The Australian health care system: reform, repair or replace?

Stephen J Duckett

Abstract

A Festshrift gives us the opportunity to look both backwards and forwards. Ken Donald's career stretches back to his intern days in 1963 and has encompassed clinical and population health, academe, clinical settings and the bureaucracy, and playing sport at state and national levels. There has been considerable change in the health care system over the period of Ken's involvement in the sector with more change to come — where have those changes left us? This paper discusses these changes in relation to performance criteria.

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THE APPROPRIATE CRITERION to judge the extent of reform necessary in health care is the functioning of the health system in terms of equity, quality, efficiency and acceptability. There are challenges for the Australian health care system in each of these dimensions. But the system has a large number of strengths and whole scale structural redesign is not necessary (although some might argue that realignment of responsibilities, as proposed here, is so rare as to represent major change). This relatively conservative position is in contrast with that often adopted in public debates on the health sector where advocates for particular positions claim the existence of a "crisis" in the sector to facilitate adoption of their favoured nostrum. I will consider health system performance and make some suggestions for reform on each of the relevant dimensions.

This paper is about health care, not health more broadly. Although for most people with an

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What is known about the topic?

Although the Australian health care system has many strengths, system reforms can be made to the system to improve performance.

What does this paper add?

This paper outlines some of the strengths and weaknesses of the Australian health care system in terms of equity, quality, efficiency and acceptability outcomes. It is suggested that the system does not require major reform, but could be improved with changes in the roles of the Commonwealth and state governments, as well as implementation of different roles among health care providers.

What are the implications for practitioners?

The author suggests the need for debates about the future of the health care system involving consumers and health professionals that are supported by adequate information for decision making.

acute illness, health care is necessary to improve their health status and is successful at that, there are a host of other policies and interventions which can improve health status (or prevent deterioration of health status) in the wider community. An evaluation of the current status of these preventive interventions, aimed at changing individual, group or society behaviours or environments, are not discussed in this paper.

Equity

The quest for equity has been a major issue in the Australian health care system since the 1960s. There are two elements of equity to be addressed: equity of access and equity of outcomes.

The most significant development in terms of equity of access was Scotton and Deeble's work on financial barriers to access which led to the introduction of Medibank in 1975 and its reinstatement as Medicare in 1984.¹ The absence of financial barriers does not, however, guarantee equity: consultation times for consumers with lower socio-economic status are shorter than those for high status consumers.² There are also financial barriers to access to specialist services with high out-of-pocket costs in many specialties, and poor access to public hospital outpatient services. An important aspect of financial barriers is the differential access to timely care. Baume has demonstrated that there are significant waiting times in gaining access to private surgeons, but the most publicly debated issue in this area remains waiting times for elective surgery in public hospitals.³

In terms of other dimensions of equity, Australia's record is poor. There are significant differences between urban and rural areas in access to health care. Identification of the nature of the problem here is complex, as geographic equity is usually described relatively; for example, there are fewer doctors per 1000 population in rural Australia relative to urban areas. The raw data may disguise within-region variation; in the past, most towns may have had one or two doctors, but some now have three and others none. Towns with only one doctor are vulnerable to that doctor retiring or otherwise relocating, especially as community expectations of 24-hour access to the practitioner may conflict with the lifestyle expectations of doctors and their families.

There are also racial barriers to access, but issues here are complex. Deeble et al have shown that health expenditure for Indigenous populations is not too dissimilar from that for the non-Indigenous population.⁴ But given the differences in health outcomes for Indigenous peoples, there is a strong case for greater levels of expenditure.

The picture in terms of equity of outcomes of care is much less clear, in part because there are few regularly collected measures of outcomes, in part because outcomes are affected not only by the quality of care that is provided but also by environmental factors. What we do know about equity of outcomes is that the health status of our Aboriginal and Torres Strait Islander populations is appalling, and should be a major focus of policy attention.

There is also significant difference in health status between people with low incomes and those

with high incomes, and between the employed and the unemployed. These problems should not be seen as intractable. A recent report in the United Kingdom identified a number of strategies for addressing this problem of inequity of outcomes.^{5,6} Many European countries have also adopted policies to reduce inequalities, ⁷ and a number of strategies to improve care quality for racial and ethnic minorities have been identified.^{8,9}

The way forward for equity

Despite the strengths of the health system in terms of equity, more needs to be done. The first is obviously expansion of outpatient services. Provision of ambulatory specialty care, including ambulatory emergency services, should be seen as the responsibility of one level of government, the Commonwealth. Assigning responsibility to one level of government will increase accountability. It is clearly inappropriate and an invitation to cost shifting that the same service provided by the same clinician is reimbursed differently depending on the location of service. The current Australian Health Care Agreement makes this anomaly even more absurd by restricting hospital billing based on physical location within a building and whether services existed before 1 July 1998, a Gilbertian restriction since neither the Commonwealth nor the states know what services were delivered back then.¹⁰

Assuming the Commonwealth did take responsibility for outpatient services, it could also use this as an opportunity to put further pressure on prices in the private sector by, for example, introducing a preferred provider arrangement where there would be no Commonwealth rebate paid to private practitioners if above schedule fees were charged. The Commonwealth might also look at ways of ensuring Medicare Benefits Schedule (MBS) arrangements encourage provision of expanded medical training, for example that practitioners billing against the Medicare Schedule might be capped unless the practitioner participated in approved training arrangements.

A second equity issue, and the most significant in terms of equity of outcomes, is the parlous state of Indigenous health. Here the strategies for change are complex as they require engagement with Indigenous communities, additional resources and a multi-sectoral approach. Within the health sector, significant gains can be made by investing in programs to address problems of chronic diseases in Indigenous populations (also a priority for the non-Indigenous population) and a focus on maternal and child health programs. This implies a shift in the current preoccupation of policy with process, important as that is, to a clear focus on outcome goals to be achieved with specific steps which need to be taken in each community.

Thirdly, there is strong evidence of a direct relationship between wealth and health status with people on higher levels of income exhibiting higher levels of health status. This means that policy makers need to be wary about relying on generic programs to address health differentials, and that universal programs to provide access to health care need to be supplemented by specific initiatives which target those in low income communities. As with the causes of poor Indigenous health status, health problems for people on lower incomes are multi-factorial and multi-sectoral in origin. Current policy settings tend to ignore this: the mono-causal, single disease paradigm which categorises much of contemporary policy, with a famous five for health priorities (cancer, diabetes etc) militates against sound policy development addressing the problems of poor health status of low income Australians and, indeed, inhibits development of coordinated programs for chronic disease. At the vary least, programs for low income people need to incorporate "place based" initiatives which provide coordinated services to enhance access to needed services as well as investments in community development, prevention and self management.

Quality

Unfortunately, methods for measuring quality have not been subject to the same methodological advances as have occurred in measurement of efficiency. The evidence from Australian studies of quality of hospital care suggests that an adverse event with serious consequences occurs in around 15% of overnight stays.¹¹ One-sixth of "sicker Australians" believe that there have been errors in their treatment in the last two years.¹²

Another element of quality of care relates to system design issues, and here, poor quality arises because of poor continuity of care. The survey of "sicker Australians" showed that about one-quarter saw five or more doctors, half had to repeat information and many respondents had problems with lost or delayed records.

Continuity or coordination of care might be inhibited by our existing Commonwealth-state division of responsibility, which can create incentives for care to be provided in inappropriate settings. Additional expenditure in tightly constrained state programs would, in many instances, lead to improved efficiency for the same, or better, health outcomes from the whole system, compared with additional expenditure on Commonwealth entitlement programs such as the Medicare Benefits Schedule. However, it is naive to imagine that elimination of Commonwealthstate discontinuities will eradicate coordination problems. There are many anecdotes of poor coordination within institutions (especially large institutions such as teaching hospitals), and even unitary health systems, such as the United Kingdom National Health Service, have coordination problems.13

The way forward for quality

Safety and quality was raised as a policy issue most prominently in 1995 with the publication of the results of the Quality in Australian Healthcare study. After several years of denial, the Commonwealth finally grasped this nettle with the establishment of the Australian Council on Safety and Quality in Healthcare, since transmogrified into the Australian Commission on Safety and Quality in Healthcare. More importantly, scandals in hospitals in most Australian states have led to a renewed and heightened focus on safety and quality issues. This suggests that the way forward for safety and quality is probably more of the same: the hard slog of local implementation of changing the cultures in health facilities to recognise that adverse events are endemic, to ensure that adverse events and near misses are reported and that lessons are learned from those adverse events. Priorities for action are well known and the same in most developed countries: hand hygiene; medication reviews; reducing wrong patient, wrong side, wrong site surgery (and procedures or tests); promoting openness through open disclosure. This is not glamorous and high profile and requires work across all sectors and settings. It requires clinical staff to recognise that clinical audit is a priority for their activities and that audit needs to be both profession-specific as well as multidisciplinary.

A second priority within this area is improved measurement. Without measuring adverse events (and near misses), it is difficult to take action to manage and learn from them. There have been significant leaps forward in our ability to measure adverse events, not least through improved use of routine data sets, including new methods of presenting results and capturing adverse events through coding diagnosis onset.¹⁴

Efficiency

Efficiency, broadly defined, is the third of the key criteria for evaluating health care systems. From an economic perspective, a focus on efficiency requires attention to two main elements: allocative efficiency and dynamic efficiency.

Allocative efficiency is concerned with ensuring the best allocation of resources in the health care system, so that the inputs allocated to the health care system yield the best possible outcomes; this involves addressing technical efficiency, effectiveness, and priority setting. There has been significant improvement in technical efficiency in the health care sector over the last 25 years, and remarkable efficiency improvements have been achieved through the introduction of casemix funding which commenced in Victoria in 1993.¹⁵

Effectiveness is about ensuring that the ratio of outputs to outcomes is optimised. There are a number of elements to this, one of which is "efficacy", the extent to which the outputs of the health care service lead to the ideal outcome under the best possible conditions. One of the key objectives of policy is to ensure that actual effectiveness (in terms of the ratio of outputs to actual outcomes) moves closer to this ideal. It is also an object of policy to move the outcome frontier, that is, to improve the best possible (ideal) outcome. This latter task is the focus of medical and health services research.

The third element of allocative efficiency is priority setting: deciding on the appropriate division of resources among diseases (for example the appropriate relative emphasis on orthopaedic services versus cardiac services) and also within disease (preventive versus curative investments). Segal and Richardson¹⁶ have provided a framework for addressing within-disease choices. However, attempts to use economic analysis to assist between-disease choices, most notably Oregon's priority-setting experiment, have generally failed.

The final aspect of priority setting is whether all hospitalisations are necessary. Stamp et al¹⁷ have shown that many Aboriginal and Torres Strait Islander people are admitted to hospitals for conditions where admissions could be prevented (or at least the incidence reduced) with good primary care. There is now also abundant evidence that there is considerable variation in utilisation across Australia and separation rates for many conditions vary considerably between local government areas,¹⁸ variations that cannot be explained in terms of demography or other clinical factors. The lack of utilisation review and analysis of the appropriateness of care allows this variability to continue.

Dynamic efficiency refers to the extent to which the health care system as a whole, and its constituent elements, adapt to change and innovation. The Australian health care system is relatively open to adopting new technologies (drugs, surgical, and diagnostic) soon after their development. Australia has a strong and dynamic medical research system with publications and citations increasing over recent decades.¹⁹ Our track record on system-level change is not so good. There are relatively powerful interest groups in the health system (such as health insurers and the medical profession) that for many years combined to delay the introduction of universal health insurance. It may be that the struggle over universal health insurance distracted policy makers' attention from other needed reforms.

It is still extraordinary, for example, that Australia does not have a comprehensive platform on which to build community-based health services. The brief flirtation with a national policy in this area, through the community health program initiated in the Whitlam years, was undone in the Fraser years. This is still a major gap in the Australian health care system. Dynamic efficiency then at the system level leaves much to be desired. Unlike that in the USA, Australian health policy culture does not emphasise systematic trials and experimentation in health policy innovation, the Coordinated Care Trials being the most notable counter-example.

The way forward for efficiency

There is scope for improvement across all areas of efficiency. In terms of technical efficiency there is still substantial variation in efficiency of health facilities both within states and between states. A greater focus on casemix funding arrangements, the principal mechanism for incorporating technical efficiency considerations into policy, is warranted.

Technical efficiency would also be promoted through workforce reform. From an economics perspective, technical efficiency requires us to consider whether a different mix of inputs could achieve the same output. We are not using the talents of existing staff to their full potential, and overburdening other staff with excess work hours or creating "shortages" and unmet needs. Nowhere is this clearer than in rural Australia (although similar issues apply in many specialty areas): locally-based, experienced nurses can be up-skilled to provide a broader range of primary care services in partnership with, and reducing the burden on, general practitioners. Rather than pursuing the Sisyphean task of attempting to fill every vacancy for a general practitioner in every rural town, we need to be looking at new teambased models of primary medical care where services are provided by a group of doctors, nurses, and other personnel with nurses functioning in advanced roles to complement the work of the medical practitioner.

Technical efficiency might also be enhanced by clarifying roles of the Commonwealth and states. A major realignment of roles is probably not feasible in the medium term but some jurisdictional shifts are obvious and essential components to reform (for example, the shift in responsibility for outpatient services discussed above). Wild claims about the savings to be made from eliminating "duplications" should be ignored, but modest improvements in priority setting and management might be achievable if the Commonwealth focussed more on a role of purchaser of services with the states maintaining their role as providers,²⁰ and if the Commonwealth encouraged more integrated funding arrangements through review of Section 19 of the Health Insurance Act 1973 (Cwlth) which precludes payment of Medicare benefits where the service is "by, or on behalf of, or under an arrangement with" a state.

Allocative efficiency is also in need of significant reform, with two particular areas where we should change. First, responding to the expected growth in chronic disease. Although there has been much talk about this, interventions for chronic disease require cooperative action from the Commonwealth, the states, providers and consumers. Planning for such interventions has been bedevilled by problems of split responsibilities between Commonwealth and state, and the failure to develop appropriate financial incentives to address chronic disease. The MBS, as an episodic-oriented funding system, is not well suited to reward good quality care when continuity of care is critical to patient management. Reorienting the payment system from the mid 20th century basis in acute care to recognition of the importance of chronic disease will require strengthening payment arrangements which encourage continuity, such as strengthening rewards for register-based care.

We know that there are a small number of patients that are frequent attendees at outpatient and emergency services and account for hospital

admissions. Engaging and addressing that group requires very close links between general practice, community-based services and hospitals. Organisational structures, jurisdictional barriers and differential funding arrangements inhibit these close interactions. Why have we not, for example, developed a screening tool nationally so general practitioners can identify those patients most at risk of hospitalisation and develop care plans for these patients, with the care plans funded through the MBS? Each state should not have to develop a separate screening tool; GPs shouldn't have to invent their own screening tool. Once a cohort of people at high risk is identified, a care plan, which might prescribe public and private services, should be a high priority for funding from both state and Commonwealth perspectives. The Commonwealth's failure to develop such a structure in the MBS increases the risk of hospitalisations which could have been averted with good primary care. Similarly, programs to assist patient self-management need to be developed and rolled out as part of a comprehensive chronic disease program.

What is required is a culture of innovation and evaluation to infuse the health sector. There should be more trials and more experiments that, if successful, are not closed down as is our wont, but rather are rolled out and systematised. This will require, among other things, a change of attitude of policy makers so they don't assume that they have all the answers but rather adopt a questioning style and emphasise experimentation and learning. Such a difference in style (evidence-based health policy) would need to be underpinned by significant expansion in health services research and systematic ways of supporting data collection to inform listing decisions on the MBS.^{21,22}

But is introduction of a culture of innovation possible in public sector organisations and policy making? Many authors highlight the barriers to innovation in the public sector and the lack of rewards for innovation. Borins²³ notes that:

... the public sector traditionally has tended to discourage innovation. ... While the rewards for successful innovation are meager, the consequences of unsuccessful innovation are grave. But these same authors are still sanguine about the prospects for innovation and provide examples of successful innovations in the public sector.^{24,25} In the health sector, the National Health Service in the United Kingdom successfully stimulated reforms through a time-limited "Modernisation Agency". Such a model may also have relevance in Australia.

Acceptability

Along with equity and efficiency, a key criterion for evaluating health care systems is acceptability of the system from the perspective of patients, communities, and providers. In the last decade there has been a burgeoning interest in understanding the factors that affect patient satisfaction, how to measure it, and how to improve it.²⁶ However, there are no nationally accepted measures of patient satisfaction, and policy use of patient satisfaction questionnaires is still subject to significant political overlays. Governments usually trumpet very high levels of overall patient satisfaction with hospital care, but the results mask significant differences between hospitals and very poor performance on some specific questions evaluating patient experience with the system.

A major development in the health system since the early 1980s has been the strengthening of the consumer movement. The emergence of consumer organisations was in response to an increasing dissatisfaction with the way in which consumers were treated in the health care system. This dissatisfaction was in part the stimulus for the women's health movement^{27,28} and also for groups of people with chronic illnesses and those from a non-English speaking background.²⁹ People with chronic illness have, by definition, a long-term relationship with the health system and are thus better able to evaluate the quality of their interactions with the system because they are able to compare their care across time (and providers). The Internet will have an important influence here: patients will be more informed about treatment possibilities and patient groups will be better able to coalesce and communicate. Despite some backsliding in terms of support for organised consumer groups at the national level under the Howard government, local and conditionspecific groups can be expected to continue to pressure providers.

The dissatisfaction with the health system is also evident among other socially devalued groups. Although people from non-English speaking backgrounds, for example, generally have better health than their Australian-born counterparts,^{30,31} they face problems of communication through language and a lack of cultural sensitivity in the health care system.³² Aboriginal and Torres Strait Islander peoples also encounter lack of cultural sensitivity in interacting with the health care system.

The Medicare system of high quality, low cost universal access is vulnerable if providers can persuade the public and political parties that it is failing. The most notable instance of this was the campaign by the medical profession (and the health insurance funds) to destabilise Medibank and facilitate its dismantling under the Fraser government in the late 1970s. The interests of providers are not always coincident with the interests of consumers,³³ and it is important that policy not be driven solely by provider acceptability. However, provider acceptability affects the system and, to a degree, affects the extent to which it is able to achieve dynamic efficiency.

Some elements of the medical profession still rail against universal health insurance. However, these criticisms should not be dismissed, as health professionals often have a high level of personal commitment to provision of high quality care and a clear understanding of the effects of various reforms. What is important, however, is that we disentangle the financial and professional interest of the providers from the interests of consumers and the system as a whole.

Conclusion

There are a number of significant challenges that face the Australian health care system over the next decade. These are not the ones traditionally lamented, of an ageing population driving health expenditure out of control. The cost of the health system is relatively stable. Rather, the key problems facing the system are internal ones: choices about the roles of doctors and nurses, addressing the glaring inequities in health outcomes, ensuring quality, and addressing technical and allocative efficiency. In the medium term, information technology may substantially change the role of practitioners; consumers may benefit from improved access to information through the Internet.

However, one cannot be sure that these positive moves will conspire to ensure the onward steady march of progress. The health system remains a contested terrain and the interests of purchasers, providers, and consumers do not always coincide. Increasing globalisation of the economy may lead to pressures for further reshaping of the health care system.

Debates about the future of the health care system should involve consumers and health professionals of all kinds, and these debates should sort fact from fiction, evaluating policy proposals against available evidence. The stronger the information base about what is happening in the health care system, the more likely that the strong gains we have made in Australia in terms of equity, efficiency, and acceptability of the system can be consolidated, and gains in quality can be achieved.

Note

An earlier version of this paper was presented at the Festschrift for Professor Ken Donald. The paper also draws on Chapter 10 of Duckett (2007).³⁴ The views expressed are the author's own and not necessarily those of Queensland Health or the Queensland Government.

Competing interests

The author declares that he has no competing interests.

References

- 1 Scotton RB, Macdonald CR. The making of Medibank. Sydney: School of Health Services Management, University of New South Wales, 1993.
- 2 Furler JS, Harris E, Chondros P, et al. The inverse care law revisted: impact of disadvantaged location on accessing longer GP consultation times. *Med J Aust* 2002; 177: 80-3.

- 3 Baume PE. Waiting times for non-urgent specialist appointments. *Med J Aust* 1995; 162: 648-9.
- 4 Deeble J, Mathers C, Smith L, et al. Expenditures on health services for Aboriginal and Torres Strait Islander people. Canberra: AIHW, 1998. (AIHW Cat No. HWE 6.)
- 5 Acheson D. Report of the independent inquiry into inequalities in health (Acheson Report). London: Stationery Office, 1998.
- 6 Barnes M, Bauld L, Benzeval M, et al. Health action zones. Partnerships for health equity. London: Routledge, 2005.
- 7 Mackenbach J, Bakker M. Reducing inequalities in health. A European perspective. London: Routledge, 2002.
- 8 Harris E, Sainsbury P, Nutbeam D, eds. Perspectives on health inequity. Sydney: Australian Centre for Health Promotion, University of Sydney, 1999.
- 9 Beach MC, Gary TL, Price EG, et al. Improving health care quality for racial/ethnic minorities: a systematic review of the best evidence regarding provider and organization interventions. *BMC Public Health* 2006; 6: 104.
- 10 Australian National Audit Office. Administration of state and territory compliance with the Australian Health Care Agreements. Audit Report No. 19-2006-07. Canberra: AusInfo, 2007.
- 11 Jackson T, Duckett S, Shepheard J, Baxter K. Measurement of adverse events using "incidence flagged" diagnosis codes. *J Health Serv Res Policy* 2006; 11: 21-6.
- 12 Schoen C, Osborn R, Huynh PT, et al. Taking the pulse of health care systems: experiences of patients with health problems in six countries. New York: Commonwealth Fund, 2005. [*Health Affairs* Web Exclusive November 3, 2005 W5-509–W5-525.]
- 13 Pritchard P, Hughes J. Shared care: the future imperative? London: Royal Society of Medicine Press, 1995.
- 14 Ehsani J, Jackson T, Duckett SJ. The incidence and cost of adverse events in Victorian hospitals 2003-04. *Med J Aust* 2006; 184: 551-5.
- 15 Duckett SJ. Hospital payment arrangements to encourage efficiency: the case of Victoria, Australia. *Health Policy* 1995; 34: 113-34.
- 16 Segal L, Richardson J. Economic framework for allocative efficiency in the health sector. *Australian Economic Review* 1994 (2nd Quarter): 89-98.
- 17 Stamp KM, Duckett SJ, Fisher DA. Hospital use for potentially preventable conditions in Aboriginal and Torres Strait Islander and other Australian populations. *Aust N Z J Public Health* 1998; 22: 673-84.
- 18 Richardson J. How much should we spend on health services? In: P Baume, editor. The tasks of medicine: an ideology of care. Sydney: MacLennan and Petty, 1998: pp. 250-76.

- 19 Butler L. Monitoring Australia's scientific research performance. Partial indicators of Australia's research performance. Canberra: Australian Academy of Science, 2001.
- 20 Swerissen H, Duckett SJ. Health policy for a long lived society. In: A Borowski, S Encel, E Ozanne, editors. Longevity and social change in Australia. Sydney: UNSW Press, 2007.
- 21 Tunis SR, Pearson SD. Coverage options for promising technologies: Medicare's 'coverage with evidence development'. *Health Aff (Millwood)* 2006; 25: 1218-30.
- 22 Tunis SR, Carino TV, Williams RD II, Bach PB. Federal initiatives to support rapid learning about new technologies. *Health Affairs* March/April 2007; 26(2): w140w149. [Web exclusive.]
- 23 Borins S. The challenge of innovating in government. Innovation series. Washington: IBM Center for the Business of Government, 2006.
- 24 Kamarck E. Government innovation around the world. Faculty research working papers series. Cambridge: John F Kennedy School of Government, 2004.
- 25 Moore MH. Creating public value: Strategic management in government. Cambridge: Harvard University Press, 1998.
- 26 Draper M, Hill S. Feasibility of national benchmarking of patient satisfaction with Australian hospitals. *Int J Qual Health Care* 1996; 8: 457-66.
- 27 Broom DH. Damned if we do: Contradictions of women's health. Sydney: Allen and Unwin, 1991.
- 28 Gray G. How Australia came to have a national women's health policy. Int J Health Serv 1998; 28: 107-25.
- 29 Reid JC, Boyce RA. Reconciling policy and practice: Australian multicultural health policy in perspective. *Policy Politics* 1995; 23: 3-16.
- 30 Australian Institute of Health and Welfare; National Data Committee. Immigrants in Australia: a health profile. Canberra: AIHW and NHDC, 1992. (AIHW cat. no. AIHW 185.)
- 31 Mathers C. Health patterns of immigrants in Australia. *People and Place* 1998; 4(1). Available at: http:// elecpress.monash.edu.au/pnp/free/pnpv4n1/ (accessed Mar 2008).
- 32 Duckett SJ. Structural interests and Australian health policy. *Soc Sci Med* 1984; 18(11): 959-66.
- 33 Dollis N, Gifford SM, Henenberg C, Pirkis J. Removing cultural and language barriers to health. National Health Strategy Issues Paper No. 6. Melbourne: National Health Strategy, 1993.
- 34 Duckett SJ. The Australian health care system. 3rd ed. Melbourne: Oxford University Press, 2007.

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