England and Wales, the Improvement Foundation runs a Leadership for Quality Improvement course leading to a Masters degree from the University of Teesside. Currently the NHS Institute for Innovation offers a program for England and Wales.[112, 113] The main emphasis is on participation in Primary Care/Long-term Conditions Priority Program which is intersectoral and multidisciplinary giving its experience through involvement in sophisticated project management.

The Scottish Leadership Foundation characterises its courses as multidisciplinary, developing leadership not just leaders, and working on real problems in real time. Often the courses involve the whole team.[114]

Zoe van Zwanenberg, CEO Scottish Leadership Foundation (Interview June 2007):

"You can't just develop leaders in isolation. You need to look at leaders in the context of the health system that you want them to lead.

"You need a small, expert, central OD team so that it is a thinking and designing resource. The centre then works with people in the system, pulling in capacity that is relevant and local. This centre would work with each division to design interventions in the context of what is right for them and pull the resource in at that level.

"There are people already in the Australian system undertaking similar work already, but not yet in health care, who could setup this expert centre. There would be two processes of selection; choosing from the 140 divisions which ones to work with, and then the dozen or so leaders within the divisions selected. Depending on how you design the intervention, for each practice in the program there could be two or three others actively engaged. You're thinking from the very beginning about how you're going to spread the learning, and developing change in practice through activities such as learning sets."

PERFORMANCE

It is hard to measure the performance of Australian general practice in its current configuration, by contrast with the UK, where Quality and Outcomes Framework, a pay-for-performance contract was introduced in 2004. Practices are measured on their performance on 146 evidence-based measures with a proportion of their income related to their level of achievement. This new contract is not without disadvantages (see Appendix 5).

One area in which significant improvements have been seen is the National Primary Care Collaboratives (NPCC), within the topics of access, coronary heart disease, and diabetes. A systematic review of collaboratives has identified that the methodology is effective.[86, 87, 115-117] Further, it has identified those features which lead to success. The systematic review and the experience of the NPCC stresses the importance of defining roles, delegating tasks, and planning through good leadership, and building a strong team.

Another systematic review on getting evidence into practice identifies leaders to be important for this process. [118]

TEAM DEVELOPMENT

Practice development planning has been described elsewhere and further information is given in Appendix 3. Away-days for planning with external facilitation have been a common feature of practice development in UK.

Professor Huw Davies (Interview July 2007):

"All practices have a half day of protected time which they use for practice development. NHS Education Scotland is undertaking a project with volunteer practices where the whole team is involved."

In line with current OD thinking, there are a number of tools which a team can use for self-development. The outstanding program that we came across for developing primary care teams is the RCGP Quality Team Development (QTD) program which has been evaluated. Practices report positive changes in teamwork and patient services. They valued its formative, participative and multidisciplinary nature especially the peer-reviewed element. QTD appears to be effective in promoting national policies on clinical quality and modernisation as well as promoting inter-organisational collaboration. One outcome is that practices had, for the first time, put in place formal and systematic planning procedures.

Professor Tricia Greenhalgh (Interview July 2007):

I think the Royal College Quality Team Development program is the first choice for improvement in Australian general practice. It is a fantastic organisational development program both theoretically and practically.

We have previously mentioned three other self-development tools for primary health care teams already: the Learning Practice Inventory (LPI), the Manchester Patient Safety Framework (MaPSaF), and the Maturity Matrix Family Practice. All three are being used in the UK, and the last is being trialled in the US, Australia, and 20 European countries. A clinical leadership or team development intervention might use some or all of these tools.

ORGANISATIONAL DEVELOPMENT CAN CONTRIBUTE TO OPTIMISING THE WORKFORCE IN PRIMARY CARE

From what we have read and heard, OD could contribute answers for issues such as chronic disease management, workforce supply, and integration of care across organisational boundaries. In addition the role of primary care would emerge and evolve driven by the teams themselves inspired by good clinical leadership. Other sectors of the economy have faced similar problems and a key factor in the solution is leadership. The time is ripe to build on what has happened in other sectors. We need to identify our leaders in primary care.

OD will need a funding model that supports teamwork, not only within the practice but also including key professionals such as allied health, mental health, and specialist nurses. OD can create "virtual" health centres by building local clinical networks. Assembling the components of leadership, culture, and collaboration will deliver better performance. In turn performance will feedback to improve the leadership, culture and collaboration. In a short time, OD will have created a workplace that is attractive for health professionals seeking to do their best work.

POLICY OPTIONS

1. The establishment of a small, expert centre for clinical leadership

    a. To work with leading divisions and practices on real problems in real time

    b. To optimise the delivery of chronic disease management across organisational boundaries using the concept of the patient journey to construct evidence based clinical pathways

    c. To adapt the Quality Team Development program for Australia

    d. To monitor advances in OD aspects of primary care in other countries (the progress towards general practice learning organisations)

2. The continuation of National Primary Care Collaboratives

3. The continuation of practice accreditation with extension into a comprehensive approach to assessment including quality team development programs, clinical standards, and systems for chronic disease management

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APPENDICES

APPENDIX 1 - METHOD

According to Mays et al. (2005), policy makers are under increasing pressure to adopt a more systematic, evidence based approach in making decisions about policy and the organisation of services. As such, Cochrane-style reviews are not sufficient as the questions being addressed by decision makers are too complex. Access to syntheses of high-quality evidence that include both research and non-research sources, and both qualitative and quantitative resarch finding is seen as more beneficial in the decision making process.

Narrative synthesis is a relatively new approach. By adopting a systematic, transparent approach to the review and in attempting to use synthesis to generate new insight, it is a form of narrative synthesis rather than a narrative review. This review provides an account of how, why, and in what sequence, a field of research has unfolded, enabling the reader to see how explanations (theories) and empirical findings have intertwined and changes one another through time.

To synthesis this complex literature, we used meta-narrative mapping, a four-phase process developed by Trisha Greenhalgh and colleagues (2004)

PLANNING PHASE

In this first step we set up a multidisciplinary research team whose academic training and experience covered all the main areas of literature that would be relevant to our research question (see annex A)

In the early exploratory phases of this project we also conducted reference group meetings with Australian and international experts in Primary Health Care and also in change management (see Annex B)

Our initial reseach questions that we thought would be relevant to our topic were:

1. What is the evidence that organisational development is effective in optimising the primary care workforce?

2. What is the evidence that organisational development can support the achievement of policy priorities and performance in primary care?

3. How can organisational development be applied efficiently and cost effectively to primary care in Australia?

Revising and refining the research questions was an ongoing process through the first phases of the review. Our final research questions were reviewing the evidence that:

1. Organisational Development, Action Research , Organisational Learning, Learning Organisations and Project Management are effective and cost-effective approaches to organisational change in countries with health care systems that are comparable to Australia

2. If they are effective and cost-effective, whether they could contribute to the achievement of organisational priorities and the performance of general practice in Australia

SEARCHING PHASE

Searches were performed of the following databases (and/or websites): Business Source Premier (EBSCO); Centre for Reviews and Dissemination; CINAHL (Ovid), CINAHL PLUS (EBSCO); Cochrane database of systematic reviews; Controlled Trial Register; Database of Abstracts of Reviews; Econlit (EBSCO); Effective Practice and Organisation of Health Care; Healthsource; Healthline; Health Technology Assessment Database (HTA); MEDLINE (ISI, Ovid); National Research Register; NHS Economic Evaluation Database; National Primary Care Research and Development Centre (UK, Office of Health Economics (UK); PSYCHLIT; PUBMED; SocINDEX (EBSCO); and PsychINFO (CSA, Illumina, Ovid).

The search strategy was repeated for all the journals listed on, published, or aggregated by: Blackwell; Emerald Insight; Informaworld; Ingentaconnect and Science direct. This included the content of the following journals: Leadership and Organisation Development Journal; and the Journal of Organisational Change Management.

Due to access restrictions it was not possible to search the following databases: Bids Embase; British Nursing Index; Health Management and Policy Database (HMIC); and SIGLE (System for grey literature in Europe). A keyword and title search for grey literature was instead conducted through Google (http://www.google.com) and private industry sites (Hay Group). See table 1 for search terms and yield.

From the initial 245149 papers only 610 were found to be relevant. A team of three investigators initially selected 103 abstracts for closer examination. Papers which could be identified as irrelevant by the abstract alone were rejected. All papers in other languages than English were also rejected. Two members of the team who were independently selecting papers for further reading, agreed in 97% of the cases (Kappa= 0.94).

When reading the selected articles, a data extraction form adapted from Greenhalgh et al. (2004), was used for critical evaluation (see appendix 1, annex 5). Theoretical papers and reviews were included if they made an original and scholarly contribution to research into the effectiveness of organisational change in the general practice workforce. Primary research papers were included if they met three criteria: Relevance – paper was about or had relevance to the effectiveness of organisational change in the general practice workforce; Depth – paper went beyond superficial description or commentary; and Utility – paper offered added value to our policy recommendations.

Table 4: Search terms and yields per database

Search Terms	Medline	Cinahl	PsychInfo	Other
Domains				
Organi?ational change	474	1780	5239	
Organisational change (UK)	108	92		1271
Organisational change (US)	620	3051		32878
Management of change	63	351	106	
Change management	188	1697	342	
Approach/Enablers				
Action research	841	1551	1870	8542

Project management	318	140		23168
Organisational effectiveness (UK)	185	5		132
Organisational effectiveness (US)	142	86		10562
-Business Process Reengineering	11	2	30	
BPR	52	9	50	
"BPR"	53	4	20	
-Force field analysis	13	19	30	
-Learning organi?ation	57	64	269	
-Management by objectives	20	9	100	
-Organi?ational development	136	1420	3054	
Organisational development (UK)	51	23		379
Organisational development (US)	207	951		4107
Organi?ational learning	91	224	1351	
-Peters and Waterman	5	2	9	

Excellence	2083	1392	2092	
Project management	-137	90	184	
-Quality circles	332	39	126	
Self-managed teams	5	5	36	
-Six-Box model (Weisbord)	1	1	3	
-Soft Systems Methodology	14	17	16	
-SWOT	36	27	35	
-Systems thinking	75	70	281	
-Total Quality Management	4346	176	308	

TQM	232	119	180	
Continuous Quality Improvement	990	481	141	
CQI	386	177	48	
Four Circle Model	0	0	0	
Leadership	8362	5124	17901	
Health leadership	49	926	24	
Nursing leadership	231	1567	50	
Emotional Intelligence	192	100	1195	
Organisational culture	4107	2536	1520	
Total	22857			
Setting (I)				
Primary health care	17669	7498	6270	
General Practice	11346	1745	2342	
Family practice	19106	3107	1127	
Health Management	538	6147	179	
Health care	23912	15126	4684	
Community health	16778	15723	1751	
Family physician	1479	1199	476	
Health administration	4129	3341	290	
Setting (II)				
Micro systems	7	2	7	
Total	**118546**	**72867**	**53736**	**81039**
Papers found to be relevant	**133**	**546**	**79**	

Further electronic searches on key authors and key words were undertaken. We also used snowballing techniques to identify additional literature. Finally, our key informants were a rich source of relevant literature.

MAPPING PHASE

The goal of this mapping phase was to gain an overall picture of how organisational development influenced outcomes in Primary Care. This was done by identifying:

- The key elements of the research paradigm (consensual, theoretical, methodological, and instrumental)
- the prevailing language, inventory, metaphors and other literary devices used by scientists to 'tell the story' of their work

APPRAISAL PHASE

Using appropriate critical appraisal techniques:

- Evaluate each primary study for its validity and relevance to the review question
- extract and collate the key results, grouping comparable studies together

For our final search result and papers included in the report see Table 5

Table 5: Main sources and yield of papers for the report

Search method	Empirical research studies (n=67)	Theoretical or "overview" (n=43)	Systematic or quasi-systematic reviews (n=14)	Total (n=124)
Protocol driven:				
Electronic database search	11	8	2	**21**
Reference scanning/citation tracking	15	16	8	**39**
Personal knowledge:				
Sources known to research team	29	8	3	**40**
Key Informants	6	11	1	**18**
Total in final report	**61**	**43**	**14**	**118**

SYNTHESIS PHASE

The goal of this phase was to draw together, contextualise and interpret the findings from the separate research traditions with a view to building a rich picture of the field of enquiry. We sought to describe and compare rather than attempt to draw together within a single conceptual framework. The synthesis phase was characterised by four key questions:

1. What is the range of research questions that different groups of scientists have asked about effectiveness of organisational change in the health care sector? Can these questions be meaningfully grouped and classified across studies?

2. What are the commonalities of research findings across studies, and to what extent can discrepancies be explained?

3. What are the overall key findings and implications for practice and policy?

4. What are the main gaps in the evidence on this topic and where should further primary research be directed?

RECOMMENDATION PHASE

Through reflection, a multidisciplinary dialogue and consultation with the intended user of the review:

- Consider the key overall messages from the research literature along with other relevant evidence (budget, policy-making priorities, competing or aligning initiatives)

- Distil and discuss recommendations for practice, policy and further research

Descriptive grading system strength of evidence:

- **Strong direct evidence -** consistent findings in two or more and chemicals studies of appropriate design and high scientific quality undertaken in health service organisations

- **Strong indirect evidence -** consistent findings in two or more empirical studies of appropriate design and high scientific quality but not from health service organisations

- **Moderate direct evidence -** consistent findings in two or more empirical studies of less appropriate design and/or of acceptable scientific quality undertaken in health service organisations

- **Moderate indirect evidence -** consistent findings in two or more empirical studies of less appropriate design and slash more of acceptable scientific quality but not from health service organisations

- **Limited evidence -** only one study of appropriate design and acceptable available, or inconsistent findings in several studies

- **No evidence -** no relevant study of acceptable scientific quality available

(developed by modifying the WHO HEN criteria of public health research cited in Øvrevik (2003))

JUSTIFICATION OF METHOD

The technique of meta-narrative mapping builds on the work of Thomas Kuhn, science philosopher. His theory about scientific progression (Kuhn, 1962) was based on three core concepts:

1. 'Normal science' -the idea that generally, science is carried out following set rules and standards which are considered self-evident by those working in a particular scientific tradition, but are not universally accepted

2. Paradigms, which Kuhn defines as ' models from which spring particular coherent traditions of scientific research', with the four key dimensions -conceptual (what are considered the important objects of study and, hence, what counts as a legitimate problem to be solved by science), theoretical (how the object of study are considered to relate to one another and to the world), methodological (the accepted ways in which problems might be investigated), and instrumental (the accepted tools and instruments to be used by scientists)

3. The notion of scientific revolution, which occurs when a critical mass of scientists adopts a new paradigm, and old theories and models are accordingly dismissed as ' unscientific'

Kuhn's most radical and enduring proposition is the notion that scientific paradigm is a necessary (though arbitrary) meaning system without which scientific endeavours cannot be focused. He emphasises that the progress of any scientific paradigms in any field follows a very predictable pattern – from pre-paradigmatic (exploratory) through paradigmatic (rule following, puzzle solving and incremental theory building -the phase in which most conventional scientific careers are built) to post-paradigmatic (emerging unease with prevailing concept, explanatory models, methods or instruments).

The term 'meta-narrative' was introduced by Jean-Francois Lyotard to indicate the grand cosmological and ideological lens through which a group of people views the world. Lyotard's meta-narratives included Judao-Christianity, Marxism, feminism, modernist-rationalist science and psychoanalysis (Lyotard, 1984). The term is used here is a more prosaic sense to depict the overarching storyline of a research tradition: where did it come from and why; what is its core business: and where is it headed?

Table 6: Synthesis methods for different types of research question

Research question type	Preferred research design	Preferred synthesis method
Does intervention X produce predefined outcome Y (and how large is the effect)?	Randomised controlled trial (RCT)	'Cochrane'-style systematic review of RCTs with meta-analysis if appropriate (Clarke and Oxman, 2003)
Do Attributes A, B, C etc. account for event D?	Prospective or concurrent attributive study	Correlational meta-analysis (see for example, Tornatsky and Klein (1982))
What are the beliefs, perceptions, experiences etc. of group G?	Qualitative method (semi-structured interview, focus group, observation, etc.)	Several potential methods including grounded theory (Kearney, 2001), meta-ethnography (Campbell et al., 2003), meta-synthesis (Jensen and Allen, 1996), and meta-study (Paterson et al., 2003)
What is the nature of process P and is it transferable to context Q?	In-depth case-study, usually with mixed methods (Gomm et al., 2000; Yin, 1994)	Realist synthesis (Pawson, 2002)
What research has been done into complex field F?	Wide range of different designs	Combined qualitative and quantitative synthesis methods (for example using qualitative methods to develop prior probabilities for Bayesian studies) (Dixon-Woods et al., 2005) Or Narrative summery incorporating meta-narrative mapping of key research traditions (as illustrated Greenhalgh et al. 2004) (Dixon-Woods et al., 2005)

Source: Greenhalgh et al. *How to spread good ideas: A systematic review of the literature on diffusion, dissemination and sustainability of innovations in health service delivery and organisation,* 2004, p. 69.

ANNEX A – RESEARCH TEAM

Prof James Dunbar

- Expertise in systematic reviews
- Knowledge of Organisational Development in Primary Health Care
- Experience in health care policy
- Experience in introducing evidence into Primary Health Care practice

Prof Prasuna Reddy

- Expertise in systematic reviews
- Expertise in organisational psychology
- Group facilitation

Prof Brian McAvoy

- Expertise in systematic reviews
- Knowledge of General Practice in Australia, NZ, UK and Canada
- Knowledge of OD in primary care

Prof Rob Carter

- Expertise in health economics
- Expertise in health policy development

Dr Adrian Schoo

- Expertise in systematic reviews
- Experience in workforce development, allied health in Primary Health Care and introducing skills mix

Mr Stephen Colgan

- Experience in economic appraisal
- Experience in systematic reviews

Prof David Weller

- Expertise in systematic reviews
- Knowledge of Organisational Development in Primary Health Care
- Experience in Primary Health Care workforce development
- International perspective on Primary Health Care

Ms Ida Torneus

- Experience in literature reviews
- Experience in mental health research

ANNEX B – AUSTRALIAN REFERENCE GROUP

Reference Group meetings were held early on in the project (22nd of February 2007), midway through (17th of May 2007) and at the end (30th of August 2007).

Dr Donald Coid

Executive Director of Medical Services – Wide Bay Health Service District,

Queensland Health,

Bundaberg

Mr Nicholas Jackson

Director – The Hay Group

1 Spring Street, Melbourne,

Mr Geoff Lavender

Director Rural and Regional Health Services – Department of Human Services, Victoria

Lonsdale Street, Melbourne

Dr Pauline Lee

Business Manager, Executive Operations, Commercial Division,

Department of Treasury and Finance, Victoria

Melbourne

Dr Sue Morey

Director – Morey Australia

Sydney

Mr Bill Newton

CEO – General Practice Divisions Victoria

Swanston Street, Melbourne

Dr Paul Power

Director – The Hay Group

1 Spring Street, Melbourne

Mr Robert Wells

Director – Menzies Centre for Health Policy

Executive Director College of Medicine and Health Sciences,

Australian National University,

Canberra

Ms Cathy Nall

Director of Physiotherapy – Austin Hospital

Associate Clinical Dean Physiotherapy, University of Melbourne,

Melbourne

Prof Stephen Duckett

Executive Director – Reform and Development Division,

Queensland Health,

Brisbane

Mr Richard Eccles

First Assistant Secretary – Primary Care Branch,

Department of Health and Ageing,

Canberra

ANNEX C – INTERNATIONAL REFERENCE GROUP

A teleconference was held with the international reference group in the planning phase of the project (16th of February), and the group was contacted again individually in the beginning of September 2007, for feedback on the final report draft.

Dr Wienke Boerma

Senior researcher and consultant – Netherlands Institute for Health Services Research,

Utrecht, the Netherlands

Dr Kim Sutherland

Senior Research Associate - Judge Institute of Management, University of Cambridge,

Cambridge, United Kingdom

Prof David Weller,

Head of School of Clinical Sciences and Community Health,

Professor of General Practice, University of Edinburgh,

Edinburgh, United Kingdom

Prof Huw Davies

Professor of Health Care Policy and Management,

Director – Centre for Public Policy and Management, University of St Andrews,

St Andrews, United Kingdom

Prof Brian McAvoy

Specialist medical officer, Auckland Community Alcohol and Drug Service

Professor of General Practice, Waitemata District Health Board,

Auckland, New Zealand

ANNEX D – INTERNATIONAL INTERVIEWEES

Face-to-face interviews were conducted with 25 experts in The United Kingdom, New Zealand, Canada and the Netherlands. The interviews were audiotaped with the interviewees' permission, and transcribed for further analyses.

United Kingdom

National Primary Care Research and Development Centre – 19th of June 2007

- Prof Martin Roland – Director, Professor of General Practice
- Prof Steve Harrison, Professor of Social Policy
- Prof Bonnie Sibbald, - Deputy Director, Professor of Health Services Research

Cardiff University – 20th of June 2007

- Prof Glyn Elywn, Professor of Primary Care Medicine
- Ms Laura Tapp, Research officer

NHS Institute for Innovation and Improvement – 21st of June 2007

- Mr Gary Lucking

London School of Hygiene and Tropical Medicine – 22nd of June 2007

- Prof Nick Black, Professor of Health Services research
- Prof Nick Mays, Professor of Health Policy

Scottish Leadership Foundation – 3rd of July 2007

- Ms Zoe van Zwanenberg, CEO

Scottish Executive -

- Dr Nadine Harrison, Medical Advisor
- Martin Moffat, Head of head of primary care development and performance management branch

University of St Andrews – 5th of July 2007

Centre for Public Policy and Management

- Prof Huw Davies -Director, Professor of Health Care Policy and Management
- Dr Rosemary Rushmer, Lecturer in organisational development

New Zealand

Drug and Alcohol Practitioners'' Association Aotearoa – 31st of May 2007

- Ian McEwan, Senior Project Manager, Matua Raki

Victoria University of Wellington

- Dr Jackie Cumming, Director - Health Services

New Zealand Ministry of Health – 31st of May 2007

- Dr Jim Primrose , Chief Advisor General Practice, Clinical Services Directorate
- Dr John Marwick, Head of Workforce team

Mauri Ora Associates – 31st of May 2007

- Peter Jansen, Director

Waitemata District Health Board – 1st of June 2007

- Dr John Wellingham, Primary Health Advisor/Clinical Director – Funding and Integration
- University of Auckland – 1st of June 2007
- A/Prof Margaret Horsburgh, Nursing – Faculty of Medical and Health Sciences, University of Auckland
- Nadia Brook, on secondment from a PHO to the Ministry of Health to work on PHC workforce issues/strategy

Quality Assurance and Continuing Medical Education

- Jocelyn Tracy, QA and CME Consultant

Canada

Ottawa Health Research Institute – 8th of June 2007

- Prof Jeremy Grimshaw, Director – Clinical Epidemiology Program; Director – Centre for Best Practice,
Institute of Population Health - University of Ottowa; Director – Canadian Cochrane Network and Centre; Canada Research Chair in Health Knowledge Transfer and Uptake

Canadian Medical Association – 8th of June 2007

- Prof Sam Shortt, Director – Office for Public Health

The Netherlands

Netherlands Institute for Health Services Research – 20th of June 2007

- Prof Peter Groenewegen, Director

- Dr Wienke Boerma, Senior researcher and consultant

- Dr Chantal Leemrijse, Senior researcher National Information Service for Allied Health Care

ANNEX E – DATA EXTRACTION FORM

Author/Title of Paper			
Name of Reviewer			
A [First Sift] Is the paper relevant to our research question and worthy of further consideration?			
1. **Relevance** Is the paper about contributions of approaches to organisational change in the primary health care system?			
2. **Worth** Does the paper go beyond superficial description or commentary – i.e. is it a broadly competent attempt at research enquiry, investigation or study? [If a confident 'no' to either of these, reject now]			
B How does the paper fit into our taxonomy?			
Paradigm What is the predominant theoretical 'lens' used? [If more than one, put double circle round the dominant one]	1. Behavioural Theory	2. Management Theory	3. Other
	NOTES		
Type of Paper What is the research design or review style [classify as the MAIN pitch of the paper]	1. Theory of conceptual framework	2. Editorial review, commentary or opinion	3. Systematic Review	4. RCT
	5. Non RCT experimental or quasi-experimental study	6. Questionnaire Survey	7 Qualitative interview study (inc. focus group)	8 Ethnographic study ('anthropological' case study)
	9 Mixed methodology case study	10 Action research	11 Tool/ checklist/ model	
	12 Guideline/ protocol	13 Comparative case study	14 Network analysis	15 Attribution study
2. Unit of Analysis	1. Primary Care	2. Secondary Care	3. Health Sector Other	4. Non Health Sector
	NOTES		
3. Approach to/techniques of organisational change			
4. Target of Change Who were the participants in the study?			
5. Outcome Measures How was the change outcomes measured?			
C Bottom line for this review			

Relevance Does this paper have an important message for our research question? [circle one]	1 Essential to include	2 Relevant but not essential	3 Marginal relevance
Method Does the paper fulfil the established quality for papers in this domain? [circle one]	1 Outstanding	2 Some limitations	3 Many important limitations

D Appraisal questions for primary studies e.g. Oakley (2000): 'The distinguishing mark of good research is the awareness and acknowledgement of error and [hence] the necessity of establishing procedures which will minimise the effect such errors have on what counts as knowledge.'	
1 Question Did the paper address a clear research question and if so, what was it?	
2 Design What was the study design and was this appropriate to the question?	
3 Policy link	
4 Country of origin Where was study conducted?	
5 Context What was the context of the study? Was this sufficiently well described that the findings can be related to other settings? [NB Transferability of case study findings to different settings is best judged via a detailed analysis of the 'rich picture' of the case itself]	
6 Sampling Did the researchers include sufficient cases/settings/observations? [could conceptual rather than statistical generalisations be made?]	
7 Textbox examples	
8 Barriers/ Enablers	
9 Relevant for which section of our Report	
10 Cited by how many	

Adapted from Greenhalgh et al. 2004

APPENDIX 2 – CLINICAL LEADERSHIP COURSES AND EVENTS

There is a need to make a distinction between the development of leaders in primary health care and the development of leadership [119, 120], although the two can be related. Leader development is aimed at the actual leaders whilst leadership development is aimed at the practitioners at the coal face. Developing leaders requires the provision of opportunities for them to develop, giving them the eagerness and needed skills to develop, and providing an environment that makes it possible for change to take place.[121] The training may include management styles, how to motivate people and how to effectively run meetings, and may involve personal mentoring and or coaching. Developing leadership training may include time management, interpersonal relationships and communication styles. Practitioners who attend a leadership training may move on and become leaders. They may want to understand the social influence process, team dynamics between leader and team, and factors that influence team building (e.g., organisational climate and social networks within the organisation).

Clinical leadership has been shown to be an import factor in promoting a quality culture in the health system [122-126] The focus on quality management is placing demands on professionals and requires them to draw more and more on their organisational and leadership skills to function effectively. These skills can be acquired through adequate training.

Developing, implementing and evaluating a clinical leadership program needs to take into account factors such as culture dimensions, team climate, organisation culture and policy, conflicting program goals and previous experiences with leadership programs.[127] Often the courses involve the whole team, have a multidisciplinary focus and attempt to develop leadership, not just leaders. Face-to-face training sessions and working on real problems are generally key elements of leadership courses together with an optional evaluation of behaviour over time as offered by the following programs.

Leaders require an understanding of what drives change. Also, they need to be able to use their skills to attain improved outcomes in health care. Therefore leaders need to be aware of different styles of leadership that can be used for specific situations. Also, they need to be able to create a vision, get support for their ideas, develop a plan and implement it with tangible results. This involves the development of teams within and across disciplines and or organisations, and providing direction.

INSTITUTE FOR HEALTH CARE IMPROVEMENT – US

IHI FELLOWSHIP PROGRAMS

The goals of these programs are to develop health care leaders with the drive, skills, and experience to spread improvement in the United States and globally, and to build organisational capability to reach dramatically higher levels of performance. Fellows spend one year on site at IHI in Cambridge, Massachusetts. Each Fellow has a structured individualised learning and work plan, including intensive training in improvement skills, weekly seminars, and attendance at IHI events, assignments in IHI innovation and improvement collaborative projects, and individually tailored projects under the direction of an IHI mentor.

Link:

http://www.ihi.org/IHI/Programs/ProfessionalDevelopment/FellowshipPrograms.htm

GEORGE W. MERCK FELLOWSHIP PROGRAM

America needs trained leaders with the enthusiasm, knowledge, tools, and skills to accelerate advances in the quality and value of health care. This program offers a one-year, on-site, full-time fellowship program to address this urgent need. The aims of this program are to build a cadre of leaders with the drive, experience, and skills to promote the spread of improvement nationally; and build organisational capability to drive quality improvement to dramatically higher levels of performance. Link:

http://www.ihi.org/NR/rdonlyres/09F5E905-620B-48AA-9B61-3F68D2592DFA/0/Merck_IHIFellowship_Description_080607.pdf

THE COMMONWEALTH FUND'S HARKNESS FELLOWSHIPS IN HEALTH CARE POLICY

Fellows work with leading U.S. experts to conduct a research study that addresses a critical issue on the health policy agenda in both the U.S. and their home country. A rich program of seminars organised by the Fund throughout the year further enhances the fellowship experience. Fellows can expect to gain an in-depth understanding of the U.S. health care system and policy challenges, enhance their methodological skills, and develop valuable contacts and opportunities for ongoing cross-national exchange and collaboration. Harkness Fellows become part of a strong international network of health policy researchers and practitioners, developing important contacts for ongoing international exchange and collaboration. Link:

http://www.commonwealthfund.org/fellowships/fellowships_list.htm?attrib_id=9157

EXECUTIVE QUALITY ACADEMY – LEADERSHIP FOR WHOLE SYSTEM IMPROVEMENT

This is an intensive learning and action planning attended by up to four members of the senior executive team, including the CEO. We also encourage the attendance of one or more key board members. The principal output of this three-day program will be a detailed plan for each organisation to achieve one or more "how good, by when" system-level quality aims, integrated into the strategic plan of that organisation. The framing of each plan will be around the following Seven Leadership Leverage Points for Organisation-Level Improvement in Health Care:

- Establish and Oversee System-Level Aims for Improvement at the Highest Board and Leadership Level
- Align System Measures, Strategy, and Projects in a Leadership Learning System
- Channel Leadership Attention to System-Level Improvement
- Get the Right Team on the Bus
- Make the CFO a Quality Champion
- Engage Physicians
- Build Improvement Capability

Link:
http://www.ihi.org/IHI/Programs/ProfessionalDevelopment/ExecutiveQualityAcademySeptember2007.htm?TabId=1

INTERMOUNTAIN CLINICAL LEADERS – US

The program is under the direction of Brent James, M.D., M.Stat. He is a national leader in applying quality management principles to reduce costs by improving health care delivery. The actual course is designed as an introduction to the core principles of clinical quality improvement. Intermountain Health care's strategies for addressing the current health care delivery environment and opportunities for clinician participation in the development of these strategies are discussed. The course has been constructed to help build a common framework for coordinated clinical practice improvement within the Intermountain system. The content is focused on discussion about core principles of clinical quality improvement and tools physicians can use to improve patient outcomes. It also addresses the developing managed care marketplace and explores how quality improvement methods can build a foundation for integrated clinical research and ongoing professional learning. Objectives of the course:

1. Discuss the core principles of clinical quality improvement based on clinical studies conducted within Intermountain Health care

2. Share tools that clinicians can use to improve patient outcomes

3. Describe Intermountain's strategies for addressing the developing managed care, provider-at-financial-risk, competitive health care delivery environment

4. Provide an opportunity for clinicians to participate in the formulation and implementation of Intermountain's clinical strategies

5. Develop team/group skills (clinical management methods) to help clinicians play a more direct and effective role in the development and implementation of Intermountain's clinical systems

6. Explore how quality improvement methods can build a foundation for integrated clinical research and ongoing professional learning

Goals:

- To provide current and continually updated information to clinicians for the purpose of maintaining and expanding their cognitive and technical skills

- To improve the quality and efficiency of patient care

- To provide cost effective practice patterns with the appropriate utilisation of facilities and resources

- To provide a framework for appropriate ethical and moral medical decision-making

Link:

http://intermountainhealth care.org/xp/public/institute/courses/

DALHOUSIE UNIVERSITY – CANADA

MANAGEMENT PROGRAMS FOR CLINICAL LEADERS

The MPCL is a dynamic, practical program designed for physician leaders in health care organisations, and for physicians facing the challenges of health care reform. During two stimulating sessions, led by experts in the fields of health care and management, you will have an opportunity to test a variety of assumptions and models. The atmosphere is creative, collegial, supportive, and intellectually challenging. The program will leave you with new ideas, knowledge and competencies to assist you in meeting the challenges of our rapidly changing health care system. If you are a physician currently in a leadership position, or one who wishes to know more about management of health care, you should consider registering for this program. Link:

http://cme.medicine.dal.ca/mpcl.htm

Table 7: Competency	% before	% after
Facilitating local improvement	57	91
Confidence in leading improvement	52	89
Creating a vision for their organisation	46	88
Confidence in being able to develop their team	42	81

IMPROVEMENT FOUNDATION – UK

QUALITY IMPROVEMENT SKILLS TRAINING

This locally provided and adaptable university-accredited course is designed to help small multidisciplinary teams (micro teams) improve what they do. It introduces participants to a range of improvement tools and when best to use them. Previous participants have gone on to make huge improvements in many areas, including disease management, access to services and waiting times. In a survey, 86% said the course helped them develop a 'can do' approach to change. Link:

http://www.improvementfoundation.org/documents/quisp_leaflet_v207.pdf

LEADERSHIP FOR QUALITY IMPROVEMENT

Accredited through the University of Teesside, this course is designed to develop leadership skills and confidence. Aimed specifically at frontline staff, it builds confidence in individuals at various levels in an organisation to lead improvement. It also develops participants' management skills. This course gives 60 credits towards a Masters degree. Link:

http://www.improvementfoundation.org/View.aspx?page=/topics/quality_improvement_training/lquip/default.html

Participants have undertaken activities that lead to quality improvement in their area of work, and have reported positive individual and organisational effects. They also reported improved skills and leadership behaviour after completion of the course (see Table 7)

SCOTTISH LEADERSHIP FOUNDATION – UK

CHANGE THROUGH PEOPLE

The emphasis in the program is on strategies and practical approaches to achieving change, with specific attention to the individual leadership role. A major value of the program is the opportunity to apply and rehearse approaches with public service peers. Participants come from across the public service, and the program is designed for people who have significant responsibility for the development and implementation of policy and/or public service delivery within and across organisations

Participants will:

- Significantly improve your understanding of how to achieve the change successful
- Share experience with others in your peer group facing equally significant challenges
- Work with experts in the field of change
- Improve your confidence and capacity to deliver successful change
- Identify and explore practical ways forward dealing with change

Link:
http://www.slfscotland.com/ChangeThroughPeople/Change%20Through%20People%20MAIN.htm

EXECUTIVE CLINICAL LEADERSHIP PROGRAM

The Medical Directors, in partnership with their clinical colleagues, have identified the need to provide structured development for existing Medical and Nursing Directors, Directors of Public Health and Directors of Managed Clinical Networks.

- All development activity should be undertaken on a multi-professional basis

- The development program should have a practical focus and should bring about real change for the individual and the organisation

- The development program should enable primary, secondary, tertiary and public health professionals to work together

- The program should combine formal learning with action learning, and should lead to some form of cascade model such as a collaborative

- The program should actively support other development work such as 'Talking Matters' and the CARE measures, the priorities of the health plan for Scotland

- The program should help clinicians focus on the unique role of clinical leadership and its relationship to general management and managerial leadership

- The pilot program should establish a methodology for development of clinical, medical and nursing directors that is sustainable and brings demonstrable benefit to both individuals and their organisations

Link: http://www.slfscotland.com/ClinicalDirectors/Introduction.htm

COLLABORATIVE LEADERSHIP

Collaborative Leadership aims to enable future leaders in Scotland's public services - in the public, private and voluntary sectors - to work more effectively in complex partnership groups, such as in community planning, urban regeneration and child protection. The diploma program is specific to Scotland. It combines robust academic work with strong experiential learning that will build on the personal experiences and knowledge of the cohort, and enable them to learn from one another.
Collaborative Leadership uses live case studies in Scotland to enable the cohort to build their own partnership working while learning with active partnerships.

Link: http://www.slfscotland.com/CollaborativeLeadership/Download%20Page.htm

MASTERING SUSTAINABLE CHANGE, LEADERSHIP AND STRATEGIC HRM

A new masters degree by research and teaching for advanced practitioners in Leading Sustainable Change is to be launched in October, 2006 by the University of Glasgow's School of Business and Management with the support of the Scottish Leadership Foundation. This innovative, part-time masters degree is unique in Scotland in offering the prospect for participants to link formal learning in organisational development, leading change and strategic HRM to their organisation or organisational network's strategic problems, while being helped by leading academics and expert practitioners in change management, leadership and HR currently working in the private and public sectors of the Scottish economy.

Link: http://www.gla.ac.uk/schools/business/

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APPENDIX 3 – TEAM DEVELOPMENT COURSES

Teams can use various tools for self-development. The RCGP Quality Team Development Program is an outstanding program for developing primary care teams and has been thoroughly evaluated. Practice outcomes include positive changes in teamwork and patient services. Participants valued its formative, participative and multidisciplinary nature, especially the peer-reviewed element. QTD appears to be effective in promoting national policies on clinical quality and modernisation as well as promoting inter-organisational collaboration. An important outcome is that practices had introduced formal and systematic planning procedures for the first time.

Other self-development tools for primary health care teams are the Learning Practice Inventory (LPI), the Manchester Patient Safety Framework (MaPSaF) and the MaturityMatrix Family Practice. Whilst all three are being used in the UK, the latter one is currently trialled in the US, Australia and 20 European countries.

ROYAL COLLEGE OF GENERAL PRACTITIONERS – UK

QUALITY TEAM DEVELOPMENT (QTD)

The QTD program is a team appraisal with a comprehensive evaluation of clinical governance processes in a practice. It is designed to support general practices in improving the quality of their services, regardless of their existing level of quality. Traditionally QTD has been run locally by Primary Care Organisations (PCOs), but QTD is now available to all practices, regardless of whether their PCO is registered, in the form of QTD. QTD functions by:

- Engaging all members of the practice team in clinical governance

- Identifying those things the practice does well and prioritise areas for improvement

- Supporting practice teams in finding solutions and improving the quality of their service

- Providing a firm basis for practice development planning

- Supporting achievement of the Quality and Outcome Framework

- Providing a framework for reviewing practice roles and structures

- Improving team morale

- Acting as a catalyst for change

Link: http://www.rcgp.org.uk/default.aspx?page=371

For characteristics of RCGP Quality Team Development Program compared with other quality initiatives in Primary care, see table 9 (p. 84).

Box 1 Examples of Changes in clinical services cited by GP practice respondents
Changes directly attributed to QTD Introduction of new-patient checks by nursing auxiliaries Introduction of nurse-led triage at reception Development of dermatology services within the practice Improvements in the over 75s health checks Introduction of clinic and support services for carers Development of services and support for bereaved relatives
Changes that were supported by the QTD process Introduction of a comprehensive set of chronic disease protocols to meet the requirements of the NSF Introduction of a practice based phlebotomy service Introduction of new clinics and services for chronically obese patients Review of prescribing activity – particularly the use of ACE inhibitors Introduction of a teenagers' sexual health clinic
Changes that would have happened anyway Improved patient access Introduction of a comprehensive set of audits Introduction of new protocols for diabetes and wound management Improved data entry on practice computers leading to better diagnosis

Source: Macfarlane and Greenhalgh. The RCGP team development program: A qualitative evaluation. (Unpublished), p15.

IMPROVEMENT FOUNDATION – UK

PRIMARY CARE TEAM (PCT) DEVELOPMENT

Following the Fitness for Purpose commissioning diagnostic exercise, PCTs have identified development plans to help them deliver effective strategic planning, care pathway management and provider management. The Improvement Foundation can help individual PCTs by providing support with a range of issues. Link:

http://www.improvementfoundation.org/View.aspx?page=/topics/health/practice/resources/resources.html

SUPPORTING PCTS IN PRACTICE BASED COMMISSIONING

The Improvement Foundation run a program to support PCTs and practices with the roll out of practice based commissioning. The program aims to support engagement with local clinicians in the re-design of services, re-design of commissioning systems to support improved service delivery, faster universal roll out of practice based commissioning, and development of PCTs and practices to deliver practice based commissioning. Link:
http://www.improvementfoundation.org/View.aspx?page=/topics/health/practice/moreinfo.html

APPENDIX 4 – EFFECTIVENESS OF OD IN THE GENERAL ECONOMY

Robertson and Senviratne (1995) undertook a meta-analysis of evaluations of organisational developments projects to determine whether there was any evidence that, as suggested in the literature, OD interventions may be less effective in public organisations than in the private sector. The view that OD may not work in public sector organisations is based on considerations such as: i) a lack of stimulus provided by market incentives; ii) multiple and conflicting organisational goals; iii) accountability to a broad range of groups; iv) political considerations; and v) additional rules, regulations and constraints that do not apply to private organisations. Furthermore, in private organisations the goal of OD interventions are relatively narrow and driven by market or consumer preferences and so relatively easily measured in terms of increases in productive efficency and profitability.

Forty-seven evaluations of OD interventions were included in the meta-analysis. Of these 16 studies (34%) were conducted in public (government owned) organisations and 31 (66%) in private (privately owned) organisations. The evaluations were conducted from 1967 to 1988. The findings of the meta-analysis did not demonstrate any overall significant difference in the effectiveness of OD interventions in the private sector, as compared to the public sector and that they were equally effective in both settings (Robertson and Seneviratne, 1995).

Robertson and Seneviratne (1995) concluded that the results did provide support for the use of OD in public sector organisations, although they did note that effective organisational change might be harder to achieve in public sector organisations. They further noted that their findings might not necessarily be generalisable to all public sector organisations or to all types and categories of OD change interventions. The general effectiveness of the use of OD by businesses has been summarised in a series of reviews and meta-analyses that date back to the late 1970s (Iles and Sutherland, 2001; Golenbewski, 2003). Table 1 lists these studies and provides a summary of their result.

Table 8: Success rates of applications of OD in the general economy

Study	Cases	Methods, studies examined, findings
Dunn and Swierczek (1977)	17	A set of highly selected cases that were considered to be 65-70% effective.
Katzell, Beinstock and Faerstein (1977)	28	Selected studies from 103 productivity experiments, on the basis that they appeared to be OD interventions. A single reviewer rated all studies. 85.7% were rated as finding improvement.
Marguiles, Wright and Scholl (1977)	30	72.7 % of the results of the studies were rated as positive, 6.3 % as mixed, 18 % as no change and 3 % as negative.
Morrison (1978)	26	8 % of studies were rated as failures. Although the focus of the review was on the methodological rigor of the OD approach.
Poras and Berg (1978); Porras (1979)	35	Outcome measures varied as expected in approximately 50% of cases.
Golembiewski and Sink (1979a,b)	44	27.3 % of interventions were rated as having highly positive effects, 61.4 % as having a definite balance of positive effects, and the remainder as having either no appreciable effect or a negative effect.
Proehl (1980); Golembiewski et al (1981,	574	Highly positive and intended effects were found in 40.4 % of studies, a balance of positive and intended effects in 46.0 %, no appreciable effect in 5.6 % and negative effects in 8.0%.

1982)		
Terpstra (1981)	52	Outcomes were rated as 67.3 % positive, 23.1% as mixed or non-significant and 9.6% as uniformly negative.
Nicholas (1982)	65	The evaluation of 14 areas of charge returned percentages of positive change ranging from 33% to 80%.
Guzzo and Bondy (1983)	10	Studies were selected from 104 productivity experiments, of which 90% were rated as returning positive results.
Guzzo, Jette and Katzell (1985)	98	Meta-analysis of psychologically based OD interventions for increasing worker productivity. On average, the studies demonstrated an increase of one-half standard deviation. Only 5 of the 11 types of interventions examined in the study were clearly OD interventions.
Woodman and Wayne (1985)	50	The studies examined were rated as returning uniformly positive results in 46 % of cases, mixed or non-significant results in 48 % and negative effects in 6%.
Golembiewski (1987, 1991); Golembiewski and Luo (1994); Golembiewski and Bradbury (1997)	133	Examined interventions from nation states were GDP was less than $ 5000 per capita (1980 USD). 76 % of the studies examined returned highly positive or intended effects.
Golembiewski and Sun (1989)	229	An examination of studies of OD interventions to improve worker productivity, which reported highly positive and intended effects in 63.3 % of cases, a definite balance of positive and intended effects in 28.4 %, no appreciable effects in 3.1 % and negative effects in 5.2 %.
Neuman, Edwards and Raju (1989)	126	A meta-analysis that used a variety of analytic techniques, the results of which cannot be easily summarised. The authors concluded that the overall results of OD interventions on worker attitudes and satisfaction were moderate but variable.
Porras and Robertson (1992)	52	The evaluation found that at least for a sub-set of outcomes, the results were moderate, mixed and mostly positive.

Source: Golembiewski, (2003). Ironies in Organisational Development (2nd Ed)

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APPENDIX 5 – QUALITY AND OUTCOMES FRAMEWORK

The Quality and Outcomes Framework is at the heart of the debate about organisational development because it uses external financial incentives which may come at the cost of the internal professional desire for improvement which OD seeks to harness.

In 2004, the UK committed £1.8 billion to a new pay-for-performance contract for general practitioners. The contract rewards for performance using 146 quality indicators covering clinical care in 10 chronic diseases, organisation of care, and patient experience. (See Annex) Information about practice achievements for these indicators is publicly available. The quality indicators are evidence based, and high performance will undoubtedly save lives.

Although the quality of care for asthma, CHD, and type 2 diabetes was improving before the introduction of the 2004 contract, results suggest that the introduction of pay for performance was associated with a modest acceleration in improvement for two of the three conditions: diabetes and asthma.[1,2] In most of the 42 practices for which data were available, the annual improvement for both was accelerated. The authors suggest the finding of a non-significant increase in coronary heart disease may simply reflect the fact that in 2003 scores for quality for coronary heart disease were already higher than those for the other two conditions.

The results are based on care reported in the medical records but not necessarily on care provided, and it is a common criticism of pay for performance programs that the main effect is to promote better recording of care rather than better care. However, the panels used to develop QOF indicators maintained that to provide good care, it was necessary both to provide the care and record it.

The key question is whether the increased rate of improvement in quality of care after the new contract was introduced can be attributed to pay for performance or to other factors. The pay for performance program was the only major national policy implemented in primary care in England in 2004 that targeted the type of care process evaluated in this study. However, since practices were observed at only two time points before the introduction of pay for performance, the authors were unable to determine whether the rate of improvement had already accelerated as a result of earlier but still ongoing initiatives.

Professor Martin Roland whose work has been central to the development of QOF says (Interview June 2007):

"Clinical audit and other changes which came in with the 1990 contract caused profound cultural change so that practices were able to take up incentives offered by the QOF. In fact all the things the government had been doing for the previous 15 years had actually been working although they didn't believe it until they got the figures, which is why it cost them so much money.

Let me tell you how we've coped with QOF in my practice. We appointed a quality improvement coordinator. Then we set up specific teams working on specific topics like heart disease and diabetes, usually a GP and a nurse with support from a practice administrator. The teams would beaver away and report back to the practice meeting. We have 15 doctors and seven or eight nurses. The practice manager schedules our practice development meetings, and other events that coordinate our activities.."

QOF resulted in a 23% increase in the average net income for GPs in 2004-5. What is unclear is how large an incentive needs to be to bring about improvement. During the first year, the level of achievement exceeded those anticipated by the government, with an average of 83.4 % of the available incentive payments claimed. The government is responding by introducing new and harder measures while removing the easier ones.

A number of potential disadvantages have been identified. If the government raises the bar too high, morale will drop and it is hard to think how the government could find a way back from this form of contract, even if it wanted to.

In the long run the shift from intrinsic professional motivation to external incentives could change professional behaviour. GPs may be deflected from providing holistic care. Some feel that the Framework is deeply corrosive to the ethical practice of medicine.3 Others feel that it gives them appropriate rewards for providing good medical care. However, QOF does give incentives to GPs to see patients as a series of income earning indicators. The increased income has gone to the GP rather than the nurses and administrators who do much of the work to achieve QOF points, and at the same time their training and professional development funding has been reduced. QOF may have been a bonanza for the GPs but it has not been generally shared with the rest of the team. QOF may have resulted in a lack of attention to training and practice development which will put practices in difficulty in the medium term.4

Professor Martin Roland (Interview June 2007):

"It is too early to tell if QOF has affected the holistic side of general practice."

The immediate financial advantages to GPs may be outweighed by acceptance of a new contract which gives the government much greater control over the profession. Whether the gains in prevention and disease management will outweigh the loss of control and resultant demoralisation depends on many other factors and time will tell.

Professor Frank Sullivan, Chair of General Practice, University of Dundee comments (Interview July 2007):

"QOF involves devolving more Chronic Disease Management care to nurses and the changes in arrangements to Out Of Hours cover which occurred around the same time is such a fundamental disruption to continuity so that, combined, they are likely to reduce the quality of Dr-Pt relationships. Perhaps the young GPs of today would have been unwilling to sustain the intensity of commitment that previous generations did in any case. So perhaps the contractual changes are merely epiphenomena."

Sir John Oldham, CEO Improvement Foundation and general practitioner says (Interview June 2007):

"The principle of linking practice payment to patient outcomes, or evidence based proxies for outcomes, was important. I have always regarded it as a process and not an event; in other words it will mature. One could well argue that some of the indicators may not have been the best priority, but the introduction was a political process with small 'p' as in negotiation between BMA and employers and has to be seen in that light. As it becomes part of the fixture I think clinical objectives will prevail. The next iteration of QOF will move in that direction. I also think it has enhanced team skill mix. On the negative side I think some of our colleagues' approach to it is more rote than thought, but may well have meant they would have not done much in the first place."

LESSONS FOR AUSTRALIA

The most important lesson for Australia is how UK general practice got to the point where a pay for performance contract was possible.

Professor Nick Mays says (Interview June 2007):

"[UK general practice] has been the subject of OD for years compared with antipodean general practice. The investment in buildings, staff and IT has been going on for 20 years in UK."

A series of evolutionary steps over 15 years including OD, various contractual mechanisms, investment in buildings at IT nursing and other staff, and team training has led to the delivery of chronic disease management at a high standard. Much has been written about the need for these aspects Australia general practice to improve. As things stand, a QOF contract would not be possible in Australian general practice.

The medium-term impact of QOF on intrinsic motivation and the doctor-patient relationship is uncertain which is a reason to concentrate development on those aspects mentioned above. One way to improve the investment in IT, buildings and staff would be for the government to link infrastructure grants to a voluntary outcomes-based contract limited to asthma, CHD and diabetes. Payment to GPs would be for the number of patients on their disease registers who had received a full cycle of care. Instead of fee-for-service there would-be threshold payments for achieving target levels of patient coverage. Voluntary registration by patients in New Zealand has been successful. The payments would be made to GPs quarterly which would reduce the current level of red tape and reward high standards of care. Verification could be undertaken by the divisions using an extraction tool as in the Collaboratives. Data could be provided by the divisions to practices for comparison between peers.

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ANNEX A - QUALITY AND OUTCOMES FRAMEWORK GUIDANCE

SUMMARY OF INDICATORS - ORGANISATIONAL DOMAIN

February 2006 : Records And Information

Records 3 - 1 point
The practice has a system for transferring and acting on information about patients seen by other doctors out of hours

Records 8 - 1 point
There is a designated place for the recording of drug allergies and adverse reactions in the notes and these are clearly recorded

Records 9 - 4 points
For repeat medicines, an indication for the drug can be identified in the records (for drugs added to the repeat prescription with effect from 1 April 2004). Minimum Standard 80%

Records 11 - 10 points
The blood pressure of patients aged 45 and over is recorded in the preceding 5 years for at least 65% of patients

Records 13 - 2 points

There is a system to alert the out-of-hours service or duty doctor to patients dying at home

Records 15 - 25 points
The practice has up-to-date clinical summaries in at least 60% of patient records

Records 17 - 5 points
The blood pressure of patients aged 45 and over is recorded in the preceding 5 years for at least 80% of patients

Records 18 - 8 points
The practice has up-to-date clinical summaries in at least 80% of patient records

Records 19 - 7 points
80% of newly registered patients have had their notes summarised within 8 weeks of receipt by the practice

Records 20 - 12 points
The practice has up-to-date clinical summaries in at least 70% of patient records

Records 21 - 1 point
Ethnic origin is recorded for 100% of new registrations

Records 22 - 11 points
The percentage of patients aged over 15 years whose notes record smoking status in the past 27 months, except those who have never smoked where smoking status need be recorded only once (payment stages 40 – 90%)

Information for Patients

Information 3 - 1 point
The practice has arrangements for patients to speak to GPs and nurses on the telephone during the working day

Information 4 - 1 point
If a patient is removed from a practice's list, the practice provides an explanation of the reasons in writing to the patient and information on how to find a new practice, unless it is perceived that such an action would result in a violent response by the patient

Information 5 - 2 points
The practice supports smokers in stopping smoking by a strategy which includes providing literature and offering appropriate therapy

Information 7 - 1.5 points
Patients are able to access a receptionist via telephone and face to face in the practice, for at least 45 hours over 5 days, Monday to Friday, except where agreed with the primary care organisation (PCO)

Education and Training

Education 1 - 4 points
There is a record of all practice-employed clinical staff having attended training/updating in basic life support skills in the preceding 18 months

Education 4 - 3 points
All new staff receive induction training

Education 5 - 3 points
There is a record of all practice-employed staff having attended training/updating in basic life support skills in the preceding 36 months

Education 6 - 3 points
The practice conducts an annual review of patient complaints and suggestions to ascertain general learning points which are shared with the team

Education 7 - 4 points
The practice has undertaken a minimum of twelve significant event reviews in the past 3 years which could include:

- Any death occurring in the practice premises
- New cancer diagnoses
- Deaths where terminal care has taken place at home
- Any suicides
- Admissions under the Mental Health Act
- Child protection cases
- Medication errors

A significant event occurring when a patient may have been subjected to harm, had the circumstance/ outcome been different

Education 8 - 5 points
All practice-employed nurses have personal learning plans which have been reviewed at annual appraisal

Education 9 - 3 points
All practice-employed non-clinical team members have an annual appraisal

Education 10 - 6 points
The practice has undertaken a minimum of three significant event reviews within the last year

Practice Management
Management 1 - 1 point
Individual health care professionals have access to information on local procedures relating to Child Protection

Management 2 - 1 point
There are clearly defined arrangements for backing up computer data, back-up verification, safe storage of back-up tapes and authorisation for loading programs where a computer is used

Management 3 - 0.5 points
The Hepatitis B status of all doctors and relevant practice-employed staff is recorded and immunisation recommended if required in accordance with national guidance

Management 4 - 1 point
The arrangements for instrument sterilisation comply with national guidelines as applicable to primary care

Management 5 - 3 points
The practice offers a range of appointment times to patients, which as a minimum should include morning and afternoon appointments five mornings and four afternoons per week, except where agreed with the PCO

Management 6 - 2 points
Person specifications and job descriptions are produced for all advertised vacancies

Management 7 - 3 points
The practice has systems in place to ensure regular and appropriate inspection, calibration, maintenance and replacement of equipment including:

- A defined responsible person
- Clear recording
- Systematic pre-planned schedules
- Reporting of faults

Management 8 - 1 point
The practice has a policy to ensure the prevention of fraud and has defined levels of financial responsibility and accountability for staff undertaking financial transactions (accounts, payroll, drawings, payment of invoices, signing cheques, petty cash, pensions, superannuation etc)

Management 9 - 3 points
The practice has a protocol for the identification of carers and a mechanism for the referral of carers for social services assessment

Management 10 - 2 points
There is a written procedures manual that includes staff employment policies including equal opportunities, bullying and harassment and sickness absence (including illegal drugs, alcohol and stress), to which staff have access

Medicines Management

Medicines 2 - 2 points
The practice possesses the equipment and in-date emergency drugs to treat anaphylaxis

Medicines 3 - 2 points
There is a system for checking the expiry dates of emergency drugs on at least an annual basis

Medicines 4 - 3 points
The number of hours from requesting a prescription to availability for collection by the patient is 72 hours or less (excluding weekends and bank/local holidays)

Medicines 6 - 4 points
The practice meets the PCO prescribing adviser at least annually and agrees up to three actions related to prescribing

Medicines 7 - 4 points
Where the practice has responsibility for administering regular injectable neuroleptic medication, there is a system to identify and follow up patients who do not attend

Medicines 8 - 6 points
The number of hours from requesting a prescription to availability for collection by the patient is 48 hours or less (excluding weekends and bank/local holidays)

Medicines 10 - 4 points
The practice meets the PCO prescribing adviser at least annually, has agreed up to three actions related to prescribing and subsequently provided evidence of change

Medicines 11 - 7 points
A medication review is recorded in the notes in the preceding 15 months for all patients being prescribed four or more repeat medicines. Standard 80%

Medicines 12- 8 points

A medication review is recorded in the notes in the preceding 15 months for all patients being prescribed repeat medicines. Standard 80%

SUMMARY OF INDICATORS - CLINICAL DOMAIN – FEBRUARY 2006

Secondary Prevention of Coronary Heart Disease

Indicator	Points	Payment Stages
Records		
CHD 1. The practice can produce a register of patients with coronary heart disease	4	
Diagnosis and initial management		
CHD 2. The percentage of patients with newly diagnosed angina (diagnosed after 1 April 2003) who are referred for exercise testing and/or specialist assessment	7	40–90%
Ongoing Management		
CHD 5. The percentage of patients with coronary heart disease whose notes have a record of blood pressure in the previous 15 months	7	40-90%
CHD 6. The percentage of patients with coronary heart disease in whom the last blood pressure reading (measured in the previous 15 months) is 150/90 or less	19	40-70%
CHD 7. The percentage of patients with coronary heart disease whose notes have a record of total cholesterol in the previous 15 months	7	40-90%
CHD 8. The percentage of patients with coronary heart disease whose last measured total cholesterol (measured in the previous 15 months) is 5 mmol/l or less	17	40-70%
CHD 9. The percentage of patients with coronary heart disease with a record in the previous 15 months that aspirin, an alternative anti-platelet therapy, or an anti-coagulant is being taken (unless a contraindication or side-effects are recorded)	7	40-90%
CHD 10. The percentage of patients with coronary heart disease who are currently treated with a beta blocker (unless a contraindication or side-effects are recorded)	7	40-60%
CHD 11. The percentage of patients with a history of myocardial infarction (diagnosed after 1 April 2003) who are currently treated with an ACE inhibitor or Angiotensin II antagonist	7	40-80%
CHD 12. The percentage of patients with coronary heart disease who have a record of influenza immunisation in the preceding 1 September to 31 March	7	40-90%

Heart Failure

Indicator	Points	Payment Stages
Records		
HF1: The practice can produce a register of patients with heart failure.	4	
Initial diagnosis		
HF2: The percentage of patients with a diagnosis of heart failure (diagnosed after 1 April 2006) which has been confirmed by an echocardiogram or by specialist assessment.	6	40-90%
Ongoing management		
HF3: The percentage of patients with a current diagnosis of heart failure due to LVD who are currently treated with an ACE inhibitor or Angiotensin Receptor Blocker, who can tolerate therapy and for whom there is no contra-indication.	10	40-80%

Stroke and TIA

Indicator	Points	Payment Stages
Records		
STROKE 1. The practice can produce a register of patients with Stroke or TIA	2	
STROKE 11. The percentage of new patients with a stroke who have been referred for further investigation.	2	40-80%
Ongoing Management		
STROKE 5. The percentage of patients with TIA or stroke who have a record of blood pressure in the notes in the preceding 15 months	2	40-90%
STROKE 6. The percentage of patients with a history of TIA or stroke in whom the last blood pressure reading (measured in the previous 15 months) is 150/90 or less	5	40-70%
STROKE 7. The percentage of patients with TIA or stroke who have a record of total cholesterol in the last 15 months	2	40-90%
STROKE 8. The percentage of patients with TIA or stroke whose last measured total cholesterol (measured in the previous 15 months) is 5 mmol/l or less	5	40-60%
STROKE 12. The percentage of patients with a stroke shown to be non-haemorrhagic, or a history of TIA, who have a record that an anti-platelet agent (aspirin, clopidogrel, dipyridamole or a combination), or an anti-coagulant is being taken (unless a contraindication or side-effects are recorded)	4	40-90%
STROKE 10. The percentage of patients with TIA or stroke who have had influenza immunisation in the preceding 1	2	40-85%

September to 31 March		

Hypertension

Indicator	Points	Payment Stages
Records		
BP 1. The practice can produce a register of patients with established hypertension	6	
Ongoing Management		
BP 4. The percentage of patients with hypertension in whom there is a record of the blood pressure in the previous 9 months	20	40-90%
BP 5. The percentage of patients with hypertension in whom the last blood pressure (measured in the previous 9 months) is 150/90 or less	57	40-70%

Diabetes Mellitus

Indicator	Points	Payment Stages
Records		
DM 19.The practice can produce a register of all patients aged 17 years and over with diabetes mellitus, which specifies whether the patient has Type 1 or Type 2 diabetes.	6	
Ongoing Management		
DM 2.The percentage of patients with diabetes whose notes record BMI in the previous 15 months	3	40-90%
DM 5. The percentage of diabetic patients who have a record of HbA1c or equivalent in the previous 15 months	3	40-90%
DM 20. The percentage of patients with diabetes in whom the last HbA1c is 7.5 or less (or equivalent test/reference range depending on local laboratory) in the previous 15 months	17	40-50%
DM 7. The percentage of patients with diabetes in whom the last HbA1c is 10 or less (or equivalent test/reference range depending on local laboratory) in the previous 15 months	11	40-90%
DM 21. The percentage of patients with diabetes who have a record of retinal screening in the previous 15 months	5	40-90%
DM 9.The percentage of patients with diabetes with a record of the presence or absence of peripheral pulses in the previous 15 months	3	40-90%
DM 10. The percentage of patients with diabetes with a record of neuropathy testing in the previous 15 months	3	40-90%
DM 11. The percentage of patients with diabetes who have a record of the blood pressure in the previous 15 months	3	40-90%

DM 12. The percentage of patients with diabetes in whom the last blood pressure is 145/85 or less	18	40-60%
DM 13. The percentage of patients with diabetes who have a record of micro-albuminuria testing in the previous 15 months (exception reporting for patients with proteinuria)	3	40-90%
DM 22. The percentage of patients with diabetes who have a record of estimated glomerular filtration rate (eGFR) or serum creatinine testing in the previous 15 months	3	40-90%
DM 15. The percentage of patients with diabetes with a diagnosis of proteinuria or micro-albuminuria who are treated with ACE inhibitors (or A2 antagonists)	3	40-80%
DM 16. The percentage of patients with diabetes who have a record of total cholesterol in the previous 15 months	3	40-90%
DM 17. The percentage of patients with diabetes whose last measured total cholesterol within previous 15 months is 5 mmol/l or less	6	40-70%
DM 18. The percentage of patients with diabetes who have had influenza immunisation in the preceding 1 September to 31 March.	3	40-85%

Chronic Obstructive Pulmonary Disease

Indicator	Points	Payment Stages
Records		
COPD 1. The practice can produce a register of patients with COPD	3	
Initial diagnosis		
COPD 9. The percentage of all patients with COPD in whom diagnosis has been confirmed by spirometry including reversibility testing	10	40-80%
Ongoing management		
COPD 10. The percentage of patients with COPD with a record of FeV1 in the previous 15 months	7	40-70%
COPD 11. The percentage of patients with COPD receiving inhaled treatment in whom there is a record that inhaler technique has been checked in the previous 15 months	7	40-90%
COPD 8. The percentage of patients with COPD who have had influenza immunisation in the preceding 1 September to 31 March	6	40-85%

Epilepsy

Indicator	Points	Payment Stages
Records		
EPILEPSY 5. The practice can produce a register of patients aged 18 and over receiving drug treatment for epilepsy	1	

Ongoing management		
EPILEPSY 6. The percentage of patients age 18 and over on drug treatment for epilepsy who have a record of seizure frequency in the previous 15 months	4	40-90%
EPILEPSY 7. The percentage of patients age 18 and over on drug treatment for epilepsy who have a record of medication review involving the patient and/or carer in the previous 15 months	4	40-90%
EPILEPSY 8. The percentage of patients age 18 and over on drug treatment for epilepsy who have been seizure free for the last 12 months recorded in the previous 15 months	6	40-70%

Hypothyroid

Indicator	Points	Payment Stages
Records		
THYROID 1. The practice can produce a register of patients with hypothyroidism	1	
Ongoing management		
THYROID 2. The percentage of patients with hypothyroidism with thyroid function tests recorded in the previous 15 months	6	40-90%

Cancer

Indicator	Points	Payment Stages
Records		
CANCER 1. The practice can produce a register of all cancer patients defined as a 'register of patients with a diagnosis of cancer excluding non-melanotic skin cancers from 1 April 2003	5	
Ongoing management		
CANCER 3. The percentage of patients with cancer, diagnosed within the last 18 months who have a patient review recorded as occurring within 6 months of the practice receiving confirmation of the diagnosis	6	40-90%

Palliative Care

Indicator	Points	Payment Stages
Records		

PC1: The practice has a complete register available of all patients in need of palliative care/support.	3	
Ongoing management		
PC2: The practice has regular (at least 3 monthly) multidisciplinary case review meetings where all patients on the palliative care register are discussed.	3	

Mental Health

Indicator	Points	Payment Stages
Records		
MH 8. The practice can produce a register of people with schizophrenia, bipolar disorder and other psychoses	4	
Ongoing management		
MH 9. The percentage of patients with schizophrenia, bipolar affective disorder and other psychoses with a review recorded in the preceding 15 months. In the review there should be evidence that the patient has been offered routine health promotion and prevention advice appropriate to their age, gender and health status	23	40-90%
MH 4. The percentage of patients on lithium therapy with a record of serum creatinine and TSH in the preceding 15 months	1	40-90%
MH 5. The percentage of patients on lithium therapy with a record of lithium levels in the therapeutic range within the previous 6 months	2	40-90%
MH6: The percentage of patients on the register who have a comprehensive care plan documented in the records agreed between individuals, their family and/or carers as appropriate	6	25-50%
MH7: The percentage of patients with schizophrenia, bipolar affective disorder and other psychoses who do not attend the practice for their annual review who are identified and followed up by the practice team within 14 days of non-attendance	3	40-90%

Asthma

Indicator	Points	Payment Stages
Records		
ASTHMA 1. The practice can produce a register of patients with asthma, excluding patients with asthma who have been prescribed no asthma-related drugs in the previous twelve months	4	
Initial Management		

ASTHMA 8. The percentage of patients aged eight and over diagnosed as having asthma from 1 April 2006 with measures of variability or reversibility	15	40-80%
Ongoing management		
ASTHMA 3. The percentage of patients with asthma between the ages of 14 and 19 in whom there is a record of smoking status in the previous 15 months	6	40-80%
ASTHMA 6. The percentage of patients with asthma who have had an asthma review in the previous 15 months	20	40-70%

Dementia

Indicator	Points	Payment Stages
Records		
DEM1: The practice can produce a register of patients diagnosed with dementia	5	
Ongoing management		
DEM2: The percentage of patients diagnosed with dementia whose care has been reviewed in the previous 15 months	15	25-60%

Depression

Indicator	Points	Payment Stages
Diagnosis and initial management		
DEP1: The percentage of patients on the diabetes register and /or the CHD register for whom case finding for depression has been undertaken on one occasion during the previous 15 months using two standard screening questions	8	40-90%
DEP2: In those patients with a new diagnosis of depression, recorded between the preceeding1 April to 31 March, the percentage of patients who have had an assessment of severity at the outset of treatment using an assessment tool validated for use in primary care	25	40-90%

Chronic Kidney Disease

Indicator	Points	Payment Stages
Records		
CKD1: The practice can produce a register of patients aged 18 years and over with CKD (US National Kidney Foundation: Stage 3 to 5 CKD)	6	

Initial Management		
CKD2: The percentage of patients on the CKD register whose notes have a record of blood pressure in the previous 15 months	6	40-90%
Ongoing Management		
CKD3: The percentage of patients on the CKD register in whom the last blood pressure reading, measured in the previous 15 months, is 140/85 or less	11	40-70%
CKD4: The percentage of patients on the CKD register with hypertension who are treated with an angiotensin converting enzyme inhibitor (ACE-I) or angiotensin receptor blocker (ARB) (unless a contraindication or side effects are recorded)	4	40-80%

Atrial Fibrillation

Indicator	Points	Payment Stages
Records		
AF1: The practice can produce a register of patients with atrial fibrillation.	5	
Initial diagnosis		
AF2: The percentage of patients with atrial fibrillation diagnosed after 1 April 2006 with ECG or specialist confirmed diagnosis.	10	40-90%
Ongoing Management		
AF3: The percentage of patients with atrial fibrillation who are currently treated with anti-coagulation drug therapy or an anti-platelet therapy.	15	40-90%

Obesity

| Indicator	Points	Payment Stages
Records		
OB1: The practice can produce a register of patients aged 16 and over with a BMI greater than or equal to 30 in the previous 15 months.	8	

Learning Disabilities

Indicator	Points	Payment Stages
Records		
The practice can produce a register of patients with learning disabilities	4	NA

Smoking Indicators

Indicator	Points	Payment Stages
Ongoing management		
Smoking 1: The percentage of patients with any or any combination of the following conditions: coronary heart disease, stroke or TIA, hypertension, diabetes, COPD or asthma whose notes record smoking status in the previous 15 months. Except those who have never smoked where smoking status need only be recorded once since diagnosis	33	40-90%
Smoking 2: The percentage of patients with any or any combination of the following conditions: coronary heart disease, stroke or TIA, hypertension, diabetes, COPD or asthma who smoke whose notes contain a record that smoking cessation advice or referral to a specialist service, where available, has been offered within the previous 15 months	35	40-90%

APPENDIX 5 – MANCHESTER PATIENT SAFETY FRAMEWORK
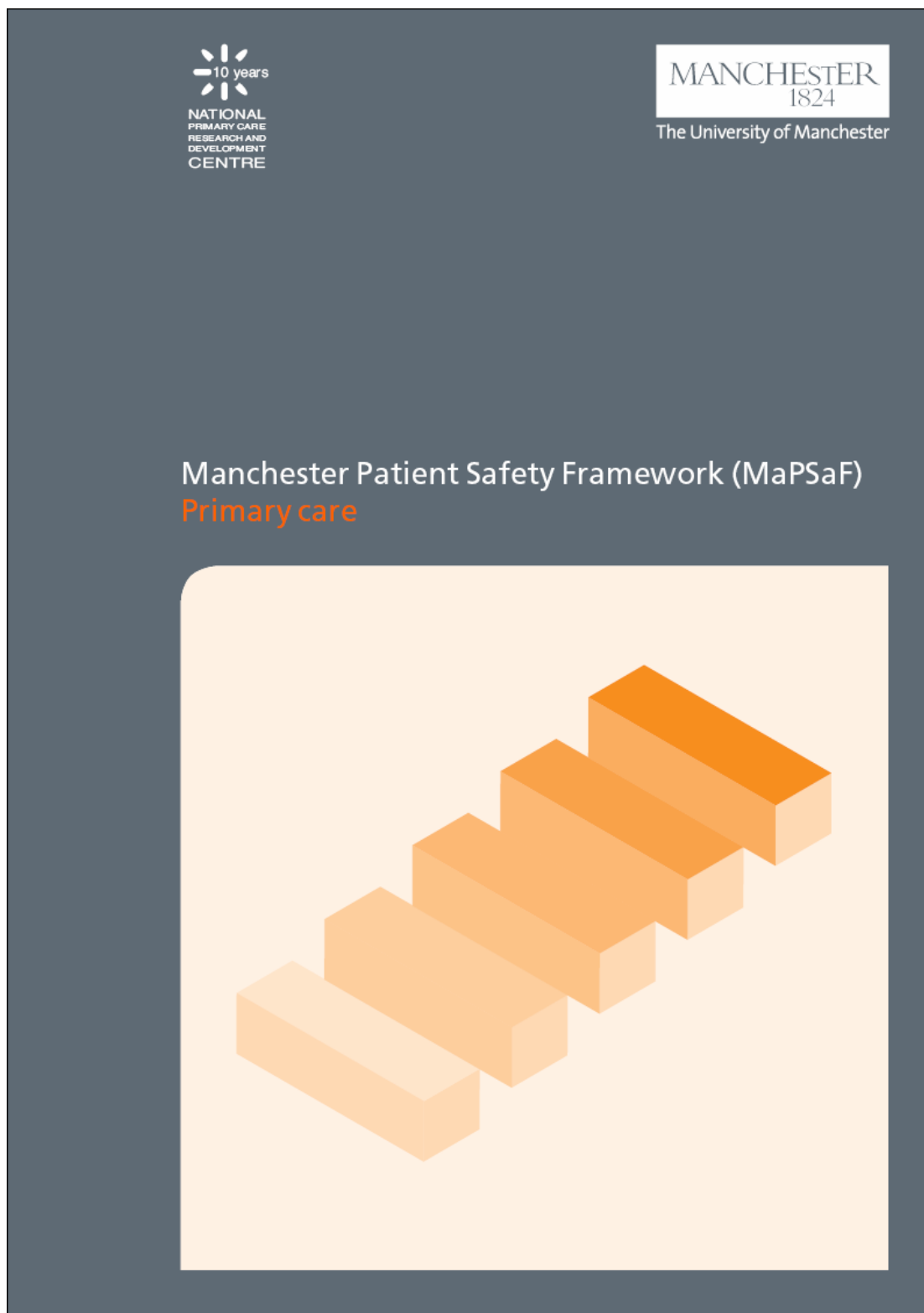
How to use MaPSaF

MaPSaF is best used as a team based self-reflection and educational exercise:

- it should be used by all appropriate members of your team;
- for each of the nine aspects of safety culture, select the description that you think best fits your organisation and/or team.
  Do this individually and privately, without discussion
- use a T (team) or O (organisation) on the evaluation sheet to indicate your choices. If you really can't decide between two of the descriptions, tick both. This will give you an indication of the current patient safety culture profile for your organisation;
- discuss your profiles with the rest of your team. You may notice that there are differences between staff groups. If this happens, discuss possible reasons. Address each dimension in turn and see if you can reach consensus;
- consider the overall picture of your organisation and/or team. You will almost certainly notice that the emerging profile is not uniform – that there will be areas where your organisation is doing well and less well. Where things are going less well, consider the descriptions of more mature risk management cultures. Why is your organisation not more like that? How can you move forward to a higher level?

What we mean by these terms

Patient safety incident (PSI):	Any unintended or unexpected incident that could have or did lead to harm to one or more patients receiving NHS-funded healthcare.
Prevented patient safety incident (PPSI):	Any patient safety incident that had the potential to cause harm but was prevented, resulting in no harm to patients receiving NHS-funded healthcare.
Root cause analysis (RCA):	Is a technique for undertaking a systematic investigation that looks beyond the individuals concerned and seeks to understand the underlying causes and environmental context in which the incident happened. Retrospective and multidisciplinary in its approach, it is designed to identify the sequence of events, working back from the incident.

Evaluation sheet (sample)

Dimension of patient safety culture	A	B	C	D	E
1. Overall commitment to quality					
2. Priority given to patient safety					
3. Perceptions of the causes of PSIs and their identification					
4. Investigating patient safety incidents					
5. Organisational learning following a patient safety incident					
6. Communication about safety issues					
7. Personnel management and safety issues					
8. Staff education and training about safety issues					
9. Team working around safety issues					

T = Team O = Organisation

Manchester Patient Safety Framework (MaPSaF) – Primary care

MaPSaF was originally developed by Dianne Parker, Sue Kirk, Tanya Claridge, Aneez Esmail and Martin Marshall in a collaborative project supported by the National Primary Care Research and Development Centre, University of Manchester. The original idea came from research funded by Shell International.

Why MaPSaF was developed

The safety of both patients and staff in a healthcare organisation is influenced by the extent to which safety is perceived to be important across the organisation. This 'safety culture' is a new concept in the health sector and can be a difficult one to assess and change. This framework has been produced to help make the concept of safety culture more accessible. It was originally designed for use by general practices and primary care organisations and has now been adapted for use in other sectors of healthcare provision to help these organisations to understand their level of development with respect to the value that they place on patient safety. It uses nine dimensions of patient safety and for each of these describes what an organisation would look like at five levels of safety culture. The framework is based on an idea used successfully in non-health sectors. The content is derived from in-depth interviews with a range of primary care health professionals and managers.

MaPSaF is designed to be used to:

- help your team recognise that patient safety is a complex multidimensional concept;
- facilitate reflection on the patient safety culture of a given healthcare organisation and/or team;
- stimulate discussion about the strengths and weaknesses of the patient safety culture in your practice or PCT;
- show up any differences in perception between staff groups;
- help understand how an organisation with a more mature safety culture might look;
- help you evaluate any specific attempt to change the safety culture of your organisation and/or team.

MaPSaF is NOT designed to be used:

- for performance management or assessment purposes;
- to apportion blame when the results show that an organisation's and/or team's safety culture is not sufficiently mature.

MaPSaF and the National Patient Safety Agency (NPSA)

The NPSA has endorsed MaPSaF to help healthcare organisations reflect on their progress in developing a safety culture. The NPSA is not a regulator or a reviewer and the framework has not been developed for this purpose. Rather, it aims to stimulate discussion about the patient safety culture in any given healthcare organisation and in doing so, will help that organisation reflect on its progress towards developing a mature safety culture.

MaPSaF describes in words some of the key elements of an open and fair culture, previously described in the document, *Seven steps to patient safety*. MaPSaF can be used by boards, clinical governance teams, management teams, healthcare teams and others who would like to stop and reflect on their safety culture and risk management processes.

Public and patient involvement

It might seem that patient and public involvement in a maturing risk management culture should be included as a tenth dimension. However, the development of processes to ensure meaningful participation should be seen as being integral to all nine dimensions identified and this is how they have been integrated into the MaPSaF matrix.

The levels of patient safety culture explained

Level	Description
A – Pathological	Why do we need to waste our time on patient safety issues?
B – Reactive	We take patient safety seriously and do something when we have an incident.
C – Bureaucratic	We have systems in place to manage patient safety.
D – Proactive	We are always on the alert/thinking about patient safety issues that might emerge.
E – Generative	Managing patient safety is an integral part of everything we do.

Increasing Maturity
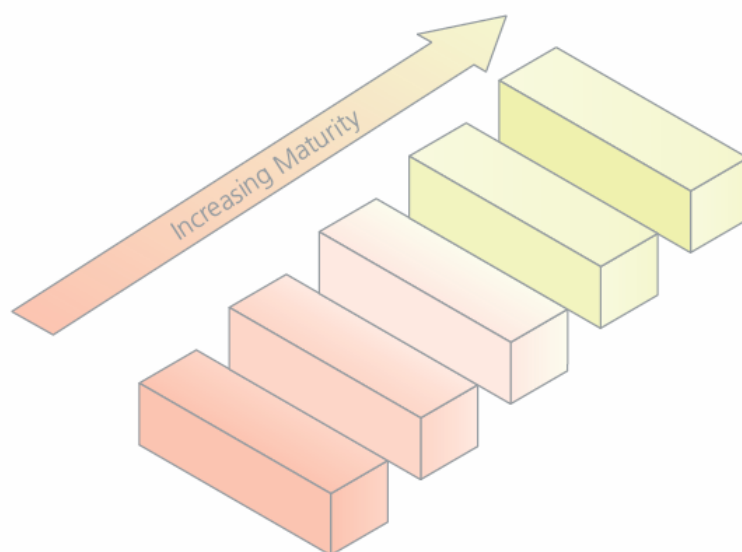
MaPSaF is based on Parker and Hudson's (2001) application of Westrum's (1992) stage model of organisational culture maturity

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MaPSaF explained

How the dimensions were developed

The dimensions are themes that emerged following:

- a literature review about patient safety in primary care and the NHS in general;
- feedback from opinion leaders and interviewees;
- consideration of the dimensions in terms of their comprehensiveness and appropriateness for primary care.

Defining the dimensions

Dimension	Description
1. Overall commitment to quality	How much is invested in developing the quality agenda? What is seen as the main purpose of policies and procedures? What attempts are made to look beyond the organisation for collaboration and innovation?
2. Priority given to patient safety	How seriously is the issue of patient safety taken within the organisation? Where does responsibility lie for patient safety issues?
3. Perceptions of the causes of patient safety incidents and their identification	What sort of reporting systems are there? How are reports of incidents received? How are incidents viewed, as an opportunity to blame or improve?
4. Investigating patient safety incidents*	Who investigates incidents and how are they investigated? What is the aim of the organisation? Does the organisation learn from the event?
5. Organisational learning following a patient safety incident	What happens after an incident? What mechanisms are in place to learn from the incident? How are changes introduced and evaluated?
6. Communication about safety issues	What communication systems are in place? What are their features? What is the quality of record keeping to communicate about safety like?
7. Personnel management and safety issues	How are safety issues managed in the workplace? How are staff problems managed? What are the recruitment and selection procedures like?
8. Staff education and training about safety issues	How, why and when are education and training programmes about patient safety developed? What do staff think of them?
9. Team working around safety issues	How and why are teams developed? How are teams managed? How much team working is there around patient safety issues?

*This term includes incidents that were prevented or which did not lead to harm.

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The Manchester Patient Safety Framework (MaPSaF) research team, based at the University of Manchester, includes psychologists, healthcare researchers and healthcare professionals from both primary and acute care settings.

The development of MaPSaF is one part of an ongoing programme of patient safety research that draws on both our expertise working on safety issues in a range of high risk industries, and our extensive research and practical experience in healthcare in the NHS.

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APPENDIX 6 – POLICY ENVIRONMENT CONDUCIVE TO ORGANISATIONAL CHANGE: CANADA, THE NETHERLANDS AND NEW ZEALAND

Quality improvement, for example via peer review groups or quality circles, in General Practice is taking place in many countries. There are substantial differences reported in GP participation between countries, although more research is warranted to determine the impact of quality improvement in primary care on the quality of care. Countries leading in quality improvement include the Netherlands and the UK.[128]

Changing practitioners' behaviours can be challenging particularly when recommendations are not compatible with their values.[129] In countries such the Netherlands, United Kingdom, New Zealand and Canada policy makers have embarked on creating and environments conducive to organisational change (OC) that are based on primary care strategies and that use incentives to invoke optimal performance. UK has been covered extensively in the main report. We describe efforts in the three other countries here.

Whereas the New Zealand system uses fee for service and capitation combined with incentives as a primary driver to facilitate OC through the service providers, the Dutch system has strengthened the influence of consumers and insurers to form a triangular relationship with the service providers to facilitate positive changes in PHC.

In Stream 4 Australian Primary Health Care Research Institute funded systematic reviews Naccarella et al.[130] and McDonald et al.[131] referred to funding models in UK and NZ that encourage practitioners to collaborate, and that are likely to lead to enhanced efficiency and quality gains in primary care. In addition, McDonald and colleagues explored the impact of some organisational models to achieve organisational change and delivery of primary care.

THE NETHERLANDS

Quality assurance and auditing in medical practice in the Netherlands started more than two decades ago.[132, 133] One of the tools suitable for achieving better outcomes is process evaluation.[134] A number of studies were facilitated by the Centre of Quality of Care Research in the Netherlands to measure the effect of specific intervention on outcomes in primary care, although with mixed results.[79, 135-137]

To facilitate quality improvement in health care, a major reform of the health system came into effect at the start of 2006 with the introduction of a single universal health insurance scheme and using regulated market competition. In this market competition model health insurers are allowed to operate for-profit but compete on fees, types of plans and level of service. Consumers are obliged to insure themselves, although are able to choose their preferred insurance provider and type of health plan. In this model the consumers drive the insurers and the insurers have been given sufficient power to negotiate with preferred providers. In order for the consumers to make informed decisions, considerable effort is put into informing the public on comparisons of health plans and health service provider performance (e.g., client satisfaction, waiting times). The aims of the reform were to:

1. increase the efficiency of the health system
2. enhance the quality of health care
3. make the health care more consumer driven; and (iv) maintain access to health care[138]

One of the main drivers was to control the fast growth of health care costs.

The GP is the gate keeper in Dutch primary care. Although the GPs have moved their out-of-hours to GP cooperatives [139], the push to larger scale models in primary care is not serving patients as well as it could. According to Prof Groenewegen:

"Service provision and service demand need to be regulated between what patients want, providers want to deliver, and insurers insure. There are system changes in Europe that address these issues…… There is an awareness of the negative sides of scale enlargement of health services, and the need to bring professionals together in networks." (Interview June 2007)

An example of recent change in chronic disease management in primary care is illustrated by a series of studies on management of people with low back pain. Swinkels et al.[140] examined what factors explain the number of physiotherapy treatments sessions in patients with low back pain. A subsequent study examined how well physiotherapy practice matched the Dutch guidelines [141]and a final study by Groenedijk and Swinkels et al.[142]demonstrated that both quality management by physiotherapists and volume policy by government and insurance companies seem to have been instrumental in bringing about an increase in the use of evidence-based treatments and decrease in the number of sessions provided.

NEW ZEALAND

A primary health care strategy [143] was launched in 2001 to:

(i) reduce health inequalities

(ii) engage communities

(ii) improve the prevention and management of chronic diseases

Mental health was an add-on. The hierarchic model created under the ministry includes District Health Boards (DHBs), and Primary Health Care Organisations (PHOs) together with Independent Practitioners Associations (IPAs) and Management Support Organisations (on same level). Professor Nick Mays pointed out:

"IPAs came into existence because practices understood the benefits of coming together to cooperate in response to the perceived external threat because they thought the new regional purchasers were going to exert strong influence. In reality regional purchasers started to buy services from GPs coming together to represent themselves in the negotiations. ……. So after five to six years, IPAs were providing a much wider range of services…… Eventually the advanced IPAs started taking budgetary responsibility because they felt capable and could see what was in it for them-professionally, financially and clinically. We saw substantial improvements in referring and prescribing behaviour. The primary care strategy cuts across all of this." (Interview 2007)

Although increasing public access to primary care by the NZ Government was planned over 10 years, developments went much faster than expected due to cooperation of medical practices in enrolling the public. After 3 years 95% of the population was covered and this now has increased to 100%.

According to Mays (Interview June 2007), the relationship between primary care providers and the state in UK and New Zealand is very different, particularly the lack of a contractual arrangement in New Zealand (as in Australia). The main mechanism used to bring about OC is fee capitation. In the new system funding for practice nurses and allied health professionals has been made possible based on good performance. Dr John Wellingham:

'You put capitation in if you want then to do less, and fee for service when you want them to do more. For example, screening. This is what the UK has done.' (Interview June 2007)

According to Wellingham, there needs to be an incentive for the practitioner despite the general presence amongst practitioners of an obligation to the right thing, and IPAs have picked up on that. He continued:

'IPAs are dependent on their funding ... so they have been effective in bringing about change amongst their members.'

In relation to the performance IPAs Mays noted in an interview (June 2007):

"IPAs provided a lot of development opportunity for practices especially clinical effectiveness including use of IT in clinical audit. By the end of five years something like 80% of doctors had played a part in running the IPA. They played a big role in improving clinical standards. Pauline Barnett from the Christchurch medical school wrote a Ph.D. on organisational development in IPAs. She found the level of engagement was very high, adding credibility to the concept of IPAs as value adding to primary care. Towards the end of the five years IPAs started getting contracts for hospital admission avoidance programs which is when things were really getting interesting. Unfortunately the primary care strategy came in with PHOs. The public funders didn't like IPAs because they made savings which were reinvested in health care to the embarrassment of less efficient the public service."

There is also an awareness at the ministry that, in general, smaller organisations are able to respond faster to imposed changes than the larger ones do. The next phase of the strategy implementation in NZ requires changes in roles and responsibilities of PHOs to become more responsive to the required changes at the provider-client interface and DHBs to take on greater responsibility for implementing decisions and arrangements within their jurisdiction, particularly in chronic disease management. Although nurse practitioners can work well in chronic disease management in PHC setting, there are a number of problems that prevent nurses from doing this. Professor Mays noted:

"It is difficult to engage nurses in general practice. By and large practice nurses are seen as a drain on the finances of the practice. Because the nurses cannot charge fees or fees of same size as GPs, nurses are not regarded as "good business" whereas in the UK they are regarded as critical." (Interview June 2007)

The lack of acceptance of nurse practitioners as well allied health professionals in PHC was acknowledged by Horsburgh et al.[144] and in a draft report earlier this year [145]. Another barrier that prevents utilisation of nurse practitioners in primary care include the speed with which primary care changes are introduced and difficulty that education experiences in keeping up with preparing nurse practitioners for working in chronic disease management within primary care.

Overviews of history, development and preliminary outcomes of the health reform in NZ have been described by McDonald et al.[131] and Rea et al.[146]. Performance of practice systems and processes against the New Zealand GP standard is measured via the 'Cornerstone program' as part of practice accreditation requirements (Currently more than 200 GP practices have accreditation status).[145] Despite the shortcomings of the reform, outcomes in NZ so far include lower fees and improved primary care access, including for Maoris and Pacific Islanders.[131] Other outcomes include improved cardiovascular risk assessment rates [147] and chronic care management.[16, 148] Subsequently, there has been a movement to integrated chronic care management for those with these needs via Care Plus.[146] Although there are some positive results, there is more to be done to improve chronic disease management. According to Mays (Interview June 2007):

"There is OD, but the bigger problems are the managerial capacity of PHOs and the incentives which are more important. If 30 to 40% of the practice income comes from co-payments you can OD a GP all you like but he's not going to ignore that part of his income ... I would use fee for service to encourage GPs to do work that they were reluctant to do such as looking after patients with chronic and enduring mental illness. I would have a variety of payments; capitation, fee-for-service, bonuses and infrastructure payments in my contract. I would play around with the relationship between them."

CANADA

Primary care in Canada is entirely funded by the Province (State) and predominantly delivered by family physicians and GPs who work individually and in small practices on a fee for service basis.[149] There are 10 provinces and 3 territories, and a universal publicly funded health insurance scheme. Ontario has one third of Canada's population. There are primary health care strategies, but they are different in each province. Overall, the problem with Canada is that there are vast differences between the provinces and between regions within the provinces (see McDonald et al.)[131], and the imposed changes have just started. Although Ontario is the largest province, British Columbia, Quebec and Alberta are more advanced with the development of their primary care services. The health reform started in the 1980s to cut costs, but proved to be more costly.[149]

Currently, there is a movement to family health groups as bridge to transition from fee for service by sole practitioners to family health teams, and family health (primary care) networks (who can obtain performance based funding to employ nurses and or allied health professionals). The Canadian government has started to use a clinical leader to sell the concept. The new model has not produced any published outcomes as yet, although Prof Sam Shortt noted in interview (June 2007):

"Current primary care policy is effective and is taking the pressure of ED … Unpublished results show that workload and income of family physicians has increased because of the strategy … At this stage no specific chronic disease model has been implemented and tested … Cost-effectiveness of OC could not be measured because of privacy laws."

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Table 9: Characteristics of RCGP Quality Team Development Program compared with other quality initiatives in Primary care									
	Locally owned and delivered	Targets and standards locally adaptable	Team rather than individual focus	Inter-professional	Draws on interpersonal influence	Promotes inter-organisational collaboration	Explicitly developmental and formative	Professionally rather than management led	'Kite marked' by national professional body
QTD	●	●	●	●	●	●	●	●	●
VIP	●	-	-	-	●	●	●	●	-
GPQC	●	●	-	-	●	●	●	●	-
TQIS	●	-	-	-	●	-	-	-	-
Benchmarking	●	●	●	-	-	-	-	-	-
CQI/TQM models	●	●	●	●	●	-	-	-	-
Beacons	●	●	●	●	●	●	●	-	-
Collaboratives	●	●	●	●	●	●	●	●	●
FBA	-	-	-	-	●	-	●	●	●
QPA	-	-	●	●	●	●	-	●	●
Academic detailing	-	-	-	-	●	-	-	-	-

Source: Macfarlane and Greenhalgh. *The RCGP team development program: A qualitative evaluation.* (Unpublished), p16.
QTD = RCGP Quality Team Development; VIP = peer review with Practice Visit Instrument; GPQC = General practitioner quality circles; TQIS = Team Quality Improvement Sequence; FBA = RCGP Fellowship by Assessment (www.rcgp.org.uk/external/fba/index.asp); QPA = RCGP Quality Practice Award (www.rcgp.org.uk/faculties/scotcoun/qpa.asp