Asia Pacific Journal of Health Management

Volume 1 Issue 2 – 2006

The Journal of the Australian College of Health Service Executives

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ISSN: 1833-3818 (Print)

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The objective of the Asia Pacific Journal in Health Management is to promote the discipline of health management throughout the region by:

- stimulating discussion and debate among practicing managers, researchers and educators;
- facilitating transfer of knowledge among readers by widening the evidence base for management practice;
- contributing to the professional development of health and aged care managers; and
- promoting ACHSE and the discipline to the wider community.

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A practitioner oriented viewpoint/commentary about a topical and/or controversial health management issue with a view to encouraging discussion and debate among readers.

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A positive or critical comment about the Journal or a particular article or perhaps some suggestions for future Journal themes or suggestions for improving reader interest in the Journal.

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EDITORIAL

Expectations of a Professional Journal: telling the truth

M Harris

A professional or 'scholarly' journal seeks to provide a specific constituency of readers with information derived predominantly from research and experimentation on current professional and academic issues. [1] Other 'journals' or periodicals of interest to a professional audience may include the general interest, sometimes glossy, magazine, the 'popular' newsletter, and even the 'sensational', frequently opinionated periodical. [1] This editorial explores some characteristics of the scholarly discipline-based journal.

Since 1665, when the first two professional journals were founded (The Philosophical Transactions of the Royal Society of London and the Journal des Savants) one overarching goal has influenced the contents of the now remarkably proliferated scholarly Journal. [2,3]

This goal is to try to tell the truth.

Researchers, scholars, professionals are all interested to contribute to a Journal that has a reputation for truth-telling and quality. The readership – professional, academic and lay – is interested to read a Journal that tries to sift grain from chaff.

Well known strategies have been adopted by scholarly and scientific Journals to improve the probability that the publisher prints and the readership reads truthful material on issues of current importance. These strategies include peer review, identifying type of article and limiting publishing to research articles that adhere to the laws of scientific communication. [4]

Peer review

The most commonly used strategy is for all material to be peer-reviewed before acceptance for publication. Two or three readers, with expertise in the field under scrutiny, read and critique an article that has been submitted for publication. They may recommend to the editor that the article should be 1) accepted for publication as is, 2) accepted only following certain changes, or 3) rejected.

As indicated by the recent disclosure of fraudulent published research on stem cells in South Korea, peer-review is not a guarantee against the publication of false or misleading information. [5] However, peer-review is widely regarded as the best available safeguard to publishers, contributors and readers that each article meets the criteria for quality established by expert knowledge of the field.

Identification of type of article

A second strategy applied by editorial staff to enhance quality of articles and reduce the probability of misleading the readership is to accept an article for publication under a clearly identified classification or heading. Headings may include original research, research notes, review articles, editorial or other comment on current issues, critiques of published research or opinion, letters, etc. [4] In this way the author/s can specify what kind of article they believe they are submitting, the editors and reviewers assess whether the article seems to have been appropriately labeled.

No reader is likely to consider him/herself misled if a controversial point of view is presented with threadbare justification in an article headed 'Opinion.' In this instance, a reader typically begs-to-differ, and moves on – perhaps unimpressed, but by no means affronted.

Adherence with the laws of scientific communication

Finally, scholarly Journals insist that original research articles should adhere to the central laws of all scientific communication, namely: Quality, Propriety, Accuracy, and Reproducibility. [6]

The first three of these laws require that the structure and content of an article should demonstrate objectivity, utility, integrity and accuracy. In addition, to gain approval for publication an article should 'accord with professional and ethical standards, as well as generally accepted standards of good taste'. [6, p. 2]

Reproducibility, demands that a study be reported in such a way that it could be repeated by qualified third parties. [6] It follows that there should be:

- A clearly stated research question, issue or hypothesis.
- Methods in sufficient detail to permit an interested reader to:
  - comprehend what has been done to generate and analyse the data reported;
  - replicate the study if necessary; and
  - understand strengths and weaknesses of the methodology.
- Clearly reported results showing 'warts and all'.
- A clear discussion on the contribution of the research to the body of relevant knowledge and/or health management practice and justifiable conclusions.
- Full and accurate referencing of all sources of information.

Naturally, no perfect research article has ever been written. Descriptions of how research has been conducted, analysis of data and discussion of findings are all subject to criticism and debate. This ferment makes the field so vital and interesting.

As a consequence, this and other Journals maintain high standards for acceptance of articles, while recognising that some issues in health management are extremely complex and difficult to research. It is pointless to expect the kind of experimental control in studies about the management of health services that can be achieved by laboratory-based bio-medical researchers.

Quantitative and qualitative methods

Accordingly this Journal acknowledges that current issues in health service management may be appropriately studied by use of qualitative or quantitative methods and that reports may be accepted for publication that use either research model, or a mix of both models. What the Journal does expect is that the researcher demonstrates a sound understanding of their selected method and adopts a rigorous approach in applying and reporting it.

Policy makers and senior managers tend to favour quantitative studies based on 'probability sampling' in which the findings can be readily generalised to the population under study. Characteristically, the approach to sampling is predetermined depending on the research question, the size of the target population and the sample size required to achieve a statistically meaningful and unbiased result. [7,8]

While quantitative studies have obvious strengths of generalisability and transferability, they are not always the best method when seeking to gain a greater understanding of how a health care organisation functions, or why things are the way they are or the effects of a given intervention on selected client groups. Many of our contributors to this issue of the Journal have chosen a qualitative research approach to address such questions as 'What have been the effects of an intervention to improve patient safety?' 'How did a large-scale health reform affect senior health executives involved in its implementation?' 'What deficiencies currently exist in legislation to control the private sector and what reforms are necessary?' 'What are the barriers and possible solutions to improved integration of services for people with diabetes?'

Sampling methods used by qualitative researchers differ in important ways from those used by quantitative researchers. Here the aim is to 'purposefully select' participants from a given population (ie those most able to provide relevant information). Frequently, the approach to sampling is not predetermined, rather it is allowed to evolve as the need for, and sources of, new information emerge, in which case sample selection may continue until no new evidence related to the research question is apparent; a situation frequently referred to as 'theoretical saturation'. [7, p. 334; 8, p. 177] The sample size is typically small in qualitative research due to the resource-intense nature of data collection and the findings may be limited to a single 'case', such as one community health network of service providers. The main challenges then for qualitative research are replicability and generalisability. Some studies seek to address these limitations through the careful maintenance of a research diary and the collection of data from multiple sources using a variety of methods (eg interview, records, historical documents, ethnography, observation, quantitative surveys) to support and test particular emerging theories; a process known as 'triangulation'. [7, p. 275]

As a newly established professional Journal, the Asia Pacific Journal of Health Management has developed quality control processes based on the criteria outlined above so that it may publish articles that meet the scholarly expectations of its readership. Time and our corresponding readers will determine how successful we are in this endeavour.

Mary G Harris MPH, PhD, FCHSE, CHE
Editor

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IN THIS ISSUE

Nine original articles, including a commentary and a book review, are presented in this issue of the Journal together with our other regular features: In-profile (Jim Birch), Q's & A's and the ACHSE Library Bulletin compiled by Sue Brockway.

In Part 2 of his proposed reform agenda for the Australian health system, Podger outlines a model health system with the Commonwealth as the single funder. He describes how this system might work at four levels: national, regional, provider and patient. Immediately following this Special Feature article is a paper by Braithwaite in which he analyses the strengths and weaknesses of Podger's proposed model. The purpose of inviting a comment from Braithwaite is to facilitate discussion and debate among our readers about reform of health care systems.

Regulation of the Bangladesh private health care sector is the focus of an article by Rahman and Barraclough. Drawing on an analysis of documents and data from interviews with key informants, these researchers conclude that further reforms to the legislation and its enforcement are required to address current deficiencies and abuses of the system and to better serve the interests of consumers.

Michael, Robinson, Douglas and Braithwaite report the results of a formative evaluation of the New South Wales Safety Improvement Program during the first two years of its implementation using a range of outcomes measures, including, state-wide educational initiatives, policy reforms and a number of other measures. These researchers conclude there is early evidence of improvement.

Continuous quality improvement is the focus of an article by Linwood. In this Research Note the researcher reports preliminary findings arising from the use of the Australian Business Excellence Framework by the Queensland Ambulance Service as a CQI model. He provides evidence that suggests that use of the model has had a positive effect on patient and organisational outcomes.

Using a qualitative research approach, Ling, Short, Howard and Brown report the experiences of senior health executives during the implementation of the Area Health Management Model in New South Wales. These researchers conclude that while senior executives initially held positive views about the potential benefits of the model, only limited gains were achieved due shortcomings during the early stages of implementation (eg inadequate resources to implement wide-scale change, job insecurity and instability for those charged with implementing the change and efforts by the department to centralise control).

The health status of university employees is the focus of an article by Ditton. Based on a survey of University of New England staff, she concludes that the comparatively poor mental health status of Australian university employees poses a public health challenge for those concerned with maintaining and promoting the health of this workforce.

Slade-Jones, Perkins and Wellingham report findings from a qualitative study to explore ways of overcoming barriers to integrated care for people with diabetes. Identified barriers include a lack of collaborative skills in the workforce, a lack of resources and a lack of time for stakeholders to integrate care. Three solutions to overcoming these barriers are described.

In the first of the Journal's book reviews, Braithwaite provides a précis of the book titled 'Beyond patient safety: managerial perspectives on error'. He concludes that the book is worth buying and reading because it contains important messages for health care policymakers, executives and managers.

Invitation to submit an article or write to the Editor

The Asia Pacific Journal of Health Management invites researchers, policy makers and managers to submit original articles that increase understanding of issues confronting health leaders in countries throughout the region and strategies being used to address these issues. Articles from the private sector will be welcomed along with those addressing public sector issues.

Readers of the Journal are also invited to express their views by writing a letter to the Editor about possible themes for future issues or about articles that have appeared in the Journal.

ACHSE is now calling for papers for the third and fourth issues of the Journal. The deadline for receipt of papers is 31 October 2006 and 31 January 2007 respectively .

SPECIAL FEATURE

A Model Health System for Australia – Part 2: What should a (single) Commonwealth funded public health system look like?

A S Podger

Editor's note:

This Special Feature titled "A Model Health System for Australia – Part 2: What should a (single) Commonwealth funded public health system look like?" is the second in a series of three to be published by the Asia Pacific Journal of Health Management. The author, Andrew Podger, is a former Secretary (Director General) of the Australian Department of Health and Ageing.

We have invited two senior health managers to comment on the reforms proposed by Podger as a way to encourage debate about systemic reform of health care systems. Jeffrey Braithwaite is the first of these managers to provide comment and his comments appear at the end of this Part 2 article. Comments from Robert Stable will appear in Issue 3 of the Journal, together with the article by Podger titled "A Model Health System for Australia – Part 3: How could this systemic change be introduced?"

Abstract:

This paper is the second in a three-part series about the Australian health system in which I propose Australia moves toward a (single) Commonwealth funded health system. The first of these articles described the main strengths and weaknesses of the current health system and briefly canvassed four systemic change options that could deliver more appropriate care and improve efficiency. The options, all involving a single funder or purchaser, were 1) the states (and territories) to have full responsibility for purchasing all health and aged care services; 2) the Commonwealth to take full financial responsibility for the system, as both funder and purchaser; 3) the Commonwealth and the states to pool their funds, with regional purchasers having responsibility across the full range of health and aged care services; and 4) the Scotton model, or 'managed competition' model, with total Commonwealth and state moneys to be available for channelling through private health insurance funds by way of 'vouchers' equal to each individual's risk-rated premium which the individual may pass to the fund of their choice, the fund then having full responsibility as funder/purchaser of all their health and aged care services. I concluded that the only realistic systemic change option in the medium-term was Option (2), the Commonwealth having full financial responsibility, as both funder and purchaser. In this article I describe this option in detail with reference to how it might work at four levels, viz, national, regional, provider and patient.

Abbreviations: AIHW – Australian Institute of Health and Welfare; CEO – Chief Executive Officer; DHA – Australian Department of Health and Ageing; FSANZ – Food Standard Australia and New Zealand; GP – General Practitioner; MBS – Medical Benefits Schedule; NHMRC – National Health and Medical Research Council; PBS – Pharmaceutical Benefits Schedule.

Key words: patient oriented care; allocational efficiency; incentive framework; single funder; competition; systemic reform.

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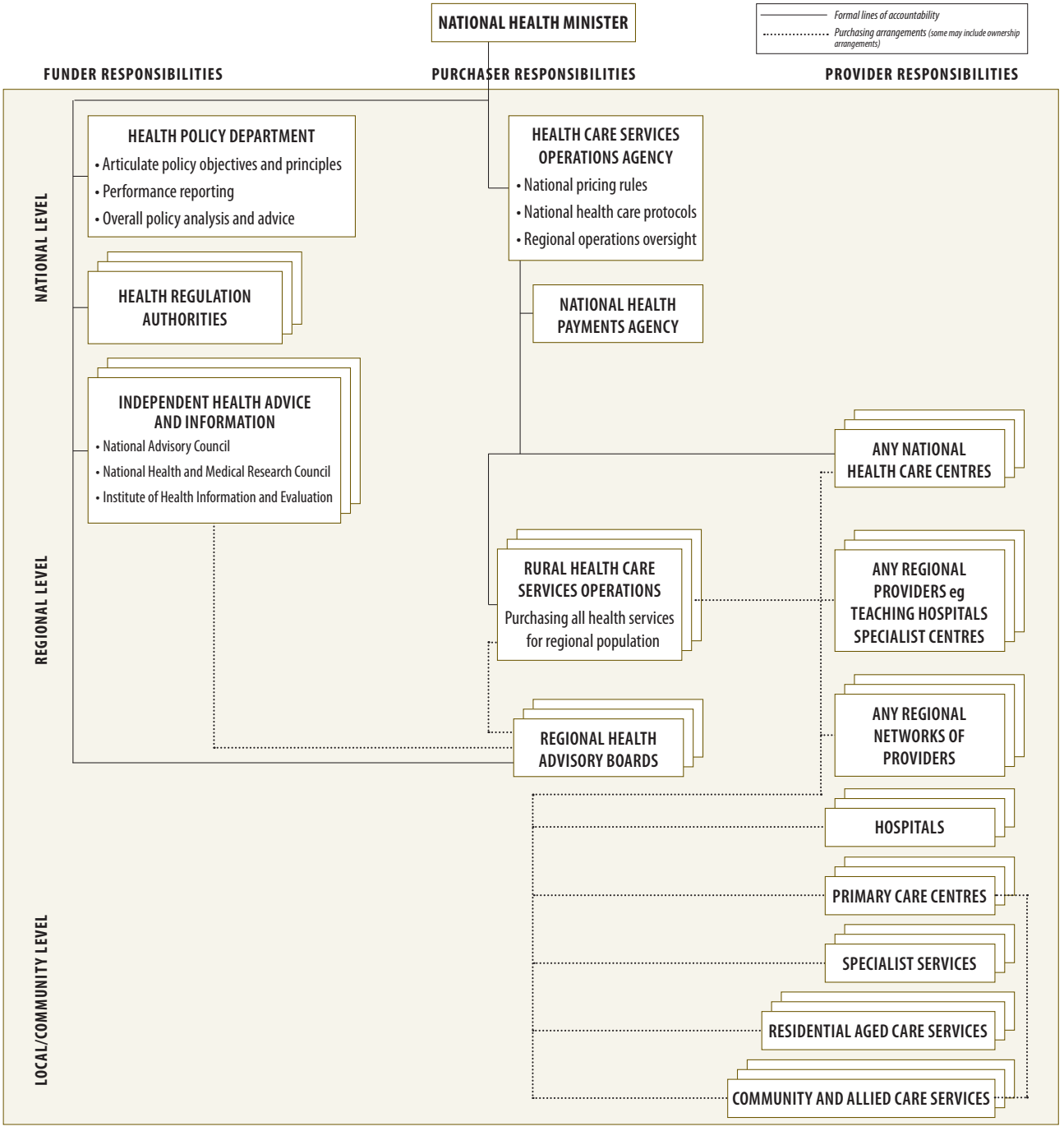
Introduction

As argued in the previous (Part 1) article, Australia's health system is performing reasonably well and its future challenges relate in large part to its successes particularly our increasing life expectancy beyond age 50, which is adding to the numbers of chronically ill and frail aged. The continuing dire circumstances of Indigenous Australians remains our worst health problem.

Further substantial improvements require more integrated approaches to supporting the chronically ill and others with complex conditions, and greater cost effectiveness. Such improvements are potentially available from systemic reforms involving a move to a single funder. This could enhance patient-oriented care by permitting greater flexibility across health and aged care programs, including a capacity to substitute funds between programs. Greater flexibility could also lead to more investment in preventive care and other improvements in allocative efficiency.

Such potential gains are dependent, however, on the detailed arrangements that underpin the single funder model chosen. In particular, they rely upon allowing flexibility near the patients, at regional or community level, not just at national or state level; and they rely on some form of budget holding controls. They also require further strengthening of primary care capacity to support coordination of care, and integrated information systems.

Figure 1. A model health system for Australia



Description of the proposed model

The model Australian health system that I propose, with the Commonwealth as the single government funder, would be based on distinguishing between the funder, purchasers and providers. While purchaser/provider splits are not universally supported, they have considerable advantage in terms of clear accountability and the capacity for competition and/or benchmarking amongst providers. [1] Disadvantages such as those experienced by the Australian Capital Territory, which has only one major public hospital, would be avoided by having a national approach. The problems of purchasers with no health professional expertise setting constraints on the professional providers could be substantially mitigated by ensuring that the expertise of providers guides the policies of funders and the decisions of purchasers.

Figure 1 illustrates the model I propose, with the columns representing the respective roles of funder, purchaser and provider; and the sections down the page setting out the responsibilities at the national, regional and community levels.

National arrangements

At the national level, the Australian Government as funder would articulate the policy objectives and the general principles, set the conditions within which health care services would be purchased and provided, and establish the framework for reporting on performance. The policy objectives and principles should include the requirements of equity in terms of geographic access, copayments, safety nets and acceptable queues etc, and the requirements of value-for-money such as cost effectiveness, processes for listing and pricing drugs and health services.

Economies of scale would also support a national (or supra-national by including New Zealand) approach to most areas of health regulation, at least in standards if not in day-to-day administration. This includes regulation aimed at patient safety and consumer protection, including licensing of products and providers (both individuals and organisations such as hospitals and nursing homes), regulation of the private health insurance industry and the setting of food standards. In most cases where this is not currently a national responsibility, there are already mechanisms aimed at harmonising arrangements (such as Food Standard Australia and New Zealand [FSANZ], reciprocal professional registration and consistent hospital accreditation). [2]

National regulation has the advantage of reflecting the national (or supra-national) nature of many health and health related industries (eg pharmaceuticals, health insurance, hospital networks, residential aged care, diagnostic services, food, and the mobility of both providers and patients).

Economies of scale also suggest a national role in developing good practice protocols, particularly in the areas of chronic disease management and public health and ensuring cost effectiveness as well as health effectiveness. [3]

The national administrative framework needs to be designed to meet a number of key requirements:

- political oversight and accountability;
- policy-advising capacity, well-informed by health and medical expertise;
- professional integrity in setting and administering regulatory standards; and
- dedicated effort, appropriate management and technical expertise for operations, particularly for oversight of the nation-wide purchasing function.

In my view, the scale of these responsibilities demands that there be a number of separate agencies performing key roles. At the same time, those agencies need to work together within the policy framework set by the political leadership.

There are many options for the national structure, but I would favour something along the following lines:

- a policy department responsible directly to the Minister for Health, advising expertly on the various health functions (eg public health, primary health care, acute health care, aged care), on the health infrastructure (eg health and medical research, good practice protocols, workforce, information) and on broad strategic issues (eg health financing and economics, safety and quality, general policy coordination);
- a suite of regulatory authorities, with statutory responsibilities, but guided by the policy framework established by the Government;
- an operational or executive agency, responsible for the purchasing of services including the oversight of regional purchasing units (see further below), supported by a national information and payments agency; and
- a strong national advisory body, with links to advisory bodies associated with each of the major regulators, and with resources for independent research and independent reporting.

This arrangement could draw very heavily on existing organisations including respectively, the Australian Department of Health and Ageing (DHA), existing statutory regulators, Medicare Australia, and the National Health and Medical Research Council (NHMRC) and the Australian Institute of Health and Welfare (AIHW).

The framework recently adopted by the Government following the Uhrig Report [4] for improving the governance of statutory authorities could be used to ensure there is policy coherence across the range of organisations. I would also strongly support all these agencies being in the one portfolio, and to avoid placing some in a separate industry or human services portfolio which may wish to pursue priorities other than health. Some of the regulatory functions could be performed within the department (DHA), or within the operational agency; and some of the policy details such as setting national prices for certain services and products could be handled either in the department (DHA) or the operational agency. The choices are not clearcut, but I would caution against having too big a policy department, and note that the sensitivities of some regulatory functions might best be handled by separate authorities. Unlike Mr Uhrig, [4] I would prefer to see the departmental secretary or her/his nominee participate in the advisory boards for each of the other portfolio agencies, and for the secretary and the Chief Executive Officer (CEO) of the operational agency each to be standing members of the other's organisation's executive committee: I do not think this would cause insuperable conflicts of interest.

Regional arrangements

The key to improving allocational efficiency is the incentive framework created by regional purchasers who have responsibility for the health objectives for their regional population, and the flexibility to allocate funds according to their most cost-effective use. Their flexibility may be constrained, nonetheless, by national policy requirements such as copayment limits and safety nets, and nationally negotiated prices for particular services. Flexibility might also need to be constrained if there is a risk of poor management, or of short-term pressures (eg to meet acute care demands) outweighing longer-term, more cost effective priorities (eg preventive health investments). An option to consider regarding the latter risks is the UK concept of "earned autonomy", where sustained good regional performance is rewarded by increased flexibility. [5]

Regional purchasing arrangements need to meet the following requirements:

- close connections with providers and community organisations to ensure the purchasing is well-informed and responsive to regional requirements;
- clear accountability back to the national operational agency, and compliance with national policies;
- a population large enough so that the regional purchaser can accept responsibility for the vast majority of health risks, and that there are not too many purchasers for the national operational agency to oversight; and
- sufficient clout to negotiate cost effective deals with providers including hospitals, nursing homes and specialists.

There are a number of options for these administrative arrangements, but my own preference would be:

- around 20 – 30 regional purchasers, with the possibility of sub-regional arrangements to assist community responsiveness;
- each regional purchaser to be under the direct control of the national operational authority;
- each to have a strong advisory board involving, in particular, the relevant Division(s) of General Practice and some other regional providers, and some community organisations, possibly including people from local government (some individual nominees selected by the Minister can also ensure a consumer voice and a sensible balance without unduly politicising the board);
- each to have health expertise as well as management expertise; and
- the regional purchaser to have responsibility for paying for all services provided to residents in the region, wherever those services are provided (including for example, high level acute services in a national centre outside the region).

The budget arrangements should involve a "soft-capped" total budget based on the population's risk profile, with access to some specific national risk pools where the region cannot be expected to manage the risk on its own. These might cover, for example, the impact of Medical Benefits Schedule (MBS) or Pharmaceutical Benefits Schedule (PBS) safety nets, as well as some very high-cost populations or even some high care episodes. The soft cap would also allow budget over-runs if necessary, where the consequences would be some form of performance review rather than penalising the regional population.

The regional budget would identify estimates for component parts, but with specified levels of discretion where the regional purchaser can substantiate claims of savings in one component that might be better employed elsewhere, or can substantiate claims of the positive impact of a proposed investment on both health and costs. The degree of discretion might be widened in the light of proven performance over a period of several years. Regional purchasers could be expected to develop increasingly sophisticated approaches to managing the risks of sub-populations, particularly the various categories of chronically ill, drawing on the nationally developed protocols of best-practice, cost-effective care. Substantially increased funding of Indigenous communities could be expected, subject to monitoring improved health performance.

Regional purchasers would be required to publish annual reports on performance including health outcomes, service levels and financing, preferably supplemented by broader information reports by the national health statistics organisation for all regions.

These regional purchasing arrangements could draw heavily on current state regional health authorities and state and Commonwealth regional planning arrangements (eg for aged care). They could also draw upon, and in time influence, the structure and role of Divisions of General Practice.

Provider arrangements

While, in most respects, provider arrangements would not be substantially changed (with most doctors and other professional health providers continuing to operate as independent private businesses, and hospitals and aged care providers continuing to operate with a degree of independence as private or charitable organisations, or as public institutions with substantial management autonomy), some important changes could be expected over time.

The more integrated and patient-focussed approach will require further strengthening of primary care arrangements, with GP practices becoming increasingly multi-skilled, supported by nursing staff and linked more closely with allied health professionals, as well as specialist medical practitioners. GP practices might effectively exercise increasing responsibility for the health care budget for their patients within the framework developed by regional purchasers. In regional and remote areas, and for Indigenous communities, primary care services may be provided in more flexible and community-responsive ways, to address their particular needs and/or their unique problems in attracting skilled workers.

Regional purchasers might also consider contracting with Divisions of General Practice not only to provide support for GPs and for primary care planning in the regions, but also to manage the delivery of some allied or specialist services where the local (private) supply is not adequate. Regional purchasers may also find it cost effective to establish (or re-establish or restructure) associated primary care services such as maternity and child health clinics.

Hospitals providing services to public patients would be funded primarily on a case-mix basis applying nationally developed prices with each region operating a risk pool for handling "outlier" cases. For a period, there would need to be capacity to make the transition to the benchmark costs, and a process for acceptable variations because of genuine labour market or other unavoidable cost differentials. (I will not go into detail here about funding for teaching and research.)

Regional purchasers would be expected to move reasonably quickly to consider options for "contracting out" or for "centres of excellence" for particular procedures and activities to improve efficiency, and hospitals may choose to specialise or to network as well as to improve internal efficiencies to achieve benchmark prices. As important, of course, is to manage demand (quantity of services) in a way that optimises overall effectiveness. This will require hospitals to work much more closely with GPs and other non-hospital providers to reduce the need for hospital care, and to explore with the regional purchasers where hospital outreach services are the most cost-effective way of supporting patients. I suspect this would lead to reversing the decline in rehabilitation services, and in various outpatient services particularly in fields such as dialysis and cancer remediation.

In theory, the ownership of hospitals (or residential aged care facilities) is not a critical issue under a firm purchaser-provider model. But the high capital costs involved in hospitals in particular, and the risks of technology-driven cost increases, suggest the need for a somewhat conservative approach to either privatisation (or transfer to the charitable sector) of public hospitals, or to letting them remain in the hands of state governments. There is a risk of the states not maintaining capital investment or of not managing assets efficiently or of not integrating them with the Commonwealth's recurrent expenditure efforts.

A suitably negotiated transfer to the Commonwealth, drawing on the experience in the other direction of Repatriation Hospitals, could be a first step towards establishing regional networks of hospitals responsive in an integrated way to the requirements of the regional purchasers in terms of delivering the best care for the regional population.

In time, further advantage should be taken of the purchaser/provider structure under which the hospitals would be managed with greater independence from the purchaser, though preferably in a partnership style. The management of public hospitals should involve some direct interaction with the community, and ensure good community access. It should also have the full confidence of clinical and professional staff. It needs to have sufficient critical mass to deliver acute care services safely and efficiently; and it needs the flexibility to go with the accountability for delivering efficiently and effectively. Notwithstanding some inconsistency with the Uhrig approach to governance, my own preference would be to establish trusts within the framework of the national operations agency, with executive boards that include health expertise, business acumen and some community standing. Alternatively, the hospitals could be separate agencies, each managed by a CEO appointed by the national operating organisation and responsible to it, with a strong advisory board. While in time consideration could be given to privatise the hospitals, there are considerable risks involved which might best be managed by retaining a mixture of publicly owned and charitable hospitals, and private hospitals. Private institutions may well contribute to greater efficiency and patient responsiveness in an environment where there are competing providers in the region, but may present a risk of departing from charitable and professional values where they operate in a monopoly position.

Community aged care services would continue to operate along lines similar to those operating now, but with increased opportunity for regional purchasers to negotiate prime contracts with organisations responsible for networks of service providers delivering services in line with individuals' care assessments and customer-responsive authorisation. Over time, there would be opportunities for closer integration of community and residential aged care, and for services that allow more "ageing-in-place", including more choice for the individuals concerned about the type of accommodation and the services they receive (subject to assessment procedures).

Patient arrangements

To take best advantage of this more integrated approach, individual Australians will need to participate in the national patient information record system which, through smart-card technology, would allow considerable patient control over the information, who has access to it and who can add to it or vary it. Over time, such a system also has the potential to enhance patient control over their own care without jeopardising professional influence about effectiveness and cost-effectiveness.

I do not believe we need to have patients register with a particular GP, although they should be encouraged to use a particular GP regularly. The information technology (IT) system can already measure the degree of "patient loyalty" sufficiently to allow doctors to be paid on a (partial) capitation basis: for example for having high levels of immunisation or cancer screening amongst their patients, or for planning and managing the care of chronically ill patients. So there is no need to constrain patient choice, and we can continue to use choice of GP as a market discipline to address quality and responsiveness (and the level of copayments) in the primary care system.

As mentioned, there is an important role for copayments, to contain demand, including demand generated by doctors for referred services such as diagnostic services. The equity objective can be addressed by setting limits to copayments including through safety nets. The efficacy of these arrangements could be substantially improved if government payments for services were more directly subject to conditions over the copayments allowed, whether through contract arrangements or through broad agreements with the professions. Regional purchasers in particular could be given some flexibility to negotiate (or set through open competition) additional payments in exchange for specified copayment limits in regions (or localities within regions) where there is evidence of supply problems and hence access problems. An important precedent has already been set for this in Medical Resonance Imaging (MRI) arrangements in rural Australia.

The growing demand for more choice, particularly regarding aged care, will require further consideration of control measures including, as Professor Hogan has suggested, more emphasis on user charges in exchange for reduced emphasis on supply-side controls. [6]

I suspect there will need to be a mix of demand and supply-side measures, with some population benchmarks to guide those assessing people for eligibility for assistance (as occurs now) but with increased flexibility to meet individuals' preferences for residential arrangements and the quantum of services, subject to people paying for above-standard arrangements and services. With means tests governing access to government subsidies in the area, there is a strong case for removing all existing clawback of additional user-charges. Equity should be addressed by ensuring a good minimum standard of care, not by penalising those who choose to pay more to receive more.

Similar arrangements apply to other parts of the health system, where those advocating more choice need to accept that any consequential escape from supply-side controls (such as queuing for elective surgery) does need to be offset by demand-side controls including private contributions towards private health insurance and copayments.

Conclusion to part two

Many aspects of the model I have described may be debated by practitioners and public administration experts, and I am not wedded to every detail. My purpose is to spell out the key design principles I believe are required to ensure the realisation of potential gains from a single (Commonwealth) funder. Most of the changes do not in fact involve radical departures from existing institutional frameworks and, as discussed in Part Three in the next issue of the Journal, implementation of the model is feasible over a three to five year period.

Acknowledgements

This paper was presented as the Inaugural Lecture for the new Menzies Centre on Health Policy at the Australian National University and Sydney University on 3 March 2006. It draws on work I have done in the Australian Public Service over the last ten years with the support of many colleagues, particularly in the Department of Health and the Australian Institute of Health and Welfare, but also in the Departments of Prime Minister and Cabinet, Treasury and Finance. The views in the paper are mine and not those of the Australian Government, and I take responsibility for the content.

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Response to Podger's Model Health System for Australia (Part 1 and Part 2)

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Abstract:

In this response to Podger's proposed model health system for Australia, I take the role of analyst of his two special feature articles on 'A model health system for Australia', the second part of which is in this issue of *Asia Pacific Journal of Health Management*. My intention is not to be indifferent, but rather to meet Podger's model head-on, and debate, albeit briefly, its merits, strengths and weaknesses – and the possibilities for success. Although my training is in psychology and management, and my professional field is organisational behaviour, I have borrowed a scalpel from a surgical colleague with which I shall try to expose Podger's arguments, test them against their own logic and explore their feasibility.

Key words: health policy, systems reform, new models, logic of reform, evidence-based policy

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Introduction

There is a major preoccupation amongst some sections of the media and selected stakeholders in the health system. I like to call it the 'let's have another attempt at reforming the health system' game. It has soaked up much printers' ink, and the effort expended can be seen diffused throughout academic and industry journals, major judicial, quasi-judicial and government inquiries and many professionally-based or industry association-sponsored conferences. This paper responds to Andrew Podger's model for health reform of the Australian health system, the latest in a line of proposals going back several decades.

What do reformers want and what do they get?

For the most part, the reformers-as-game-players want quite a measure of change. Recall, even in relatively recent times, for example, the National Health Strategy (1990-1991); [1] the Senate Community Affairs References Committee (1999-2000); [2-4] the Productivity Commission (2004-2005); [5] and the current work of coalitions of bodies and interested individuals such as the Australian Health Care Reform Alliance [6] formed by Professor John Dwyer and the Hospital Reform Group [7] led by Professor Kerry Goulston, to mention some of many. Reformers often want one level or another of the health system (the Commonwealth, the States or 20-30 health regions) to have core responsibility for running most of the health system, with the other levels having no major role or residual functions.

Most proponents of change realise that regardless of their preferred model, the health system evolves over time anyway, because new managerial, organisational, policy, technological, legal and clinical innovations occur both here and internationally, and these act iteratively to influence institutions, services and practices. So invariably reformers are seeking some sort of big bang event, or levels of considered change from the status quo. Largely, their stated intentions are to secure greater system efficiency and increased provider effectiveness or improved patient quality and safety.

As they play the game, reformers tend to think of themselves as the ones doing the analysing. Essentially, without unduly simplifying their task, they are engaged in three activities: assessing the current state of the health system, evaluating its strengths and weaknesses and suggesting improvements. Others are the observers of the game or the consumers of its outputs (eg, all the academic articles and books, government reports and papers presented to conferences). They are relatively inactive, and generally let the new ideas pass by. This could be a sign of indifference, or they think it is too hard, or they may be otherwise preoccupied, and too busy to worry much about reform.

Yet others are opposed to change, and this often manifests suspiciously like vested interests, with those opposing as the ones who stand to benefit from the present arrangements *vis à vis* the proposals. There are many reasons why major reform is stifled, including that it would take a great deal in a federated nation to secure sufficient agreement across nine jurisdictions and numerous stakeholder institutions to move forward, the lack of a champion or champions with sufficient reforming zeal and influence, political unwillingness, conservatism and entrenched ideas.

Big bang, and lots of courage

Despite knowing all of this, Andrew Podger has thrown his hat in the ring, and outlined a set of proposals for a reformed health system. This takes courage, and I do not mean that in the sense that Sir Humphrey Appleby used when he cautioned Minister and then Prime Minister Jim Hacker against change in the renowned BBC series *Yes Minister* and *Yes Prime Minister*. [8,9] We need valour in these days of nervous public servants and concerned industry groups. Perhaps Podger can now make his case for the very reason that he is no longer in such a prominent public sector leadership role.

The Podger model

Figures 1 and 2 present a summarised version of the main features of the Podger model, which I have reduced to their main points in flow chart format. This lays bare what Podger is proposing and the reasoning and logic underpinning his model.

There are four points to be made. Each is dealt with in turn. They are: the flow of and persuasiveness of the logic; the evidence bases for the proposals; the health systems reform versus health outcomes improvement dilemma; and structural versus cultural change as a preferred method of change.

1. Flow of and persuasiveness of the logic

At first glance, Podger's arguments look both sustainable and plausible. His ratiocination in his Part 1 article can be approximated as follows: we need an improved health system > we have choices > the system is complex, political and multi-faceted > we could perform better although we perform reasonably internationally > better performance is needed especially in indigenous health care > life expectancy is improving > but this leads to more complex and chronic care needs > we have structural problems > we need certain design features to correct these > there are the four options > the realistic one is Option (b).

The flow continues in his Part 2 article. Its logical structure is as follows: we need more integration, cost effectiveness, flexibility, investment and efficiency > a single funder model is needed to achieve these > other structural issues include primary care and IT > the preferred model includes roles of funder, purchaser and provider > other things are needed including smart cards > benefits include patient-led services > the model also needs co-payments, safety nets and more choice for patients.

There are logical weaknesses that the model needs to address if it is to rest on a valid platform, be fully fleshed out and considered viable. For example, it is not clear how the system design principles emerge. They appear in the Part 1 paper immediately after a summary of the structural problems Podger perceives in the system, but no logical or evidentiary bases are provided for having features such as a national system, a mixed public-private system, co-payments and a single funder. These ideas do not flow from the previous arguments. Note I am not necessarily arguing against these features. I am simply pointing out that the foundations

on which these principles rest are flimsy in logical terms. To sharpen the argument, Podger would need to show how all these design features emerge from the prior points he has made.

There are other strengthening exercises needed in the reasoning to show how Option (b) is the only realistic alternative. These include the ways in which flexibility will be promoted and patient choice increased by what appears to be a further centralising of the Australian health system and its policy, funding and purchasing decision processes. This may be possible to achieve, but the arguments as to how this will be accomplished seem incomplete, and are not wholly convincing.

More tellingly, Podger's focus is really on the health system, not the client. This is addressed below. For the moment, I would argue that we ought to take every opportunity to make the patient the starting point. Too few health system reform proponents do this.

Figure 1: A flow diagram of Podger's main arguments for reform (*A Model Health System for Australia – Part 1: directions for reform of the Australian health system*).

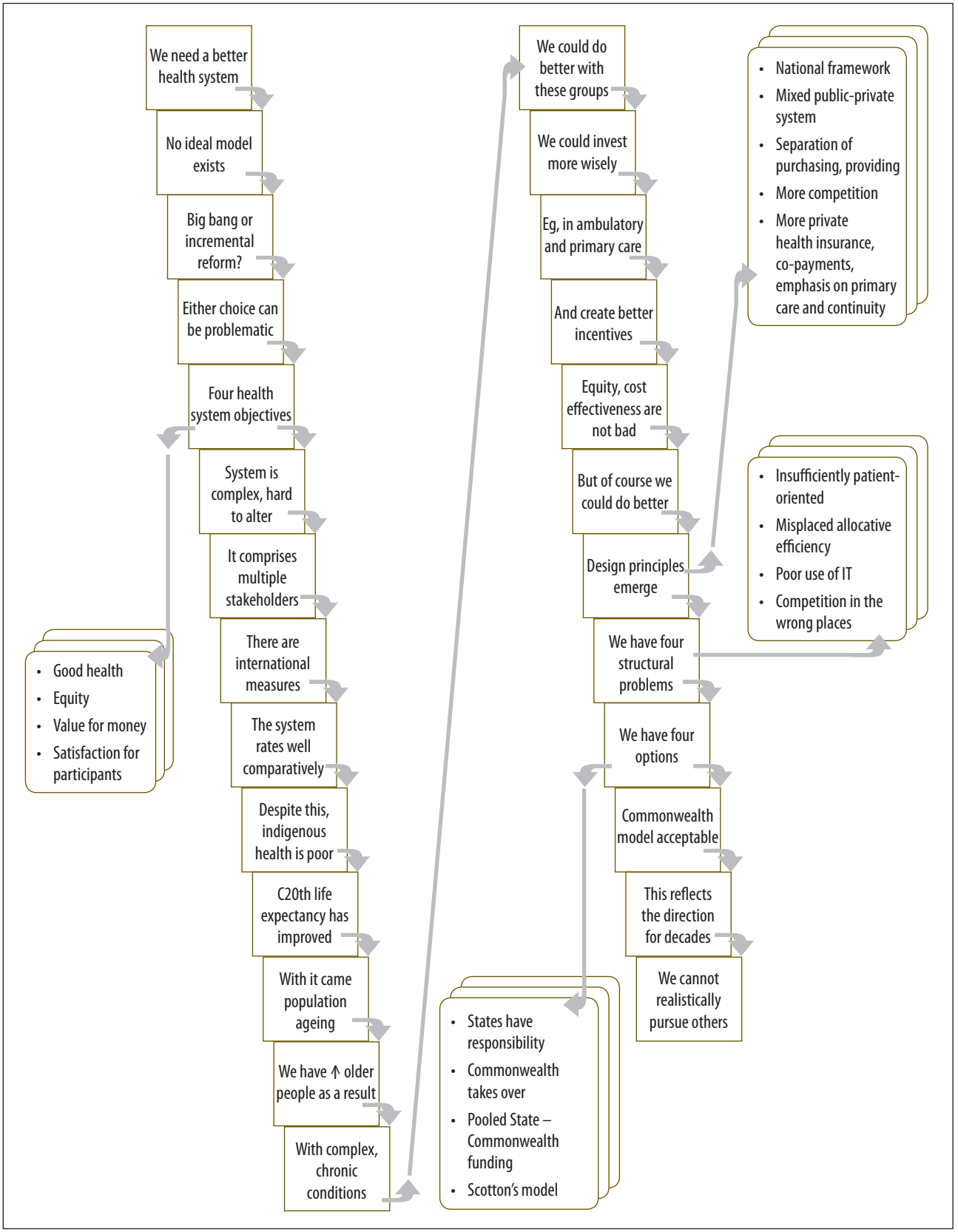
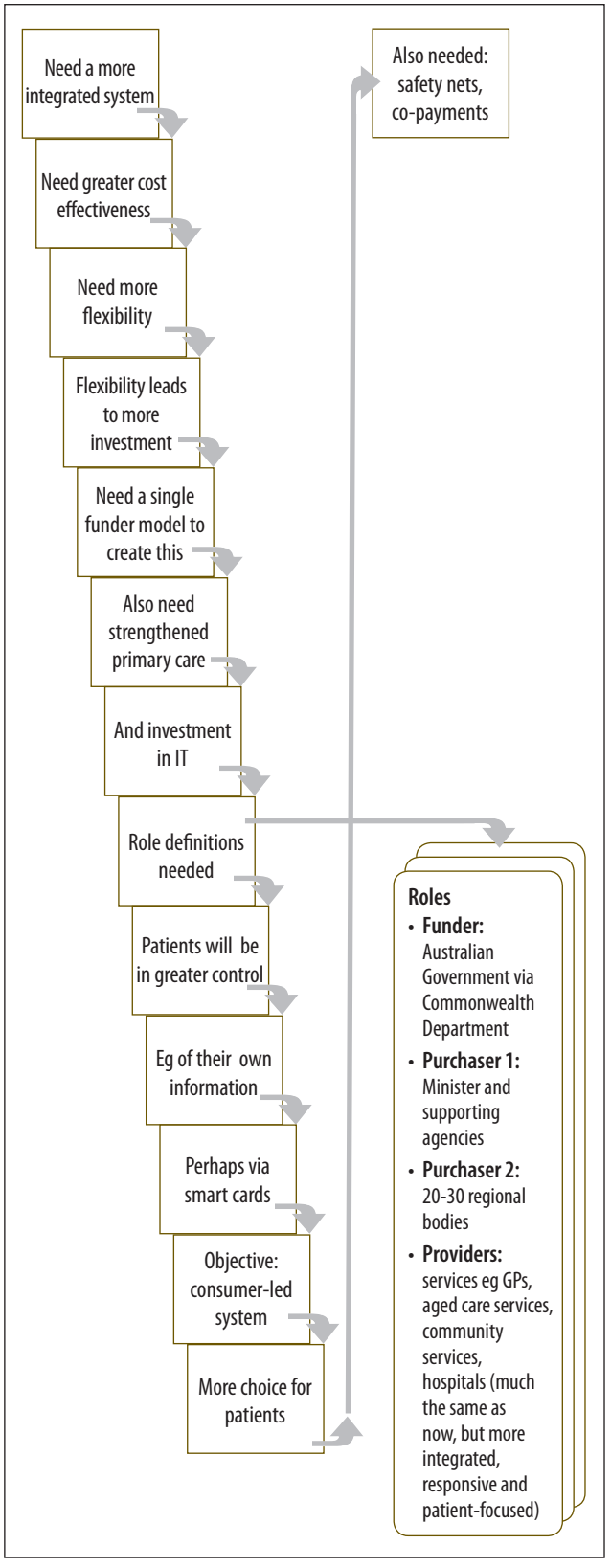


Figure 2: A flow diagram of Podger's main arguments for a Commonwealth funded system *(A Model Health System for Australia – Part 2: What should a (single) Commonwealth funded public health system look like?)*.



2. Evidence bases for the proposal

What do we know about the Australian health system in comparative terms? The information Podger has given us is restricted to changes in mortality rates in the 20th century and comparative OECD health expenditure data as a proportion of GDP. Other evidence shows that, depending on the measure, Australia performs better or worse than its OECD counterpart health systems, that all health systems including Australia's change across time and there is no structurally ideal model. I will deal with the mortality data below, but obviously expenditure as a proportion of GDP merely tells us about one particular input into the health system, and says little or nothing about comparative health system performance. Such data are even less useful in underpinning a case for reform.

One pointer to satisfaction levels with health systems has been provided by HSCNews International's survey of 406 global health campaigners drawn from 38 countries in 2005. [10] On an index of user-friendliness, the performance of health systems as a group was rated low; western European health systems were rated best, followed by Eastern Europe, Australasia and the Pacific Rim, and last of all were the health systems of northern and central America. This indicates there is a middle-range case for reform of the Australian health system, but it is not the worst performing on user-friendliness when compared against international benchmarks.

The best source of data for our present purposes comes from the Commonwealth Fund. [11] In every survey it has conducted in five OECD countries (Australia, Canada, New Zealand, United Kingdom and the United States of America, with Germany joining the study group more recently) the Commonwealth Fund found room for improvement in each health system. The Fund has also consistently reported that different health systems have comparatively differential performance levels, with no one consistently superior or inferior performer overall, with the exception of the health system of the United States, which is more fragmented and poorly coordinated on many measures compared with other members of the reference group.

Respondents to the Commonwealth Fund's most recent survey [12] were identified as sicker patients (ie, those who had poorer health, or serious illness, injury or disability) who, as a consequence, had considerable expertise with their health system (eg, through intensive medical care or hospitalisation) compared with the general population. The Australian sample (n=702) reported acquiring infections while in hospital (7%), communication failures (22%), poor discharge coordination (36%) and detecting an error in their

care (19%). Having said that, no health system in the survey was always best or worst on the survey questions, across items such as care coordination, patient safety, patient-centred care and access to care.

These data suggest, in line with other data from the Commonwealth Fund and elsewhere, that there is no ideal model or superior performer across six structurally very different health systems. We would thus need to be convinced of the benefits to be gained from Podger's proposals to move from the current structural arrangements to his preferred model, or indeed, any other. By instituting Podger's proposals, even slowly over time, we would be putting the present health system through major disruption with no guarantee of improvements. This is not an argument for maintaining the status quo, as the Commonwealth Fund data also suggest strongly that improvements are needed in the Australian and its counterpart health systems, but a plea for an evidence-based approach and clear understanding of the benefits sought. We need to see a convincing set of arguments for how the new model will create improvements. At this stage in its development, Podger's model does not provide this.

3. The health systems reform versus health outcomes improvement dilemma

This leads to the problem of health system structural reform and its relationship to the health of the population. Does the health system and the way it is structured affect health status? Will the model described by Podger contribute to reduced mortality, as he implies? How? In answering Podger's model, I want to pose the public health argument. What needs to be done to keep the population healthy? Every public health practitioner knows the answer to this question, but some in the acute sector, and a large number of structural reformers, often do not appear to have thought the answer through. People's healthiness is enabled through their access to meaningful, interesting work, reasonable incomes, education, encouragement to exercise and eat well, intellectual stimulation, work-life balance, adequate leisure time, clean water and a decent roof over their heads. Reducing other risk factors is also useful – such as by limiting exposure to harmful environmental factors. A population will do well if some specific harms are limited such as active and passive cigarette smoke, illicit drug-taking, excessive use of alcohol, and unsafe sex. Other contributors to a productive and healthy society include an effective public transport system, fruitful relationships with families, friends and workmates and a safe society, free from war and too much crime. [13-16]

The system Podger seeks to reform is largely an illness rather than a health system, and to a considerable extent these drivers of population healthiness are produced or determined by other sectors of the economy outside of the 9.7% of GDP that the 'Australian health system' consumes. Further, it is the case that public health measures, defined broadly, are much more important contributors to delivering improved mortality than health system services. In order to achieve his health system objectives, particularly the objective of 'good health', Podger will therefore have to show how his model embraces other industries and institutions to create an inter-sectoral effort. Although it is not obvious to some people, even some health professionals, health is not a determinant solely or even mainly of the 'health system', but is created by complex, multi-dimensional contributing factors which shape individual and societal behaviours.

4. Structural versus cultural change

This brings me to my final point. Most health system reformers adopt a structural frame of reference, but one contribution organisational behaviour specialists have made in recent years is to show that there are other crucial factors in systems change. [17-19] Structural health reformers see the world according to hierarchies, defined roles, responsibilities, accountabilities and fiscal performance, and in terms of models, principles and frameworks. They are often heavily influenced by a homo economicus paradigm [20] which is in decline in some circles. Thus the picture of the rational person, slavishly maximising his or her economic position in a highly structured system, fails to account adequately for altruism, values and the complexity of alternative, non-economic pursuits. This is where sociology, anthropology and psychology meet economics.

The boxes-on-the-chart structural perspective is so common that most people who hold to it do not realise there are other alternatives. [21,22] In sociological terms, they have come to see their view as normative, and take it for granted that their position is the way everyone sees the world. This type of perspective is in reality highly myopic, especially if it presumes you are at the top of the hierarchy and you survey the world from that lookout tower. Indeed, when you live in Canberra (or Washington, or London) the world probably starts to look like it does to Russell Crowe in the movie *Master and commander: the far side of the world*. [23] Everyone below has a clear job: to carry out their prescribed role, dutifully and diligently. Design a health system from this vantage point, and your starting position will almost certainly be the Commonwealth Department and the Minister and you will

likely put boxes around the titles of important people and agencies before you stipulate what everyone else should do in exchange for the money you pay them.

Organisational behaviour over two decades has painstakingly pointed out that the structural view of human systems is, in reality, a mechanistic perspective. By holding to it, analysts of systems downplay or even preclude assessment of cultural, political and behavioural aspects of systems change. [24-27]

Using the political frame as a starting point, for example, we would begin to evaluate the way power and influence shape the delivery of health care and assess the overt and covert agendas of various stakeholder groups. We might then develop reform strategies to tackle these arrangements, perhaps thereby improving democratic approaches to the way patients are treated and power is displayed, enacted and used in the health system.

In taking a cultural frame of reference we might begin to assess above-the-surface behaviours and practices which manifest as cultural ways of performing, and also analyse sub-cultures across the health system. We would look below the surface at underlying values, beliefs, attitudes and philosophies, for example exhibited in club cultures among the professions, in order to assess how these may be changed. We might encourage more productive behaviours and values in providing care. The end goal following this sort of analysis might be to emphasise team-based, bottom up approaches to reform, thereby appealing to clinicians or strengthening their skills in improving the millions of service networks that deliver care to patients, as opposed to (or perhaps as a complement to) arguing the fine points of whether the Minister should be the purchaser or the funder of health services.

In short, Podger's model privileges structure over culture and politics and, in the process, seems to under-emphasise the traction needed for thoroughgoing reform. That comes from the only people who can make reform work – clinicians and managers in provider organisations, configured in networks. My own position, considered elsewhere, [28] is that we must start more profoundly from the needs of patients and clinicians rather than with top-down structure, and ground health systems reforms in these types of fundamental, axiomatic principles.

According to organisational behaviour theory, then, the structural view tends to gloss over the surface. Political and cultural analyses often tell you much more about what needs to be done and bring to attention in brutally honest ways the likelihood of proposed reform measures being successful. The relevance for Podger's proposals is that a comprehensive version of them would bring political and cultural factors more explicitly and fully into his model.

Discussion

This brief response to Podger could be seen as a critique from the standpoint of someone who is subtly or perhaps assertively angling for the status quo. This would not be a true reading of my contribution. Podger's model is important because it renders visible, from the position of someone who has been engaged with it at senior levels, and thought a great deal about the Australian health system, a considered view of its reform. There are opportunities to strengthen the model's logical underpinnings, its evidence base and the arguments for its contribution, some of which have been raised here. Promoting health system reform in the absence of an intersectoral analysis, and failing to show how the new model will contribute to improved health status and health outcomes, weakens the model's viability and acceptability. In short, I argue that the Podger case can be fortified, and have provided some pointers to how this may be accomplished.

A structural approach to reform needs to be complemented by adequate assessment of other system variables. The politics of the model, and cultural and sub-cultural reform goals, need to be assessed and understood. If Podger can incorporate such features, perhaps he might be able to devise a model that satisfies the *realpolitik* of opposition or inertia, and design an implementation plan that works. If he can achieve that, he will be in a stronger position to secure support for his model, and will increase its chances of success. Thus it seems that Podger's pressing task is to consider whether and how his model can overcome some of the shortfalls laid bare here. His third paper in this series, on the implementation of his model, scheduled for the next issue of APJHM, might profitably incorporate some of these.

For all this, Podger's model will still induce a level of discomfort in some critics, and even hostility in others. The model not only privileges structure over culture and politics, but it also privileges certain kinds of structural change – high to middle level change, rotating the power within the same old group of elites. A core question of difficulty and importance – what will lead to profound improvements in the health of the population, and fundamentally empower patients – is left alone. A challenge of the radical, for example, is never tackled: should we give resources not to providers, but to the most needy groups so they can purchase services and thereby shape priorities? It is surely

time for more blue sky thinking of this kind. We might then promote thoroughgoing, responsive, patient-led reform.

Acknowledgements

My appreciation goes to my colleagues Mary Westbrook, Rick Iedema and Jo Travaglia at the Centre for Clinical Governance Research at University of New South Wales for helpful comments on an earlier draft of this paper. Thanks also to Johanna Westbrook at University of Sydney and Mary Harris, APJHM's Editor, for their insights.

Competing Interests

The author declares that he has no competing interest.

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RESEARCH ARTICLE

Regulation in the Doldrums: reforming private health care sector legislation in Bangladesh

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Abstract

Objectives: **To describe the origins of private health care sector regulation in Bangladesh and to identify both deficiencies and reforms necessary for more effective control of this growing sector, including draft legislation.**

Design: **The research combined documentary analysis and confidential in-depth interviews conducted in Dhaka. Informants included private health service managers, Ministry of Health officials and consumer advocates.**

Setting: **Unable to provide health care for the growing population, the Government of Bangladesh has welcomed private sector investment and provision, leading to the largely unregulated, rapid expansion of for-profit private clinics and hospitals. Private health sector legislation was originally promulgated under martial law in 1982 and has been poorly enforced.**

Findings: **A range of deficiencies in regulation were identified, including inadequate definition of services and the absence of comprehensive infrastructure requirements, leading in some cases to serious abuses. The qualifications of providers, quality of care, and excessive provision of services were not subject to regulatory scrutiny. The poorly-resourced regulatory authorities operated in a highly centralised system, often lacking both the authority and willingness to enforce legislation. Corruption was a problem, occasionally involving the use of extortionists to intimidate government officials. The interests of consumers have not been well served due to, mismanagement and poor governance in regulating the private health sector.**

Conclusions: **It is imperative that regulatory reform is introduced, despite the opposition of vested medical interests and attempts to dilute its provisions. The draft law attempts comprehensive regulation but still has deficiencies. Nor does it respond to demands for a more independent and decentralised regulatory apparatus, sensitive to consumer rights and empowered to deal with corrupt practices. Further reform will therefore be necessary.**

Abbreviations: BMA - Bangladesh Medical Association; BPMPA - Bangladesh Private Medical Practitioners Association; CMLA - Chief Martial Law Administrator; MOHFW - Ministry of Health and Family Welfare.

Key words: Bangladesh, private health sector, reform, regulation

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Introduction

For almost a quarter of a century, Bangladesh's private health care sector has been regulated under legislation originally promulgated under martial law at a time when this sector was at a fledgling stage. The law has been amended only slightly, despite the burgeoning of private health facilities. Problems associated with private health sector regulation and concerns about the delivery of services, quality and standards of care have been reported in various studies, and in the national press. [1,2,3,4,5] The growth of this sector has posed challenges for the state as the private sector has failed to ensure that the quality and standards of health care meet those demanded by consumers. [6]

In this context, the state has a responsibility to protect citizens, and to maximise the benefits and minimise the negative effects of the private provision of health care. The implementation of regulations is an effective way to meet consumer demands for the protection of their rights. According to figures cited by the World Bank, private health expenditure represents 56% of total health expenditure in Bangladesh, of which 93% is paid out-of-pocket. [2, p. 4] It has also been found that the disadvantaged use the private sector more frequently than the public sector for outpatient care, despite the latter being free of charge. [2, p. 6]

Successive governments of Bangladesh have sought to improve the health status of the population. Government policy has been to encourage the development of the private health sector, which is evident in the policy and planning documents of the Bangladesh Government. [7,8,9,10] International development assistance agencies have also promoted private health care sector growth and encouraged the building of a partnership with the public sector. [2,11, pp. 42-43,46; 12, p. 50-56] By 1997 there were 6,213 private hospital beds in 158 private hospitals and 29,106 beds in 645 public hospitals. In addition, there were some 5,158 private nursing home beds. [2, p. 3] As the World Bank has noted, more recent data is unavailable. [2, p. 3]

The number of private hospitals and clinics is growing without adequate provision for quality and standards of care. [3,5,11, p. 45-46] The rapid development of the private sector has challenged the state to ensure that optimal care is provided. The implementation of regulatory activities is pivotal to the attainment of the Government's mission to ensure quality and standards in the private provision of services. As the World Bank has observed in a recent study:

> *. . . the form and scope of government engagement with the private sector is limited and does not seem to be in accordance with the importance of the latter. This refers not only to the lack of contractual relationships in order to harness the private sector for public policy goals, but also to the insufficient regulation of private sector providers.* [2, p. 6]

Methods

This study used qualitative research methods, including in-depth interviews undertaken in 2003. Data were drawn from hospitals and clinics owned by private individuals, groups, and companies, offering services on a for-profit basis. Primary sources of data included semi-structured confidential interviews with government officials, including officials from the Directorate-General of Health Services and the Ministry of Health and Family Welfare (MOHFW), private hospital executives, provider associations, representatives of various health rights and advocacy groups and medical professionals. Official development plans were also consulted as a primary source of data. Secondary sources included journals and press reports.

Interview data were analysed thematically and the analytical approach of all sources of data drew upon the policy analysis model of Walt and Gilson [13] and stakeholder analysis concepts of Varvasovszky and Brugha. [14]

The Ethics Committee of the Faculty of Health Sciences, La Trobe University, Melbourne, Australia, approved the research project.

Findings

Bangladesh's first-ever legislation to regulate the private health sector was realised under martial law in 1982. General H.M. Ershad had seized power in March 1982, and Parliament had been suspended. During military rule, the power to promulgate an ordinance, normally the prerogative of the President, rests with the Chief Martial Law Administrator (CMLA). However when civilian rule is restored, the ordinance needs to be presented for enactment to the first session of Parliament.

Although health legislation is not normally high on the agenda of newly-installed military regimes, *the Medical Practice and Private Clinics and Laboratories (Regulation) Ordinance* was promulgated by the CMLA a few weeks after the proclamation of martial law.

Not surprisingly, the legislation was not an initiative of the military regime: preparatory work on this ordinance had begun prior to the military takeover. At that time physicians based their fees variously upon their reputation, designation and place of practice as well as the market demand for their services. These disparate fees were a matter of concern. Another problem was the absence of minimum standards in many new private clinics, pathology laboratories and diagnostic centres. While the Government wished to see the private health care sector develop, it also recognised the need for regulation to protect consumers. The CMLA subsequently took over this regulatory initiative. Thus Bangladesh's first private health sector legislation was enacted in an authoritarian way using the technical support of the bureaucracy but without parliamentary scrutiny or public debate.

The 1982 Ordinance to regulate medical practice, private clinics and laboratories

The main features of the 1982 legislation, which is still in force, to regulate private clinics and hospitals are:

- **Licensing:** All private clinics, hospitals and laboratories must be licensed to perform operations.
- **Requirements for facilities:** A clinic requires a space of at least 80 square feet of floor for each in-patient bed and must provide an hygienic environment, an air-conditioned operating theatre, and essential medicines, instruments and equipment.
- **Staffing:** A facility owner(s) needs to employ full-time at least one registered doctor, two nurses, and one auxiliary for every ten beds. This employment profile must be maintained at all times. Specialist medical practitioners must be employed for operations and the treatment of patients.
- **Charges:** A list of charges for different services must be displayed in the premises. A private facility must maintain a register of the names and addresses of patients and must provide a printed receipt to patients for any payment.
- **Inspection:** The Director-General, or his or her authorised representative, can inspect the premises of a private facility. If the facility does not follow the licensing conditions or contravenes any provision of the law, the Director-General may cancel the licence of the facility, after giving the owner an opportunity to 'show cause' against such cancellation. The Director-General can also prosecute the owner of a facility for contravening any provision of the law. The Court may impose a fine of up to 5,000.00 Bangladeshi Taka (approximately US $75) or imprisonment for a maximum period of six months, or both on the owner(s) of a facility. In addition, the Court may order the confiscation of all or any of the moveable property in the facility.
- **Appeal:** Any person aggrieved by an order of the Director-General may appeal to the Government within 30 days of its receipt. The decision of the Government on such an appeal is final and cannot be questioned by any court of law. [15]

Problems with the 1982 Ordinance

Several inadequacies and shortcomings in the legislation have become evident since its promulgation.

1. Inadequate definitions

The 1982 legislation uses imprecise definitions. For example, a "private clinic" is merely defined as a facility in which patients are admitted or provided with medical or surgical treatment. It may be called a nursing home, hospital or clinic, despite the disparate functions of each facility. Informants agreed that the definitions provided in the 1982 ordinance were too general to be effective. For example, the definition of "private laboratory" does not include private blood banks.

The variety of specialised facilities now operating necessitates a functional definition of private hospitals, clinics, maternity centres, nursing homes, specialised hospitals or clinics, polyclinics and ambulatory clinics.

2. Absence of comprehensive infrastructure requirements

Several informants were concerned that current legislation does not require the submission of a comprehensive building plan for the establishment and maintenance of a proposed private health care facility. The current law stipulates a floor-space requirement, but does not address other infrastructure issues or building codes, such as the building layout, and the number of toilets and bathrooms. Waiting rooms, outpatient areas, emergency wards and medical support facilities, such as laboratories and radiology, are not mentioned; nor are kitchens, washing rooms, incinerators, hazardous waste disposal facilities and parking areas included. Moreover, the law does not deal with modification of the premises of a facility.

According to informants from the Ministry of Health and Family Welfare (MOHFW), in some extreme cases, service providers have established health facilities in dilapidated premises, in which the kitchen functioned as a pathology laboratory or as an X-ray room, without adequate protection from radiation.

There were also concerns about the provision of emergency facilities. Many private hospitals lacked an emergency department, whilst some health services which did have an emergency department were reluctant to admit emergency patients due to a lack of specialist medical staff. Emergency patients were often referred to public hospitals. Any new law should therefore make the provision of emergency departments mandatory.

3. Problems with the regulatory authority, its powers and the enforcement of the law

Informants from both the Ministry and health advocacy groups claimed that the law does not make the regulator accountable, nor does it create a transparent regulatory system. They saw transparency as essential for the effective administration of regulation.

The present law lacks comprehensiveness in describing the powers and authority of the Director-General of Health Services. For example, while the law states that the Director-General, or an authorised person, can inspect a facility, it does not detail what constitutes an inspection, the suspension of a licence or "show cause". Nor are the process of delegation, and the status and power of an "authorised" person, stipulated. No penalties are spelt out for failure to provide necessary information. Indeed, the Director-General himself observed that:

> *The existing law is not strong enough to prove an offence in any private clinics or hospitals. The best effort the Directorate Office can do is to bring charges against those clinics for malpractices and serve them with show cause notices.* [16]

Most staff or representatives from the Directorate and Ministry said that the law was inadequate. One officer in the Ministry commented:

> *The law does not give enough power to the Directorate to close facilities which have failed to meet compliance requirements.*

The issue of unethical and corrupt practices was raised by some health consumer advocates, one of whom observed that:

> *The law does not regulate or monitor technology acquisition, excessive provision of services, unethical behaviour, unnecessary investigations and interventions, income tax evasion and patient referral practices.*

Health rights advocates observed that the 1982 law does not deal with the fitness of individuals to own and operate a private facility. It does not exclude dishonest persons, loan defaulters, bankrupts or persons convicted of fraud. Nor are the responsibilities of a private facility licence holder stipulated. There are no penalties for unethical practice by providers and physicians, such as paying commissions for sending patients to a private facility, or fee-splitting. According to several informants from different groups, the enforcement process of the law is not articulated clearly. The law does not indicate how the renewal of registration and licences should be carried out, or whether it should be done after, or without, inspection. It makes no provision for dealing with obstruction or resistance by owners, or others, of regulatory activities; nor does it make any provisions for those who aid or abet another person to commit an illegal offence. Moreover, penalties for subsequent offences are not stated.

An additional problem identified in the literature on regulation in Bangladesh is the length of time taken to issue a licence. [17, p. 8] Several participants commented that the administrative process is highly centralised in the capital, Dhaka City, and that registration usually takes more than six months. The processing of a first licence may take more than 12 months, while renewing a licence may take almost as long. In some cases licence negotiations involved the use of inducements. Some private sector managers maintained that an unofficial brokerage system exists, involving the negotiation of licences. Some claimed that local *mastans* (extortionists) are sometimes employed to help owners to gain or renew a licence.

Kawnine et al (1998) have observed that the lack of clarity of regulators' powers "…provides MOHFW inspectors with considerable latitude for demanding a 'rent' from clinic owners for approving registration". [17, p. 9] Private sector managers claimed that the law does not clarify many of the issues, such as the timeframe for issuing and renewing licences, the distribution pattern of facilities, and qualifications of the owner of a facility. Even the renewal process is inadequately detailed.

Problems exist regarding the distribution of power in relation to the closure of a facility. The Director-General may serve notice to close a facility but a provider may not follow this directive. The legal powers of the Director-General, the police or the MOFHW are not clearly defined in legislation.

Another criticism of the law is that it does not make any provision for receiving and dealing with complaints made by, or on behalf of, patients. The law fails to mention sanctions for injury or for causing a danger to public health or safety. This deficiency has been observed in previous studies of the private health sector in Bangladesh. Hye (2003) maintained that the law "neither provides much attention to consumer protection rights, nor does it provide any practicable means of redress for harm done to consumers". [18, p. 61] Ali (2000) points out that patients' "right to be admitted into health facilities in an emergency and their grievances are not included in the legislation". [19, p. 11]

4. Staffing and quality provisions

Another issue of concern to informants was ambiguity about the qualifications of personnel. The law clearly stipulates physicians' qualifications but makes no mention of those of allied health professionals. One health rights informant observed:

> *The providers recruit non-qualified persons as technicians, pathologists, radiologists and nurses. Patients are cheated by the providers, as they allow non-experts to perform specialists' jobs. Providers should not employ, or allow, unqualified or non-specialist persons to provide specialised medical care.*

This problem has also been identified by other researchers. As Hye (2003) observed, as a result of this legal loophole most of the private clinics and hospitals do not employ registered staff nurses. [18, p. 46] The law does not specify staffing patterns or minimum qualifications for nurses, technicians, pharmacists, radiologists, and pathologists; nor does it require induction programmes, in-service training or refresher courses for staff. In addition, the law does not address the need for specialised non-medical personnel.

Another problem with the law is its emphasis on inputs, such as physical conditions and personnel, rather than outcome measures, in terms of quality of care. An official in the Directorate concluded that:

> *The law is not able to maintain quality and standards in the private sector.*

A private facility manager observed that:

> *Quality is a neglected issue as far as the law is concerned. There is an absence of maintaining medical records and periodic medical audit.*

5. Social justice and complaints issues

Consumers and health care advocates demanded legislation for fee structures for services provided to poor patients so that they could access necessary treatment. They also wanted mechanisms for lodging complaints. As one informant put it, the new law "should clearly articulate a complaints mechanism, consumer rights and procedures for redress".

6. Failure to review legislation

Another concern identified by all informants was the absence of any formal review process of the original legislation. Several Directorate officials observed that while changes have occurred in medical science and technology, and in people's demands and behaviour, the law has not kept pace with these changes.

A pertinent example of outdated legislation is that of fees. The legislation specified that the Government would amend the fee structure "from time to time" but this has not happened. Due to inflation a fee structure set almost a quarter of a century ago is now clearly unrealistic.

The Government's reluctance to reform and enforce legislation on fees reflects the influence of the medical lobby. The regulation of fees by the Government has been opposed by the Secretary-General of the Bangladesh Medical Association (BMA) who argued that, since the Government has endorsed market principles in the economy, it should not interfere with fees for medical services. Rather, these should be determined by physicians and their organisation and should be consistent with prevailing market prices. [20] The president of Bangladesh Private Medical Practitioners Association (BPMPA) shares this view, maintaining that in an "open market system, there is no justification for having fixed rates". [16]

Consumer informants (including health consumer groups) claimed that the Government's lack of attention to fee restructuring indicated its apathy towards consumers' interests. As one consumer advocate observed:

> *The Government should pay attention to consumers and determine a fee structure after consultation with various stakeholders. Providers are now charging whatever they like. It is absolutely a wrong practice.*

Attempts to reform the 1982 Ordinance: 1996-2001

The Bangladesh Awami League, which held office from 1996 to 2001, included revision of the 1982 legislation in its health sector reform policy. A draft Bill was prepared in 2000 but was not placed before Parliament. A new government, led by the Bangladesh Nationalist Party was elected in 2001 and continued to develop the draft prepared by its predecessor. The Government involved a consortium of foreign aid donor agencies, headed by the World Bank, in preparing legislation to regulate the private provision of services. The development of this law was part of the policy agreement between the Government of Bangladesh and the consortium to restructure the health sector. [21] The Government circulated the draft proposed Bill among medical stakeholders, including the BMA, the BPMPA and the Bangladesh Private Clinics and Diagnostic Owners Association. The BMA did not formulate a comprehensive alternative proposal but, instead sought the deletion of parts of the proposed Bill considered harmful to its members' interests and the inclusion of clauses which would further their interests. The BMA has a considerable influence on the Directorate's activities through its links with

the party in power. Several press reports have claimed that the BMA has considerable influence upon the Ministry of Health and Family Welfare. [22,23,24]

A limited agreement was reached between the Ministry and the BMA. [25] The reworked law was subsequently sent to the Ministry of Law, Justice and Parliamentary Affairs for review, specifically to identify any loopholes or any contradictions with the country's basic laws, and then forwarded to Cabinet. The draft Private Medical and Health Service Bill was approved by a cabinet meeting chaired by the Prime Minister. [26]

However, early in 2004 it was reported that the introduction of the proposed Bill to Parliament had not gone ahead due to the detection of major flaws in a few of its clauses. [27]

Most BMA members were reported to be against the Bill and had actively lobbied for its withdrawal. In a press interview about the proposed law the BPMPA president stated: "We strongly oppose the idea of law suits against medical practitioners. We already have a body to monitor allegations of malpractice, negligence and other violations." [16] This association continues to be unwilling to accept the proposed law unless changes or deletions to certain clauses are made. [16]

In terms of the power of the medical lobby in Bangladesh, it is significant that in the course of its discussions and consultations with various stakeholders, the Government did not consult any consumers or the health rights advocacy groups.

A proposed Bill to reform private health sector legislation: 2002 - 2006

In 2002, in an effort to deal with the regulatory problems associated with the growing number of private facilities, many of which were unregistered and not even included in official statistics, a new Bill was drafted. [28] The principal features of this draft Bill include:

- A broader focus than was the case with the initial 1982 Ordinance with 19 areas of private health covered (the 1982 law defined only eight areas). The new law also defines the roles of nurses, private clinics, medical assistants and licensees.
- No person is allowed to establish or to maintain a private clinic or facility without a licence.
- Private facilities will be classified according to the services they provide. The Director-General is empowered to make by-laws on equipment, personnel and cleanliness so that the private facilities are obliged to maintain minimum standards. The Director-General will determine the fees to be charged by the facility for providing different services.
- A timeframe for the granting and renewal of a licence. A licence will be valid for three years. The Director-General will assess an applicant's premises within 60 days of the submission of a licence application, and will take action according to the investigator's report.
- Officials of the Directorate-General of Health Services and the civil administration with delegated authority, especially personnel from the Deputy Commissioner's office, are empowered to enter and inspect any area of a private health care facility. They may examine any document or piece of equipment and can take away any item for further examination. The power of the licensing authority is extended from temporary closure to permanent closure of a facility. If a regulator or the regulatory authority believes that a facility is performing any harmful or dangerous activity, or if the services provided are substandard, the facility can be closed immediately.
- As in the original Ordinance, The Director-General of Health or an authorised officer has the power to file a case in the courts; however, the proposed law increases the fine for medical negligence or misconduct.

Conclusion

Legislative reform to address standards and the quality of health care services provided by the private sector in Bangladesh is years overdue. Comprehensive legislation is a vital first step for the effective regulation of the private sector.

There are many positive features in the most recently proposed law. It includes some of the imperatives for reform, such as a timeframe and procedures for the issuing of a licence, penalty provisions, the power of a regulator to investigate premises, provisions for closure, and procedures for the formulation of by-laws covering personnel, fees structure, equipment and hygiene. However, the proposed law disregards many of the other requirements for reform, including the decentralisation of the licensing process and consumer demands for the inclusion of medical practice under the criminal or consumer protection law. Nor are

medical practice by unqualified personnel and the excessive provision of services for-profit and quality of care included. The demand for a non-partisan and impartial regulatory body is also ignored. Possible corruption of regulators, medical negligence and the need for a complaint mechanism are also overlooked. Finally, the proposed law does not address the need for a detailed plan of proposed facilities to be submitted as part of licensing applications.

The Government's failure to introduce the reformed legislation into Parliament in a timely fashion is also a concern. Four years have elapsed since the drafting of the Bill in 2002. Vested medical interests have successfully delayed reform. Proponents of regulatory reform, both within the state and in civil society, need to mobilise demands for action on the part of the Government. They must ensure that the new legislation is effective in protecting the interests of the increasing numbers of Bangladeshis seeking health care in the private sector.

Acknowledgements

The authors wish to acknowledge the independent reviewers for their useful suggestions to improve the article.

Competing Interests

The authors declare that they have no competing interests.

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RESEARCH ARTICLE

Changing an Incident Reporting and Management Paradigm: the NSW Safety Improvement Program

S Michael, M Robinson, P Douglas, J Braithwaite

Abstract:

Objective: **To conduct a formative evaluation of progress to date with safety improvement initiatives in New South Wales.**

Design: **Description of safety improvement initiatives. Secondary analysis of extant databases of reportable incidents, root cause analyses and categories of improvement actions to date.**

Setting: **The state of New South Wales, Australia.**

Main outcome measures: **Education initiatives, policy reforms, reportable incident data, root cause analyses categories, safety improvement activities.**

Results: **Over 2,500 people have been trained in the safety improvement program. Over 1,000 others have been exposed to safety improvement educational sessions. This represents over 3.9% of the 90,000 full time equivalent staff in the New South Wales health system. Evidence shows incident reporting is increasing. Causal and contributing factors are more explicit via root cause analyses.**

Conclusions: **There is early evidence of systems improvements in New South Wales.**

Abbreviations: NSW - New South Wales; RCA - Root Cause Analysis; RIB - Reportable Incident Brief; SAC - Severity Assessment Code; SIP - Safety Improvement Program.

Key Words: incident management, harm reduction, adverse events, systems approaches, root cause analysis

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Introduction

There is a growing body of international and Australian knowledge that has contributed to the introduction of patient safety initiatives. Borrowing from other high-risk industries where safety is paramount, Safety Improvement Programs (SIPs) aim to develop techniques to identify risks, investigate and analyse incidents and support improvements in practice. In principle, these techniques allow health services to manage known risks actively and develop systems to identify new or emerging risks.

Recent studies, [1-4] investigations and inquiries [5-8] into health care have highlighted the need for clinicians, managers, policy makers and educators to look carefully at quality and safety. In 1995 the Quality in Australian Health Care Study was commissioned as part of the Commonwealth Government's Review of Professional Indemnity Arrangements for Health Care Professionals.

This research focused public attention on the incidence of adverse events in the health system. The study found that around half of adverse events experienced by patients in the health system were preventable. It showed that interventions, care and treatment intended to provide diagnostic information or improve patient health can inadvertently cause harm and that this risk is particularly high in the acute hospital environment.

Background

This paper traces the development of an initiative designed to tackle this issue by analysing the SIP in the New South Wales health system since its inception in 2002. New South Wales is Australia's most populous state and represents almost a third of Australia's economy, and is home to some 6.7 million residents. There are over 200 public hospitals and public nursing homes and some 90,000 full time equivalent staff employed in the system. [9] The majority of health care is publicly funded, and New South Wales follows the pattern of Australian health care costs which account for around 9.7% of gross domestic product. [10]

SIP is a major initiative of NSW Health and is designed to provide a coordinated approach to the prevention and management of incidents that occur in the New South Wales health system through increasing knowledge about why errors occur and applying that information to enhance patient and staff safety. Incident management is not a panacea for quality and safety. Many approaches are required for effective improvement of health services. [11] These include accreditation, the application of clinical indicators, morbidity and mortality review, risk management, clinical governance and clinical audits. [12,13] Incident management is one of these, and is considered an important plank in improved patient safety.

Until the introduction of SIP, there was no uniform structure or process in New South Wales at either the state or Area Health Service level to manage incidents in a coordinated, standardised manner. The previous reportable incident system in New South Wales did not have an embedded management process and resulted in few improvements being made to the health system as a whole. At an Area Health Service level, a small number of events was subject to thorough investigation procedures with actions and recommendations identifying ways to prevent similar recurrences.

However other more frequent incidents remained unidentified or unreported and hence uninvestigated. Exacerbating this issue, it was common for incidents arising in health care, as in other industries, to be blamed on the individual. [14] This affected reporting levels and ignores the context-dependent nature of most incidents. [15]

The NSW Safety Improvement Program attempts to alter this response pattern by reinforcing a systems approach rather than an individual approach. It recognises that people do not come to work intending to do a bad job or to make a mistake; on the contrary it emphasises that certain circumstances and the work environment can combine to produce unwanted outcomes. [16] This leads to an acceptance that health care workers do not operate in isolation and that both problems and solutions are of a systems nature. [17] We do not know the extent to which deep-seated cultural characteristics can be modified. However, SIP is an initiative designed to underpin such change.

Establishing the safety improvement program

In late 2001, NSW Health invoked a process to determine the key components of an effective incident management strategy for the New South Wales health system. It was a response to the national agenda agreed by health ministers subsequent to the establishment of the Australian Council for Safety and Quality in Health Care. [18] Following a literature review, expert focus groups were conducted to canvass attitudes and a search for effective systems was initiated interstate and internationally. A steering committee identified three key components for an effective system. The first component is a culture and environment that facilitates identification, reporting, investigation, analysis and action associated with health care incidents. [19,20] In order to improve the systems of care provision and to be effective, incident management requires that as many adverse events or near misses as possible are known about and managed. [21,22] The second is an information system that will support this changed, incident-aware culture. The third component is a training program to develop cohorts of clinicians, managers and policy makers skilled in safety improvement processes and approaches. [23] Consumers were included in the program in an innovative approach to safety education.

The New South Wales safety improvement initiatives are based on work undertaken by the National Centre for Patient Safety in the Veterans Administration in the United States of America. [24-26] The establishment process adopted in New South Wales is outlined in Table 1.

Table 1: The staged establishment process of the New South Wales Safety Improvement Program, May 2003 to May 2005

• Educate and train those key personnel in the New South Wales health system responsible for program development.
• Develop resources to support the program state-wide.
• Launch the program to health care providers and consumers, with the NSW Minister for Health and the Director of the National Centre for Patient Safety.
• Pilot the process in eight health services, including education and support.
• Amend training and resource materials based on feedback from the pilot process.
• Provide education and training state-wide for all Area Health Services and 210 hospitals.
• Appoint patient safety managers in each of the Area Health Services.
• Follow up specific education and support needs from a centralised faculty.
• Involve key clinical groups in clinical risk management activities.

The implementation phase

The implementation of SIP has involved many strategies, and resulted in the institutionalisation of a number of new concepts and policies in the New South Wales health system. They are summarised as follows:

1. Education and training

Over 2,500 health care providers and consumers have attended two or two and a half day education and training sessions in safety improvement processes. This evidence-oriented program, [26-29] accompanied by resource materials, covered the following:

- How to identify health care incidents;
- How to conduct a Root Cause Analysis (RCA) of major incidents;
- How to use the incident Severity Assessment Code (SAC);
- How to recognise and minimise human factors in health care; and
- How to develop and implement recommendations and measure outcomes to improve health care delivery.

2. The Severity Assessment Code (SAC)

The SAC is a risk matrix that is applied to all notified health care incidents to ensure that appropriate action is taken. The incident is rated for both the severity of the outcome and the likelihood that it might recur. [25] Incidents are then given a numerical rating from one to four with one being the most severe, and four the least. Stratification judgements can be accomplished at two levels; the actual outcome, and the potential or worst case scenario for that incident. The latter provides the opportunity to manage all incidents and identify system vulnerabilities in order to prevent the next serious adverse event, thereby maximising the benefit of the SIP. The application of the SAC encourages high risk incidents to be acted upon immediately and enables lower risk incidents to be aggregated into data sets for later assessment and management.

3. The Reportable Incident Briefing System (RIBs)

The RIB system was established to facilitate the identification of serious incidents and the reporting of these to the relevant Area Health Service Chief Executives and NSW Health for appropriate management. A serious incident is defined as a Severity Assessment Code 1 incident and reportable to the Department. Nationally the Australian Council for Safety and Quality in Health care had developed a list of agreed sentinel events. [30] However, using the SAC rating, the RIB system has highlighted additional serious clinical events that were previously not notified or included in the national list. This has enabled further analysis of such incidents and the development of more state-wide policies for improvement – for example strategies to prevent wrong site, wrong patient, wrong procedure incidents.

4. Root Cause Analysis (RCA)

Root Cause Analysis was a relatively new process for most health services when introduced in the pilot phase. The RCA process has since been accepted by many clinicians as a well structured method for reviewing serious clinical incidents and has contributed to many preventative solutions which have been promulgated across the entire system.

The systemic nature of the RCA process demands that action be taken and accountability for that action be established in policy, and held by the chief executive.

5. Centralised action and support for the NSW Safety Improvement Program

The development, implementation and support for the SIP were instigated by NSW Health and provided collaboratively by the Quality and Safety Branch in the NSW Health Department and the former Institute for Clinical Excellence. Recognising the critical nature of this support, in 2004 the Minister for Health expanded the role of the Institute for Clinical Excellence and re-established it as the Clinical Excellence Commission. The support of both agencies has been seen as crucial for promoting uniformity in implementation, support for state-wide policy development, and consistency of support for RCA teams, health service managers and patient safety managers. A SIP steering committee comprising a range of stakeholders has the task of overseeing development of the program and reviewing how action is taken. A bulletin alerting staff to safety events, issues or risks (Safety Advocate) is published regularly by NSW Health to provide evidence based information to the health system. Legislation has been enacted to provide statutory protection for members of RCA teams and for the working papers associated with RCAs. The causal statement issued by each team is however a public document. The roles of both agencies have been clarified through this and other processes. NSW Health is responsible for safety and quality policy, implementation and outcomes, and the Clinical Excellence Commission for ongoing support, training and assessment of quality and safety across the health system.

6. Human factors awareness

Human factors awareness training has been introduced for health care providers to increase levels of sensitivity toward workplace processes, serious health care incidents and their investigation. This encourages a systems rather than an individual blame approach to all incidents.

A human factors perspective recognises there is a complex set of inter-relationships between humans, technology and organisational structures, with no perfect, fail-safe system. Ideally, recommendations about Severity Assessment Code 1 incidents should include suggestions that are most likely to prevent recurrence of the incident. These include forcing functions (recommendations that ensure a particular sequence will occur in specified order, such as where automatic teller machines force you to take your credit card before dispensing cash). These can range from high-end physical barriers to technological forcing, such as our automatic teller machine example, to process redesign recommendations.

Error is a prevailing feature of human systems. High-reliability industries such as aviation and nuclear power generation have recognised that the 'name, blame, shame and re-train' approach does little to prevent future errors. Instead, the systems approach recognises an erring individual is situated in a complex web of inter-related, underlying social and organisational factors which contribute to error. [31-33]

7. Patient Safety Managers

Funding for and appointment of specifically trained Patient Safety Managers in each Area Health Service is integral to the SIP. This has helped draw attention to the importance of the program, provided trained resources for it, and established a commitment from each Area Health Service to the ongoing requirement to identify and treat the risks inherent in health care.

All this comes together in an incident management process which has been refined over several years of the program. Table 2 summarises the key steps in the process.

Table 2: Key steps in the incident management process of the NSW Safety Improvement Program, May 2003 to May 2005

• An incident is identified and reported to a manager.
• The manager uses a purpose-designed Severity Assessment Code (SAC) matrix to prioritise the incident.
• All serious incidents, ie SAC 1 and 2, are reported to the Area Chief Executive.
• A SAC 1 incident must be reported to the NSW Department of Health within 24 hours and a Root Cause Analysis (RCA) or equivalent review of the incident commenced within 10 days.
• Other incidents may be reported to the NSW Department of Health at the discretion of the Chief Executive, including those attracting external attention.
• A report of the results of the RCA is to be forwarded to the NSW Department of Health within 65 days of notification of the incident.
• Analysis of incidents and identification of opportunities for improvement are undertaken at unit, facility, area and state levels.
• These reports and recommendations are analysed and managed by the Department of Health at the state level for possible policy development, and are fed back to the system as lessons learned so as to avoid similar incidents occurring in other Area Health Services.
• All incidents, including SAC 3 and 4, are aggregated and reviewed regularly by the Clinical Excellence Commission so that appropriate action can be taken to improve the system and reduce the recurrence of common incidents.
Further information: http://www.health.nsw.gov.au/policies/PD/2006/PD2006_030.html

Methods

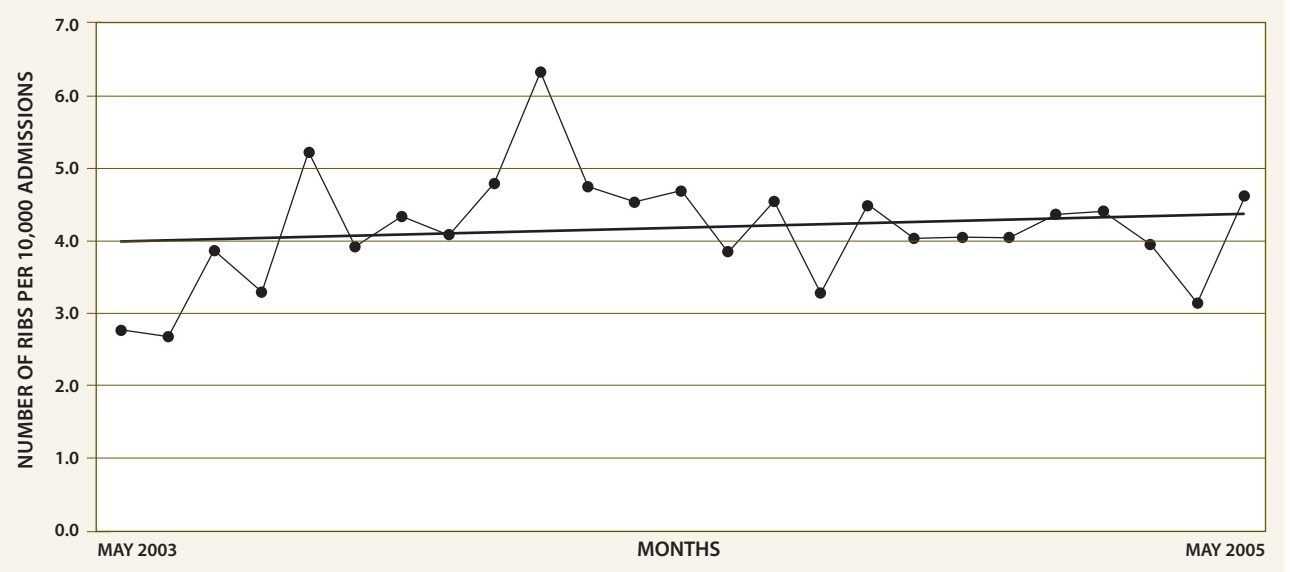
Within the context of this policy and systems reform we conducted secondary analyses of available data. We examined the reportable incidents database and aggregated this information into monthly trend data for comparative purposes. We broadly compared reportable incidents with data drawn from the previous reporting system, which was based on ad hoc reporting and tended to be limited to corporate-type incidents and unexpected deaths. In addition, we analysed the main categories and numbers of SAC 1 incidents and the causal factors of root cause analysis data. The main actions taken in response to the safety improvement initiatives and the assessment of SIP already undertaken by NSW Health were summarised. Statistical data were analysed using Microsoft Excel 2002 version SP3.

Results

In addition to the over 2,500 health care staff and consumers that were trained in this education program, almost 1,000 people have attended forums that have provided an overview of the program. Participants have included health service Board Chairs and Chief Executives, senior clinicians, staff of the New South Wales Health Care Complaints Commission, and surveyors and staff from the Australian Council on Health care Standards, the largest health service accreditation provider in Australia.

One way in which progress with this program can be measured is by the increase in the number of incidents that are notified and then acted upon. In the first 12 months of reporting via the RIB process, over 1,600 reportable incidents have been received. Compared to the previous reporting system, this represents a 30% increase in the reporting of incidents related to clinical management. Following this steep jump, reporting has continued to rise progressively. Figure 1 shows the monthly trends in reporting of SAC 1 notifications, expressed as a rate per 10,000 inpatient separations, between May 2003 and May 2005. The data show that an initial jump in reporting has largely been sustained.

Figure 1: Severity Assessment Code 1, reportable incident briefs per 10,000 patient admissions, New South Wales Safety Improvement Program, May 2003 to May 2005



Prior to SIP, excluding reports related to suspected suicides, only 5% of incident reports were about clinical care. In 2004, excluding suicides, 35% of reports received related to clinical incidents. Figure 2 exhibits four main categories of SAC 1 incidents received from May 2003. These are: clinical management, suspected suicide, organisational issues and assault and security matters. Although these particular categories do not show an increase, overall, there are rising reporting levels, as Figure 1 shows. Clinical management incidents are made up of all clinical incident categories (eg falls, medication errors, wrong site surgery, and issues related to clinical care).

Whilst the numbers were slightly less in the second year for clinical management, there was a definite reduction in some areas (eg wrong site surgery) whilst other incidents remained stable. The suspected suicide data in 2003/2004 related to suspected suicides in the community that were known to the mental health service. The definition for this category changed in 2005 to be more specific to include only notifications where there had been contact with the mental health service within the last seven days. The fluctuations in both categories are not statistically significant and continue to remain within control in 2006.

Figure 2: Main categories and number of Severity Assessment Code 1 Incidents, New South Wales Safety Improvement Program, May 2003 to May 2005

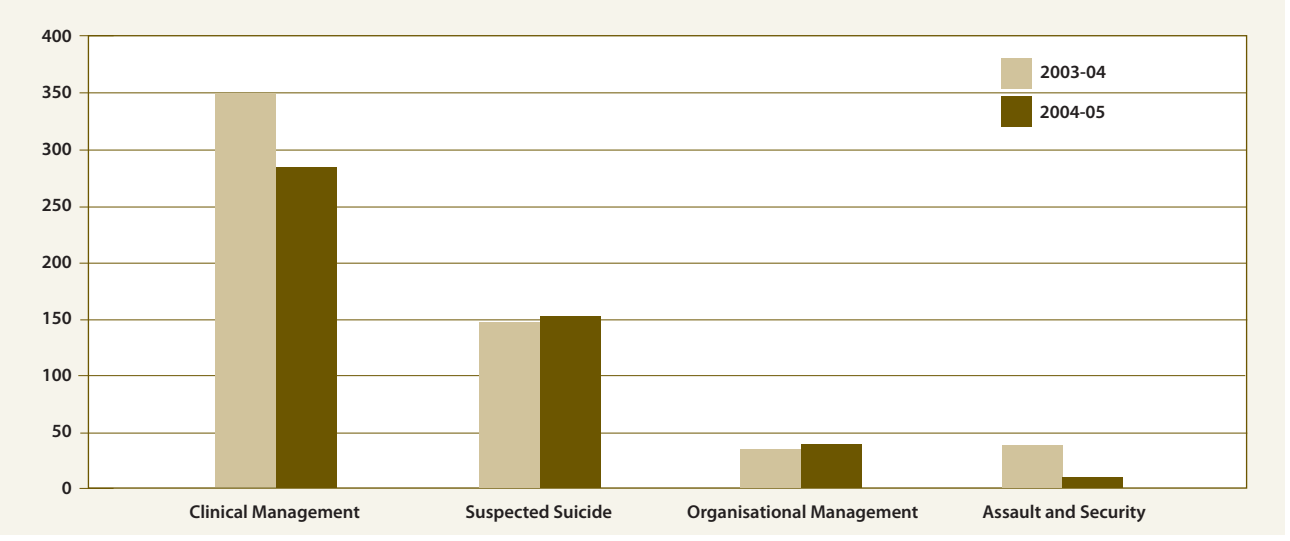
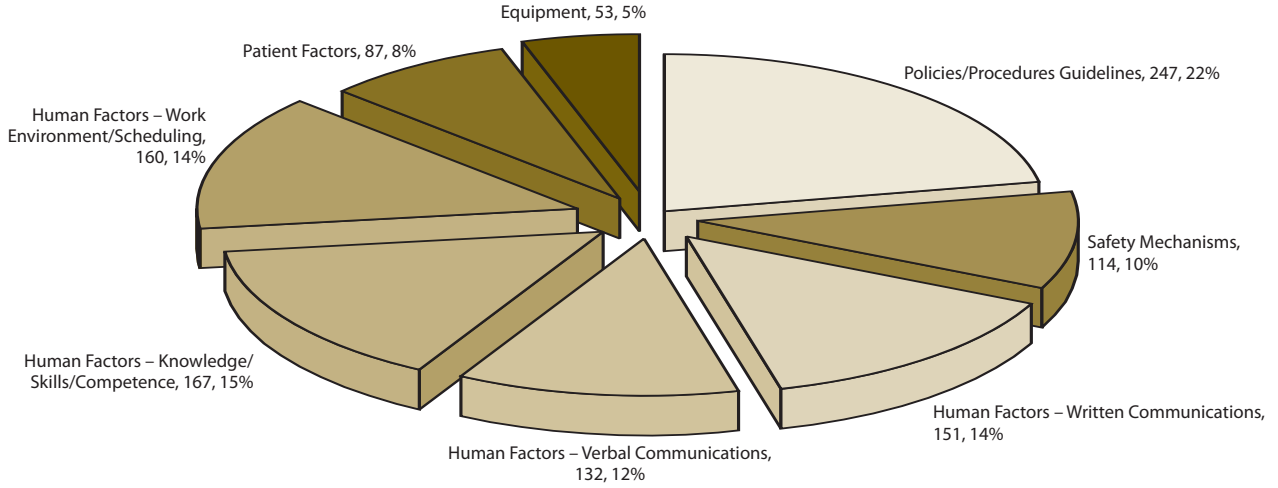


Figure 3: Number and percentage, causal factors identified in Root Cause Analyses, of New South Wales Safety Improvement Program, May 2003 to May 2005



Of the total RIBs received, over 1100 (37%) are SAC 1 incidents and over 40% of these have had RCAs or equivalent reviews completed. Analysis of the major causal and contributing factors of RCAs show that these include human factors of various kinds, patient factors, equipment, policy, procedures and guidelines, and safety mechanisms. The main categories are shown in Figure 3.

In January 2005, the NSW Minister for Health released the first report on adverse events in NSW. [34] This report focuses on SAC 1 events and was the first of an annual reporting program. [35]

Following the analysis of the RIBs and the RCAs a range of system-wide improvements have been initiated. These have involved the development of new and the revision of out-of-date policies and procedures, the provision of alerts to the system, the publication of Safety Advocates on specific high risk issues, liaison with manufacturers regarding equipment design and their improvement and the draft development of state-wide reporting mechanisms. Table 3 provides examples of some important actions taken to date.

In addition to the above, follow up evaluation visits to the Area Health Services have been undertaken to assess the overall uptake of the program, the issues identified and how staff are progressing with it. These feedback and evaluation processes have highlighted various program strengths and weaknesses (Table 4).

Table 3: Examples of safety improvement actions, NSW Safety Improvement Program, May 2003 to May 2005

• Safety Alerts - a national alert regarding the use and management of Potassium Chloride within the health system.
• Safety Advocates on medication and intravenous safety, bed rail safety, breastfeeding and the storage of breast milk, falls prevention and the use of high pressure infusion pumps.
• Equipment advice including self-inflating resuscitation bags, staple guns and retained surgical instruments.
• Discussions with manufacturers - rapid infusers and the design of visceral retractors used in abdominal surgery.
• Policy development - on accountable items, correct patient, correct procedure and correct site.

Table 4: Summary of the assessment of the NSW Safety Improvement Program, May 2003 to May 2005

• All Area Health Services have expressed levels of satisfaction with how the system is working.
• Chief Executives state that the Safety Improvement Program (SIP) has been one of the most important steps for change management and cultural change introduced in recent years.
• The process has enabled Area Health Services to identify system vulnerabilities.
• There is widespread support for current training in incident investigation.
• Area Health Service Executive members state they are hearing about many more significant adverse events compared to previous notification systems.
• Trust in the SIP is seen as the key factor for its ongoing success and sustainability.
• A high proportion of incidents result in changes in policy and procedures and more education and training.
• The process is not currently capturing all incidents, and therefore further improvement is possible: under-reporting is a problem in all incident management systems.
• There are still gaps between recommendations and implementation of actions.
• The process is still seen as resource intensive (eg time taken to do Root Cause Analyses).
• There have been requests for more training by all Area Health Services
• There have been requests for the lessons learned to be shared in a timely manner.
• Overall there has been a positive response from all staff, including medical staff, to the incident management program.
• The commitment from leaders across the health system to the program's success is seen as essential.
• Issues about confidentiality and protective legislation are raised frequently.
• Further discussions are called for about how this program links with performance management and what to do about professional accountability to complement this system accountability.

Discussion

Principal findings

There is evidence of ministerial, policy, executive, administrative, educational and practical support for incident management and safety improvement in New South Wales. Incident reporting levels are increasing, improved incident management has been enabled, and causal and contributing factors of root cause analyses are being made explicit.

Strengths and weaknesses of the study

Beyond earlier work in the United States of America by the National Centre for Patient Safety in the Veterans Administration there is little published work in this area, and we have contributed a set of data which can now be used as a baseline for future studies. Further analysis of longitudinal trend data, and more sophisticated statistical and ethnographic assessment of incident reporting and root cause analysis data, are now needed. This research is underway. [36,37]

Meaning of the study

As the next stages of the program emerge, it is important to note the longitudinal nature of these kinds of systems changes. There is evidence to suggest that quick fixes are rarely the answer to complex systems problems, [38-41] and large scale change is a journey rather than a destination. [42-43] As with any program designed to change systems and culture, the test of sustainability will have to be met. The extent to which senior executives and clinicians engage in the program will be a key determinant of change.

The early data suggest that reporting levels are increasing particularly in clinically related incidents, and clear processes are now available for system-wide incident notification and management. The program has attempted to anticipate future requirements for sustainability by instituting a 'train the trainer' program to ensure that the expertise for RCAs and RCA training is consistent and locally available. Including more clinicians, especially doctors, in the program will likely be a key success factor. The implications for health services managers are that reporting is now a fact of life, and incident reporting data and information from RCAs will increasingly govern managerial as well as clinical reform agendas.

Unanswered questions and future research

A determinant of future program success is the allocation of adequate resources. The New South Wales Government has made provision for $60 million for the NSW Safety and Clinical Quality Program over the next five years. This is a more comprehensive approach to patient safety involving many initiatives to strengthen accountability for safety and how safety issues are led, managed, reported and actioned. This broader program will thus expand and build on the platform established by NSW Safety Improvement Program. The key objectives are to provide safer care, bolster confidence and trust in the health system and to design improved models for the delivery of care. Patients need to continue to receive the highest quality of care knowing that appropriate structures are in place to monitor and manage issues as they arise.

Future investigators need to start to address safety improvement issues in more detail. Further assessments of incident reporting levels, incident trend data and RCAs and their consequences are warranted.

Conclusion

The Safety Improvement Program has been initiated in New South Wales, and its development is encouraging. Further formative evaluation of its progress is anticipated over time.

Acknowledgements

The NSW Safety Improvement Program would not have been possible without the support of our friend and colleague Dr Ian O'Rourke, the inaugural Chief Executive Officer of the Institute for Clinical Excellence [now the Clinical Excellence Commission], who tragically passed away on 16 August 2004. Colleagues throughout the New South Wales health system, not only in NSW Health and the NSW Clinical Excellence Commission, but also in Area Health Services and facilities, supported these initiatives and our work. We are grateful to them for their many contributions.

Competing Interests

The authors declare that they have no competing interests.

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RESEARCH NOTE

The Impact of a Continuous Quality Improvement Approach on Patient Care in the Ambulance Environment

RJ Linwood

Abstract:

Objective: **This article seeks to:**

- **raise interest in the use of quality improvement techniques in pre-hospital care;**
- **introduce a new continuous quality improvement (CQI) conceptual model; and**
- **report preliminary results of a study to evaluate the effect of a CQI intervention on patient care and organisational outcomes.**

Design: **The study is part of a doctoral program. The design is longitudinal with the collection of qualitative and quantitative data supported by a review of the literature and involving interviews with those involved in the change process. It also involves the development of a CQI conceptual model for use by ambulance services.**

Setting: **The use of the Australian Business Excellence Framework (ABEF) by Queensland Ambulance Service (QAS) as a CQI model.**

Main outcome measures: **These include:**

- **Queensland government-required key performance measures for a government agency; and**
- **perceptions of key informants collected over a period of time to determine the degree to which any improvements in performance measures are attributable to the use of the ABEF.**

Results: **As the research is still in progress, definitive results are not yet to hand. Preliminary analysis of operational performance data between 1 July 1997 and 31 December 2005 and the receipt of three Australian Business Excellence Awards by QAS suggest that use of the ABEF has had a positive effect on patient care and organisational outcomes.**

Conclusions: **Our preliminary findings suggest that use of a CQI model by an ambulance service has a positive effect on patient and organisational outcomes.**

Abbreviations: ABEF - Australian Business Excellence Framework; CQI - Continuous Quality Improvement; KPIs - Key Performance Indicators; QAS - Queensland Ambulance Service

Key words: Ambulance, ABEF, Continuous Quality Improvement, Patient Care

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Introduction

This research note seeks to inform readers of a study to evaluate the effects of the implementation of the Australian Business Excellence Framework (ABEF) on organisational performance in a state-wide ambulance service. Ambulance services are part of the continuum of patient care yet the use of Continuous Quality Improvement (CQI) processes in ambulance services is relatively novel. The Queensland Ambulance Service (QAS) began to apply business process improvement using the ABEF in 1997. The ABEF (Figure 1) is a world class CQI model [1] which enables a structured approach to the re-engineering of business processes to achieve improved outcomes.

Figure 1: The Australian Business Excellence Framework (ABEF)

Source: Standards Australia International Global Ltd (SAIG). The Australian Business Excellence Framework handbook 2004. Sydney: SAIG; 2004, p. 5.

This study examines the impact of the application of a specific CQI methodology on total organisational performance in the pre-hospital (ambulance) environment. The specific aims of the study include:

- to determine if a systematic approach to CQI by ambulance services can lead to improved patient outcomes.
- to compare the performance of an ambulance service that uses such an approach with one that does not.
- to inform ambulance management in regard to the selection and application of a possible CQI model.

The literature relevant to CQI in health care is mostly related to hospital-based care, with clinically-focused articles of limited application to the ambulance environment. [2,3] Most papers deal with improvements in specific episodes of medical care occurring in hospital or health care facilities, [4] and are of limited practical value to ambulances where environmental conditions for patient care, and especially the duration, are fundamentally different to an operating theatre or nursing ward. [5]

Thus there is a paucity of literature pertaining to CQI in the ambulance, or pre-hospital, environment. This is remarkable given the long history of ambulance care, [6] an observation reflected both locally and overseas. [7,8] QAS has a mission to minimise pain or suffering through rapid, effective treatment and transport of the patient to a place of definitive care. Ambulance services make a significant contribution to health care, yet there is little discussion about CQI and its potential impact on patient outcomes. [9] To offset this, there is a growing attempt to identify and publish benchmarking data. [10]

There is also a robust range of Emergency Medical Services (EMS) articles, predominantly from North America, which concentrate on clinical matters and occasionally address CQI. [11]

Fortunately a growing body of CQI literature is evident in other fields, notably business and manufacturing. [12] CQI is becoming increasingly applied in the health sector and this is starting to be reflected in the literature. The situation improves internationally, but even then most data on ambulance appear in EMS or fire journals where most articles are case-specific. [13,14] More advanced analysis of organisational improvements through greater use of measurement is needed. [15]

There are few papers that appear to evaluate the impact of CQI programs on organisational performance outcomes. Study design can affect the degree of validity of such research, especially when evaluating interventions aimed at improving the quality of care. Bizovic et al (2002) suggest possible solutions to the problems associated with such studies. [2] There are two clear approaches to the implementation of CQI:

- a retrospective approach that seeks to find errors in patient care and then change practice in a safe and sensible manner using a "learn but lay no blame" approach; and
- a proactive approach which seeks to improve services as a result of a systematic and co-operative approach to continuous improvement.

Pelowitz (2003) notes that use of continuous quality improvement as embodied in the ABEF concentrates on the second, with learning derived from the first. [16]

Methods

The study is a natural experiment, primarily using a qualitative research methodology. It involves three sequential, inter-relating projects:

1. A descriptive policy analysis of the pre-1997 period and an examination of key areas of inquiry pertaining to the quality of patient care.
2. A descriptive evaluation of what occurred in the period 1997-2006 with the introduction of CQI.
3. Synthesis of outcome measures, processes and results of the first two projects by examining the degree to which use of CQI was successful.

The QAS introduced the ABEF in 1997 in a large-scale organisational intervention to achieve CQI.

Since that time the QAS has collected specific data from organisational assessments [16] as well as extensive performance data (eg out of hospital cardiac arrest survival rates, patient satisfaction), which are reported publicly on a regular basis. [18] The primary sources of data for this project include:

- Quantitative data on QAS performance (examples of which appear in Figures 3-7). QAS performance data gathering has been ongoing for years to inform QAS decision-making and to meet Queensland and Australian government and industry body reporting obligations (see Department of Emergency Services, [18] the Federal Report on Government Services [19] and the Convention of Ambulance Authorities [10]).
- Qualitative data arising from interviews with key organisational stakeholders to measure the change attributable to the introduction of the ABEF. An example interview question is: "Please describe the degree to which you believe that patient outcomes have changed as a result of applying the ABEF". Discourse analysis will be used to analyse and interpret the data arising from these interviews.

Supporting data has also been derived from episodic surveys conducted on behalf of QAS including the Queensland Householder Survey, and patient, staff and stakeholder satisfaction surveys.

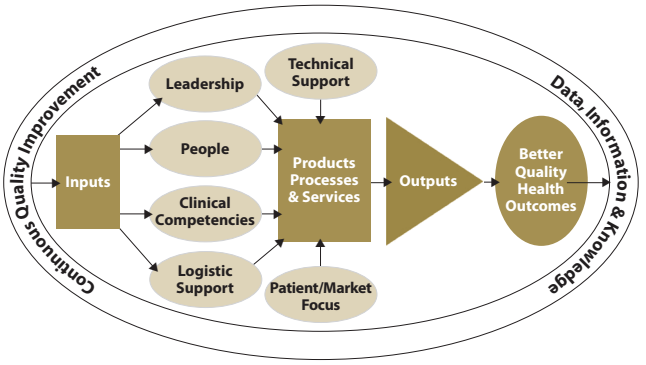
Access to the data was provided by QAS with full support for the project. Interviews with key informants are now underway.

Queensland University of Technology Research Ethics Committee clearance was gained prior to the field research.

Conceptual framework

An outcome of this study includes the development of a theoretical model of the key determinants of patient outcomes, forming the conceptual underpinnings of a CQI approach for ambulance services (Figure 2). This model is an adaptation of the ABEF, and takes on the essential tenets of that model, adapted to the ambulance environment. As indicated in Figure 2, inputs (eg people, competencies, leadership) lead to the generation of products, processes and services and these result in 'outputs', which in the case of an ambulance service, is better patient outcomes. Where the ABEF is a generic quality model, this proposed modification is expected to be more readily related to by ambulance practitioners. As analysis of the data unfolds, this model may undergo further modification before the end of the study.

Figure 2: A CQI Model for improving ambulance care and total organisational performance



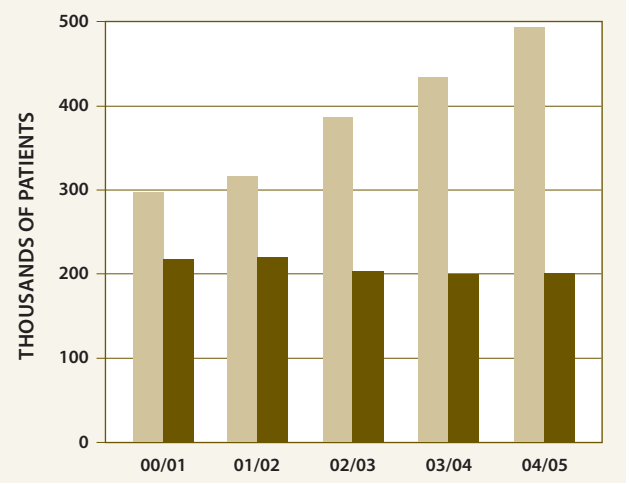
Source: Conceptual framework developed by the author using concepts derived from the ABEF.

Findings

The QAS uses a balanced scorecard approach to organisational performance evaluation. The following data reflects performance in key areas over the period the ABEF has been used (ie from October 1997 to December 2005).

Figure 3 demonstrates the growing demand for ambulance response between 2000/01 and 2004/05. The growth in demand has mostly been in urgent rather than non-urgent responses. The rapid growth in demand has placed great strain on the capacity of the QAS to match this growth with additional resources.

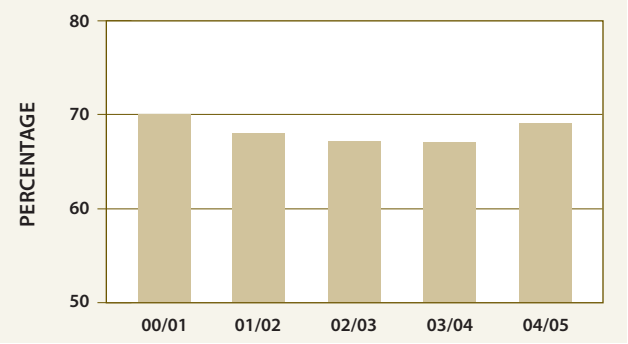
Figure 3. Number of cases (urgent on the left and non -urgent on the right) responded to by QAS between 2000/01 and 2004/05 financial years



Source: Data extracted from Queensland Department of Emergency Services performance data

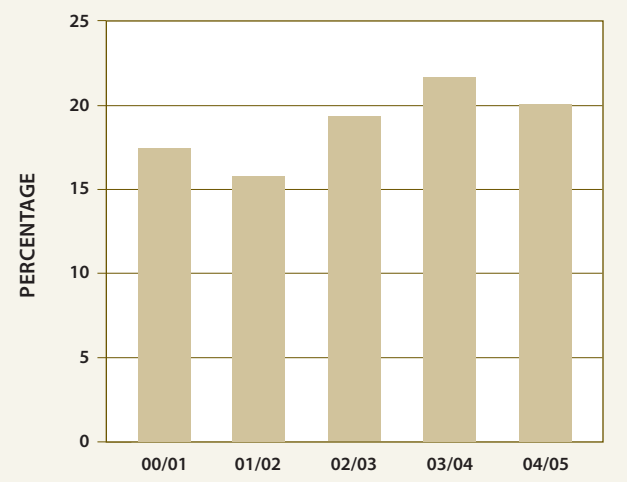
Response times outlined in Figure 4 indicate a drop during 2001/02 and 2002/03 followed by an increase in 2004/05. During this time additional resources were made available and improvements occurred in the distribution of these resources. Figure 5 demonstrates the percentage of patients resuscitated and handed over to hospitals alive after out of hospital cardiac arrest between 2000/01 and 2004/05.

Figure 4. Percentage of urgent cases responded to by QAS between 2000/01 and 2004/05 financial years



Source: Data extracted from Queensland Department of Emergency Services performance data

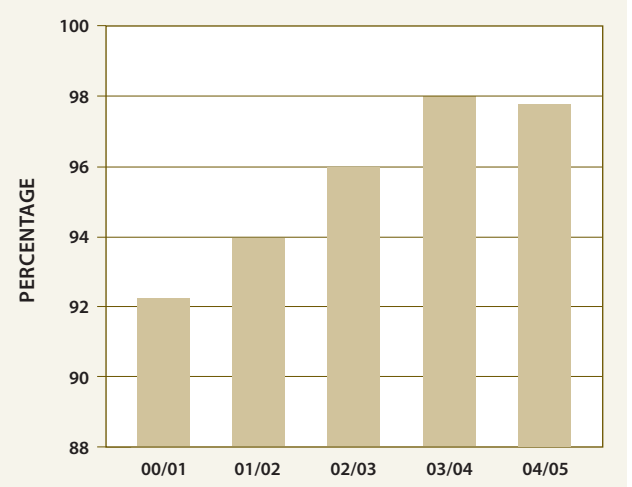
Figure 5. Percentage of out of hospital cardiac arrest survival rates achieved by QAS between 2000/01 and 2004/05 financial years



Source: Data extracted from Queensland Department of Emergency Services performance data

Improvement in patient satisfaction during the study period is reflected in the data gathered annually by QAS using a standard survey tool (Figure 6).

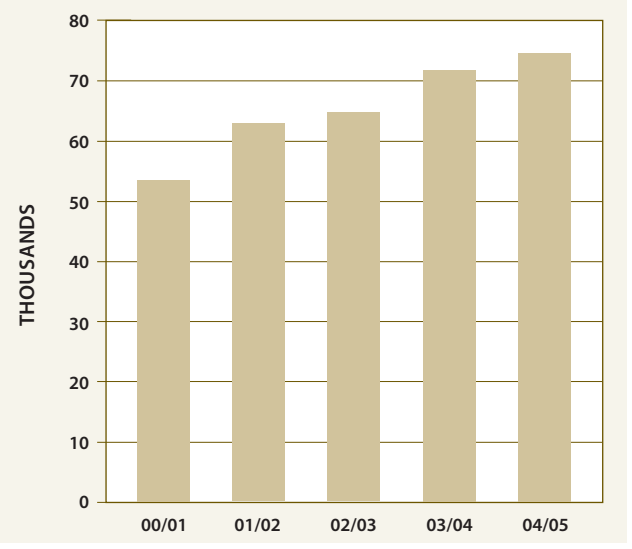
Figure 6. Percentage of patients satisfied with QAS between 2000/01 and 2004/05 financial years



Source: Data extracted from Queensland Department of Emergency Services performance data

First aid training is a major and complementary element of the suite of QAS core services. Figure 7 refers to the proactive output of customers trained in first aid. Outcomes of such activity are impossible to measure completely, but it is known that patients who benefit from first aid prior to arrival of QAS are more likely to experience lower morbidity and mortality.

Figure 7. Number of community education certificates issued by QAS between 2000/01 and 2004/05 financial years



Source: Data extracted from Queensland Department of Emergency Services performance data

Discussion

My preliminary findings suggest that interventions arising from the introduction of CQI in QAS through the application of the ABEF have resulted in improved patient outcomes. These findings are supported by the fact that, in 2005, QAS received a third Australian Business Excellence Award since the commencement of the program in 1997. The award recognised improvement in QAS organisational performance, including patient care.

The degree to which the positive findings arising from the quantitative data reported in this study are directly attributable to use of the ABEF is not possible to determine at this stage. Qualitative evidence from key informants, together with comparisons with similar data from ambulance services in other states will form an important part of the study.

The review of the CQI literature indicated a concentration on the hospital sector with very few articles directly applicable to ambulance services. Furthermore, while the body of literature that addresses patient care in the ambulance environment is growing, most of this literature does not directly address the impact of CQI in the Australian context. This study will help fill this gap in the literature.

Conclusion

An important contribution of this study is the development and evaluation of a novel CQI model for the QAS with the possibility of it being applied to other ambulance services and non-hospital health services, such as allied health care organisations. Final outcomes of this evaluation are not due until 2007, so definitive conclusions may not yet be drawn as to the effect of the model on patient care and organisational outcomes. Results to date, suggest that the introduction of the ABEF in the ambulance environment makes a positive difference to patient care outcomes.

Acknowledgements

I wish to thank my doctoral supervisors, Dr Brian Oldenburg (QUT), Dr Gerry FitzGerald (QUT) and Dr Gary Day (QUT). Thanks are also extended to the Commissioner and the inspirational men and women of QAS, whose outstanding work inspired this study.

This study is self-funded.

Competing Interests

The author declares that he has no competing interests.

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RESEARCH ARTICLE

Centralised Control and Devolved Responsibilities: personal experiences of senior health executives on the implementation of the area health management model in New South Wales, 1990-1999

Z Liang, SD Short, PF Howard, CR Brown

Abstract

Objective: This study explored the impact of the implementation of an Area Health Management Model (AHMM) on senior health executives in New South Wales between 1990 and 1999.

Setting: Health care reform has been a global phenomenon and its negative effects on senior health care managers have been confirmed by empirical studies. In New South Wales, Australia, a major structural reform was the introduction of an AHMM in 1986.

Design: Qualitative methods were used to capture the personal experiences and views of senior health executives to the implementation of the AHMM. Thirteen senior executives employed by NSW Health between 1990 and 1999 were selected to participate in open-ended telephone interviews. The results were grouped into four common themes.

Results: Participants acknowledged that the AHMM had the potential to produce positive outcomes. However, they considered most of the potential benefits were not achieved due to shortcomings with the implementation process. These shortcomings included: inadequate resources; insecurity and instability of senior management positions; control from central office; and constant and powerful political influences. The study also found that the benefits documented in NSW Health annual reports between 1990 and 1999 did not reflect the views of its senior executives.

Conclusion: During the introduction and implementation of a major health care reform in New South Wales between 1986 and 1999, barriers created by the 'system', centralised management processes and political influences within the Department for example, prevented the realisation of its potential benefits.

Abbreviations: AHMM - Area Health Management Model; AHS - Area Health Service; CEO - Chief Executive Officer; DG - Director General; DOH - Department of Health; SHE - Senior Health Executives.

Key words: regionalisation, area management model, senior health executives

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Introduction

Health care reforms have been a global phenomenon since the early 1980s. [1] Decentralisation in the provision and management of health services is an example of a reform to improve the management of the increasingly expensive, complex and fragmented health system. [2] Decentralisation has been developed in many states of Australia [3] and adopted in an increasing number of countries including the United Kingdom, [4] New Zealand, [5,6] the Netherlands, [7] Canada, [8] China and Fiji. [2]

In Australia, the introduction of the Area Health Management Model (AHMM) is a significant structural change in the publicly funded health care system. [9] The model was first pioneered in the early 1980s in New South Wales, [10] the most populous state in Australia, with an estimated population of 6.77 million in 2005. [11] The New South Wales public health system is the largest health care employer in Australia, with almost 93,000 full-time equivalent staff. [12]

The AHMM, profoundly influenced by the British District Model introduced in 1920, was further developed and refined, based on a decentralised regional structure during the establishment of the Health Commission of NSW in 1973. [13] The rationale was to develop a hierarchical system of institutions and services and a simpler, but more efficient, organisational structure to guide the allocation and reallocation of health service resources. It also aimed to facilitate the decentralisation of administrative responsibilities, be more responsive to changing local needs [14,15] and to bring together all hospital and community health services under a single area structure. [2] The creation of the larger area was seen as the key to the success of the new system, with a much larger quantum of resources, allowing area managers the scope to shift resources to achieve more appropriate and efficient service delivery. [16]

In 1982, endorsed by the Health Administration Act, NSW Health piloted and evaluated four Area Health Boards. [17] Under the Area Health Service legislation, these Boards were charged with the following objectives: [2, p. 239]

1. Responsibility for the maintenance, protection and promotion of health of the people in a geographic area by provision of programs and services.
2. Coordination of public, private and voluntary health services.
3. Establishment of an appropriate balance between treatment and preventive services.
4. Ensuring efficiency of health services provided by Area Boards.
5. Ensuring community participation in health service planning and decision-making.

A review of the pilot Area Health Boards was commissioned in July 1985 to examine their impact on the efficiency and effectiveness of services and the legal, industrial and administrative implications of further development in New South Wales. The review regarded 'area' as the most appropriate level for comprehensive high quality service provision, cost efficiency, co-ordination and responsiveness to local communities. [18] It recommended that the provision of health services by formally constituted Area Health Services (AHSs) be expanded and applied across the State. [18,19] Since then, the concept of area management of health services has been developing and gaining general acceptance. [4]

Although positive financial and other benefits arising from the AHMM, such as improving service delivery, efficiency, effectiveness and accessibility, have been repeatedly documented in NSW Health annual reports between 1986 and 1995, only limited evaluation of the model or evaluation of the experiences of managers responsible for pioneering the model have been documented. [3] The most relevant study was conducted by Ritchie and Johnson (1994) focusing on the restructuring of rural health services in New South Wales. [13] The qualitative study concluded that although the restructuring had been successful in devolving control to a more local level during the 12 months after implementation, any savings from more efficient processes were unlikely to be realised because of the increase in the number of management positions. In addition, it pointed out that organisational structures in the new districts were the result, not just of rational design, but also of political compromise (eg "issues …of alignment rather than functional areas seemed to influence structure". [13, p.131])

To guide the successful implementation of organisational change, Bullock and Batten (1985) developed an integrated, four-phase model of planned change that involved exploration, planning, action and integration. [21] More recently, several studies have identified a number of additional factors affecting the success of implementing large-scale organisational change, such as the characteristics of the system, its structure and culture, [22,23] organisational readiness, commitment from different levels of management, enough time for preparation, and sufficient measurement and feedback of the results of change to the key stakeholders. [24,25]

This study examines the implementation process of the AHMM and its effects on senior health executives within NSW Health between 1986 and 1999 by encapsulating their personal experiences and opinions. This period was chosen because implementation of the model was relatively well-established. This paper attempts to seek answers to the following questions:

1. What were senior health executives' overall experiences with the introduction of the AHMM?
2. If, in the executives' opinion, the implementation of the AHMM was not successful, what did they consider to be the contributing factors or shortcomings?

Methods

The study targeted the following four levels of senior health executives within NSW Health:

- Director General;
- Deputy Director General;
- DOH Division Director; and
- Chief Executive Officer (CEO) of an Area Health Service (rural and metropolitan).

Between 1990 and 1999, 71 senior health executives occupied positions across the above categories and for 60 (80%) of these managers, their contact details were available. Questionnaires were mailed to all managers to gather information on their demographic characteristics and employment status, and to seek their agreement to participate in a telephone interview. In total, 22 of the 60 (37%) agreed to participate and from these senior executives, 13 were randomly selected for interview.

In-depth telephone interviews were conducted in mid-2005 using open-ended questions. During the interviews, participants were asked to describe freely their experiences of the introduction and implementation of the AHMM in NSW from 1986 to 1999. At the end of the interview, they were invited to comment on the interview process and express any other concerns or issues. All interviews were tape-recorded and transcribed. Transcriptions were examined for accuracy and subjected to content analysis and sorted for their relevance to the research questions. All data were scrutinised for emerging patterns.

The Griffith University Ethics Committee approved the research project.

Results

Study participants

The majority (10/13) of study participants were Area Health Service CEOs in either Sydney metropolitan area or rural New South Wales. The remaining three participants were either Director General/Deputy Director General or Director of a Division within the NSW Department of Health (Table 1).

Table 1: Study population, contactable population and study participants, by position

	TARGET POPULATION		CONTACTABLE POPULATION		INTERVIEWEES	
	N	%	N	% TARGET POPULATION	N	% CONTACT POPULATION
Director General/Deputy Director	17	24.0	15	88.2	3	20.0
General/Director of Division CEO Metropolitan Area Health Service	16	22.5	16	100.0	4	25.0
CEO rural Area Health Service	38	53.5	29	76.3	6	20.7
Total	**71**	**100.0**	**60**	**84.5**	**13**	**21.7**

Personal experiences with the AHMM

Whilst 11 out of the 13 interviewees indicated that the intentions of the area management model were admirable, several believed that the potential benefits of the reforms had not been achieved for various reasons. Moreover, the majority of the interviewees stressed that the reforms had created barriers for senior executives to achieve the best management and service provision outcomes. Four main themes were generated from the interviews. A number of quotes captured from the interviews are provided to highlight some of the views of the interviewees.

1. Potential benefits of the AHMM

The majority of the interviewees believed that the AHMM was essentially an effort to devolve operational aspects of health care to the regions and to introduce a strong linkage between the community and the hospitals as well as the public health services. The area model started to integrate the concept of a population-based focus and tried to integrate health services under a single management tier.

One interviewee pointed out that the strength of having an area model was to allow a more responsive and better approach to planning for a reasonably large population. However, a uniform approach by different areas proved difficult. Another interviewee stated that the model allowed a reduction of competition for resources between different areas, a reduction of hospital administration waste and a reduction of duplication of services, which consequently supported better clinical services:

> *The AHMM was a well regarded change by most of the senior executives; it was seen as a sensible way to go and certainly a big improvement on the dynamics of the old systems…so the structure which was really underpinned by a geographic area being as far as (possible) responsible for determining the priorities and the delivery methods and the structures for delivery (of a) full range of health care for the population was supported.*

Another strength of an AHMM was more comprehensive planning for a variety of services.

2. Inadequate financial resources and unachievable financial goals

The majority of the interviewees pointed out that there were not enough resources to make the substantial changes required. The budget targets allocated were impossible to manage even after a drastic reduction in the number of staff within the area health structure. One interviewee highlighted that the AHMM was commonly referred to as a 'bankruptcy model' by cutting staff numbers heavily in order to meet impossible budget targets.

More than half of the interviewees claimed that senior executives were expected to take the blame for the Department or Ministerial office when the budget or expectations from the public were not being met. They took the blame for something impossible to achieve within the existing financial arrangements:

> *If I got into trouble, I would be by myself. The inquiry into Campbelltown and Camden hospitals was a prime example (which affected a colleague outside the study period). When the inquiry took place, the Department tried to isolate South West Sydney AHS as much as possible and didn't give it any support. …but I do think the shortage of resources in those hospitals in comparison to other hospitals within the State was a very big contributing factor to the problems that those two hospitals had.*

Another interviewee stated that there was scepticism in some parts of the health care system where financial resources were not provided as requested. As a result, community health and hospital services were reduced and friction between the practitioners within the hospital system and those within the community health services was created.

3. Lack of support and insecurity in the job

Interviewees claimed that while implementation of the model brought fear to those in senior executive positions, the Department or the Minister provided little support and input during this period of constant change. Senior executive positions became unstable under the reform agenda and many executives left as a result. There was a claim that the careers of these people were destroyed because they left under negative circumstances:

> *Moving from a regional structure to small district health services was a very destructive move, it created wholesale redundancies which were very lucrative. …appalling waste of public money.*

> *There is a joke that goes around the senior executives that when the Government's in trouble, bring on a restructure. … a real concern that every time this happens, you lose a whole lot of good people and corporate memory and knowledge; some people discount the value of corporate memory.*

Interviewees added four other factors contributing to the unsuccessful implementation of the AHMM. They were: a lack of consultation with senior executives before setting the reform agenda; senior executives' inadequate knowledge of the reforms; insufficient time given to the implementation process; and disenfranchisement of communities from participating in the health care debate, which raised barriers between the system and consumers.

4. Centralised control and political interference

This theme was commonly mentioned by the majority of the interviewees. The initial authority given to the areas was gradually pulled back to the central office, which caused tension both within the Department and between the central office and senior executives. In addition, the disbandment of the regional offices that stood between NSW Health and the AHSs exposed senior executives to the political process at central level to a greater extent, which made management more difficult.

Several interviewees pointed out that pulling away the authority from the area level made the management of the health care system more centralised. The excessive interference from NSW Health in the operation of area health services did not allow the areas to manage themselves and to be accountable for their outcomes:

> *The AHMM is all about control really, control for the centre, that was the agenda. Getting rid of the boards and any sort of local difficulties.*

One interviewee claimed that the reforms actually gave the Minister opportunities to influence directly the health services through the central office:

> *…the change to a purely corporate board and performance management and contracts didn't necessarily advance health care delivery because it only made people responsible to the Centre, to the Department rather than trying to be innovative and engage communities and deliver good health services. ...we lost a significant amount of community support and the opportunity to actually do things because we were really required to comply with Health Department policy and to stay within those boundaries. …our health care system lost some of its good value from the reforms process.*

One interviewee pointed out that more efforts could have been put into the introduction and implementation of the model. However, these efforts had not been seen because the barriers to the success were in fact the existing centralised management processes and political influences:

> *The area management model was the best way to go, but things have been eroded and I personally believe there is further scope for improvement, but I don't think governments will have the courage to do that.*

In addition to the above opinions, two interviewees made very explicit comments about the barriers created by the AHMM:

> *Too many reforms were not managed well by the Department, and there was too much centralised control and ambiguity in accountability. There were so many reforms and my experience was that each reform that happened, NSW Health got worse at handling the reforms. … at the end of the day, the patients and the staff weren't any better off despite all the reforms.*

> *When the AHSs (were) first formed, they actually got that fairly right, that the central administration had had responsibilities for certain things such as industrial relations, and overall policy in major planning. …the problem for an area CEO in AHSs was that there were divided responsibilities: on one hand you were responsible to the board of directors, then on the other hand, the Director General saw you as his person, so you were serving two masters and that did cause some problems.*

Clearly, too much centralised control and political interference were regarded as important reasons for the limited achievement of the full benefits of the area health management model.

Discussion

Principal findings

Three main findings from the personal experiences of senior health executives with the introduction and implementation of an area health management model in New South Wales have emerged from the study. Firstly, inadequate financial and other resources were provided for the implementation of changes to the system including planning, preparation, implementation and evaluation. More significant were the financial goals set for each area without being mutually agreed between the central office and the Area Health Service. The goals were often seen as unachievable by the latter.

Secondly, the introduction of the AHMM made the senior health manager's position more unstable under the reform agenda. This inevitably brought a certain level of insecurity to those who were in these positions, and to those whose positions were at risk of being made redundant. Moreover, insufficient support was offered to those who were working

in the system, especially senior health managers, to assist them with not only surviving the turbulent period, but also providing effective leadership in the implementation of the structural reforms.

Thirdly, the pull back of authority initially delegated by central office to AHS executives and the increasing exposure of senior executives to the political process created unnecessary tensions between senior personnel in central office and area health executives. As a result, the leadership role of senior executives was undermined while ongoing political-level intervention created ambiguity surrounding the aims and scope of the reforms.

Strengths and weaknesses of the study

This qualitative study was limited by its small sample with the implications of selection bias. However, it enabled the collection of the views and experiences of a group of senior managers who had been closely involved in the implementation of large-scale organisational change. This type of in-depth data is normally impossible to gain using quantitative methods with large sample sizes. The results of our study provide valid insights from the sample, but it is inappropriate to generalise them to the entire senior executive sector within NSW Health during the study period.

The study also captured the opinions of senior executives about some of the successes of the introduction of the AHMM in NSW. The majority of executives believed that the model was positive in various ways. Examples included the better integration of services; improved efficiency in service provision, a reduction in the duplication of services and improved planning for the range of services provided within a geographical area. These benefits were similar to the expectations of management when the AHMM was first introduced and to the outcomes documented in NSW Health annual reports. For example, it was reported in the 1986 - 1987 Annual Report that, "…the implementation of the AHMM had resulted in much improved health services for the people of this State and a more efficient and responsive management system for the health services, and would continuously improve service delivery, and efficiency, effectiveness and accessibility of the NSW Public Health System". [26, p. 4]

The above statement was generally supported by an evaluation conducted by Lawson and Evans in 1992. [2] It compared a well-established AHS in 1990 with a newly created AHS with respect to the achievement of the five major objectives previously listed. Acknowledging the limitations of the methods used, these researchers argued that while previous attempts at evaluation of AHSs by traditional numerical measures had failed, the method of comparing broadly similar AHSs, supplemented by surveys, appeared to be a useful approach. [2]

However, Stoelwinder (1992), questioned the validity of the evaluation evidence provided to support Lawson and Evans's (1992) conclusions, stating that methodological, epistemological, semantic and even political factors may mitigate against effective evaluation research of this kind. [3] He further explained that the major problem was that one could not be certain that the two AHSs would have been similar had it not been for the intervention. Any results arising from this comparative study could be attributed to the differences between mature and immature sites and may not have been the result of the intervention.

Meaning of the study

Although the conclusions from our study may be limited by its qualitative methods, it represents a new way of examining the implementation of an AHMM by using meaningful data from those who were heavily involved in its implementation. The findings from the current study do not support the reports from NSW Health during the early stages of the implementation of the AHMM. Following Bullock and Batten's [20] Four-Phase model for the successful implementation of change, our study identified that the limited success of the implementation of the New South Wales AHMM may have been due to an inadequate investment of time and expertise during the first two phases: the exploration and planning phases. This study has disclosed how the centralised management processes and political influences within the NSW Department of Health may have acted as barriers to the implementation of its own reforms.

Unanswered questions and future research

Further studies are recommended to explore possible solutions for minimising the negative impact of the barriers to implementing large-scale change identified in this study.

Conclusion

This study concludes that senior health executives held positive views toward the intention of the implementation of the AHMM in New South Wales. However, the full benefits of the model were not achieved due to several shortcomings during the early stages of implementation. Significant deficiencies included inadequate resources for the implementation of change, insecurity and instability

brought to senior health management positions, health department efforts to centralise control and on-going political interventions.

The significance of this study should not be understated as this is the first study internationally that actually taps into the views and experiences of those who managed the change process: senior health executives themselves. The study, therefore, makes a significant contribution to our systematic understanding of the real politics of being a senior health executive during a period of significant health care reform. During the introduction and implementation of a major health care reform in New South Wales between 1986 and 1999, barriers created by the 'system' prevented the achievement of many of its potential benefits.

Acknowledgements

We would like to thank all the informants who participated in the study and the invaluable support from the Australian College of Health Service Executives (ACHSE). In particular, we acknowledge and thank Mr Bill Lawrence, former National Director of ACHSE for his guidance in the conduct of this study.

Competing Interests

The authors declare that they have no competing interests.

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RESEARCH ARTICLE

Health Status of Employees: defining influences on health in the tertiary education industry

M J Ditton

Abstract

Objective: **The health status of employees at an Australian university was assessed in order to target subsequent workplace health interventions.**

Design: **A cross-sectional survey of all university employees (academic and general) was undertaken using the Short Form-36 (SF-36) in combination with a socio-demographic questionnaire. This was complemented by interviews with 40 university employees, stratified by level of employment.**

Setting: **The University of New England, New South Wales. A university setting was chosen because previous studies had identified that 50% of employees in the tertiary education industry in Australia were at risk of mental health problems due to stress and workplace pressure compared with 19% of the general population.**

Results: **A response rate of 49% was achieved (514/1047). The total study population attained significantly lower (poorer) mental health status scores than those of the Australian employed persons' sub-group norm. Academic staff reported significantly better physical health than general staff. Grade of employment, age, domestic living arrangements, health service utilisation and smoking were factors associated with variation in health status.**

Conclusions: **The comparatively poor mental health status of Australian university employees combined with variation in health status based on sociodemographic measures poses a public health challenge for those concerned with maintaining and promoting the health of the tertiary education workforce. This study provides a basis for the development and evaluation of appropriate mental health promotion programs at the University of New England and raises questions for further research to explore the need for similar programs in other universities and public sector organisations.**

Abbreviations: GHQ – General Health Questionnaire; HEO – Higher Education Officer; NSW – New South Wales; SF-36 – Short Form-36 self-administered survey; UNE – University of New England.

Key words: health status; university employees; SF-36 survey; mental health.

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Introduction

There are many factors besides biology that influence health status; for example, social and economic factors. [1] In the famous Whitehall studies in England, where occupation, income, education and place of residence were similar, employees experienced different health status even in the one workplace. [2]

Recently, a national survey that included 17 of the 38 Australian universities, found that 50% of university staff were at risk of psychological illness compared with 19% in the general population. [3] Although this research may be criticised because it was supported by funds from the National Tertiary Education Union, it was also supported by

the Australian Research Council and the Vice Chancellors Committee. Further, the expertise of the researchers, the rigor of the methodology and the sound analysis of the data suggest the findings of this study were credible. As a result of their study, Winefield et al (2002) recommended that managers of these institutions should give greater attention to fairness of procedures, adequate compensation and increased job security. [3]

To investigate such findings in more detail, and to subsequently target workplace health interventions, the author assessed the health status of academic and general employees at the University of New England (UNE), Armidale, New South Wales. Armidale is a small, well-resourced inland city with good health services and a public hospital.

Methods

Data collection

A short sociodemographic questionnaire was combined with an internationally recognised instrument for the measurement of health status: the self-administered Short Form-36 (SF-36) Health Survey. [4-8] This combined questionnaire was sent to all UNE employees in June-July 2002 (n=1047: 407 academic; 640 general).

The sociodemographic questionnaire was developed to accompany the SF-36 survey in order to define both the sample population and to explore sociodemographic factors associated with variation in health status. [9] This instrument covered age, sex, living arrangements, employment characteristics, health insurance and health service utilisation, and levels of smoking and alcohol consumption.

The SF-36 questionnaire was chosen as a measure of health status rather than the General Health Questionnaire (GHQ–12) used by Winefield et al (2002) in the national survey of university staff, [3] because the SF-36 measures both physical and psychological distress (mental health), rather than just psychological distress as in the GHQ-12. [10] The SF-36 has been used in Australia previously, and population norms are available for comparison. [11] It comprises one 'self-reported health transition' question plus 35 questions that measure eight dimensions of health status with four of the dimensions related to physical health and four to mental health. [4, p. 4] Survey participants indicate how they feel about their health status by marking 29 (three to six point) scales and seven 'Yes' 'No' questions.

The information is then summarised to provide a 'Physical Component Summary' score and a 'Mental Component Summary' score (Table 1). [4] These summary scores have been validated for differentiating populations with varying physical and mental health. [12,13]

Table 1: SF-36: Eight dimensions (or scales) of health status, the scores of which can be aggregated to provide summary measures of physical health and mental health

PHYSICAL HEALTH	MENTAL HEALTH
Physical functioning *(ten questions)*	Vitality *(four questions)*
Role-physical limitation *(four questions)*	Social functioning *(two questions)*
Bodily pain *(two questions)*	Role-emotional limitation *(three questions)*
General health *(five questions)*	Mental health *(five questions)*

Data analysis

Following the SF-36 scoring system, responses to questions for each of the eight dimensions of health status were summarised to provide eight scores between 0 and 100. Dimensions in which health status was defined as the absence of incapacity had the highest possible score (100) and, for these questions, the higher the score the better the health status. This scoring system applied to physical functioning, role-physical, bodily pain, social functioning and role-emotional. For the remaining three dimensions (general health, vitality, and mental health) a wider range of negative and positive health states was generated and for these dimensions a mid-range score (ie 50) indicated that a person had reported no limitations or disabilities. For the two summary measures (ie physical component summary and mental component summary), a score of 50 represented 'good health', while a score of less than 50 represented 'poor health'. [13]

With the data arising from the sociodemographic questionnaire, informants were grouped according to age (younger than 35 years; 35–44; 45–54; or 55 and older); whether they lived in partnerships or alone; whether they were on the academic or general staff; and their employment grade and length of employment. Grades of employment for academic staff were: entry level A (Associate Lecturer); B (Lecturer); C (Senior Lecturer); D (Associate Professor); and E (Professor) and Senior Executive positions.

For general staff, grades of employment were grouped, from entry level, Higher Education Officer (HEO) 1 and 2; HEO 3 and 4; HEO 5 and 6; HEO 7; to HEO 8–10 and above.

Health insurance in addition to the Australian compulsory Medicare levy, [14] and the type of insurance, was established. The categories were: 'none' (no additional insurance); 'partial' (extra basic hospital insurance); and 'full' (extra hospital and ancillary insurance). The health service utilisation information consisted of the number of 1) hospitalisations; 2) consultations with doctors (medical practitioners); and 3) consultations with alternative therapists (ie counsellors, chiropractors, physiotherapists, herbal therapists, osteopaths) in the past 12 months.

Smoking and alcohol consumption were considered as possible risk behaviours. To identify the group whose current smoking behaviour may be harming health, [15] informants were grouped according to those who had never smoked or were ex-smokers; or those who currently smoked, regardless of the extent.

Data on informants' level of alcohol intake were categorised into five groups: 1) do not drink at all; 2) one drink occasionally; 3) one drink once or twice a week; 4) one drink most days of the week; and 5) more than one drink every day. In light of the guidelines from the National Health and Medical Research Council, [16] the responses were then recoded as:

- none or low alcohol consumption (1, 2 and 3 drinks per day);
- moderate consumption (4); and
- high risk (5).

Drinkers in category 5 were considered as high risk for both short - and long-term health problems from alcohol consumption.

The sociodemographic data were analysed using the Statistical Package for Social Science, [17] and those from the SF-36 according to the SF-36 Manual and interpretation guide. [18] The health status of survey informants was then compared with SF-36 Australian population norms [11], using Student's 't' test, and Fisher's (F) test where appropriate. Significance was assessed at $p<0.05$. Pair-wise comparisons were conducted to locate significant pairs in appropriate categories. For example, a significant association between smoking and drinking was observed for academic staff; and no association was observed between age or gender and hospitalisation for both general and academic staff. Differences in SF-36 scores for the ten sub-groups defined in the study population by the various sociodemographic variables were detected by multiple regression analysis. [19]

The research was conducted according to the Guidelines for Human Research at the University of New England.

Results

Table 2 indicates that 53% of general staff and 43% of academic staff responded to the survey, with an overall response of 49%.

Table 2: Survey response, by academic and general staff

	ACADEMIC STAFF	GENERAL STAFF	TOTAL
Questionnaires distributed	407	640	1047
Responded	176 (42.8%)	338 (52.9%)	514 (48.9%)
Complete data sets	176 (43.2%)	334 (50.6%)	500 (47.8%)

Sociodemographic survey

Most of the informants (59%, or 295 employees) were more than 45 years old (Table 3). The mean age of academic staff was 48.7 years (SD ±8.2; range 25–68); and that of general staff was 44.6 years (SD ±9.4; range 18–67). At the time of the study, 131 employees (24% academic; 27% general) lived alone (Table 3).

Table 3: Sociodemographic profile of academic and general staff informants

	ACADEMIC STAFF *(N=176*)*		GENERAL STAFF *(N=324*)*	
	NUMBER	%	NUMBER	%
Age (Years)				
Less than 35	6	3.4	47	14.6
35–44	54	30.9	96	29.7
45–54	65	37.1	132	40.9
55 and over	50	28.6	48	14.8
Sex				
Male	97	55.1	133	41.2
Female	79	44.9	190	58.8
Living Arrangements				
Partnership	133	75.6	235	72.6
Living alone	43	24.4	88	27.4
Place of birth				
Australia	110	66.0	292	86.0
Overseas	58	34.0	47	14.0
Residence prior to employment				
Australia	126	75.0	306	90.0
Overseas	42	25.0	34	10.0

*Note: as not all questions were fully answered, subtotals do not all equal 176 for academics and 324 for general staff.

The largest group of informants (68%) were in mid-level grades of employment (ie lecturer and senior lecturer and HEO 3 and 4 and HEO 5 and 6), 9% were in the lowest grades of employment, while 23% were in the higher grades of employment (Table 4).

In total, 50% of staff had been in employment at UNE for more than 10 years (45% of academic staff and 54% of general staff) (Table 4).

Sixty-three employees (12.6%) had been in hospital in the previous 12 months (11% academic, and 13% general, staff) (Table 5).

Table 4: Grade and duration of employment of academic and general staff informants

ACADEMIC STAFF *(N=176*)*			GENERAL STAFF *(N=324*)*		
GRADE OF EMPLOYMENT	**NUMBER**	**%**	**GRADE OF EMPLOYMENT**	**NUMBER**	**%**
Associate Lecturer	22	12.5	HEO[1] 1 and 2	18	5.6
Lecturer	63	35.8	HEO 3 and 4	112	34.7
Senior Lecturer	51	29.0	HEO 5 and 6	116	35.9
Associate Professor	27	15.3	HEO 7	36	11.1
Professor and Senior Executive	13	7.4	HEO 8-10 and above	41	12.7
Duration of employment (years)			**Duration of employment (years)**		
1-3	36	20.5	1-3	59	18.3
4-10	63	35.8	4-10	88	27.3
11-15	30	17.0	11-15	61	18.9
16-20	20	11.4	16-20	39	12.2
21 and over	27	15.3	21 and over	75	23.3

*Note: As not all questions were fully answered, subtotals may not always be equal n=176 for academics and n=324 for general staff;
1. HEO: Higher Education Officer.

Table 5: Pattern of health service utilisation of academic and general staff in the past 12 months

	ACADEMIC STAFF		GENERAL STAFF	
	N	**%**	**N**	**%**
Health insurance in addition to Medicare				
None	44	25.0	122	37.8
Partial	36	20.5	65	20.1
Full	96	54.5	136	42.1
Doctor consultations per year				
None	33	18.8	47	14.5
1-2	74	42.0	147	45.4
3-4	47	26.7	70	21.5
5-6	12	6.8	31	9.6
≥7	10	5.7	29	9.0
Total doctor consultations	**473**		**972**	
Alternative therapy consultations				
None	126	71.6	199	61.4
1-2	17	9.7	42	13.0
3-4	7	4.0	35	10.8
5-6	9	5.1	19	5.8
≥7	17	9.6	29	9.0
Total therapy consultations	**325**		**685**	
Hospitalised during past year				
Yes	20	11.4	43	13.3
No	156	88.6	297	86.7

Academics consulted health service providers (medical and alternate therapies) in the year prior to the survey on 798 separate occasions (a per capita average of 4.5 visits), and general staff on 1657 occasions (a per capita average of 5.1 visits).

Smoking was considered a health risk for 14% (n=70) of informants (8% academic; 17% general), and alcohol consumption for 10% (n=50; 13.3% academic and 8.4% general staff), (Tables 6 and 7). For academics, there was a significant correlation between smoking and risk drinking (Chi-square=5.72, df=1, p=0.017); that is, those academics who smoked at risk levels also drank at a level considered to be a risk to health.

For academic staff, smoking was most prevalent among the group aged 45–50 years (Chi square=6.16, df=2, p=0.046).

There was no correlation between either gender or grade of employment and smoking or risk drinking behaviour. However, older academics (55 years and more) were more likely to indulge in risk drinking than any other age group (Chi-square=6.82, df=1, p=0.009).

For general staff, those at HEO levels 3 and 4 were more likely to smoke than those in any other grade of employment (Chi-square=9.87, df=4, p=0.043). Males were more likely to engage in high-risk drinking than females (Chi square=9.29, df=1, p=0.002), but there was no correlation between age or grade of employment and risk drinking behaviour.

Table 6: Patterns of smoking among academic and general staff survey informants

	ACADEMIC STAFF *(N=176)*		GENERAL STAFF *(N=322)*	
	NUMBER	%	NUMBER	%
Non and ex-smokers				
Never smoked	108	61.4	169	52.5
Stopped smoking	53	30.1	98	30.4
Current smokers				
Process of stopping	4	2.3	9	2.8
Thinking of stopping	9	5.1	34	10.6
Cannot stop	2	1.1	12	3.7

Table 7: Patterns of alcohol consumption among academic and general staff survey informants

	ACADEMIC STAFF *(N=176)*		GENERAL STAFF *(N=322)*	
	NUMBER	%	NUMBER	%
No or low risk drinking				
Do not drink at all	8	4.6	27	8.4
One drink occasionally	41	23.7	86	26.9
One drink once or twice per week	42	24.3	109	34.1
One drink most days of the week	59	34.1	71	22.2
High risk drinking				
More than one drink most days of the week	23	13.3	27	8.4

SF-36 health status survey

Compared with Australian employed persons' sub-group norms, [11] Table 8 shows that surveyed informants scored significantly lower (poorer health) for vitality, role-emotional, and the mental health component summary.

Academic staff scored significantly higher (ie better health status) than general staff on the SF-36 profile for physical functioning, bodily pain and the physical component summary (Table 9).

Table 8: Mean SF-36 scores for study population and Australian employed persons'[1] norms

	STUDY POPULATION *(N=500)*		AUSTRALIAN EMPLOYED PERSONS *(N=11,771)*	
SF-36 DIMENSION	**MEAN**	**SD**	**MEAN**	**SD**
Physical functioning	90.1	14.7	88.8	21.6
Role physical	86.7	29.8	86.7	43.3
Bodily pain	79.8	20.9	80.3	32.5
General health	73.5	18.8	75.6	21.6
Vitality**	62.0	20.7	66.7	21.6
Social functioning	88.1	20.6	87.9	32.5
Role-emotional**	82.9	34.0	87.2	43.3
Mental health	75.6	16.9	77.2	21.6
Physical component summary	**52.7**	**7.8**	**52.2**	**10.8**
Mental component summary**	**48.9**	**10.9**	**50.6**	**10.8**

1. Australian employed persons' sub-group norms. Source: Australian Bureau of Statistics. National health survey: SF-36 population norms. Canberra: AGPS; 1995.
**Significance assessed at the level of p<0.05.

Table 9: SF-36 Profile of scores for study population as a whole, and for academic and general staff separately

	STUDY POPULATION *(N=500)*		ACADEMIC STAFF *(N=176)*		GENERAL STAFF *(N=323)*	
SF-36 DIMENSION	**MEAN**	**SD**	**MEAN**	**SD**	**MEAN**	**SD**
Physical functioning[a]	90.1	14.7	93.4	9.0	88.2	16.7
Role physical	86.7	29.8	87.8	27.9	86.0	30.9
Bodily pain[b]	79.8	20.9	82.6	19.5	78.3	21.5
General health	73.5	18.8	74.2	18.4	73.1	18.9
Vitality	62.0	20.7	63.6	21.0	61.2	20.6
Social functioning	88.1	20.6	89.4	19.3	86.4	21.2
Role-emotional	82.9	34.0	83.3	33.2	82.7	34.4
Mental health	75.6	16.9	75.2	16.3	75.9	17.3
Physical component summary[c]	**52.7**	**7.8**	**54.0**	**6.2**	**52.0**	**8.4**
Mental component summary	**48.9**	**10.9**	**48.6**	**10.4**	**49.0**	**11.3**

a, b, c – indicate a significant difference between academic and general staff: a=p<0.0001; b=p<0.05; c=p<0.001.

Multiple regression analysis with physical component summary scores and mental component summary scores (dependent variables) of the study population identified distinctive features of health status relative to the Australian employed persons' norms [11] for eight of the socio-demographic variables (independent variables/predictor scores). With these analyses, the coefficient of correlation indicates an association between the dependent variable scores and the predictor scores: a plus sign before the correlation indicates a positive association while a minus sign indicates a negative association (Tables 10 and 11). [20] For these analyses, the alternative therapy group was removed because of small numbers in this category and grades of employment were categorised as 'highest grades of employment' and 'other' grades.

The results of the regression analysis for the physical component summary (PCS) scores (Table 10) indicated that the best physical health status was observed among employees who had medical insurance (+1.93), lived with a partner ('lived alone' –0.99), had not been hospitalised in the past year ('hospitalised' –2.12), did not see a doctor more than four times in the past year ('doctor consultations >4' –2.13), did not drink heavily ('risk drinking' –0.98), smoked (+1.16), were younger than 45 years ('>45 years' –2.19) and occupied the highest grade of employment (+0.43). Conversely, the lowest physical health was observed among employees who had been hospitalised during the past year, consulted a doctor more than four times in the past year, were aged 45 years and over, lived alone and engaged in risk drinking behaviour and did not have additional health insurance.

Table 10: Factors influencing physical component summary scores: multiple regression analysis

MODEL	[1]SF–36 PHYSICAL COMPONENT SUMMARY SCORE (SD)	[2]UNSTANDARDISED COEFFICIENTS		STANDARDISED COEFFICIENTS	T	SIG
VARIABLE		B	STD. ERROR	BETA		
(Constant)		53.54	0.90		59.45	.000
Health insurance in addition to Medicare/no additional insurance *(n=335)*	53.1 (7.4)	1.93	0.87	0.11	2.22	.027
Living alone/living with partner *(n=131)*	52.0 (8.7)	-0.99	0.88	-0.05	-1.13	.261
Hospitalised during the past year/ no hospitalisation *(n=63)*	49.5 (9.3)	-2.12	1.18	-0.09	-1.79	.074
>4 doctor consults during the past year/<4 consults *(n=130)*	50.6 (9.4)	-2.13	0.89	-0.12	-2.40	.017
High risk drinking/lower risk drinking *(n=50)*	52.4 (8.3)	-0.98	1.40	-0.03	-0.70	.484
Current smoker/non-smoker *(n=70)*	53.5 (8.2)	1.16	1.18	0.05	0.99	.325
Age- 45 years and over/<45 years *(n=295)*	52.9 (7.5)	-2.19	0.82	-0.13	-2.67	.008
Highest grades of employment/ lower grades of employment *(n=81)*	53.1 (6.6)	0.43	1.10	0.02	0.40	.693

Multiple R = .250; R = Square .062; Adjusted R Square = .044

Predictors: (Constant), Additional insurance; Living alone; Hospitalisations; Doctor consultations (>4 per year); Risk drinking; Smoking; Age 45 years or more; Highest grades of employment.

1. Dependent variable: Physical Component Summary (PCS) score. Standard deviation in brackets; Omnibus F = 3.423; Significance F = .001.
2. The coefficient of correlation indicates an association between the Physical Component Summary scores and the predictor scores. The minus sign indicates a negative association.

The regression analysis for mental component summary (MSC) scores (Table 11) indicated that the best mental health status was found in employees who had health insurance (+0.63), lived with a partner ('lived alone' –1.48), had not been hospitalised in the past year ('hospitalised' –0.78), had fewer than four medical consultations in the past year ('>4 doctor consults' –3.83), engaged in risk drinking behaviour (+0.08), did not smoke ('smoked' –3.35), were 45 years of age or more (+4.44), and were not in the highest grades of employment ('higher grades of employment' –0.20). The worst mental health was found in employees who visited a medical practitioner more than four times during the past year, smoked, lived alone, were hospitalised in the previous year and were in the highest grades of employment.

Discussion

This study found that UNE study participants reported lower (poorer) mental health status than the sub-group 'norm' for Australian employed persons. Interviews with a representative sample of university staff, from executive, management and employee levels, suggested that this differential in mental health status was associated with social relationships in the workplace that had deteriorated in recent years owing to high levels of work-related stress. [21]

My study also found variation in physical health and mental health status within the employee group based on type of work, grade of employment, health insurance status, age and domestic living arrangements.

Table 11: Factors influencing mental component summary scores: multiple regression analysis

MODEL	[1]SF–36 MENTAL COMPONENT SUMMARY SCORE (SD)	[2]UNSTANDARDISED COEFFICIENTS		STANDARDISED COEFFICIENTS	T	SIG
VARIABLE		B	STD. ERROR	BETA		
(Constant)		47.49	1.23		38.64	.000
Health insurance in addition to Medicare/no additional insurance *(n=335)*	49.4 (7.4)	0.63	1.18	0.03	0.53	.597
Living alone/living with partner *(n=131)*	47.9 (11.5)	-1.48	1.20	-0.06	-1.24	.215
Hospitalised during the past year/ no hospitalisation *(n=63)*	46.1 (9.3)	-0.78	1.62	-0.02	-0.48	.628
>4 doctor consults during the past year/<4 consults *(n=130)*	45.8 (10.7)	-3.83	1.21	-0.16	-3.16	.002
High risk drinking/lower risk drinking *(n=50)*	48.5 (10.7)	0.08	1.92	0.00	0.04	.966
Current smoker/non-smoker *(n=70)*	46.6 (12.3)	-3.35	1.60	-0.10	-2.90	.037
Age- 45 years and over/<45 years *(n=295)*	50.4 (10.6)	4.44	1.12	0.19	3.95	.000
Highest grades of employment/ lower grades of employment *(n=81)*	50.0 (10.4)	-0.20	1.50	-0.01	-0.13	.894

Multiple R = .282; R = Square .080; Adjusted R Square = .062
Predictors: (Constant), Additional insurance; Living alone; Hospitalisations; Doctor consultations (>4 per year); Risk drinking; Smoking; Age 45 years or more; Highest grades of employment.

1. Dependent variable: Mental Component Summary (MCS) score. Standard deviation in brackets; Omnibus F = 4.443; Significance F = .001.
2. The coefficient of correlation indicates an association between the Mental Component Summary scores and the predictor scores. The minus sign indicates a negative association.

For example, the academic staff at UNE reported better physical health than did UNE general staff. Survey participants under the age of 45 years, in higher grades of employment, those with medical insurance and those who lived with a partner reported better physical health than those older participants, or those in lower grades of employment, or those without medical insurance or those who lived alone. Similarly, employees without health insurance and those who lived alone reported poorer mental health status. On the other hand, those in the higher grades of employment reported poorer mental health status.

These variations in measures of physical and mental health are consistent with the notion of 'stratification' of health status as described by Comino and Howell (1999), who claimed that one's position in society's economic hierarchy is the most powerful determinant of health status, with those people with more resources having better health status than those with fewer resources. [1] Stratification of health status occurs not only in society at large, [1] but also in the workplace, as Marmot et al (1984) found in Britain in the Whitehall studies. [2] My study lends Australian support to the phenomenon. The present study also found that living alone was a sociodemographic variable associated with poorer health status – a factor previously recognised in the general population by the NSW Health Promotion Survey. [1]

Employment in the tertiary education sector is usually associated with well-educated employees gaining a regular, reasonable income and working in clean, comfortable conditions of employment – all factors associated with a favourable health status. Considering the theoretical health advantages of high-quality employment and constancy of good income, one would expect employees of the tertiary education industry to have a better health status than employees in general. However, this study identifies mental health problems as particularly important for employees in this industry, which is consistent with the findings of Winefield et al (2002) as indicated in the Introduction. [3] My study goes further than the Winefield et al study, in that it investigates the physical, as well as the mental, health status of university employees and explores factors associated with variation in health status.

Not surprisingly, I found a significant association between health status (physical and mental) and utilisation of hospital and medical services, with comparatively high users reporting poorer health.

However, some of the findings related to health risk behaviours (smoking and drinking) were unexpected and include the association between 1) at-risk levels of smoking and better physical health scores, and 2) at-risk levels of drinking and better mental health scores. Reasons for these unexpected findings are not known. The influence of risk drinking on mental health for a working population needs further research.

This study supports the findings of previous researchers and offers insights into causes of mental health problems in the tertiary education sector. The findings also suggest that effective and efficient health promotion programs are possible. At the organisational level these programs could include prevention strategies designed to reduce workplace 'stress', early intervention and rehabilitation programs. At the personal level, interventions could be targeted at those who live alone, exhibit risk-drinking behaviour, or need rehabilitation assistance after hospitalisation.

Conclusions

Variation in health status among university employees based on sociodemographic measures poses an important public health challenge for those concerned with maintaining and promoting the health of this workforce. This study provides a basis for the development and evaluation of appropriate mental health promotion programs at the University of New England and raises questions for further research to explore the need for similar programs in other Australian universities and public sector organisations.

Acknowledgements

This research is part of the author's thesis 'The health that workers want', passed with commendations in 2005 to fulfill requirements for the Doctor of Health Services Management at the University of New England. Dr Leigh Lehane assisted with the preparation of the paper.

Competing Interests

The author declares that she has no competing interests.

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Integrating Diabetes Services: opportunities to build cultural bridges

HJ Slade-Jones, R Perkins, J Wellingham

Abstract

Objective: **To identify barriers to integrated care for diabetes services at the District Health Board/Primary Health Organisation interface, along with possible solutions to these barriers.**

Design: **Qualitative and interpretive using semi-structured interviews and a modified Delphi technique to collect data. A general inductive approach was used for data analysis.**

Setting: **Fourteen participants were recruited from one of the three Auckland, New Zealand district health boards (DHBs) and three of the primary health organisations (PHOs) located within the DHB district.**

Results: **The main barriers to integration identified were a lack of collaborative skills in the workforce, a lack of resources and a lack of time for stakeholders to integrate care. Study participants from each of the major professional subcultures (medicine, nursing and management) identified different barriers to integration and this divergence of views was identified as a further barrier to integration.**

Conclusions: **The research identified three possible solutions. The first was the creation of a work space to allow clinical staff from different sectors to build cultural bridges. The second was for funders to identify ways of being perceived by all stakeholders as adding value to the integration process and the third was the development of a funding environment supportive of integration.**

Abbreviations: CEO – Chief Executive Officer; DHB – District Health Board; IPAs – Independent Practitioner Associations; PHOs – Primary Health organisations.

Key words: Diabetes, chronic illness, integration, professional sub-cultures.

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Introduction

The prevalence of diabetes is increasing in New Zealand. It is estimated that there were 147,000 people with diabetes in 2000 and that by 2010 there will be 180,000. [1] A range of stakeholders need to be engaged if health systems are to meet the demands being placed on them by diabetes. [2] At the same time a high level of system integration is required. This raises questions about how stakeholders engage with one another to produce effective integrated models of care.

Degeling has documented differences between the major professional sub-cultures in the health system and the implications of these for the modernisation, clinical governance and quality agendas. [3,4] Managers predominantly operate within a systems view and a population perspective in contrast to medical clinicians who demonstrate an individual patient ethic. Identifying these professional subcultures as tribes, Degeling claims that it is the 'destructive antagonism' that often exists between these tribes that can cause attempts to integrate care to fail. [4]

Independent Practitioner Associations (IPAs) began to appear in New Zealand in the early 1990s and were the precursors to the current structures based on Primary Health Organisations (PHOs). IPAs were groups of general practitioners that acted collectively to negotiate national service contracts and budget holding arrangements. [5] This has led to general practitioners in New Zealand being relatively more powerful and active in the decision making processes of their organisations than their hospital-based colleagues.

An exception to this situation is specialist physicians working in private clinics. This is because they have a financial stake in the clinics they work from. They do not have the same constraints on them as doctors working in public hospitals and they are better placed to be able to work with general practitioners.

With these dynamics in mind this research sought to provide an analysis of the barriers and potential solutions to integrated care for diabetes in New Zealand. The objective of this study was to identify 'Barriers to integrated care for diabetes services at the District Health Board/Primary Health Organisation interface and possible solutions to these barriers'.

Methods

Fourteen participants were recruited from one of Auckland's three District Health Boards (DHBs) and three Primary Health Organisations (PHOs) located within the DHB district. Participants represented key stakeholders in a vertically integrated model of care. [8] The sampling method for the first stage of data collection was 'intensity' sampling. Accordingly, research participants were identified based on being data-rich in the area of integration and the delivery of diabetes services. [9] The Chief Executive Officer (CEO) from one of the participating PHOs recommended six participants. Criterion sampling and Opportunistic sampling were both used to identify the eight participants for the second round of data collection. Criterion sampling requires the researcher to develop a list of criteria that all research participants must meet in order to be included in the study. [10] Opportunistic sampling permits the inclusion of study participants who are discovered as the research progresses provided they also meet the pre-determined criteria. [10]

A modified Delphi technique was employed for the collection of data. [6] This is a method of collecting and synthesising opinions in response to a question to gain a consensus view. A conventional Delphi study utilises a series of questionnaires to gather opinions from research participants. The opinions from all participants are then categorised and re-circulated to each participant for them to rank their agreement. This process continues until the researcher assesses that a high enough level of consensus has been obtained. This method was chosen as it enabled the inquiry to get beyond superficial responses and into the complexities of the participants 'attitudes, behaviours and experiences'. [7, p. 378]

Three rounds of data collection took place. The first round of data collection utilised semi-structured interviews with the questions informed by the current literature on barriers and solutions to integrated care. The second round of semi-structured interviews involved a different set of research participants. These interview questions were based on the responses from the first round of interviews. The third and final round of data collection had the participants from the second round of interviews rank twenty distinct barriers to integration in terms of importance on a Likert scale from one to five (1=very important barrier to integration, 2=important barrier to integration, 3=neutral, 4=unimportant barrier to integration, 5=very unimportant). The list of barriers used in the third round of data collection was derived from participants' responses during the first two rounds of interviews.

A general inductive approach was used for data analysis of both sets of interviews. This approach calls for the researcher to identify recurring themes appearing in the raw data before grouping similar themes into categories on which a model or theory can be proposed. The themed categories were determined inductively, ie they were derived from the raw data rather than from the research objectives. The transcripts were coded into themed categories. Four categories emerged and each had sub-categories. A detailed systematic analysis was completed by the researcher that included the interpretation of phrases and verbal interactions to identify underlying meanings. The barriers that participants involved in the third round of data collection ranked on a five-point Likert scale, were analysed for levels of consensus as to their relative importance by each professional sub-group (that is the level of consensus between, for example, general practitioners and hospital specialists, managers and clinicians). [11] This was done by aggregating the participant's responses and calculating the median and inter-quartile ranges.

Results

The sample population included two hospital specialists, one hospital nurse, three hospital managers, three general practitioners, two community based nurses and three PHO managers.

The main barriers to integration of diabetes services identified were:

- An absence of collaborative skills among members of the workforce responsible for service delivery across all sectors;
- Insufficient human, systems and financial resources in some sectors; and
- A lack of time for stakeholders to work towards an integrated model of care whilst managing current workloads

Further, each professional group (professional subculture) identified different barriers.

Collaboration

Clinicians and managers both identified poor relationships between key stakeholders as a major barrier to collaboration. Managers perceived clinicians as poor team players while clinicians viewed managers as loyal to a system that often promised much but failed to deliver.

Clinicians described relationships from an individualistic perspective, often in terms of what other stakeholders were doing wrong, what frustrated them and consequently what damaged their relationships with others. They were focussed on their own problems which resulted from the existing system, rather than considering how they could challenge the system and be catalysts for positive change. In contrast, managers indicated a broader and more solution-focussed attitude to the current state of stakeholder relationships. However, they did not underestimate the challenges ahead, one stating:

> *Historically general practice has always been disorganised. They are hard to engage with, the advent of PHOs may address this, but we are yet to see it.*

Community-based and hospital-based clinicians had contrasting views. General practitioners viewed the needs of patients differently from specialist physicians, one observing:

> *Hospital doctors (specialists) hold onto patients when they should refer to us.*

However, one specialist considered the role of specialists as undervalued by general practitioners. His opinion was that general practitioners saw specialists as too far removed from the coal face and picking and choosing, to a certain extent, the case loads they took on.

Patients were stated to play a key role in stakeholders' relationships. The control of the treatment plan and benefits that follow from the associated funding could work against effective collaboration. The decision to refer or not was sometimes made in response to financial rather than clinical considerations by doctors. When this occurred it was said to act as a barrier to collaboration.

Managers referred to a desire for all stakeholders to be team players and identified the need for them to share goals. Clinicians also spoke about having common goals and suggested everyone should be focussed on individual patients. This was in contrast to managers who identified with population health goals.

Resourcing

The two funding mechanisms operating in the New Zealand public health service sector are fee-for-service and capitation. Managers wanted providers to be paid according to the quality of the services they provide, one stating:

> *We need quality payments, payments for what actually happens. You should not get paid for the number of people you treat.*

Clinicians viewed this issue differently. They held that they needed to spend extra time with patients with chronic illnesses to fully meet their needs. They said that this had the effect of working against the incentives created by the significant fee-for-service funding arrangement that many of them worked with. Rather than making a link between funding mechanisms and quality, clinicians blamed the existing funding system for their inability to work in integrated ways. They identified fee-for-service as not working towards meeting the needs of their chronically ill patients, one stating:

> *I have a busy surgery, when I do things the way I think they should be done I get half the income of a normal day.*

This view was evident in statements made by all general practitioners, another observing:

> *All problems come back to the amount of money (we are paid).*

Participants talked about money in terms of the amount of funding that was available to them, rather than funding constraints overall and the opportunity cost of re-allocating funding across the sector. Notwithstanding, one saw the hospital system as having more money than it deserved, observing:

> *Hospitals are over funded, …have been for years and that money needs to be shifted to general practice.*

Managers from both PHOs and hospitals acknowledged that the movement of funds from hospitals to community based providers of clinical services could be advantageous to integration. However in contrast to general practitioners, they saw reallocating money to these providers as creating new sets of problems. One hospital manager stated:

> *If I say that I have a model of care that will allow the hospital to close half a ward, that has a ripple effect. It will affect the viability and funding for all the associated support services such as x-ray and labs. Their funding is woven throughout the hospital and that fabric will begin to breakdown.*

Time

While managing resource issues and managing time are inextricably linked, the issue of time availability in the working lives of busy doctors and nurses is a particular challenge to integration and this was evident in the responses of both clinical groups to questions about it.

Clinicians and managers acknowledged the obvious implications for time and workload management as a consequence of integrating care. Moving to an integrated model of care requires stakeholders to invest extra time in planning and implementing change. The opportunity cost of this investment is significant for clinicians funded with a significant fee-for-service component. This group felt that they were taken for granted in the process. They were expected to pick up new work and adopt new practices without appropriate support and resources. Clinicians from general practice and hospital based practice stated that they were perceived as having time to spare by others, while their reality was of being overloaded, one general practitioner observing:

> *The incorrect perception is that GPs have a lot of slack time to pick up extra work with no extra funding…we are perceived as having time on our hands, which is not the case.*

The major issue, according to clinicians, was that they are part of a workforce that is too small to do the necessary work. General practitioners believed that both the general practice and hospital sectors did not have enough individuals at the front line of service delivery, one observing:

> *We need more nurses, more receptionists…and we do not have enough experts.*

Managers, in contrast, talked about service quality, not the quantity of the available workforce and offered the following solution:

> *The issue is not the number of providers and staff; it is making sure that they have the capabilities and competencies to deliver services.*

Further, managers described integrated models of care that provided the opportunity to help ensure health workers skills were utilised the best way they could be, for example using nurses for clinical work rather than as receptionists and administrators, in order to obtain the highest level of output in relation to an individual's skill sets. Managers believed the change agenda would positively impact on other stakeholders' workloads.

Discussion

Principal findings

The main findings of this research are:

- Stakeholders differ from one another in their perception of barriers to integration of diabetes services in the health district in Auckland;
- Clinicians and managers are operating out of different paradigms which influence their perceptions regarding the importance of integration and the way towards integrating models of care; and
- The major barriers to integration in New Zealand are closely linked to stakeholder relationships, funding, and the workloads of stakeholders

Strengths and weaknesses of the study

The New Zealand health system has a recent history of large scale structural reform. As a result of reform, throughout the 1990s clinicians have become increasingly resistant to change and mistrusting of health managers. [4] The relatively small sample size in this case study and the fact that it was limited to the Auckland region in New Zealand is a limitation. Notwithstanding this, the conflicts between professional subcultures that Degeling et al refer to are evident in this research. [3, 4] In this study, clinicians observed that managers often failed to deliver on the promises they made. Meanwhile managers believed clinicians were too focussed on individual patients (rather

than the population) and operated outside the context of a team. These contrasting perspectives are a source of tension that threatens integration.

Meaning of the study

In order to build integrated models of care, the barriers discussed above need to be overcome. The solutions to such complex barriers have not yet been found in any one stakeholder paradigm, and there is no reason to believe that they will be. In this research it appears that the barriers that exist between clinicians and managers may be larger than the barriers between clinicians based in the community and clinicians based in hospitals. Because of the ongoing influence of the IPAs on PHO structures, community-based clinicians are more easily able to drive management decisions within their organisations than hospital-based clinicians. Management is less dominant in community care than it is in hospital care. An 'easy win' to gain momentum for integration may therefore be to create additional opportunities for community and hospital-based clinicians to work more closely together on strategies to integrate care.

Interviewees said that the current environment makes it difficult for individuals to frame up their ideas and opinions and present them to others. This is particularly so for community-based general practitioners. It is not always clear to the individual who they should discuss ideas with and what if any process for staging such discussions exists in their organisation. Clearly it is important that stakeholders acknowledge the different, but equally valid, perspectives of others.

Where the opportunity exists to create forums to enable integration discussions to occur, early efforts could go towards facilitating the community and hospital based medical groups building cultural bridges and understanding. This would provide for a stronger starting point for more formal discussions to move forward with managers in both sectors. When clinicians have taken ownership of the issues and possible solutions, they are more likely to be in a position to contribute positive attitudes about integration.

However, having a relevant forum for discussion will not be sufficient as it requires more than the professional subcultures simply working along side one another. To turn a forum into a catalyst for integration, its members must be willing to collaborate, be solution focussed, and have the potential to modify funding models. This will require strong clinical and management leadership.

The importance of strong clinical leadership as a critical factor in integration is a common theme in the literature and would, for example, assist in overcoming the current reluctance of clinicians to address the skill mix in clinics. [12,13] Whilst reinforcing this need, Bodenheimer and Wagner have also identified the alignment of funding models as a critical factor for success. [14] This is a particular challenge in health system models with funding streams running in silos; and achieving this will, in turn, require strong and innovative management leadership.

Two potential opportunities arise from these concepts. Firstly, privately funded, community-based clinical leaders must be enabled to participate in the design and development work of the forum. Funders could contribute to this by providing resources to purchase community based clinician time, and to back fill the clinics which still have to maintain 'business as usual'.

A second opportunity is for funders to play a greater role in facilitating the change management processes, which will arise from forum decisions. A key issue here is the potential uncertainty over the extent to which management fees paid to PHOs should be used for this purpose. Funders and providers will need to be clear as to how this money should be used and how the facilitation can be jointly resourced.

The amount of funding available and the mechanisms of funding service provision were also major barriers to integration identified in this research. Without a supportive funding environment integration cannot be achieved. [15] A suitable funding environment for integration is one where funding is pooled across stakeholders rather than siloed according to individual stakeholder's domains. [16]

If the resistance to devolving funding from hospitals to community-based care is too great, then new funding being invested in community-based care should be considered for integration initiatives. Whilst new funds to reduce the fee-for-service component that patients pay for existing services reduces financial barriers to access services, it does not contribute to integration. If quality of care is also important, then new money should not simply be used to subsidise access, it should go towards increasing integration and, in turn, quality of care.

A forum consisting of clinical champions and other relevant professional groups could work on integration goals and processes including mechanisms for providing pooled funding for which all could be held responsible. It is one

possible solution to the current laboured and cumbersome movement towards integrated care. This implies that an integrated programme needs integrated governance. This research suggests that for this to be effective an understanding of professional sub-cultures is critical for understanding each professions response to the challenges of integrated care and the changes those challenges may necessitate. [4]

Unanswered questions and future research

This research has looked at the tensions between clinicians and managers when integrating care. A more in-depth study of the tensions between professional sub-cultures such as community based clinicians, community based managers, hospital based clinicians and hospital based managers when integrating care and how to manage those tensions, would provide valuable evidence to support the redesign of decision-making processes in order to jointly build truly integrated patient services.

Conclusion

This research has identified three action points for further integrating care. The first is the creation of appropriate work spaces to allow clinicians from different sectors to build cultural bridges. This building of relationships acknowledges that the barriers between general practitioners and hospital specialists may be less than the barriers between managers and clinicians.

The second opportunity is for funders working to advance integration to act in ways that create value in the eyes of general practitioners. When these clinicians see the value of integrating care as greater than the cost to them personally they will more readily participate in integration. At this point managers must display the vision to address the issues with workforce design.

The third opportunity is to create the supportive funding environment vital to integration. If resistance to reallocating funds from hospitals to general practice is too great, then funders must consider the allocation of new funds to general practice for service-integration.

Competing Interests

The authors declare that they have no competing interests.

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Jim Birch

In this issue of the Asia Pacific Journal of Health Management, we asked Jim Birch a few questions on his career as a health manager and the challenges that such a role brings.

Jim has had a long and distinguished career in health management in South Australia. From early beginnings in clerical and administrative roles at the South Australian Health Commission and Royal Adelaide Hospital, Jim graduated with a Bachelor of Health Administration from the University of New South Wales. This was followed by Senior Executive roles at the Adelaide Children's Hospital, Whyalla Hospital, Women's and Children's Hospital and the North Western Adelaide Health Service.

Jim left the health industry for some three years to take on the role of Deputy Chief Executive of the Attorney-General's Department and Department of Justice. However the challenges of health lured him back to the Department of Human Services as Chief Executive. This was followed by his appointment as Chief Executive of the South Australian Department of Health, a role he fulfilled until recently. Jim has now taken up his own Consultancy practice.

Jim was awarded the College Gold Medal Award this year for outstanding achievement, his passion for leadership in health services management, professional development and education. He has particularly supported young managers and emerging leaders and has been a College stalwart especially in South Australia.

1. What made you venture into health management?

This was really an accident. I started studying architecture in 1974 and did not like it. I had always been interested in health care and wanted to become a doctor. As it was midyear when I dropped out of architecture, I needed a job to pay the bills, so I sought a job at the Royal Adelaide Hospital in finance to tide me over and I got it.

Early on in the job I was influenced by two senior people who said that there was to be a boom in health care in the future and actually running the health system would be a lot of fun. I was encouraged to study health administration and as I enjoyed the life around the hospital, I decided to do so. So there ended a medical career before it started and there commenced my health management career.

2. What is the most rewarding and enjoyable aspect of your position?

Without doubt the occasion where you have been responsible for a reform or a new service that has worked well and has benefited people. The ability to have a major influence at a system level has been a real buzz.

3. What is the greatest challenge facing health managers?

I think that the ability to remain innovative and positive in the face of relentless demands upon them from all quarters. That included the general public, the media, politicians, staff and their own families. It is a relentless pressure that I think is exacting a toll on people.

4. What is the one thing you would like to see changed?

In health care I would like to see a much more serious investment and support of primary care and prevention.

5. What is your career highlight?

I think that there are two equal ones but for entirely different reasons. The first was the Generational Health Review and its subsequent implementation. The second was the creation of the Women's and Children's Hospital.

6. Who or what has been the biggest influence on your career?

I believe that early experiences in community health with a focus upon prevention were very important. John Yu from NSW and Australian of the Year was extremely influential because of his passion for the interests of children. There have been many great people that I have worked with and all in their own way have contributed.

7. Where do you see health management heading in ten years time?

I hope that it heads towards a relentless focus on what is best for the benefit of society and more actively challenges pressure groups and individuals who are self interested. I do not believe that there is enough focus on how we can improve health and this will become even more important with ageing and the increase in chronic disease.

8. What word of advice would you give to emerging health leaders?

I would ask them a question first? Why do they want to be in this career? If it is simply a job, or money or prestige, then I would advise them to find another job. If they have passion and empathy and want to make a difference, then stick with it as the ride is worth it.

Principles that should underpin a health financing system; Improvements in quality of health care over the past five years; Council of Australian Governments (COAG) health workforce reforms

In each issue of the APJHM we ask experienced health managers throughout the Asia Pacific Region to reflect on an aspect of health management practice. In this issue of the Journal, our selected participants have addressed three questions:

1. **What are the principles that should underpin a health financing system?**
2. **Has quality of health care improved over the past five years? If yes, what are the key drivers? If no, what are the main barriers?**
3. **What has been achieved from Council of Australian Government's (COAG) health workforce reforms?**

What are the principles that should underpin a health financing system?

1 ***Equity and access:*** Should allow equitable access to all members of the community regardless of where they live or their individual means.

Provide quality services: Provide a level of funding that allows a good quality of service to be delivered to a standard that maintains and improves health outcomes.

Cost effective service: Provide a funding model that allows for improved health outcomes for both the individual and the community.

Accountable: Should provide transparency and accountability to the community around the resources it allocates and the outcomes associated with these resources.

Equitable: To ensure the community is reassured that there is an equitable distribution of resources across all members of the community without any interest group supported to the exclusion of others.

Sustainable: Needs to ensure that the funding provided can be maintained over a sustained period and is capable of responding to the changing dynamics of population growth and ageing, as well as any new health challenges. This may become the basis for a long-term, population-based resource allocation model.

Workforce: Should ensure funding is sufficient to attract and retain a workforce to deliver the services the community requires.

Forward looking and flexible: Should ensure resources are allocated within a social policy framework and are able to address emerging needs, rather than being simply based on an historical allocation model.

Service delivery: Support a balanced range of services across the primary health and specialist hospital sector, rather than investing predominantly in one sector. This would better support the range of services demanded by the community.

The overall role of a finance system is one of supporting the overall accountability and delivery of the health system.

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2 ***Equity:*** Should assist in reducing disparities in health access or outcomes, or at the very least not cause further disparities.

Cost effectiveness: Should promote efficiency in service delivery, and fund access to services that do actually improve health outcomes (at individual and population levels).

Appropriateness: Should fund access to services that the public will accept.

Accountable: Should foster engagement with the public it serves, in respect of resource allocation and service planning.

Fairness: Should ensure all parts of the community feel they are fairly treated, and that access is responsive to need.

Forward looking: Should ensure resources are distributed with health and social policy goals in mind, rather than simply maintaining historic allocation patterns.

Sustainable: Should ensure funding levels and sources can be maintained in the long term, in the face of population growth, ageing and the burden of chronic disease.

Workforce: Should ensure funding is at a high enough level to attract and maintain the desired staff numbers and mix.

Balanced: Should reflect the right balance between 'upstream' (primary, community) and 'downstream' (specialist, hospital) investment.

Integrated: Should ensure 'whole system' planning, delivery and accountability.

Mr Chris Mules BA(Hons), AFCHSE, CHE
Chief Planning & Funding Officer
Counties Manukau District Health Board – New Zealand

3 Above all, the system must be accountable to its expectations so as to justify its existence. The most important principle is therefore the system's accountability. The better the system does on this principle, the greater legitimacy it has. As a consequence, public support for the system would be substantiated. Public support can be regarded as one of the principles to underpin the system, but the system itself has to firstly maintain accountability.

Political involvement at all levels cannot be neglected as another important principle. Greater support to ensure the system's sustainability derived from various interest groups could be realised through participatory processes. The last but not least imperative principle is technical support. Knowledge becomes an essential tool for informing all parties involved and assisting them to make good choices.

To sum up what the principles should be, the system's accountability performance would be put on the top of the list. The political engagement of all relevant stakeholders and technical support would come second and third.

Dr Sanguan Nitayarumphong MD, MPH
Secretary General of the National Health Security Office – Thailand

Has quality of health care improved over the past five years? If yes, what are the key drivers. If no, what are the main barriers?

1 Has the quality of health care improved over the past five years? If we examine a slice of this question, it is likely that the quality of acute health care delivered to consumers in Australia is continuously improving due to advancements in technology, techniques and medications. So the big picture answer is probably 'yes', regarding treatment effectiveness.

If we narrow the question to examine the daily quality of care delivered in Australian acute health care organisations, the real answer may well be 'we don't know', because we have no agreed national quality measures. The political realities of public health care at a state level dictate that safety, efficiency and accessibility have been the main foci over the past five years, with some quantified gains seen in these areas. Of course, each state tackles improvement in its own unique way, making it difficult to agree, or to build on, the most effective approach at a national level, ensuring our glacial pace of change overall.

If the question is read as 'are we delivering better quality care to every consumer across every dimension of quality?', then the answer is probably 'no'. We can't say with confidence that care is safer and more effective, appropriate, patient centred, accessible and efficient for every consumer today than it was five years ago. Not only because we lack standard measures to illustrate our improvements, but because we do not yet have a national, systematic approach to providing the best level of care, in every quality dimension, for every patient, every time.

We have a better understanding in 2006 of what we need to do to achieve this goal, and more evolved tools and techniques with which to address it. We have made some exciting gains over the past five years in our knowledge of how, and where, to tackle meaningful improvement. But underlying this lingers our long standing tolerance for ambiguity in the way health care is delivered and measured, and our dependence on personalities, rather than systems, to drive improvement. Whilst pursuing systematic quality improvement is still perceived as optional by some, and an ambivalent attitude to quality amongst some senior health care executives and clinicians remains acceptable, the answer to this question will be more or less the same in five years time as it is today.

Dr Cathy Balding AssocDipMRA, MHA, PhD, FCHSE, CHE
Director
Qualityworks – Victoria

2 In New Zealand we are definitely moving in the right direction. There are pockets of excellence and examples of improved care and services, but there are some key restraints that are dragging on progress.

Financial limitations affect the degree of quality that can be achieved. For example, there is no funding provided for development and support of quality and risk management systems. Shortages of experienced health practitioners in all areas, particularly in nursing, caused in large part by lack of funds to hire sufficient staff or to pay competitive salaries, deprive services of the know-how and wisdom that is a key factor in quality care.

There is still a residual culture of blame when untoward events occur, and a need to focus more on improving those areas that are not yet best practice. A paucity of standardised quantitative data and mechanisms for sharing it inhibit benchmarking across services and measurement of trends overall.

On the positive side, there is an increased awareness of and commitment to improving quality of care, driven by several key factors.

The increasing 'health literacy' and litigiousness of the public, and a few high profile sentinel events and failures, have led to demands for better service and more accountability from politicians, health managers and practitioners.

The institution of mandatory external compliance auditing of national Health & Disability Sector Safety Standards in hospital and residential services, and the requirement for primary and community services to meet relevant standards in order to gain district health board service contracts, are driving quality improvement in these areas.

Better educated health managers who understand that quality in health care is more than just clinical safety, are driving quality and risk management to become an integral part of the way health care services are provided.

Ms Faye Gardiner RGON, AFCHSE, CHE
Quality Auditor and Health Services Consultant
– New Zealand

3 An unequivocal yes would be fantastic but we can't be so dogmatic. Anecdotally, reports from the staff would suggest that it has. Anecdotally from the press, reports would suggest that it has not.

Perhaps the real question should be 'are we able to measure the quality of health care?'

The answer to this question is also problematic but we have made great strides.

In New South Wales, an Incident Information Management System (IIMS) has been introduced and, in September, released data from the first full year of reporting. One hundred thousand staff now report on-line, 30,000 staff has been trained to manage the data effectively and 3,000 staff has been trained in Root Cause Analysis procedures.

The results are staggering. Across all four 'forms' – clinical, corporate, patient staff and visitors, and complaints – there were 125,000 reports. Eighty-eight thousand of these reports were on the clinical form. The response is remarkably consistent across all Area Health Services.

All events are coded according to a severity assessment (SAC) programme, with SAC1 being the most severe and SAC4 the least severe or near-misses not associated with harm at all.

Despite this massive system-wide reporting, the incidence of SAC1 events has shown no significant increase over the last three years. The Department of Health and the Clinical Excellence Commission have jointly published two reports on adverse events across the state focusing on these SAC1 events. [1,2] Those reports go far beyond the sentinel events defined by the Australian Council on Safety and Quality in Health Care.

The annual data has demonstrated that falls remain the single most commonly reported adverse event followed by medication errors. The third most common problem is the mixed category of clinical management which covers a whole range of clinical and decision-making processes.

These figures suggest that an incident or adverse event, regardless of its severity, is reported for approximately 7% of hospital admissions. The Quality in Australian Health Care (QAHC) Study of 1995 [3] indicated an incidence of approximately 16% of admissions.

Can we compare these two studies? Probably not. The QAHC Study was a three year snapshot of the system. If you like, the first speed camera to draw our attention to the problems facing health care not only in Australia but around the world. The IIMS data is very different. It is a voluntary reporting system by the staff themselves. It is our speedometer. But it does answer the question, at least in part, how fast are we going now? This knowledge has to be the first driver towards improvement in health care.

None of us get up in the morning intending to do harm. All of us want to go home knowing we have done an even better job than the day before. We just need to know!

Has health care improved in the last five years? In short, we don't really know because we had not been in the habit of measuring system quality. Will it improve in the next five years? Almost certainly! – and precisely because now we are measuring it!

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Professor Clifford Hughes AO FRACS, FACS, FACC
Chief Executive Officer
Clinical Excellence Commission – New South Wales

Any perception that health care standards have been improving over recent years is difficult to sustain without: details on changes in health personnel attitudes; data from quality assurance processes; clear standards for protocols; and the collection of data on outcomes of care.

In the aged care industry, quality performance is central to accountability processes under the *Aged Care Act* (1997). Over 99% of aged care facilities are fully accredited against the four mandated standards and 44 outcomes. This indicates an overall acceptance by industry that quality performance is essential to management and professional care services.

Aged care commitment to quality management reflects a culture of quality where voluntary monitoring of performance indicators enables strategies to be put in place to address impending declines in performance. Quality Performance Systems (QPS Benchmarking) has been collecting and reporting clinical and non clinical outcomes since the year 2000 and provides aged care facilities throughout Australia and New Zealand with the opportunity to monitor and improve their performance. For instance, performance indicators such as the rate of pressure areas in the high care group have reduced from an average of 10% in 2000-2 to 6% in 2004-6. Similar improvements in the rate of skin tears among high care residents is also demonstrated.

Over the past five years there has been a growth in the use of key performance indicators and benchmarking. More and more managers are using key performance indicators and benchmarking to drive their business improvements and their efforts have been enhanced by rapid and widespread uptake by the aged care industry of computer based internet systems of data collection, reporting and day to day business functions. Today, electronic systems and tools are commonplace and internet access is predominantly broad band.

With nationally mandated quality standards, commitment of industry and government to shared quality goals, the embracing of technology, and sharing of information through benchmarking many of the QPS clients are able to demonstrate significant and sustained improvement in their delivery of service.

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What has been achieved from Council of Australian Government's health workforce reforms?

Predating the 2003 Australian Health care Agreement, the health workforce reform agenda saw the Productivity Commission examine issues affecting the Australian health workforce, including workforce supply and demand, and long-term solutions to imbalances. The Productivity Commission's process ran parallel with a Council of Australian Governments (COAG) Health Working Group examining essentially the same issues. So what are the results of these combined efforts?

From 2007, an additional 1,000 nursing places will be available at universities. Over six hundred additional medical school places will come online during the next five years and over 700 additional allied and other health professional places will be available in 2007 as part of the Backing Australia's Future initiatives. This is a substantial achievement.

However, two issues become more evident from these increases. One is the number of applicants that ultimately complete programs. There are currently no specific initiatives to address withdrawal rates which, for example in nursing, can result in 25% attrition. The second issue, the quality of training, formed part of the COAG negotiations and resulted in states and territories guaranteeing high-quality, clinical placements and intern training for the additional places.

The funding of clinical training remains an issue for medical, nursing and allied health training. Only nurse clinical training received additional Commonwealth funding. The others did not. Most notably, there remains no Commonwealth funding for allied health professional clinical training, which is a course requirement. The nursing clinical training subsidy received by universities rose by 45% to $1,000 per full time student. However, nursing load is calculated by the Commonwealth at 75% nursing and 25% science base, so the funding increases per student does not result in full funding of clinical training for each new place.

Overall, COAG has supported the Productivity Commission's reform proposals and also its moves to create national accreditation and registration bodies. COAG has set timelines for national accreditation and registration bodies, although details of the structure, governance, location and relationship between these national bodies are still subject to negotiations. Senior officers establishing these new bodies are due to report to COAG by the end of 2006.

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Beyond Patient Safety: managerial perspectives on error

Reviewed by J Braithwaite

Title of book:

Hofman PB, Perry F, editors.
Management mistakes in health care: identification, correction and prevention.
Cambridge: Cambridge University Press; 2005.
ISBN 0-521-82900-3

A great deal has been written on harm to patients. Studies [1-4] have quantified the scale of the problem. Depending on the country and research design, adverse events occur in between 3.7% and 16.6% of all admissions. Various judicial and quasi-judicial inquiries [5-7] have teased out the extent of the problem in human and organisational terms. Overall, the patient safety literature has, to date, documented the clinical aspects of these failings, and rightly so.

Yet what about management mistakes? This is the territory where leaders, executives and managers err. Adverse events of this kind can lead to the same devastating outcomes as clinical errors in terms of harm to patients, organisational or institutional damage, financial loss, political confrontation and professional compromise. Until now, no one has systematically examined these issues and we are the poorer for it.

This book provides the beginnings of a solution, and is a must-read. The book is divided into two parts. Part one contains six topic chapters. The scene is set by Richard J Davidson, President of the American Hospital Association. Davidson reminds us in his Preface of the trust that patients place in health care institutions and how noble it is to be the custodian and nurturer of that trust. Paul B Hofman, in his opening chapter, considers a failed merger between hospitals owned by Stanford University and the University of California which resulted in a loss of US$176 million (Aus$236 million) over two and a half years.

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He generalises from this lesson, develops a series of frameworks for understanding and managing errors of this kind and provides a set of recommendations. For Hoffman, learning from others' mistakes, staying informed, challenging the status quo, valuing transparency and being open to alternative views, are cornerstones of a preventive strategy.

John Abbott Worthley discusses the context within which managerial mistakes occur. He discerns eight contextual elements: legal, organisational, financial, political, professional, ethical, social and psychological. In a companion chapter, Wanda J Jones argues for the importance of admitting mistakes and for executive teams to be open to self-reflection and express a willingness to disclose mistakes. She discusses some of the common types of mistake: errors in strategy formulation and execution, for example, and poor choices in resource commitments.

Changing the pace somewhat, Carol Bayley compares medical with management errors, querying what the former can tell us about the latter and asking what light can medical errors shed on management mistakes? She utilises James Reason's Swiss cheese model, [8] and a brief cultural analysis, to argue that an organisational culture featuring trust and transparency, encouraged by management, is likely to prove a wise approach.

John A Russell and Benn Greenspan look at ways to address and prevent mistakes. They offer commentaries on various aspects of mistakes and make a range of recommendations. They suggest that there is much to be learned from case studies and by building trust through evidence based managerial decision-making. They urge executives to recognise the timing of their managerial decisions as a factor in reducing errors.

The final chapter in Part 1, by Emily Friedman, analyses accountability. Friedman's plea is for the centrality of accountability. She wants executives to increase their emphases on accountability, responsibility and ethical practices.

Part two contains seven annotated case studies, developed and presented by Frankie Perry. The case studies cover disparate aspects of management mistakes including truth-telling about medical errors; nursing shortages; choosing

the wrong information technology system; resourcing a new service that failed to attract patients; secrecy about an unexpected death; poor board governance capability; and a failed merger. These cases are wide-ranging and include valuable commentaries from senior health care executives across the United States who carefully craft critical case analyses, paying particular attention to how these cases might be handled effectively.

As all the cases are American, Robert Nicholls and Andrew Wall assess them from a United Kingdom perspective. They make some practical suggestions as to how the cases might be solved in the UK context.

In the final chapter, Hoffman and Perry synthesise the key learning value of the chapters and cases. They see the book as a "call to action" for executives everywhere, not just in America. According to them, executives must sponsor a different approach to managerial errors, looking at them as opportunities for improvement and learning, rather than as phenomena that should be hidden or ignored. The editors argue for the importance of clear leadership, admitting mistakes, abiding by high standards and emphasising more strongly than in the past, cultures of accountability.

This book is a strong addition and a fresh approach to the literature on health care error. No one should doubt the importance of finding new ways to grapple with managerial blunders, which often tend to get swept under the carpet. [9] Every practising manager of more than a few years' experience is likely to have witnessed or participated in, at least to some degree, damage limitation manoeuvres or the downplaying of management errors. The causes for behaviour like this in the executive suite are multifaceted and include threat of media interest, political forces (especially in publicly funded health systems), fear of impairing reputations, and the need to appear in control and on top of the game. Changing organisational cultures to accept higher levels of accountability and to operationalise duties to disclose will not be easy, especially when managers are so often under pressure to perform, look good and appear infallible. For example, mitigating against any simple remedies, recent work has shown how health care managers' roles, and the organisations they lead, are challenging and complex, [10] busy and relentless, [11] and highly ambiguous. [12] Culture change is problematic [13] and likely to be longitudinal [14,15] rather than resolvable in the shorter term.

This book suffers from being largely American in orientation, and hence its applicability to other audiences is limited. It means that parts of it have to be actively reconstructed by the non-American reader. Despite this shortcoming, this is a book well worth the investment. Buy it and read it with a level of discomfort, for its narratives are unsettling. But heed well its messages, especially if you are a health care policymaker, executive or manager.

Competing Interests

The author declares that he has no competing interests.

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UPDATE ON JOURNAL ACTIVITIES

At the inaugural meeting of the Journal's Editorial Advisory Board on 2nd August 2006 several important decisions were made. These included re-defining the region for purposes of the Journal and identifying some potential themes for future issues of the Journal.

Re-defining the region

It was decided to re-define the Asia Pacific Region as countries of East and North-East Asia, South and South-West Asia, South-East Asia and the Pacific (ie to omit countries of North and Central Asia). A list of the respective countries appears in Table 1.

It was also decided that from time to time the Journal should draw on World Health Organisation and United Nations publications to report comparative health performance data for countries of the region.

Identifying themes for future issues

Among suggested themes for future issues of the Journal were:

- Management of mental health services;
- Management of aged care services;
- Management of health services for Indigenous populations;
- National approaches to health care system financing;
- Managing and preventing the spread of infectious diseases;
- Approaches to promoting healthy cities;
- Role and use of Chinese medicine and complementary therapies;
- Information technology management and sharing;
- Hospital and health service accreditation – defining models;
- Perspectives on selected clinical workforces (eg nursing).

Table 1: Asia Pacific Journal of Health Management: Countries of the Asia Pacific Region, 2006

EAST AND NORTH-EAST ASIA	PACIFIC	PACIFIC
China	American Samoa	New Zealand
Democratic People's Republic of Korea	Australia	Niue
Hong Kong, China	Cook Islands	Northern Mariana Islands
Japan	Fiji	Palau
Macao, China	French Polynesia	Papua New Guinea
Mongolia	Guam	Republic of Korea
Republic of Korea	Kiribati	Samoa
	Marshall Islands	Solomon Islands
	Micronesia (Federated States of)	Tonga
	Nauru	Tuvalu
	New Caledonia	Vanuatu

SOUTH-EAST ASIA	SOUTH AND SOUTH-WEST ASIA
Brunei Darussalam	Afghanistan
Cambodia	Bangladesh
Indonesia	Bhutan
Lao People's Democratic Republic	India
Malaysia	Iran (Islamic Republic of)
Myanmar	Maldives
Philippines	Nepal
Singapore	Pakistan
Thailand	Sri Lanka
Timor-Leste	Turkey
Viet Nam	

Source: List of countries derived from United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). Asia-Pacific in Figures 2004. Table 1: Total population. Bangkok: UNESCAP, Statistics Division; 2005. Available: <http://www.unescap.org/stat/data/apif/index.asp> (Accessed 5/06/06).

GUIDELINES FOR CONTRIBUTORS

Manuscript Preparation and Submission

General Requirements

Language and format

Manuscripts must be typed in English, on one side of the paper, in Arial 11 font, double spaced, with reasonably wide margins using Microsoft Word.

All pages should be numbered consecutively at the centre bottom of the page starting with the Title Page, followed by the Abstract, Abbreviations and Key Words Page, the body of the text, and the References Page(s).

Title page and word count

The title page should contain:

1. **Title**. This should be short (maximum of 15 words) but informative and include information that will facilitate electronic retrieval of the article.
2. **Word count**. A word count of both the abstract and the body of the manuscript should be provided. The latter should include the text only (ie, exclude title page, abstract, tables, figures and illustrations, and references). For information about word limits see 'Types of Manuscript – some general guidelines' below.

Information about authorship should not appear on the title page. It should appear in the covering letter.

Abstract, key words and abbreviations page

1. **Abstract** – this may vary in length and format (ie structured or unstructured) according to the type of manuscript being submitted. For example, for a research or review article a structured abstract of not more than 300 words is requested, while for a management analysis a shorter (200 word) abstract is requested. (For further details, see below - Types of Manuscript – some general guidelines.)
2. **Key words** – three to seven key words should be provided that capture the main topics of the article.
3. **Abbreviations** – these should be kept to a minimum and any essential abbreviations should be defined (eg PHO – Primary Health Orgnaisation).

Main manuscript

The structure of the body of the manuscript will vary according to the type of manuscript (eg a research article or note would typically be expected to contain Introduction, Methods, Results and Discussion – IMRAD, while a commentary on current management practice may use a less structured approach). In all instances consideration should be given to assisting the reader to quickly grasp the flow and content of the article.

For further details about the expected structure of the body of the manuscript, see below - Types of Manuscript – some general guidelines.

Major and secondary headings

Major and secondary headings should be left justified in lower case and in bold.

Figures, tables and illustrations

Figures, tables and illustrations should be:

- of high quality;
- meet the 'stand-alone' test;
- inserted in the preferred location;
- numbered consecutively; and
- appropriately titled.

Copyright

For any figures, tables, illustrations that are subject to copyright, a letter of permission from the copyright holder for use of the image needs to be supplied by the author when submitting the manuscript.

Ethical approval

All submitted articles reporting studies involving human/or animal subjects should indicate in the text whether the procedures covered were in accordance with National Health and Medical Research Council ethical standards or other appropriate institutional or national ethics committee. Where approval has been obtained from a relevant research ethics committee, the name of the ethics committee must be stated in the Methods section. Participant anonymity must be preserved and any identifying information should not be published. If, for example, an author wishes to publish a photograph, a signed statement from the participant(s) giving his/her/their approval for publication should be provided.

References

References should be typed on a separate page and be accurate and complete.

The Vancouver style of referencing is the style recommended for publication in the APJHM. References should be numbered within the text sequentially using Arabic numbers in square brackets. [1] These numbers should appear after the punctuation and correspond with the number given to a respective reference in your list of references at the end of your article.

Journal titles should be abbreviated according to the abbreviations used by PubMed. These can be found at: http://www.ncbi.nih.gov/entrez/query.fcgi. Once you have accessed this site, click on 'Journals database' and then enter the full journal title to view its abbreviation (eg the abbreviation for the 'Australian Health Review' is 'Aust Health Rev'). Examples of how to list your references are provided below:

Books and Monographs

1. Australia Institute of Health and Welfare (AIHW). Australia's health 2004. Canberra: AIHW; 2004.
2. New B, Le Grand J. Rationing in the NHS. London: King's Fund; 1996.

Chapters published in books

3. Mickan SM, Boyce RA. Organisational change and adaptation in health care. In: Harris MG and Associates. Managing health services: concepts and practice. Sydney: Elsevier; 2006.

Journal articles

4. North N. Reforming New Zealand's health care system. Intl J Public Admin. 1999; 22:525-558.
5. Turrell G, Mathers C. Socioeconomic inequalities in all-cause and specific-cause mortality in Australia: 1985-1987 and 1995-1997. Int J Epidemiol. 2001;30(2):231-239.

References from the World Wide Web

6. Perneger TV, Hudelson PM. Writing a research article: advice to beginners. Int Journal for Quality in Health Care. 2004;191-192. Available: <http://intqhc.oxfordjournals.org/cgi/content/full/16/3/191>(Accessed 1/03/06)

Further information about the Vancouver referencing style can be found at http://www.bma.org.uk/ap.nsf/content/LIBReferenceStyles#Vancouver

Types of Manuscript - some general guidelines

1. Analysis of management practice (eg, case study)

Content

Management practice papers are practitioner oriented with a view to reporting lessons from current management practice.

Abstract

Structured appropriately and include aim, approach, context, main findings, conclusions.
Word count: 200 words.

Main text

Structured appropriately. A suitable structure would include:

- Introduction (statement of problem/issue);
- Approach to analysing problem/issue;
- Management interventions/approaches to address problem/issue;
- Discussion of outcomes including implications for management practice and strengths and weaknesses of the findings; and
- Conclusions.

Word count: general guide - 2,000 words.

References: maximum 25.

2. Research article (empirical and/or theoretical)

Content

An article reporting original quantitative or qualitative research relevant to the advancement of the management of health and aged care services organisations.

Abstract

Structured (Objective, Design, Setting, Main Outcome Measures, Results, Conclusions).

Word count: maximum of 300 words.

Main text

Structured (Introduction, Methods, Results, Discussion and Conclusions).

The discussion section should address the issues listed below:

- Statement of principal findings;
- Strengths and weaknesses of the study in relation to other studies, discussing particularly any differences in findings;
- Meaning of the study (eg implications for health and aged care services managers or policy makers); and
- Unanswered questions and future research.
  Two experienced reviewers of research papers (viz, Doherty and Smith 1999) proposed the above structure for the discussion section of research articles. [2]

Word count: general guide 3,000 words.

References: maximum of 30.

NB: Authors of research articles submitted to the APJHM are advised to consult 'Writing a research article: advice to beginners' by Perneger and Hudelson (2004) and available at: <http://intqhc.oxfordjournals.org/cgi/content/full/16/3/191> This article contains two very useful tables: 1) 'Typical structure of a research paper' and 2) 'Common mistakes seen in manuscripts submitted to this journal'. [3]

3. Research note

Content

Shorter than a research article, a research note may report the outcomes of a pilot study or the first stages of a large complex study or address a theoretical or methodological issue etc. In all instances it is expected to make a substantive contribution to health management knowledge.

Abstract

Structured (Objective, Design, Setting, Main Outcome Measures, Results, Conclusions).

Word count: maximum 200 words.

Main text

Structured (Introduction, Methods, Findings, Discussion and Conclusions).

Word count: general guide 2,000 words.

As with a longer research article the discussion section should address:

- A brief statement of principal findings;
- Strengths and weaknesses of the study in relation to other studies, discussing particularly any differences in findings;
- Meaning of the study (eg implications for health and aged care services managers or policy makers); and
- Unanswered questions and future research.

References: maximum of 25.

NB: Authors of research notes submitted to the APJHM are advised to consult 'Writing a research article: advice to beginners' by Perneger and Hudelson (2004) and available at: <http://intqhc.oxfordjournals.org/cgi/content/full/16/3/191> This article contains two very useful tables: 1) 'Typical structure of a research paper' and 2) 'Common mistakes seen in manuscripts submitted to this journal'. [3]

4. Review article (eg policy review, trends, meta-analysis of management research)

Content

A careful analysis of a management or policy issue of current interest to managers of health and aged care service organisations.

Abstract

Structured appropriately.

Word count: maximum of 300 words.

Main text

Structured appropriately and include information about data sources, inclusion criteria, and data synthesis.

Word count: general guide 3,000 words.

References: maximum of 50

5. Viewpoints, interviews, commentaries

Content

A practitioner oriented viewpoint/commentary about a topical and/or controversial health management issue with a view to encouraging discussion and debate among readers.

Abstract

Structured appropriately.

Word count: maximum of 200 words.

Main text

Structured appropriately.

Word count: general guide 2,000 words.

References: maximum of 20.

6. Book review

Book reviews are organised by the Book Review editors. Please send books for review to: Book Review Editors, APJHM, ACHSE, PO Box 341, NORTH RYDE, NSW 1670. Australia.

Covering Letter and Declarations

The following documents should be submitted separately from your main manuscript:

Covering letter

All submitted manuscripts should have a covering letter with the following information:

- Author/s information, Name(s), Title(s), full contact details and institutional affiliation(s) of each author;
- Reasons for choosing to publish your manuscript in the APJHM;
- Confirmation that the content of the manuscript is original. That is, it has not been published elsewhere or submitted concurrently to another/other journal(s).

Declarations

1. Authorship responsibility statement

Authors are asked to sign an 'Authorship responsibility statement'. This document will be forwarded to the corresponding author by ACHSE on acceptance of the manuscript for publication in the APJHM. This document should be completed and signed by all listed authors and then faxed to: The Editor, APJHM, ACHSE (02 9878 2272).

Criteria for authorship include substantial participation in the conception, design and execution of the work, the contribution of methodological expertise and the analysis and interpretation of the data. All listed authors should approve the final version of the paper, including the order in which multiple authors' names will appear. [4]

2. Acknowledgements

Acknowledgements should be brief (ie not more than 70 words) and include funding sources and individuals who have made a valuable contribution to the project but who do not meet the criteria for authorship as outlined above. The principal author is responsible for obtaining permission to acknowledge individuals.

3. Conflicts of interest

Contributing authors to the APJHM (of all types of manuscripts) are responsible for disclosing any financial or personal relationships that might have biased their work. The corresponding author of an accepted manuscript is requested to sign a 'Conflict of interest disclosure statement'. This document will be forwarded to the corresponding author by ACHSE on acceptance of the manuscript for publication in the APJHM. This document should be completed and signed and then faxed to: The Editor, APJHM, ACHSE (02 9878 2272).

The International Committee of Medical Journal Editors (2006) maintains that the credibility of a journal and its peer review process may be seriously damaged unless 'conflict of interest' is managed well during writing, peer review and editorial decision making. This committee also states:

'A conflict of interest exists when an author (or author's institution), reviewer, or editor has a financial or personal relationships that inappropriately influence (bias) his or her actions (such relationships are also known as dual commitments, competing interests, or competing loyalties). ... The potential for conflict of interest can exist whether or not an individual believes that the relationship affects his or scientific judgment.

Financial relationships (such as employment, consultancies, stock ownership, honoraria, paid expenses and testimony) are the most easily identifiable conflicts of interest and those most likely to undermine the credibility of the journal, authors, and science itself...' [4]

Criteria for Acceptance of Manuscript

The APJHM invites the submission of research and conceptual manuscripts that are consistent with the mission of the APJHM and that facilitate communication and discussion of topical issues among practicing managers, academics and policy makers.

Of particular interest are research and review papers that are rigorous in design, and provide new data to contribute to the health manager's understanding of an issue or management problem. Practice papers that aim to enhance the conceptual and/or coalface skills of managers will also be preferred.

Only original contributions are accepted (ie the manuscript has not been simultaneously submitted or accepted for publication elsewhere).

Decisions on publishing or otherwise rest with the Editor following the APJHM peer review process. The Editor is supported by an Editorial Advisory Board and an Editorial Committee.

Peer Review Process

All submitted research articles and notes, review articles, viewpoints and analysis of management practice articles go through the standard APJHM peer review process.

The process involves:

1. Manuscript received and read by Editor APJHM;
2. Editor with the assistance of the Editorial Committee assigns at least two reviewers. All submitted articles are blind reviewed (ie the review process is independent). Reviewers are requested by the Editor to provide quick, specific and constructive feedback that identifies strengths and weaknesses of the article;
3. Upon receipt of reports from the reviewers, the Editor provides feedback to the author(s) indicating the reviewers' recommendations as to whether it should be published in the journal and any suggested changes to improve its quality.

For further information about the peer review process see Guidelines for Reviewers available from the ACHSE website at www.achse.org.au.

Submission Process

All contributions should include a covering letter (see above for details) addressed to the Editor APJHM and be submitted either:

(Preferred approach)

1) Email soft copy (Microsoft word compatible) to journal@achse.org.au

   Or

2) in hard copy with an electronic version (Microsoft Word compatible) enclosed and addressed to: The Editor, ACHSE APJHM, PO Box 341, North Ryde NSW 1670;

All submitted manuscripts are acknowledged by email.

NB

All contributors are requested to comply with the above guidelines. Manuscripts that do not meet the APJHM guidelines for manuscript preparation (eg word limit, structure of abstract and main body of the article) and require extensive editorial work will be returned for modification.

References

1. Hayles, J. Citing references: medicine and dentistry, 2003;3-4. Available: <http://www.library.qmul.ac.uk/leaflets/june/citmed.doc> (Accessed 28/02/06)
2. Doherty M, Smith R. The case for structuring the discussion of scientific papers. BMJ. 1999;318:1224-1225.
3. Perneger TV, Hudelson PM. Writing a research article: advice to beginners. Int Journal for Quality in Health Care. 2004;191-192. Available: <http://intqhc.oxfordjournals.org/cgi/content/full/16/3/191> (Accessed 1/03/06)
4. International Committee of Medical Journal Editors. Uniform requirements for manuscripts submitted to biomedical journals. ICMJE. 2006. Available: <http://www.icmje.org/> (Accessed 28/02/06).

Other references consulted in preparing these Guidelines

Evans MG. Information for contributors. Acad Manage J. Available: <http://aom.pace.edu/amjnew/contributor_information.html> (Accessed 28/02/06)

Health Administration Press. Journal of Health care Management submission guidelines. Available: <http://www.ache.org/pubs/submisjo.cfm> (Accessed 28/02/06)

International Journal for Quality in Health Care. Instructions to authors, 2005. Available: <http://www.oxfordjournals.org/intqhc/for_authors/general.html> (Accessed 28/02/06)

The Medical Journal of Australia. Advice to authors submitting manuscripts. Available: <http://www.mja.com.au/public/information.instruc.html> (Accessed 28/02/06)

Further information about the Asia Pacific Journal of Health Management can be accessed at: www.achse.org.au.

We're improving the benefits of your membership!

ACHSE is delighted to launch a new range of member benefits and savings for you.

The College has entered into a partnership with Member Advantage Pty Ltd, an organisation that specialises in the delivery of high quality lifestyle and financial benefit programs to professional organisations. As a member, you can now access the benefits of this program that include:

Discounted Health Insurance
Receive 5% off the premiums for new HCF products.

Home Loan Savings
The Affinity AMP Home Loan package offers significant interest rate discounts and fee waivers, members could save thousands and years off their mortgage.

Car Hire Discounts
Corporate car hire package including lower rates through Europcar all year round and a reduced insurance cost.

Car Purchasing
A complete car buying service including fleet prices on new cars and wholesale prices on second hand cars.

Electrical Buying Service
Significant savings and wholesale prices on over 3000 electrical products.

Insurance
Competitive rates and advice through Member Advantage Insurance Services.

Qantas Club Airline Lounge
Exclusive corporate rates for membership.

Telecommunications
Savings on business mobile, Internet and fixed line plans through Optus.

Taxation
Professional tax return service at discounted member rates.

These exclusive benefits are only available to you through your ACHSE membership.

Contact ACHSE Member Advantage for information on any of the above benefits.

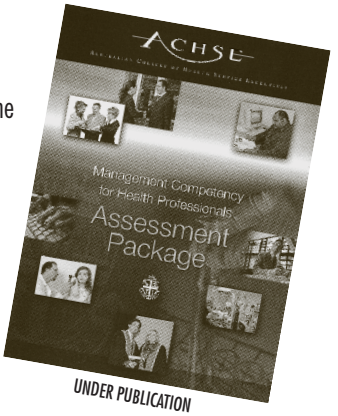
Member ADVANTAGE

Phone: 1300 853 352
Email: info@member-advantage.com
Web: www.member-advantage.com/achse

For every service used, Member Advantage will make a small contribution to ACHSE, which will help us support College initiatives and to further enhance our member services.

Management Competency for Health Professionals Assessment Package

As part of the ACHSE Membership Benefit, the Management Competency for Health Professionals Assessment Package has been developed and is free to all ACHSE members and now available for sale to non-members.



UNDER PUBLICATION

The approach to competency assessment proposed by ACHSE in this package recognises that learning can come from a variety of sources, including workplace and non-workplace experiences and formal and informal learning activities.

The competency assessment instruments are designed to help you gain a better understanding of your management strengths and weaknesses so you can seek out suitable professional development strategies to address identified weaknesses and to build on your strengths.

The process of competency assessment will involve you in the following activities:

- Self-assessment • Workplace assessment • Self-Review of these assessments
- Development of your professional development profile and plan. Strategies to support this plan might include short courses or workshops for technical skill development, structured workplace learning experiences including coaching, and/or finding a suitable mentor with the appropriate expertise and formal courses to gain an understanding of relevant theories and concepts (eg. communication, quality improvement, economics, risk management).

The College is indebted to Dr Mary Harris MPH PhD FCHSE in developing and bringing this excellent package to fruition. Mary's expertise and skill have been applied to assist all aspiring and practising health managers.

This is an excellent tool to use in your professional health management career. To order copies of the package on line please go to the following section on our web page **www.achse.org.au/competency/index.html**

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- ❑ Networking with other aged care leaders and managers from throughout Australia who are in the program and building on shared knowledge and experience

A partnership approach between the Australian College of Health Service Executives, Aged Care Association Australia and Aged and Community Services, Australia in conjunction with R H Penny Ltd.

Program and Module Outline

- **18/19/20 April 2007, Sydney: Leadership and Personal Style**
- **21/22 June 2007, Brisbane: Leadership and Management of Change.**
- **16/17 August 2007, Melbourne: Leadership, Quality and Performance Improvement**
- **18/19 October 2007, Canberra: Leadership and Strategic Thinking**

2006 Participants and Presenters

Presenters for the program include Associate Professor Jeffrey Braithwaite, NSW University, international academics and Australian aged care leaders. Program facilitation is by Anthea Penny, who has developed and implemented leadership programs nationally and internationally and has extensive experience in the Aged Care sector. Each module will be located in a different capital city at a suitable ho venue.

Module one is a compulsory residential module, over 2.5 days and all costs (except travel) are included in the registration fee. The subseque three modules are held across two days and travel and accommodation costs for these modules are not included in the registration fee.

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Participant Comments from 2006

"I have found the teaching of the Program to be relevant and dynamic using a varie of teaching styles to consolidate the ideas presented and stimulating significant discussion" ***Kerry Haggar (Major) Territorial Aged Care Program Administrator, Salvation Army Australia, Eastern Territory***

"The National Aged Care Leadership Program has offered me a rare opportunity to s reflect, explore and learn. I would encourage others to take up this opportunity, not o to strengthen their own leadership skills through the inspirational workshops, but also through the opportunity to network with other leaders in the sector" **Suzanne McLoughlin, General Manager, Care Connect Ltd. Melbourne**

"Being part of this program has invigorated me to continue 'reaching' out to others influencing my organizational culture & ensuring innovative practice meets the nee of our changing workforce and the current and future customers in the aged care industry. Together we can build exceptional teams" ***Darolyn Harris, RSL Care, Queensland***