

The implementation and impact of different funding initiatives on access to multidisciplinary primary health care and policy implications

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Challenges for Australia's primary health care (PHC) sector include the growing burden of chronic disease; evidence of the inequities in health status associated with socioeconomic status, rurality, Aboriginality and membership of certain culturally and linguistically diverse groups; and workforce shortages.¹ The policy response to date includes an increased focus on the role of multidisciplinary approaches in the provision of quality and comprehensive PHC,² especially for populations with complex health needs. This reflects evidence that multidisciplinary teams and integrated care can improve patient outcomes.³

The aim of our study was to describe system-level organisational, funding and workforce initiatives, review their implementation and impact on the achievement of multidisciplinary PHC, and consider the policy implications for Australia of these natural experiments. We focused on health systems in Australia, England and New Zealand. Initially Canada was also included, but at the time of the review most reforms in Canada were pilots or demonstration projects or were only just starting to be implemented at a provincial level. There were few other comparable countries in Europe in which teamwork and collaboration across the range of PHC workers were strong features of recent policy initiatives.⁴ The availability of key in-country informants — an important source of information for this type of review⁵ — also influenced which countries were selected.

We report here on funding initiatives (organisational initiatives were described in a previous article⁶). Multidisciplinary PHC refers to collaboration among PHC providers from different disciplines to achieve comprehensive PHC. The latter refers to the range of PHC services that are broad enough to meet common population health needs across the continuum from prevention and treatment to rehabilitation and palliation.^{7,8} A modified logic framework⁹ informed the research questions and analysis, the elements of which were as follows:

- the operating context within which policy is implemented;
- the goals and aims of specific initiatives;
- the capacity and infrastructure that enables and supports implementation;
- the service delivery changes required to meet the specific aims and objectives; and
- the intermediate and longer-term outcomes achieved, including (i) improved access to/utilisation of services and (ii) and patient/client health outcomes and satisfaction.

Methods

Our approach was informed by a series of articles that focused on synthesising the evidence for management and policymaking.¹⁰⁻¹² A three-stage approach was used.

Stage one

In the first stage, we identified and described relevant initiatives that were introduced between 1995 and 2005 across the respective

ABSTRACT

Objective: To review the implementation and impact of different funding initiatives across the health systems of three different countries — England, New Zealand and Australia — on the achievement of multidisciplinary primary health care (PHC) and to reflect on policy implications for Australia.

Methods: A systematic review of the literature involving three stages: (i) identification and description of initiatives; (ii) a systematic review of their implementation and impact from 1995 to mid 2006; and (iii) an updated review of published literature from mid 2006 to mid 2007.

Results: Few studies employed control groups, and the results should therefore be interpreted with caution. In all three countries, funding has supported general practitioner access to a broad range of providers. In Australia, financial incentives have been the main mechanism for bringing about change, whereas in both England and New Zealand, they are part of a broader range of funding reforms including the introduction of capitation and practice-based commissioning. The lack of patient data makes it difficult to assess the extent to which the Australian financial incentives have generally improved population access to a broader range of PHC providers.

Conclusion: Individual, patient-level, financial incentives may present significant impediments for population subgroups with complex needs. Alternative funding arrangements, such as capitation and contracting, could be more widely adopted in Australia to enhance access to care for vulnerable population groups without fundamentally changing the overall fee-for-service financing arrangements.

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health systems and that aimed, at least in part, to enhance multidisciplinary approaches within PHC. Sources of information included research team knowledge; a selected literature search of web pages for policies, reviews, reports and published articles; and telephone and email consultations with key informants, who are leading PHC researchers and/or health bureaucrats in each country.

Stage two

The second stage was a systematic review process involving searches of the MEDLINE, EMBASE, CINAHL and PsycINFO databases. This was supplemented by web page searches and personal contacts with key informants to identify government-commissioned evaluations, some of which were unpublished. Searches were limited to articles published from 1995 to mid 2006 in the selected countries. As the aim was to learn from the implementation of policy in real-life settings, inclusion criteria included non-experimental, cross-sectional and case-study designs. Strict quality criteria were not used, as few studies

Summary of funding initiatives, by country

Australia

Enhanced Primary Care (EPC)

Introduced as incentives for general practitioners in 1999–2000, with extensions over time for comprehensive health assessments, multidisciplinary care plans and multidisciplinary case conferencing, including home medicine reviews. Multidisciplinary care planning was replaced by Medicare rebates for chronic disease management in July 2005.

Access to Allied Psychological Services (ATAPS)

Introduced in 2001. Divisions are funded to provide access to psychology services, predominantly psychologists, for patients with common mental health disorders referred by a GP. Restricted to 6–12 sessions.

More Allied Health Services (MAHS)

Introduced in 2000. Divisions are funded to provide access to allied health care for patients with chronic conditions referred by a GP. Restricted to rural areas.

Practice Incentives Program (PIP)

Introduced as an incentive for general practices in 1999–2000 and targeting five aspects, including rural and remote practice. Payments introduced in 2004 for practice nurses in urban areas of workforce shortage are capped at one per practice.

Subsidies (Medicare rebates) to allied health practitioners working in private practice

Introduced in 2005 to enhance access to multidisciplinary care for patients with chronic and complex conditions referred by a GP. Restricted to six sessions per year.

Subsidies (Medicare rebates) for practices and Aboriginal community-controlled health services

Introduced 2004–2006. To support care from practice nurses, primary health nurses, midwives and registered Aboriginal health workers in remote and rural areas.

England

Personal Medical Services (PMS)

Introduced in 1998 as an alternative to the GMS contract. Involved general practice-based funding to enable more flexible, innovative and multidisciplinary approaches to patient care.

The new General Medical Services (GMS) contract

The new contract was negotiated for practice-based funding and introduced in 2004. The contract specifically supports developing practice nurse roles and careers. Prior to 2004, the GMS contract was practitioner-based funding.

Practice-Based Commissioning (PBC)

Introduced in 2005 and involves devolving commissioning to the general practice level, with GPs and allied health clinicians having commissioning authority covering an agreed scope of services.

New Zealand

Capitation funding

Introduced in 2002 as part of the primary health care strategy. Involves establishing new meso-level Primary Health Organisations (PHOs) which are capitation funded for their enrolled population. There are two forms, access and interim, depending on the ethnic and socioeconomic status of the PHO's enrolled population. ♦

employed experimental/quasi-experimental designs. However, studies were excluded if there was insufficient information on the design and methods.

Stage three

In the third stage, we identified and reviewed articles published between mid 2006 and mid 2007 on the specific funding initiatives. This was done through local knowledge of the research team that covered Australia and New Zealand; email contact with key informants in England; and a search of the contents pages of several journals, including *BMJ*, the *Medical Journal of Australia* and *Australian Family Physician*.

Results

A summary of the major funding initiatives for each country, with evidence on their implementation and impact drawn from policies, reports and articles, is presented in the Box. The majority of the 23 evaluation/research articles were descriptive, with only two employing experimental/quasi-experimental designs. This makes it difficult, in the context of rapidly changing health systems, to attribute improvements to the initiatives themselves rather than to other contributing factors.

Australia

Since the late 1990s, Australian Government efforts to improve access to comprehensive multidisciplinary PHC have taken two main forms: (i) financial incentives for general practitioners and practices and, more recently, for specific allied health provider activities; and (ii) subsidies for Divisions of General Practice (DGPs) to facilitate GP access to allied health providers and to support practice nurses.

A number of these initiatives have been targeted at improving access in rural areas and other areas of workforce shortage. The reforms have operated within the predominant fee-for-service funding arrangements.

Incentives to support the employment of practice nurses, and referrals for specified psychological services, have been popular with GPs: between 2003 and 2005, there was an increase of 17% to an estimated 57% of all general practices employing one or more practice nurses, with over half located in regional, rural and remote areas.¹³ There has also been a steady increase in the number of patients with depression and anxiety disorders being seen by allied health providers under the Access to Allied Psychology Services (ATAPS) initiative, with some evidence of improved health outcomes and consumer satisfaction as a result of these new services.^{14–17} GP referrals to allied health services per 100 psychological problems managed are also twice the rate of all allied health referrals.¹⁸

Early uptake of the Enhanced Primary Care (EPC) items that required input from different provider types was initially slow, but increased after the introduction of incentives for practices and funding to support access to allied health services in areas of workforce shortage.¹⁹ While overall referral rates to allied health providers between 1998 and 2005 did not change,²⁰ there was a substantial increase in referrals for care planning encounters, which suggests more multidisciplinary care is occurring²¹ for patients with chronic and complex conditions. A similar finding was made for patients with type 2 diabetes.²² Early findings suggest there are no major socioeconomic differences in uptake of

EPC items, which may not reflect the greater need associated with disadvantage,²³ and the uptake of EPC and ATAPS items is higher in rural areas.^{15,24}

However, the same cannot be said for referrals to pharmacists for home medication reviews. While these have targeted older people, other populations, including Indigenous, culturally and linguistically diverse and rural and remote groups, have been underserved.²⁵

England

Three major funding initiatives were introduced in England between 1998 and 2005: Personal Medical Services, the new General Medical Services contract and Practice-Based Commissioning. All of these have involved a shift from individual GPs to practices. They all aim to provide general practices with greater flexibility and freedom to address patients' needs, and to develop a greater skill mix with a broader range of health professionals involved in the practice team. This includes enhanced roles for nurses, especially in the management of chronic disease.

Personal Medical Services aimed to address recruitment problems by providing GPs with a salaried employment option.²⁶ This was successful in attracting GPs and nurses to work in previously underserved and underprivileged areas,²⁷ and achieved modest improvements in access and enhanced availability of services to underserved groups.²⁷⁻²⁹

The new General Medical Services contract aims to reward practices for better performance, including access to, and quality of, care. The early research on this^{30,31} has focused on changes to quality of care, rather than specifically on improved multidisciplinary service provision or patient/population access to comprehensive PHC.

Practice-Based Commissioning provides funding to practices to commission secondary and other primary care services. There is as yet little evidence of its impact on access to comprehensive and multidisciplinary care. While the shift to practice-based funding in England may have supported the development of more integrated PHC teams and improved coordination between primary care and community health services,³² there is currently limited empirical evidence of this.

New Zealand

New Zealand research suggests that the few capitation-funded practices that existed before 2002 employ more nurses, community workers and Māori staff than fee-for-service practices.^{33,34} Also, not-for-profit community-governed primary care organisations, serving predominantly disadvantaged populations, employ a broader range of professional groups than other primary care practices. The major funding reforms in New Zealand that accompanied the release of the Primary Health Care Strategy in 2001³⁵ have involved substantially increased government funding to reduce patient copayments, as well as the introduction of capitation funding at the level of Primary Health Organisations, to which most general practices now belong. It is expected that capitation will extend to the practice/provider level over time.

By 2005, providers were reporting that reductions in user charges had improved access to primary care,³⁶ especially for Māori and Pacific Islander groups³⁷ and in Access-funded Primary Health Organisations, and that nurses were providing more services than in previous years.³⁶ However, it is not yet clear whether capitation payments have extended to the practice/provider level,

and there is less evidence on the extent to which the initiatives have improved access to more comprehensive PHC or multidisciplinary service provision, beyond nurses.

Discussion

In all three countries, funding initiatives have appeared to enhance access to a broad range of PHC providers, especially practice nurses and allied health professionals. However, the funding mechanisms and levels at which they operate differ.

In Australia, financial incentives are the major funding mechanism for bringing about the desired changes and operate at the individual patient level. In both England and New Zealand, financial incentives are part of a broader range of funding reforms whereby core PHC services have been funded on a capitation basis for enrolled patient populations and for achieving performance targets.

In the Australian context, the approach of using financial incentives to encourage GPs to refer to allied health providers fits well with a predominantly private-sector model and GPs' way of working. The lack of patient data makes it difficult to assess the degree to which the array of incentives and supports have improved patient access to a broader range of PHC providers compared with a shift in service provision from state to federal government-funded services.

Top-up incentives may be appropriate for relatively uncomplicated and straightforward service delivery. However, the restrictions placed on their use and the level of patient copayments may be significant impediments for population subgroups with complex needs requiring well coordinated care from a range of providers working as teams.

Personal Medical Services in England and not-for-profit, community-governed PHC services in New Zealand are examples of models that (i) involve capitated or global funding based on population estimates, (ii) support multidisciplinary and intersectoral approaches, and (iii) target vulnerable and disadvantaged groups. At present, this model in Australia is confined to non-government organisations (NGOs), including Aboriginal Community Controlled Health Services, some community health services in Victoria, and other NGOs that employ or contract GPs on a sessional basis. This model could be more widely adopted without fundamentally changing the overall commitment to fee-for-service funding arrangements. Incentives appear to have encouraged a more multidisciplinary approach to care for people with chronic disease in Australian general practice. Capitation and contracts may possibly further enhance this by providing scope for flexibility in the composition and roles within general practice teams and strengthening linkages with other PHC providers outside the practice team. However, evidence is still lacking.

Multidisciplinary team approaches also require significant changes to work practices and relationships between differing professional groups. Divisions of General Practice play an important role in supporting the development of multidisciplinary teams through education and support for practice systems that involve GPs as much as practice nurses and allied health professionals. Australian research on the development of practice teams and multidisciplinary approaches, especially with the recent introduction of Medicare items for allied health providers, could contribute to better understanding of the infrastructure and arrangements for enabling incentives to have optimal impact on improving access to multidisciplinary PHC.

Competing interests

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References

- 1 Australian Institute of Health and Welfare. Australia's health 2006. Canberra: AIHW, 2006. (AIHW Cat. No. AUS 73.) <http://www.aihw.gov.au/publications/index.cfm/title/10321> (accessed Feb 2008).
- 2 Australian Government Department of Health and Ageing. Health priorities. National Chronic Disease Strategy. Canberra: DoHA, 2006. <http://www.health.gov.au/internet/wcms/publishing.nsf/Content/pq-ncds> (accessed Feb 2008).
- 3 Wensing M, Wollersheim H, Grol R. Organizational interventions to implement improvements in patient care: a structured review of reviews. *Implement Sci* 2006; 1: 2.
- 4 Boerma W, Dubois C. Mapping primary care across Europe. In: Saltman R, Rico A, Boerma W, editors. Primary care in the driver's seat? Organizational reform in European primary care. Maidenhead, UK: World Health Organization on behalf of the European Observatory on Health Systems and Policies, 2006. <http://www.euro.who.int/Document/E87932.pdf> (accessed Feb 2008).
- 5 Greenhalgh T, Peacock R. Effectiveness and efficiency of search methods in systematic reviews of complex evidence: audit of primary sources. *BMJ* 2005; 331:1064-1065.
- 6 McDonald J, Powell Davies PG, Cumming J, et al. What can the experiences of primary care organisations in England, Scotland and New Zealand suggest about the potential role of Divisions of General Practice and Primary Care Networks/Partnerships in addressing Australian challenges? *Aust J Prim Health* 2007; 13: 46-55.
- 7 Starfield B. Primary care, balancing health needs, services, and technology. New York: Oxford University Press, 1998.
- 8 Whitehead M. Equity issues in the NHS: who cares about equity in the NHS? *BMJ* 1994; 308: 1284-1287.
- 9 Powell Davies G, Hu W, McDonald J, et al. Developments in Australian general practice 2000-2002: what did these contribute to a well functioning and comprehensive primary health care system? *Aust N Z Health Policy* 2006; 3: 1-10.
- 10 Lavis J, Davies H, Oxman A, et al. Towards systematic reviews that inform health care management and policy-making. *J Health Serv Res Policy* 2005; 10 Suppl 1: 35-48.
- 11 Mays N, Pope C, Popay J. Systematically reviewing qualitative and quantitative evidence to inform management and policy-making in the health field. *J Health Serv Res Policy* 2005; 10 Suppl 1: 6-20.
- 12 Pawson R, Greenhalgh T, Harvey G, et al. Realist review — a new method of systematic review designed for complex interventions. *J Health Serv Res Policy* 2005; 10 Suppl 1: 21-34.
- 13 Australian Divisions of General Practice. National Practice Nurse Workforce Survey report. Canberra: ADGP, 2006.
- 14 Kohn F, Morley B, Pirkis J, et al. Evaluating the Access to Allied Psychological Services component of the Better Outcomes in Mental Health Care program: sixth interim evaluation report. Progressive achievements over time. Melbourne: Program Evaluation Unit, University of Melbourne, 2005.
- 15 Morley B, Kohn F, Naccarella L, et al. Evaluating the Access to Allied Psychological Services component of the Better Outcomes in Mental Health Care program: seventh interim evaluation report. Rural and urban projects: similarities and differences. Melbourne: Program Evaluation Unit, University of Melbourne, 2006.
- 16 Vagholtak S, Hare L, Hasan I, et al. Better access to psychology services in primary mental health care: an evaluation. *Aust Health Rev* 2006; 30: 195-202.
- 17 Winefield H, Marley J, Taplin J, et al. Primary health care responses to onsite psychologist support. *Aust EJ Adv Ment Health [Internet]* 2003; 2: 1-7. <http://www.auseinet.com/journal/vol2iss1/winefield.pdf> (accessed Feb 2008).
- 18 Charles J, Britt H, Fahridin S, et al. Mental health in general practice. *Aust Fam Physician* 2007; 36: 200-201.
- 19 Wilkinson D, McElroy H, Beilby J, et al. Uptake of health assessments, care plans and case conferences by general practitioners through the Enhanced Primary Care program between November 1999 and October 2001. *Aust Health Rev* 2002; 25: 1-11.
- 20 Britt H, Miller G, Knox S, et al. General practice activity in Australia 2004-05. Canberra: Australian Institute of Health and Welfare, 2005.
- 21 O'Halloran J, Ng A, Britt H, et al. EPC encounters in Australian general practice *Aust Fam Physician* 2006; 35: 8-10.
- 22 Zwar N, Hermiz O, Comino E, et al. Do multidisciplinary care plans result in better care for patients with type 2 diabetes? *Aust Fam Physician* 2007; 36: 85-89.
- 23 Wilkinson D, McElroy H, Beilby J, et al. Are socio-economically disadvantaged Australians making more or less use of the Enhanced Primary Care Medicare Benefits Schedule item numbers? *Aust Health Rev* 2003; 26: 43-48.
- 24 Wilkinson D, McElroy H, Beilby J, et al. Variation in levels of uptake of Enhanced Primary Care item numbers between rural and urban settings, November 1999 to October 2001. *Aust Health Rev* 2002; 25: 123-130.
- 25 Urbis Keys Young. Evaluation of the Home Medicines Review Program — pharmacy component. Canberra: Pharmacy Guild of Australia, 2005. http://beta.guild.org.au/uploadedfiles/Medication_Management_Reviews/Overview/Urbis%20Keys%20Young%20evaluation.pdf (accessed Feb 2008).
- 26 United Kingdom National Health Service. Sustaining innovation through new PMS arrangements. Revised 18 March 2004. London: NHS, 2004. http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4078039.pdf (accessed Feb 2008).
- 27 Carter Y, Curtis S, Harding G, et al. Addressing inequalities. In: PMS National Evaluation Team. National evaluation of first wave NHS Personal Medical Services pilots: summaries of the findings from four research projects. Birmingham: University of Birmingham, 2002.
- 28 Sibbald B, Petchey R, Gosden T, et al. Salaried GPs in PMS pilots: impact on recruitment, retention, workload, quality of care and costs. In: PMS National Evaluation Team. National evaluation of first wave NHS Personal Medical Services pilots: summaries of the findings from four research projects. Birmingham: University of Birmingham, 2002.
- 29 Walsh N, Andre C, Barnes M, et al. First wave PMS pilots: opening Pandora's box. Accountability, integration and responsiveness. In: PMS National Evaluation Team. National evaluation of first wave NHS Personal Medical Services pilots: summaries of the findings from four research projects. Birmingham: University of Birmingham, 2002.
- 30 Campbell S, Reeves D, Kontopantelis E, et al. Quality of primary care in England with the introduction of pay for performance. *N Engl J Med* 2007; 357: 181-190.
- 31 Doran T, Fullwood C, Reeves D, et al. Pay-for-performance programs in family practices in the United Kingdom. *N Engl J Med* 2006; 355: 375-384.
- 32 Greener I, Mannion R. Does practice based commissioning avoid the problems of fundholding? *BMJ* 2006; 333: 1168-1170.
- 33 Crampton P, Davis P, Lay-Yee R. Primary care teams: New Zealand's experience with community-governed non-profit primary care. *Health Policy* 2005; 72: 233-243.
- 34 Crampton P, Davis P, Lay-Yee R, et al. Does community-governed non-profit primary care improve access to services? Cross-sectional survey of practice characteristics. *Int J Health Serv* 2005; 35: 465-478.
- 35 King A. The Primary Health Care Strategy. Wellington, New Zealand: Ministry of Health, 2001.
- 36 Cumming J, Raymont A, Gribben B, et al. Evaluation of the implementation and intermediate outcomes of the Primary Health Care Strategy. First report: overview. Wellington, New Zealand: Health Services Research Centre, Victoria University of Wellington, 2005.
- 37 Hefford M, Crampton P, Foxley J. Reducing health disparities through primary care reform: the New Zealand experiment. *Health Policy* 2005; 72: 119-123.

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