Asia Pacific Journal *of* Health Management

Volume 1 Issue 1 – 2006

The Journal of the Australian College of Health Service Executives

- **Improving health systems**
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The mission of the Asia Pacific Journal of Health Management is to advance understanding of the management of health and aged care service organisations within the Asia Pacific region through the publication of empirical research, theoretical and conceptual developments and analysis and discussion of current management practices.

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 practices;
- contributing to the professional development of health and aged care managers; and
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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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About the journal

The Asia Pacific Journal of Health Management (APJHM) is a peer reviewed journal for managers of organisations offering health and aged care services. It was launched as the official journal of the Australian College of Health Service Executives in 2006. The target audience is professionals with an interest in health and aged care services, research, management and policy development.

The mission of the APJHM is to advance understanding of the management of health and aged care service organisations within the Asia Pacific region through the publication of empirical research, theoretical and conceptual developments and analysis and discussion of current management practices.

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The APJHM aims to be relevant to all who have an interest in health and aged care management, policy, financing, strategic directions, research, evaluation, health and aged care reforms, innovations and outcomes. It brings theory, practice and research together.

The APJHM is produced quarterly and is distributed free of charge in print format to ACHSE members and is available to non-members by subscription. An internet based version is also accessible free of charge to ACHSE members and by subscription to non-members via www.achse.org.au.

Regular features of the APJHM include research and review articles, book reviews, the ACHSE Library Bulletin which lists key articles recently published elsewhere relevant to health and aged care services managers, an editorial section and a professional news update from ACHSE.

Invitation to submit a 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 practising 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).

Five types of submission are accepted for publication by the journal:

1. Analysis of management practice (eg case study, interview, commentary)
2. Research article (empirical – quantitative and qualitative – and/or theoretical)
3. Research note
4. Review article (eg policy review, trends, review or meta-analysis of research)
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(Preferred approach)

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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.

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All submitted research articles and notes, review articles 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).
3. Reviewers are requested by the Editor to provide quick, specific and constructive feedback that identifies strengths and weaknesses of the article.

The aim of the APJHM peer review process is to have experienced educators, researchers and managers assess the quality of the design, methodology, analysis and conclusions of submitted research and review articles.

The process is designed to be independent, rigorous, objective and developmental with peer reviewers instructed to provide constructive and timely feedback to:

- select articles of suitable quality for publication in the journal (ie those that are appropriate to the mission of the journal);
- ensure author and reviewer confidentiality;
- articulate the strengths and weaknesses of articles not selected for immediate publication in a manner that assists and encourages the author to make the recommended changes. Should an author whose paper has not been accepted for publication so wish, the APJHM Editorial Committee will provide editorial assistance by putting them in contact with an experienced peer reviewer from whom they can gain detailed feedback;
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ACHSE's professional journal

B Lawrence

The Australian College of Health Service Executives (ACHSE) has a history now that exceeds sixty years. It was formed through the efforts of public hospital managers in both Victoria and New South Wales. They had the vision in 1945 of a national professional organisation.

In 2006 ACHSE is more than that vision from 1945. ACHSE now has Branches that span all of Australia, New Zealand and Hong Kong. It has Memoranda of Understanding with several other bodies in the Asia Pacific to foster professional organisations of health service managers. It has become the learning network of health professionals in management in both the public and private sectors in these settings as well as serving an increasing cohort of managers from aged care services.

Over its history, the College has had a variety of publications for its membership. There has been a long term view that a professional body should have its own dedicated professional journal, edited and produced by its own membership.

Federal Council in 2005 took the decision to create ACHSE's own professional journal. In accord with ACHSE's network, the journal will serve the professional needs of all our members. As the Asia Pacific Journal of Health Management, it will draw material from Australia, New Zealand, Hong Kong and other countries. This journal operates on a peer review basis for original articles. It also offers the opportunity for member viewpoints, profiles and professional information.

With Dr Mary Harris as founding Editor, a strong Editorial Committee and distinguished Advisory Board, it will make a major contribution to the profession that brings all ACHSE members together.

After having been a College member for over half of the history of ACHSE, and having had the privilege to work as National Director of the College, I am honoured to introduce the Asia Pacific Journal of Health Management.

Best wishes

Bill Lawrence

EDITORIAL

The Asia Pacific Region

M Harris

The title of ACHSE's official journal – Asia Pacific Journal of Health Management – reflects the College's expanding role in contributing to a leadership and learning network for health managers throughout the Asia Pacific Region. The Journal publishes articles from health and aged care service managers, policy makers, researchers and educators and particularly welcomes articles that originate in countries in the Region. Articles are sought that:

- stimulate discussion about topical Regional health issues;
- transfer knowledge among readers by widening the evidence base for management practice;
- contribute to the professional development of health and aged care managers; and
- promote the discipline to the wider community.

A web search revealed that government and private enterprise organisations vary in their definitions of the Region. Some define the Region as countries of Asia and the Pacific, while others define it as countries of Asia and the Pacific contiguous with the Pacific. The United Nations Economic and Social Commission for Asia and the Pacific (UNESACP) lists 58 countries in the Region (Table 1). [1]

Table 1: Countries of the Asia Pacific Region, United Nations, 2005

EAST AND NORTH-EAST ASIA	SOUTH AND SOUTH-WEST ASIA	PACIFIC
China	Afghanistan	American Samoa
Democratic People's Republic of Korea	Bangladesh	Australia
Japan	Bhutan	Cook Islands
Macao, China	India	Fiji
Mongolia	Iran (Islamic Republic of)	French Polynesia
Republic of Korea	Maldives	Guam
	Nepal	Kiribati
	Pakistan	Marshall Islands
	Sri Lanka	Micronesia (Federated States of)
	Turkey	Nauru
SOUTH-EAST ASIA	**NORTH AND CENTRAL ASIA**	**PACIFIC continued**
Brunei Darussalam	Armenia	New Caledonia
Cambodia	Azerbaijan	New Zealand
Indonesia	Georgia	Niue
Lao People's Democratic Republic	Kazakhstan	Northern Mariana Islands
Malaysia	Kyrgzstan	Palau
Myanmar	Russian Federation	Papua New Guinea
Philippines	Tajikistan	Republic of Korea
Singapore	Turkmenistan	Samoa
Thailand	Uzbekistan	Solomon Islands
Timor-Leste		Tonga
Viet Nam		Tuvalu
		Vanuatu

Source: 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).

The Asia Pacific is described by the UN as 'a vast and culturally diverse region' that 'encompasses the huge, rapidly industrialising economies of China and India, the remote, mountainous communities of Nepal and Bhutan and the small Pacific Island countries'. [1]

The total population of the Region in 2004 was approximately 4 billion which represented 60 per cent of the world's people. [1] More than half of the world's young people live within the Region (viz, 850 million people aged between 10 and 24 years). [1] As a result of this phenomenon the Region has the potential for significant economic development in the future. However, this opportunity is dependent upon governments making suitable investments in education, health and economic opportunities for youth [1]. The Region also contains the majority of the world's older people with 9.3 per cent of the Region's population in 2005 over the age of 60. This figure is projected to increase to around 15 per cent by 2025. Other issues confronting the Region include the rapid pace of urbanization, gender disparities and gender-based violence, high rates of infant mortality in some countries and a need to prevent the spread of HIV and other infectious diseases. [1]

During the past 50 years, the Region has made great social and economic progress and these changes are reflected in improvements in health status. For example, during this time average life expectancy at birth has increased from 41 years to 67 years and infant mortality rates have dropped from 182 to 53 per 1,000 live births [2].

Despite these improvements, large disparities in socioeconomic and health status remain. The UN reports that two out of every three people worldwide living in extreme poverty live in the Asia Pacific Region [3] and some countries continue to have high mortality rates [3]. These countries are those 'in the earlier stages of development and thus are struggling to manage health-related mortality problems linked to poorer socio-economic conditions'. [3] Devasahayam (2005) claims a distinct pattern is evident with one group of countries in the earlier stages of development struggling 'to manage health-related mortality problems linked to poorer socio-economic conditions, while countries with more developed economies are facing a new set of challenges posed by emerging health threats stemming from environmental and lifestyle changes'. [4]

Variations in population size, economic status (as expressed by expenditure on health) and average life expectancy among selected countries of the region are reflected in Table 2. [5] This table also indicates wide variation in health workforce numbers (medical practitioners and nurses) among countries of the Region with Australia and New Zealand comparatively well supplied, while Papua New Guinea, Viet Nam, Indonesia and India appear to have serious shortages.

Table 2: Health indicators for selected countries of the Asia and the Pacific Region, WHO, 2006

COUNTRY	POPULATION 2004 (000)	TOTAL EXPENDITURE ON HEALTH AS % OF GDP 2003	LIFE EXPECTANCY AT BIRTH (YEARS)2004		PHYSICIANS PER 1,000 PERSONS	NURSES PER 1,000 PERSONS
			MALES	FEMALES		
Australia	19,942	9.5	78.0	83.0	2.47 (2001)	9.71 (2001)
China	1,315,409	5.6	70.0	74.0	1.06 (2001)	1.05 (2001)
Fiji	841	3.7	66.0	71.0	0.34 (1999)	1.96 (1999)
India	1,087,124	4.8	61.0	63.0	0.60 (2005)	0.80 (2004)
Indonesia	220,077	3.1	65.0	68.0	0.13 (2003)	0.62 (2003)
Japan	127,923	7.9	79.0	86.0	1.98 (2002)	7.79 (2002)
Malaysia	24,894	3.8	69.0	74.0	0.70 (2000)	1.35 (2000)
New Zealand	3,989	8.1	77.0	82.0	2.37 (2001)	8.16 (2001)
Papua New Guinea	5,772	3.4	58.0	61.0	0.05 (2000)	0.53 (2000)
Singapore	4,273	4.5	77.0	82.0	1.40 (2001)	4.24 (2001)
Thailand	63,694	3.3	67.0	73.0	0.37 (2000)	2.82 (2000)
Viet Nam	83,123	5.4	69.0	74.0	0.53 (2001)	0.56 (2001)

Source: Statistics derived from World Health Organisation (WHO). The world health report 2006 – working together for health. Geneva: WHO; 2006. Available: <http://www.who.int/whr/2006> (accessed 31/05/06).

In recent years some countries in the Region have experienced devastating natural disasters such as the 2004 tsunami which killed, injured and displaced hundreds of thousands of people in Indonesia, Thailand and Sri Lanka, [6] while Pakistan, India and Indonesia have more recently experienced destructive earthquakes. Other countries in the Region have been described as 'troubled states' due to lack of a national infrastructure for the effective protection of human rights, attacks against civilians by armed groups, bombings and armed conflicts. [6]

It is obvious there is much scope for research and the exchange of ideas between health and aged care managers about strategies to improve health and well being among populations within the Region. The Asia Pacific Journal of Health Management seeks to contribute to this exchange of ideas through the publication of empirical research, theoretical and conceptual developments and analysis and discussion of current management practices.

In this issue

Five nations are represented in the first issue of the Journal, namely, The People's Republic of China, Thailand, Indonesia, New Zealand and Australia.

The focus of the Journal's special feature article is the Australian health system. In this first of a three-part series, Podger outlines the strengths and weaknesses of the present system and defines design principles upon which to base systemic reform. In his subsequent two articles he outlines a model health system for Australia based on a (single) Commonwealth funded public health system.

Martins highlights population health gains made in Australia during the past 40 years and some of the continuing challenges, including disparities in health status among population groups associated with cultural background and socioeconomic status.

With reference to finding solutions to hospital financing problems in Hong Kong, Yuen and Gould report the findings of a study that examined whether clinicians and consumers agree as to which public hospital service interventions should be subsidised.

Taytiwat, Fraser and Briggs describe early stages in the development of a cross-cultural strategic alliance involving organisations in northern Thailand and New South Wales to improve rural medical workforce recruitment, retention, education and training.

York tells the story of the initial Australian medical response to the city of Banda Aceh, Indonesia, following a tsunami. This article provides examples of the application of situational leadership theory and concludes that this approach to leadership contributed to the success of the surgical response team.

North and Hughes report the problems they experienced in gaining accurate data from a New Zealand public hospital about the costs of nursing turnover.

Sager and Price maintain that store managers in remote Indigenous communities in Australia have a significant influence on the nutritional status of the people living in these locations and that government action is required to encourage this workforce to act in a more socially responsible fashion.

Invitation to submit an article

The Asia Pacific Journal of Health Management invites articles from researchers, policy makers and managers that increase understanding of issues confronting health leaders in countries throughout the Region and the strategies being used to address these issues.

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Mary G Harris MPH, PhD, FCHSE, CHE
Editor

A Model Health System for Australia Part 1: directions for reform of the Australian health system

A S Podger

Editor's note:

This Special Feature titled "A Model Health System for Australia – Part 1: directions for reform of the Australian health system" is the first in a series of three to be published by the Asia Pacific Journal of Health Management. The two subsequent articles are titled "A Model Health System for Australia – Part 2: what should a (single) Commonwealth funded public health system look like?" and "A Model Health System for Australia – Part 3: how could systemic change be introduced, and what is the role of private health insurance?" The author, Andrew Podger, is a former Secretary (Director General) of the Australian Department of Health and Aged Care. Our aim in publishing this series of articles is to encourage debate about reform of health care systems. To this end, we have invited two senior health managers to comment on the reforms proposed by Podger. Commentaries from these two managers will appear in Issues 2 and 3, Volume 1, of the Journal, together with the relevant article by Podger.

Abstract:

This paper is the first in a three-part series about the Australian health system in which I propose Australia moves toward a (single) Commonwealth funded public health system. The objectives of this first paper are to describe the main strengths and weaknesses of the current system and to outline some design principles upon which to base an argument for ways in which the health system could be systemically changed. After canvassing four systemic change options, the paper concludes that the only realistic system change option is for the Commonwealth to take full financial responsibility for the system, as both funder and purchaser. Central to my choice is not only my personal judgement or my take on the likely preference of the Australian public, but also a framework in which there are in-built incentives to find a balance that is likely to optimise health outcomes from the resources available.

Later parts will describe in more detail the model of a Commonwealth funded system and how it might be implemented, and discusses some related issues including the balance of public and private financing. Whether or not such a model is politically feasible in the short term, it may help give direction to incremental reforms which should both deliver tangible benefits and make systemic reform in the longer term easier.

Key words: patient-oriented care; allocational efficiency, single funder; competition; systemic reform.

Introduction

In a paper for the Productivity Commission's Federalism Roundtable in late 2005, I presented a paper on "Directions for Health Reform in Australia". [1] This paper is a little more ambitious, describing a preferred model for the Australian Health System.

Setting a model health system is no easy challenge. There is a serious lesson in the old Irish joke that "if you want to go there, I wouldn't start from here". An Australian model has to fit with our history, our culture and our institutional arrangements, even as it sets something of an ideal we might aspire to. The first and most important lesson of the Four Nations' Conferences I used to attend was that "to learn from, you must first learn about": the context of each nation's health system is critical to its design features, which explains why there is no single international model for an efficient and effective health system. [2]

In taking on this challenge I am also mindful of a regular dialogue I had with my Minister, Dr Michael Wooldridge, while I was secretary of the national health department.

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The dialogue, which took place almost every year, went like this. I would suggest a major review of the health system or some radical proposal; Dr Wooldridge would note that a clear lesson from both Australian and overseas experience was that "big bang" health reforms were counterproductive, causing more heat than light, and that we must focus on incremental changes; I would agree, but advise that incremental change without a clear sense of direction may well be mere ad hocracy; he would respond that articulating clearly the long-term direction was as politically dangerous as "big bang" reform.

The result was not entirely a stalemate, as the incremental changes over the period of Dr Wooldridge's watch did reveal some important change directions, particularly in strengthening general practice and reinforcing the importance of effectiveness and cost effectiveness in Medicare.

(Enhancing the role of private health insurance was another important development, but there remains considerable ambiguity about the longer-term role of competition and private financing in health that I shall come to in the third instalment of this paper.)

Finally, setting a model for such a huge system as health involves attempting to balance different objectives and different interests, and allowing flexibility to adjust to changing circumstances such as new technology or new health challenges or changing community expectations. Inevitably, there will be considerable room for argument about the balance and how it might need to be adjusted over time. Central to my choice is not only my personal judgement or my take on the likely preference of the Australian public, but also a framework in which there are in-built incentives to find a balance that is likely to optimise health outcomes from the resources available. Whatever the model, it will need to be managed in practice.

Directions for health reform

Before describing a possible model for Australia's health system, let me summarise some of the points I covered in the Productivity Commission paper about the objectives and nature of health systems, the performance of our current system, some system design principles, and some of the options for change. [1]

Considered as a system, health has four objectives: [3]

- the good health of citizens, though of course this objective relies on much more than the health system;
- equity, ensuring services are available according to need, and are paid for according to capacity to pay;
- low cost, or value for money; and
- the satisfaction of the various participants – consumers in terms of access, quality, effectiveness, courtesy etc; providers in terms of the support the system gives them to apply their professional expertise and in providing reasonable remuneration; and funders in terms of returns on investments.

The nature of health, however, is not just a 'system' that can be centrally designed and structured:

- it is huge – around 9.7 percent of GDP in Australia – and is as much an industry as a system, where consumers and providers exercise a considerable degree of independence;
- for reasons of both social policy and economic efficiency, it is dominated by government as funder and regulator, and also frequently as provider;
- it relies significantly on professionals and beneficent organisations, [4] and their values of concern for patients and the needs and rights particularly of disadvantaged people;
- there are limits therefore to the role of competition in health systems, but this can be exaggerated, with competition and choice amongst providers of care remaining important.

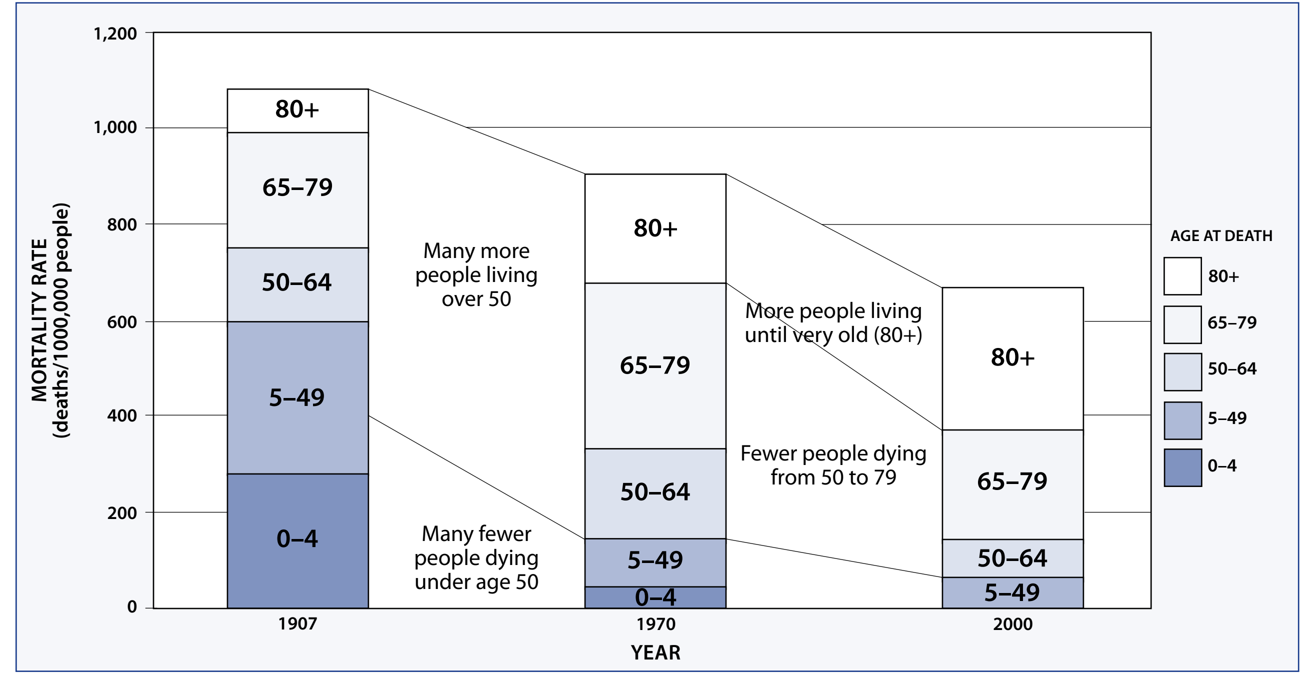
It is important to remind ourselves that Australia ranks highly on a number of indicators of system performance: [5,6]*

- we rank third amongst comparable OECD countries for life expectancy, sixth for healthy life expectancy and third in overall health system effectiveness;
- relative to Canada, the UK and the US, a higher proportion of Australians see a doctor promptly when they need to, and rate their care as very good or excellent;
- waiting times for emergency departments are shorter than for the US, Canada and the UK;
- waiting times for elective surgery are shorter than for Canada, NZ and the UK.

Our biggest failure is in regard to Indigenous health, where life expectancy is around 17 years lower than for other Australians, [8] this gap being bigger than the gap between Indigenous and non-Indigenous peoples in the US, Canada or NZ.

*The Commonwealth Fund has more recently released the findings of its attitude surveys in 2004 and 2005, which indicate somewhat lower levels of satisfaction amongst Australian consumers than the earlier studies. [7]

Figure 1. Changes in Mortality Rates, Australia, 1907 – 2000



Source: Australian Institute of Health and Welfare (AIHW). National mortality data base. Canberra: AIHW; 2005. Available: http://www.aihw.gov.au/mortality/mortality_database.cfm (Accessed 27/04/06).

While the prevalence of some health problems (particularly diabetes and obesity) is on the increase, the mortality rates of most major specific diseases are declining, and our life expectancy is continuing to increase at between three and four months every year. Indeed, apart from Indigenous health, our biggest challenge is to address the impact of our major successes, the fact that people are living a lot longer today, and are not dying so rapidly after heart disease and cancer. [9,10,11]

Figure 1 illustrates our success, which is reflected also in other developed countries:

- the increase in life expectancy from 1900 to 1970 was dominated by our success in reducing child mortality and mortality amongst those under 50, so that many more people reached age 50;
- but the increase in life expectancy since 1970 has been dominated by our success in ensuring that those who reach age 50 live a lot longer after reaching that point.

One of the impacts of this is that we now have many more frail aged people, and many others who have survived the onset of heart disease or cancer or other diseases including mental illness, but who require some ongoing care to ensure they can live with reasonable independence and quality of life. Indeed, the AIHW has estimated that about 80 percent of the burden of disease in Australia is now related to chronic disease. [9]

There is evidence that our health system could do better in managing chronic disease:

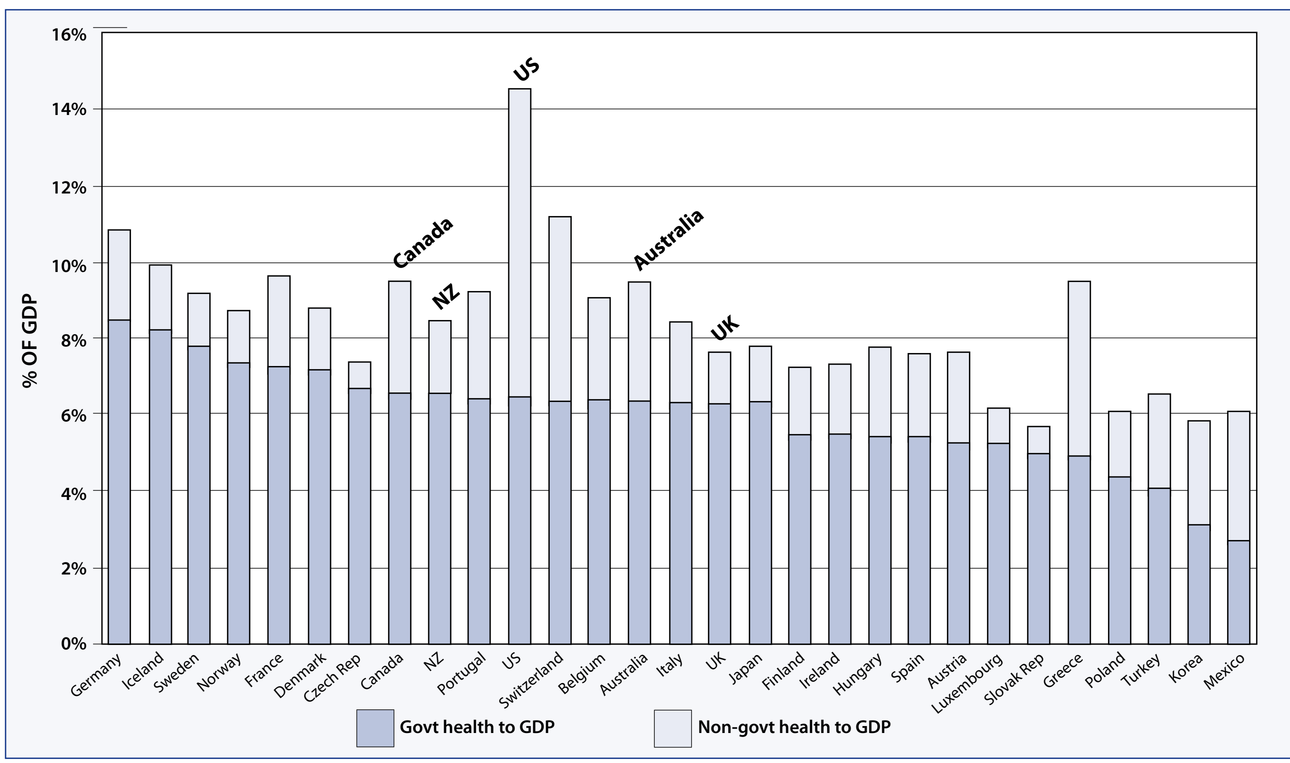
- we have a high rate of potentially avoidable hospitalisations for chronic conditions, particularly amongst those with diabetes of whom only one in five receive best practice care; [12,13]
- we don't manage the frail elderly who need some hospital care very well, and too many go to hospital too often. Step down and rehabilitative care has been substantially cut in the last decade or so and, while hospital stays per 1,000 people over 75 have increased around 40% over the last 10 years, the number of bed days has declined by 10%; [12,13]
- state government claims of around 2,000 elderly people in hospitals who are awaiting residential aged care is about right; [14]
- despite improved incentives for GPs to coordinate care plans for the chronically ill, the take-up of the relevant MBS items has been disappointing and there is very patchy support for those patients needing allied health care and advice; [15,16]
- increasing obesity and diabetes in Australia suggests also that we may be under-investing in preventive health strategies. [10,11]

Popular perceptions of the performance of our health system do not generally focus on these issues, but on problems of access to urgently needed care, particularly hospital services, and there is some evidence to support some of the claims of deteriorating performance. [13] I do not want to exaggerate these problems as Australia performs better in these areas than NZ, UK and Canada. For example, we have a relatively high number of hospital beds and hospital separations [5] and in the last few years states have increased funding to hospitals significantly. [13] But I suspect we squeezed the system too far and were slow in taking into account increased demand, and we have not done enough to constrain demand by more appropriate care outside the hospital for those at most risk.

Moreover, the Productivity Commission projects growth in public spending on health (excluding aged care) from six percent to over ten percent of GDP over the next 40 years, with public spending on aged care increasing from under one percent to around 2.5 percent. [17]

Since presenting my Productivity Commission paper I have read a book by Clive Smee, a friend who recently retired after a distinguished career in the UK Health Department as chief economist. [2] His book has reinforced my view that we need to do more on the economic analysis front in close cooperation with medical experts.

Figure 2. Government and non-Government health expenditure as a proportion of GDP, OECD countries, 2002



Source: Organisation for Economic Co-operation and Development (OECD). Towards high-performing health systems. The OECD Health Project. Paris: OECD; 2004.

The other area of common concern is access to primary care. Again, there is a tendency to exaggerate the problem, but there remain genuine difficulties in some regions, and very serious problems for Indigenous Australians despite the action taken to date to make up for the very low MBS/PBS spending (around 37% of the level for other Australians). [8]

Our generally positive score card comes at a price, however. The total cost of Australia's health is now above the average of comparable OECD countries, though our public spending remains below the average (Figure 2). [5]

We do have an international reputation for our expertise in applying cost effectiveness requirements for listing and pricing pharmaceuticals, and we are expanding this to medical services, but we could take this a lot further in a more co-ordinated way across the health system, and there is reason for concern about the capacity of private insurers to apply cost-effectiveness controls. [18,19]

We also have had some significant success in using casemix-based purchasing to drive efficiency in the hospital sector, but there has been reluctance to use such purchaser/provider arrangements in some states, or similar sophisticated purchasing techniques, and provider competition outside the acute care area. Indeed, even in the acute care area, there are significant problems of uneven playing fields and inappropriate incentives for private insurers and public hospitals in particular.

Perhaps the most significant contribution to inefficiency in our system today however, is not the lack of technical efficiency within particular functional areas such as hospitals or residential aged care or general practice, but allocative inefficiency where the balance of funding between functional areas is not giving best value, and the inability to shift resources between the functional areas at local or regional levels and to link care services to individuals across program boundaries is reducing the effectiveness of the system.

The scale of this inefficiency is hard to measure, but a recent study of Kaiser Permanente in California and the NHS suggested that, even between those two systems which both have a single funder, there was a major difference in allocative efficiency. [20] Kaiser achieved considerably better results with similar resources, by investing more in primary and preventive care and in information technology. My strong suspicion is that the problem here is probably greater than in the UK because of our stronger demarcation of program boundaries particularly through having different funders, and the UK's greater experience with integrated purchasing mechanisms such as GP fundholding and primary care trusts.

In summary, despite our strengths, we have the following significant structural problems:

- a lack of patient-oriented care that crosses service boundaries easily with funds following patients, particularly those with chronic diseases, the frail aged and Indigenous people;
- allocative inefficiency with the allocation between different types of care not always achieving the best health outcomes possible, and with obstacles to shifting resources for individuals or communities to allow different mixes reflecting different needs;
- poor use of information technology, where better investments and useage could not only reduce administrative costs but also support more continuity of care, better identification of patients at risk, greater safety and more patient control; and
- poor use of competition, with an uneven playing field in the acute care area, a reluctance to use competition to ensure best access to medical services at reasonable cost, and less choice than should be possible (in aged care in particular).

This overview undoubtedly glosses over other structural issues such as the health workforce. Addressing the structural issues I have focussed upon would ameliorate some of our increasing health workforce problems by promoting flexibility, substitution and competition. In addition, moving towards a single funder which I will discuss in the next instalment, would facilitate better planning and more accountable arrangements for funding education and training.

In considering both our main structural concerns, and the overall objectives and nature of health systems, the following system design principles emerge:

- a national framework which articulates the key objectives and principles and monitors performance, but allows flexibility at a lower level, lower than most of our states;
- a mixed public and private system with:
  - governments concentrating on regulating, funding and purchasing;
  - service provision being primarily private or charitable;
  - increased competition amongst providers, and increased sophistication amongst purchasers;
- a substantial, and possibly broadened, role for private health insurance;
- a significant role for co-payments and private contributions, particularly if greater choice is to be allowed into the system;
- a single funder and/or single purchaser, with funds following patients rather than being defined by strict functional or jurisdictional boundaries; and
- more emphasis on primary care support, including continuity of care for those who need ongoing services across the system, and increased investment in preventive health.

The main options for systemic change that might reflect these principles, particularly having a single funder and/or purchaser to facilitate more patient-oriented care and greater allocative efficiency, are:

Option (a): the states (and territories) to have full responsibility for purchasing all health and aged care services;

Option (b): the Commonwealth to take full financial responsibility for the system, as both funder and purchaser;

Option (c): the Commonwealth and the states to pool their funds, with regional purchasers having responsibility across the full range of health and aged care services;

Option (d): 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. [21]

I won't repeat all the arguments here, but in my view the only realistic system change option is Option (b), the Commonwealth having full financial responsibility. Applying the Irish joke, Option (a) would reverse the direction taken progressively over the last sixty years by consecutive national governments that has led to the Commonwealth providing more than two thirds of public spending on health: it is hard to see it being politically acceptable. Equally, Option (d) is a bridge too far at this stage: I strongly suspect it could only be seriously contemplated if we have first moved to Option (b), the Commonwealth having full financial responsibility. Option (c), the pooling option that emerged under COAG back in 1995 and 1996, and which is continuing to receive some support from Victoria, requires in my view an unrealistic degree of sustained cooperation and an unhealthy level of bureaucratic control. That said, Option (b) also has risks, not the least being the political risk for the Commonwealth Minister in taking responsibility for individual patients' care in hospitals. Nonetheless, I firmly believe Option (b) is the only realistic option if we are to move to a single funder.

It is important to note that none of the options would deliver improvements in health outcomes if they did not also involve critical features such as regional budgeting and purchasing arrangements with appropriate flexibility and accountability, improved primary care, integrated information technology, a national framework for pricing acute care services, and so on. Moreover, the management of the change to introduce a new system would take time and would involve costs and risks.

Accordingly, I noted a number of incremental change options that would deliver practical benefits whether or not the Government decided upon systemic reform, and that might complement or even facilitate such reform if it were to be seriously considered.

These incremental change options included:

- strengthening general practice further, particularly to improve its links to allied healthcare, so that it is able not only to help with care planning for the chronically ill and frail aged, but also to deliver on those plans, and play a larger role in prevention;
- further investment in primary care for Indigenous communities;
- continued priority on electronic health records and other IT support for continuity of care for the chronically ill and the frail aged;
- some incremental moves towards single funder arrangements focussing on non-acute health and related care services for the aged, where the Commonwealth already has the lion's share of responsibility;
- increased investment on preventive healthcare, focusing on the major known areas of risk from lifestyle: smoking, obesity, nutrition and physical activity;
- improved competition in the acute care area, in particular, and moves to clarify a sustainable role for private health insurance; and
- improved information and transparency at the regional level, identifying regularly all health-related expenditures, service utilisation and population health, to assist government, Divisions of GPs and others to consider resource allocation between and within regions.

The aim of this series of articles, is to move beyond the above incremental reform agenda to establish a clearer systemic reform agenda towards which incremental reform should take us.

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Competing Interests

The author declares that he has no competing interests.

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VIEWPOINT

Health Challenges in Australia

J M Martins

Abstract

This article reviews some of Australia's health system achievements and identifies health issues that pose challenges to the society and health policy decision makers and managers. The paper follows an ecological approach drawing on published research into health and health services. Expenditure on health care is considered in the context of Australia's growing income per capita and the choices made by individuals and society at large. Population health gains are described along with continuing disparities in health status associated with cultural background and socioeconomic status. Factors affecting the mental health status of individuals are highlighted together with weaknesses in relevant services. The importance of health promotion both in the workplace and domestic sphere is discussed in the context of its potential impact on health care expenditure. The article compares myth and reality regarding population ageing; and the response of management and training practices to technological change. Current formulas of health funding by state and federal governments and the subsequent division of responsibilities and potential for cost shifting are examined. Finally, discussion turns to current trends in private practice and the notion of "defensive medicine", diagnostic and prescribing patterns and their impact on the national economy.

Key words: health system; health service reform; stuctural change; health policy; health funding; population health

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Choices and Challenges

In the last four decades Australians have more than doubled their real income per capita. [1] This has created an opportunity to exercise choices in spending the additional income. One of the choices has been to increase what we spend on health care services. It is constructive to question the effectiveness and efficiency of the health care received. It is also appropriate to question the worth to society of health care expenditure, either from public or private sources. However, decisions to reduce or increase health care expenditure are personal and social choices. Choices to spend more on cars and their care are no more virtuous than those made to spend more on people and their care, even though the outcomes may affect quality of life. As productivity rises as a result of new technologies or better use of resources, it is likely that there will be continued growth in income per capita. It is a legitimate choice to spend a higher proportion of this increment in income on health care. Quite apart from how much Australians spend on health, there are issues to be addressed to improve the effectiveness and efficiency of the system. The following are some of the challenges in the development of health care policy and practice.

Health gains and disparities

Over the past four decades, on average, the life expectancy of Australians has risen by about nine years (Table 1). It is a difficult question whether this is the result of improvements in living conditions, including environmental and occupational factors, or public health measures and health care services. However, it is accepted that public health measures and health care have made a contribution to this gain in life expectancy. [2]

Table 1. Life Expectancy at Birth and Health Expenditure, Australia 1961 – 2001

YEAR	HEALTH EXPENDITURE AS % GDP	LIFE EXPECTANCY YEARS
1961	4.3	71
1970	4.8	71
1981	7.0	75
1991	7.9	77
2001	9.1	80
Increase 1961-2001	4.8	9

Sources: Australian Institute of Health and Welfare. Australia's health 2000. Canberra: AIHW; 2000. Australian Institute of Health and Welfare. Australia's Health 2004. Canberra: AIHW; 2004. Australian Bureau of Statistics. Australian social trends 2002: population – national summary tables. Canberra: ABS; 2002. www.abs.gov.au/Ausstats/abs@.nsf. Accessed 14/02/03. Australian Bureau of Statistics. Australian social trends 2003. Canberra: ABS; 2003. Computations of author.

According to the World Health Organisation [3] in 2003, Australians' life expectancy of 81 years at birth was second only to that of Japan (Table 2). This is a major achievement. However, despite this advance in life expectancy, significant concerns remain.

The most unambiguous fact is the disparity in life expectancy of about 20 years between Indigenous and non-Indigenous people in Australia, which puts the life expectancy of Indigenous people at about the same as the average for Australians of one century ago. [4]

Table 2. Life Expectancy, Top Twelve Countries, 2003

COUNTRY	LIFE EXPECTANCY AT BIRTH IN YEARS			DIFFERENCE MALES – FEMALES YEARS
	MALES	FEMALES	ALL	
Japan	78	85	82	7
Australia	78	83	81	5
Andorra	78	84	81	6
Italy	78	84	81	6
Monaco	78	85	81	7
San Marino	78	84	81	6
Sweden	78	83	81	5
Switzerland	78	83	81	5
Canada	78	82	80	4
France	76	84	80	8
Iceland	78	82	80	4
Israel	78	82	80	4

Source: World Health Organisation. World health report 2005. Geneva: WHO; 2005

In a similar way, people in socio-economically disadvantaged groups have not shared much in the gains in life expectancy of other Australians, in recent years. According to Turrell and Mathers [5] (2001 p. 231): "The mortality burden in the Australian population attributable to socio-economic inequality is large, and has a profound and far-reaching implications in terms of unnecessary loss of life, the loss of potentially economically productive members of society, and increased costs for the health care system." Their review points to major equity problems and also to the substantial potential for further improvements in health status, productivity and health promotion.

Mental health

A recent national report [6] reminded us that mental health is a major challenge faced by Australians. While much has been done to identify the causes of emotional and mental distress, it seems that we have not gone far enough to promote mental health, and certainly, not to manage mental illness. After grossly inadequate practices in psychiatric hospitals were exposed by a royal commission, major thrusts were made in the 1960s and 1970s to improve the therapeutic environment for the care of the mentally ill. Efforts were made to increase the skill of carers and reduce the institutionalisation of people suffering from mental illness. Accordingly, in New South Wales, the number of residents of psychiatric hospitals declined from 3.0 per thousand people in 1964/65 to 1.6 in 1973/74 while the number of carers increased. [7] A major trial of psychiatric care showed the efficacy of care provided with an emphasis on community-based resources directed at crisis-intervention and family support services. [8] The effectiveness of community-based care demands, in addition to a 24-hour response to crisis and support of families, adequate day-care, sheltered accommodation in some cases, skilled supervision and coordination of the providers of care involved. This is not just a question of funds, it is mostly a matter of organisation and coordination. Recently, interested reviewers reported:

> *differing in … funding sources, the public and private sectors differ in their approaches to treatment and support, and their service cultures. There are often difficulties in engaging private practitioners to provide services for consumers who are treated predominantly in the public sector, and conversely, public sector services do not tend to give priority to consumers who are being seen in the private sector. Together, these factors result in a system that is fragmented and often difficult for consumers and carers to negotiate.*
>
> (Eagar et al 2005 p. 189/190) [9]

The fragmentation of mentally ill people's care and a lack of coordination of available resources that continues to be a source of frustration and constraint in the provision of services to mentally ill people, conflicting values in our society involving economic advancement, a related increasingly competitive environment in and out of the work place are all adding anxiety and stress to everyday life. The competitive environment has several manifestations. In some cases, it involves competition for jobs and, for some without skills, unemployment and possible loss of confidence and self-esteem. [10] As recent testimony before a federal committee indicates [11] another aspect of this competition is the tension between employment and a higher household income and parenting and caring, especially for women. This results in stressful situations. A stressful environment in the work place can lead to alcohol and other substance abuse, and to depression and emotional upsets. [12,13]

Promotion of health

A not entirely unrelated concern is the promotion of health and prevention of disease. There is recognition of the importance of life style to health status, such as tobacco smoking, physical inactivity and poor nutrition. [2] However, recent reviews show there is much to be done. For instance, risk-factor monitoring by the Australian Institute of Health and Welfare (AIHW) [14] indicates a substantial proportion of people in Australia reported low levels of exercise: "Insufficient physical activity is a risk factor for numerous physical and mental health conditions, including cardiovascular disease, Type 2 diabetes, several cancers, as well as overweight and obesity" (AIHW 2004 page 9). [15]

Changes in economic conditions and the preoccupation with employment have had an impact on the work environment. According to the Australian Bureau of Statistics (ABS). [16]… *The past decades have seen an increase in the average working hours of full-time workers … this increase largely reflects the growing number of Australians working 50 hours or more per week* (ABS 2003 page 111). Inevitably, this has reduced the time available to explore other interests and to undertake physical exercise. It has also placed further pressure on achieving 'work/family balance'. [17] It is also apparent that we have not made adequate progress in the acquisition of skills in conflict resolution. This lack of skill causes emotional distress and has, no doubt, had an impact on both family formation and its break down. [18] In addition, it seems some of the successful public health efforts aimed at behaviour modification towards healthier practices have not benefited all members of the community equally.

For instance, while smoking has declined among males and females, we are facing a rising tide of smoking among teenage females. [2] Another problem that must be addressed is the confusion between the early detection of disease and its successful management and the actual prevention of disease through the promotion of healthier practices. It is apparent that the work environment and the unhealthy factors associated with it deserve greater attention. It is also obvious that there is need to target groups in the community who have not been reached by public health promotion efforts. Further, it would be helpful to give people social skills that facilitate the acceptance of different points of view and the reconciliation of conflicting interests.

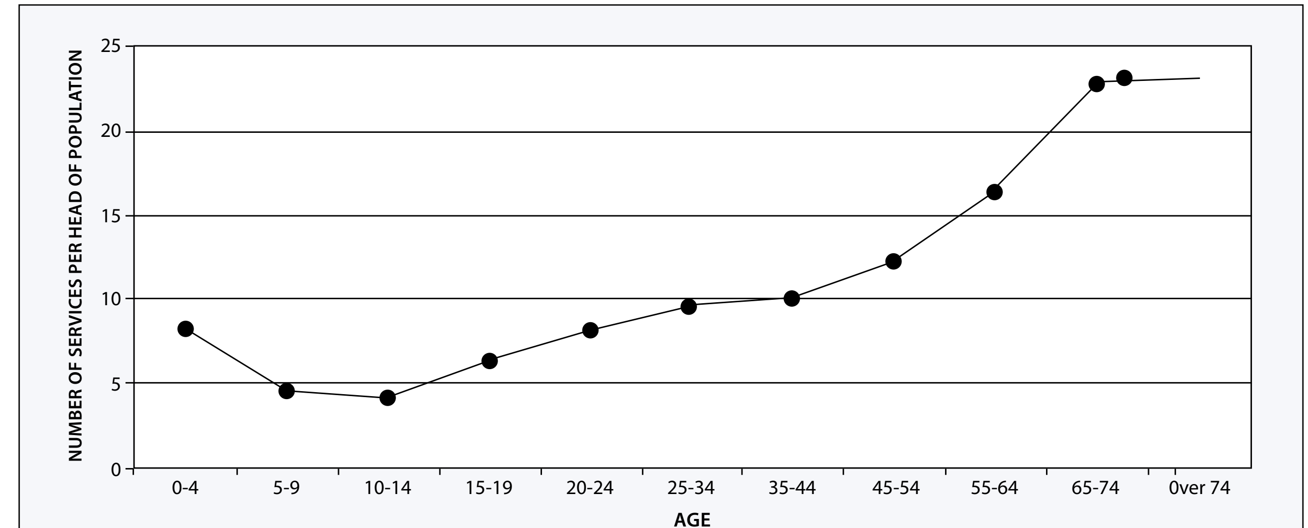
Population ageing: myth and reality

It is inevitable that the Australian population will age due to the large size of the Baby-Boomer generation born in the post World War II period. The life-cycle acceleration of the use of health care in Australia (Figure 1) is a universal characteristic and is likely to prevail. Therefore, it is inevitable that as the Baby Boomers age there will be an impact on the average per capita use of health care services and possibly per capita health care expenditure.

It is important to place this in context. The Australian Bureau of Statistics has projected that people 65 years of age and over will constitute about 20 percent of the Australian population, some 20 years from now in 2026. [19] The Bureau's data also indicate that the proportion of people 65 years and over in Japan and Italy in 2005 is about 20 percent. [20] It is apparent that the ageing of the population in Australia will be gradual over the next twenty years. In other words, Australia's ageing will be steady and any additional burden will be the same in 20 years time as that experienced now by some industrialised countries.

Nevertheless, in about two decades, the use of health services by the population will be greatly influenced by the effectiveness of today's health promotion strategies. These strategies have the potential to diminish dependency on health care services and other support services. This, in turn, could be a major factor in minimising health care expenditure in the future. Dated economic modelling undertaken by Bacon [21] indicates that health care expenditure may rise by as much as six percent points as a percentage of Gross Domestic Product by 2041, which would bring it close to the percentage currently in the United States (Table 3). This could challenge the current trend in Australia to reduce taxation, the major source of funding for health care services.

Figure 1. Medical Practioner Services per Head of Population, by Age, Australia 2001



Source: Commonwealth Department of Health and Aged Care (CDH). Medicare statistics. www.health.gov.au/haf/medstats. Accessed 27 July 2003.

Table 3. Health Expenditure as Percentage of GDP, Selected Countries, 1970 –2002

COUNTRY	1970	1980	1990	2000	2003	INCREASE % GDP 1970-2003
Australia	4.6	7.0	7.8	9.0	9.3	4.7
Canada	7.0	7.1	9.0	8.9	9.9	2.9
Germany	6.2	8.7	8.5	10.6	10.9	4.7
Sweden	6.9	9.1	8.4	8.4	9.2	2.3
United Kingdom	4.5	5.6	6.0	7.3	7.7	3.2
Japan	4.5	6.5	5.9	7.6	7.9	3.4
New Zealand	5.1	5.9	6.9	7.8	8.2	3.1
USA	6.9	8.7	11.9	13.1	15.0	6.1

Source: Organisation for Economic Co-operation and Development (OECD). Health data 2005. Paris: OECD; 2005. Computations of the author.

Australia also has a larger number of doctors and, especially, nurses per head of population than many industrialised countries (Table 5) in spite of its usually younger population.

Table 4. Doctors and Nurses per Thousand People, Australia 1961-2001

YEAR	WORKERS PER 1,000 PEOPLE	
	DOCTORS	NURSES
1961	1.1	5.9
1981	1.8	7.1
2001	2.8	11.8
% Increase 1961-2001	155	100

Sources: Australian Institute of Health and Welfare. Australia's health 2000. Canberra: AIHW; 2000. Australian Institute of Health and Welfare. Australia's health 2004. Canberra: AIHW; 2004. Computations of the author.

Technological change and workforce

A major issue in the Australian health scene is the perceived shortage of skilled personnel such as nurses and doctors. This perception is shared by a number of industrialised countries that are using migration as a source of personnel. Whether this perception is real or the result of maldistribution and inadequate management of available resources is a matter of conjecture. The number of doctors and nurses per head of population has risen considerably in the last four decades (Table 4).

Health technologies have changed considerably, but there has been little change in the structure of health service delivery. The same applies to the demarcation of professional boundaries. This has placed barriers on the training of health professionals with a different range and depth of skills more in line with the technologies being used. The management of health personnel along professional lines and professional demarcations has not facilitated the work of teams with complementary skills required for the performance of quality and efficient care.

Table 5. Doctors and Nurses in Selected Countries Per Thousand People – Full-time Equivalents, 2003

COUNTRY	FULL TIME EQUIVALENTS	
	DOCTORS	NURSES
Australia	2.5	10.2
Canada	2.1	9.8
Italy	4.1	5.4
New Zealand	2.2	9.1
United Kingdom	22	9.7
United States	2.3	7.9

Source: Organisation for Economic Co-operation and Development (OECD). Health data 2005. Paris: OECD; 2005.

Some of these issues are now being discussed [22] but there is not much progress in the resolution of these constraints. As health technologies continue to change these mismatches between technologies and health personnel training and organisation will become even more acute.

Management: clash of cultures

Health care is about people caring for people. It is ironic that health services are conspicuous for their short comings in human resources management.

For instance, the perceived and observed prevalence of a bullying environment in the workplace [23] must impinge on the productivity and morale of staff, and influence the ability of health services to retain personnel. In addition, there are deficiencies in the capacity to manage professional staff members who must use judgment in uncertain situations, and in the use of best practice as a standard for transparent accountability. [24] Health professions are vocational in nature. This implies that health professionals tend to be concerned with the care they give rather than the money value of the resources that they use. Consequently, the management approach of making clinicians "cost-conscious" is unlikely to appeal. It may even cause a divide between the "bean-counter" managers and the "carers" at the coal face. On the other hand, there is evidence that best practice care tends to increase efficiency in the use of resources. [25[Consequently, the use of "clinical" approaches to management may provide more acceptable stimulus and result in the more efficient use of resources. This would require a major change in management culture, practice and the acquisition of "clinical" management skills, as well as a major restructuring of management in health care services. Some efforts have been made in this direction, but their use across the system is far from being an operational reality. [26,27]

The current emphasis on financial bottom lines has led managers to concentrate on budgetary constraints and the rationing of available financial resources. Financial responsibility is important, but so is the effectiveness of the care provided and productivity. Unfortunately, the emphasis on the financial constraints has resulted in management approaches that stress contraction rather than improvements in productivity.

This reinforces the division between "resource managers" and "carers". More emphasis on clinical products would allow for greater identification with the work to be done according to best practice and possible increases in productivity by doing things differently or by a better organisation of the available resources.

Divided responsibilities: cost and blame shifting

In Australia, responsibility for health funding is both shared and divided. For instance, the Commonwealth is responsible for funding private medical practice, pharmaceuticals, subsidisation of private hospitals and long-term care. However the cost of public health care expenditure is a shared responsibility by both state and federal governments. This can give rise to cost-shifting from one area of financial responsibility to another, as some of the care provided in the public and private sectors are often substitutes. In addition, the cost-sharing arrangements can also lead to blame shifting between the state and federal governments, when public hospital funding is perceived to be inadequate. This is also a problem in complementary services such as acute inpatient care provided mostly by public hospitals and long-term care provided by private facilities heavily subsidised by the federal government. Some proposals have been made for the pooling of funds from state and federal sources for services provided by the public and private sectors on a regional basis. [28] In recent times, the states of New South Wales and Queensland offered to transfer the responsibility for public hospitals to the federal government. To date, the federal government has declined the offer.

Concerns with the coordination of the various elements of care provided by the public sector, and a desire to improve the quality of management, have led to the concentration of management of services within given geographical areas in most states. There are some benefits in this, to a point, depending on the size of operation and economies of scale, provided that appropriate delegations of responsibility are in place and relevant accountability is practised. In more recent times, the media has gained a greater interest in health care.

This can be seen as a threat by state governments that are tempted to micro-manage situations to minimise collateral political damage. However, these interventions can also interfere with local responsibility and accountability and remove government from its position as the promoter of a wider public interest, and create what Geoffrey Davies, who conducted an independent inquiry into public hospitals in Queensland, called a culture of concealment against the public interest. [29]

Private practice and prescribing habits

The increase in the number of medical practitioners per head of population (Table 4) and Federal financing of private medical practice have allowed for increased access to private medical practitioners from an average of 5.6 annual services per person in 1976 to 11.1 in 2002/3 [30,31] in spite of the shorter number of hours worked by private practitioners in more recent years. [2] The rise in services was not uniform. A noteworthy feature was the considerable growth in diagnostic pathology and imaging services from 1.7 services per person in 1984/5 to 4.2 in 2002/3. [31] Some of this increment can be attributed to greater screening of well people for the early detection of illness and the monitoring of those with chronic disease. However, some may have also risen from defensive medicine to avoid legal liability. It is apparent that the setting of guidelines to screen well people and the organisation of their application have a major bearing on workloads and expenditure involved. The review of standards and practice against standards deserves attention. Although some steps have been taken to review medical legal liability and compensation, it is apparent that much more needs to be done to minimise defensive medicine practices.

An important element in the management of illness is the prescription of drugs. Australia has successfully kept drug expenditures at a low level through the use of the bargaining power of the Pharmaceutical Benefits Scheme (PBS) that covers the resident population. However, there has been substantial growth both in the volume and the price of drugs in Australia. [32] Expenditure on drugs has gone up from about 0.7 percent of GDP in 1990 to 1.3 percent in 2003. [33] In this period, the number of prescriptions per head of population rose from 6.2 in 1990 to 8.0 in 2003. [32] Some of the increase in volume has gone into the management of hypertension and lipid control, arthritis and mental illness such as depression. Nevertheless, the price paid for drugs has a bearing on the total expenditure and there has been a trend towards higher prices.

The practice of prescribing brand-name drugs when cheaper generics are available is an issue, as often there is no therapeutic advantage in the brand-name drug. Raising the knowledge of medical practitioners about the therapeutic equivalence of alternative drugs is needed to counteract the stimulus provided by patent holders for the use of brand-name drugs. [34] Another source of concern is the potential impact on the price of pharmaceuticals in Australia arising from the free-trade agreement with the United States.

Although the Federal government has assured the electorate that the national interest has been protected, a degree of apprehension continues to be felt. [35]

Health Policy Agenda

The Australian health care system has been comparatively successful in increasing the access to medical care and making a contribution to a longer life expectancy. In addition, the substantial rise in health expenditure has been kept within a range that is common to a large number of industrialised countries, while raising the average income of at least some providers. [33] However, there continues to be a substantial number of policy issues requiring attention and, in some cases, remedial action. They include:

- Promotion of equity in health gains, and particularly for Indigenous Australians
- Targeting health promotion to keep people healthy and less dependent on the management of disease and disability
- Improvements in mental health and care of mentally ill people
- Matching technological changes with professional training and organisational development
- Development of management practices that will lead to cultural convergence between "bean counters" and "carers"
- Balance between financial responsibility and stimulus that raises innovation and productivity
- Restructuring of health financing to avoid cost and blame-shifting between the federal and state governments and increase coordination between the private and public sectors
- Avoidance of micro-management practices that reduce local responsibility and accountability
- Strengthening of private medical practice to reduce defensive medicine, make more effective use of diagnostic services and diminish inefficient prescribing practices.

This is a substantial agenda for health policy development in Australia.

Competing Interests

The author declares that he has no competing interests.

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The Remote Retail Workforce: agents for community food security?

R Sager, R Price

Abstract

This article aims to identify workforce and organisational factors that influence the supply of food to remote Indigenous community stores, describes why this is of importance and discusses recent initiatives to improve the supply of food.

The community store (Store) is often the sole source of food for people living in Australia's 1,223 discrete remote Indigenous communities. [1] The Store faces many challenges, including a limitation of skills and experience within the workforce, high overheads due to building and equipment maintenance, as well as higher costs for stock. The outcome all too often is that remote-dwelling citizens are subjected to high priced foodstuffs and a limited range of health benefiting foods.

There is no more pressing health issue in Australia than the appalling health status of Indigenous people. Part of the challenge of Indigenous health improvement is to explore strategies that more appropriately utilise the Store as a unique agent of change in the remote community.

It has been shown that the remote store manager is in a very influential position with respect to maintenance or improvement of the community's nutritional status, [2] yet their expertise is highly variable, poorly supported and not well scrutinised. For this reason an urgent need exists to identify and create mechanisms that will foster a culture whereby Stores recognise their role and responsibility towards the community's health, and actively contribute to it.

Several models have been trialled to improve the Store's nutritional capacity: the better known models are outlined, together with directions for Store workforce development in the future.

Key words: remote; Indigenous; community stores; nutrition; policy; health promotion; human rights; food security.

Abbreviations: ALPA – Arnhem Land Progress Association; APY – Anangu Pitjantjatjara Yankunytjatjara; NATSINSAP – The National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan; RIST – Remote Indigenous Stores and Takeaways

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Introduction

Access to a nutritious food supply is deemed to be a human right primarily because nutritious food is necessary to attain and maintain health. [3] Where populations eat varied and nutritious foods, they should, by definition, be free of nutrition-related diseases and enjoy an expectation of a long life. This article aims to review some of the factors that impact upon a suitable food supply for remote-dwelling Australians, so that in the future, they too will be able to enjoy a long and healthier life.

In many remote Australian communities there is increasing evidence suggesting that the food supplied to remote Australians may promote disease. [2,4,5]

Moreover recent data from the National Health Survey illustrated that, over the past four years, more remote Australians are forced to go without food due to problems of supply. [4] In other words, an increasing number of Australians in remote areas live in an environment of food insecurity. A food insecure environment exists when a person cannot obtain a nourishing, culturally acceptable diet. [6]

Food is a powerful marker of social isolation for individuals and communities. [6] In the case of remote Australian communities, food insecurity has a broader connotation than the concept of individual hunger. A population's food insecurity is associated with, and may be the consequence of, an underlying social and economic disorder that affects the cost of food, its availability and its quality. [6] Thus dealing with a community's inequality over food access would need to embrace a systemic view as to the causative factors for hunger and poor nutrition. [7]

In Australia there are: [1]

- 1,223 discrete Indigenous communities with about 110,000 people (see Figure 1);
- 73% of these communities have less than 50 people; and
- 12% of these communities have 200 people or more.

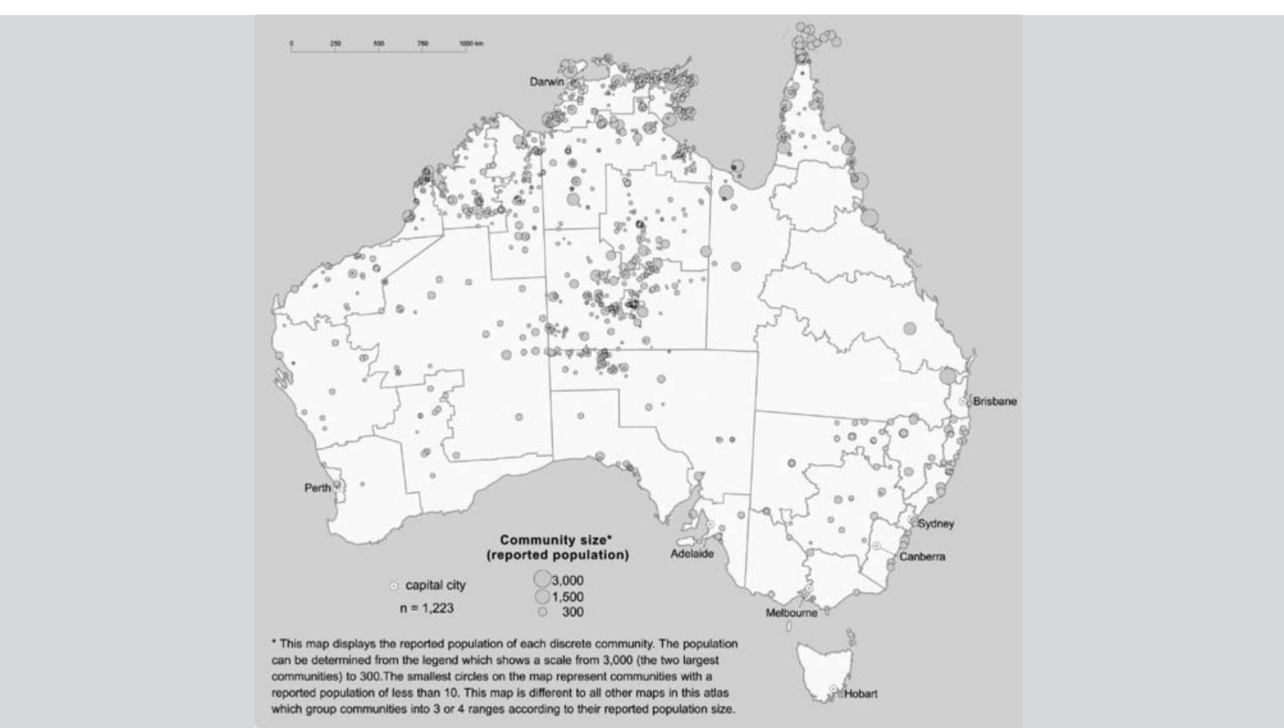
Remote Indigenous Australians are reliant on limited foodstuff options provided by the Store manager or owner. Hence arguments that advocate self responsibility for nutrition status are futile within this environment.

Initiatives promoting remote food security

Several coordinated endeavours have been attempted to improve food security in remote Indigenous communities. The pace of change is slow with small yet meaningful outcomes. These initiatives include:

1. The Arnhem Lands Progress Association (ALPA) is owned by five Arnhem Land Indigenous communities and has been in operation for 31 years. The ALPA owns five stores and manages six other stores on a "fee for service basis". The foods sold in the ALPA stores are governed by a Nutrition Policy. In particular fresh fruit and vegetables are not overly expensive, as the freight on fresh produce is 100% subsidised by sugar based soft drinks and cigarettes. ALPA also offers and conducts retail training to local community members wishing to work within the store. The Board of Management is made up of Indigenous people, allowing for strong Indigenous control. [5,8] The ALPA has been active in food security for over three decades in a small and isolated part of Australia. In October 2004, the ALPA Board of Directors endorsed a new nutrition program, with one of the aims being to increase fruit and vegetable sales. [8]

Figure 1. Locations of the discrete Indigenous communities within Australia, 2002



Source: Bailie R, Siciliano F, Dane G, Bevan L, Paradies Y, Carson B. Atlas of health-related infrastructure in discrete Indigenous communities. Canberra: Aboriginal and Torres Strait Islander Commission and Cooperative Research Centre for Aboriginal and Tropical Health; 2002.

2. Mai Wiru: Regional Stores Policy is based on the premise that residents of the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands, by virtue of their citizenship, are entitled to a safe, affordable and nutritious food supply. The APY Lands Council has asked for food prices in their stores to be maintained at the equivalent of Adelaide prices, and has developed a regional stores policy. The laws governing the APY lands are being changed to give the APY Lands Council the power to pass a by-law that all stores on the APY lands abide by the Mai Wiru Regional Stores Policy. [9] The area affected by the Mai Wiru Policy covers nine remote communities in the north-west of South Australia.

Implementation of the Stores Policy involves the establishment of a Regional Stores Support Unit to work with all the relevant bodies. The project has recently recruited a retail support manager and is soon to employ a public health nutritionist. These two positions will work closely with store managers to implement, monitor and evaluate the Mai Wiru Regional Stores Policy. [9]

3. Jawoyn – Fred Hollows Foundation Nutrition Program: In 1999, the Jawoyn Association approached the Fred Hollows Foundation to help develop a nutrition strategy to tackle the major underlying cause of poor health in their communities of the Katherine Region, Northern Territory. The Nutrition Project combines interrelated programs that empower local people to gain long-term improvements in nutrition. [10]

Partnering with other philanthropic and corporate foundations has gathered funding, expertise and broad-based support for their programs. [10] Woolworths Limited is the major benevolent partner in the program and has seconded experienced mainstream store managers to provide support and training to local managers and staff within three community stores.

The program has a primary focus of community development and capacity building and to date progress has been impressive. In 2004, the Wugularr Store, in partnership with the Fred Hollows Foundation and Woolworths Limited, won a Prime Minister's Award for Excellence in Community Business Partnerships. [10]

4. The FoodNorth Project was a preliminary study under-taken in 2003 in preparation for a planned longer-term project to address food supply issues in north Australia. Supported by the health ministers of Queensland, Northern Territory and Western Australia, the aim of the FoodNorth Project was to compile information about the critical issues impacting on the cost and availability of healthy food. The purpose was also to target and identify strategies and initiatives that had been used to improve food supply in remote locations. [11]

5. The National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan (NATSINSAP), 2000–2010 was developed as part of the Eat Well Australia initiative. Its aim was to provide a framework for action to improve Aboriginal and Torres Strait Islander health and wellbeing through better nutrition. The NATSINSAP has a project officer employed to work on two priority areas: food supply in remote and rural communities and the Aboriginal and Torres Strait Islander nutrition workforce. [12]

6. Remote Indigenous Stores and Takeaways (RIST) RIST is a collaborative project, funded by five Australian jurisdictions with remote Indigenous communities (Queensland, Western Australia, Northern Territory, New South Wales and South Australia) and the Australian Government. This project is implementing the leverage points identified in the FoodNorth report. The project will build on current initiatives to identify some minimum standards for a "healthy" remote store to ensure that one of the key functions of the store is to provide a food supply that enables community members to meet their nutritional requirements. These minimum standards will include:

- Stocking guidelines for community stores;
- Marketing guidelines for health enhancing foods;
- Guidelines for community takeaway outlets;
- Display and storage infrastructure minimum standards; and
- Training package for store management and staff.

The development of minimum standards, combined with establishing the appropriate systems, resources and process, the RIST project aims to trial these outcomes within remote communities. This project will run for three years and requires strong support from all relevant partners to ensure the project attains the best possible outcomes. [13]

Discussion

Challenges to good management

The Store in isolated remote communities faces many challenges, including high overheads associated with maintaining buildings, equipment and stock.

Appropriate store management is essential for remote communities, however the expertise is highly variable, poorly supported and not well scrutinised. Within the current system that supplies food to remote communities, there is the opportunity for individuals to unreasonably benefit.

The remote food system, namely how food is ordered, transported, supplied, processed and sold, is devoid of a coordinated monitoring system and is inadequately regulated. Industry commentators express similar concerns, articulating their growing scepticism about the so-called equity within the remote food supply industry. [14,15]

To increase the supply and sale of fruit and vegetables, this would arguably be the greatest food supply need for remote communities. [11,13,16] Due to their perishability, fruit and vegetables are invariably the most expensive to access and process. The increased costs and risk associated with the supply and storage of fresh produce consequently brings with it reluctance by some store managers to purchase adequate stocks. The FoodNorth report, [11] highlighted this point suggesting that a suitable supply can only be achieved if there is an appropriate infrastructure put in place. For the individual store manager and supplier these barriers have not been resolved. However, they are not insurmountable. Thus far the challenge has been to extend their skill base as a remote practitioner and obtain a supply irrespective of its appropriateness. This will continue to be the challenge until a more suitable infrastructure becomes available for the whole food supply industry in remote regions of Australia.

The remote food supply industry is also burdened by an absence of competitors. Competition would normally tend to promote system compliance and fairness. [17] In other words the nature of competition generated by a number of same service providers, as they try to win a greater customer base, aids the regulator's control in gaining business compliance. The reality is that this scenario has no application for a remote consumer's rights, safety or equity and that neither of these two authorities have significance in remote locations. It is our claim that the current regulatory system for remote retail outlets has been established on an inappropriate urban model and is unsuitably resourced. Either way, food supply in remote communities is dysfunctional, which results in a disservice to remote town residents. The challenge for the Store sector of the remote workforce is to acknowledge and identify the important differences that exist between urban models of retail practice and models that work in the remote settlement.

Variation in remote Indigenous store governance

Store ownership and 'mission' differ significantly by community, region and state. At one end of the continuum the Store may operate as a not-for-profit community owned organisation, and is considered to be an essential community service (eg, ALPA Stores, [8] the Fred Hollows Foundation Nutrition Program, [10] and the Mai Wiru: Regional Stores Policy [9]). In this example, profits from trading are injected back into the community for the purchase and supply of community-identified needs. At the other end of the scale the Store represents a retail, or business enterprise (eg, an independent store not linked to Indigenous community control mechanisms [13]), where the aim is to make a profit that remains with the owners.

Presently independent Store managers are self-directed in their approach. They are required as a minimum to establish access to a range of suitable food items, set the pricing and have available the line items that enable shoppers to make up a balanced and adequate diet. Currently there is no clear guidance or support on stocking or appropriate food pricing for remote community stores and prices are unpredictable and fluctuate widely between communities. Many of the initiatives mentioned above aim to rectify these wide variations in knowledge and practice.

There are many regulatory requirements governing store management that add complexity to the manager's role. For example, not only are remote retail outlets required to follow mainstream business systems and processes, in the most part they are also obligated by the Indigenous community to partake in community development and capacity building exercises, whilst abiding by the local 'cultural law'.

Remote retail managers as primary care providers

Independent store and takeaway managers, which make up the majority of the remote retail workforce, are isolated from systems and structures that are normally found within major retail chain operations. In spite of this, the population that they serve has a need for a service that is above and beyond normal operational expectations. This is currently being achieved by importing and adopting standard urban retail practices. We consider that these procedural contradictions are unsustainable for the remote retail manager and change is needed.

Despite the evidence that demonstrates how a store manager's involvement can positively influence local consumers' purchasing patterns and nutritional intake, [2] there has been little success in establishing this as normal practice from within the industry.

Therefore, it can be argued that this sector of the remote workforce needs to reconsider their role in remote communities. In the process they may decide to embrace some of the broad conceptual principles of primary health care delivery.

The limited success of primary health care applied to the Store is due in part to the fact that remote stores are a business that is literally an essential service. As already discussed, the lack of competition is another complicating factor. Unfortunately, the potential and much-needed role that a store has in the delivery of primary health care initiatives, conflicts with the current retail model that prescribes it as a business enterprise. Business enterprises have a value base that inadequately recognises, and usually restricts the options for community development, nutrition or health promotion as a focus. [11,13] An unfortunate consequence is that the majority of remote communities use limited alternatives in utilising nutrition information and education required to promote lifestyle changes.

Several attempts have been trialled in the past, here and in Canada, to make stores an instrument of public health delivery, yet with negligible outcomes. [11,13,18] This increased understanding of remote store operations suggests that the remote retail outlet, as it stands today, lacks the capacity to utilise health promotion as an effective Store activity. Therefore, we argue that there is a need to redefine the remote retail practice, as a specialised sector of the retail workforce. As with the remote nursing workforce the opportunity exists to identify remote retailers as a specialist workforce with very distinct operations and skills base that separate them from their urban counterparts. Similarly, remote retailers could look at ways in which general practitioners, as commercial identities, are provided with government support and incentives for their role in health promotion and primary health care activities. To encourage future strategies that will achieve some consequence, the remote retailers as a workforce need to entertain these sorts of opportunities and look to re-identify themselves, acknowledging their additional skill sets as primary health care practitioners working in a very unique and specialised environment.

Future directions also require that government should understand both the realities of remote practice and the significant role nutrition has on health outcomes for remote Indigenous communities.

Government naturally has responsibility for encouraging the remote private enterprise to act in a socially responsible fashion.

Conclusions

Small retail food outlets in isolated remote communities face many challenges, including poor support, limited infrastructure and an inept regulatory system. The cost of running a retail outlet is high. Most of the factors that contribute to high costs and limited supply in these locations actually lie outside the health sector, and require commitment and partnerships from a range of government departments as well as industry.

Current systems and constraints prevent remote retail outlets from securing a suitable supply of nutritious food. Improving food security for remote Indigenous communities requires a systems approach. However, progress is unlikely until this issue gains the attention it deserves and until the barriers to improving security of access are fully described and evaluated.

It has been shown that these problems are not insurmountable. Some individual store managers, the ALPA and The Fred Hollows Foundation have all demonstrated that many issues that plague the remote Store can be overcome.

Competing Interests

The authors declare that they have no competing interests.

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Priority Setting of Hospital Services: a demonstration project involving clinicians and citizens in Hong Kong

P P Yuen, D B Gould

Abstract

Objective: **To present the findings of a demonstration project on working within a framework of empirically-measured community values to establish a more rational and transparent method of fee-charging and priority setting for public hospital services in Hong Kong.**

Approach: **The study was undertaken by the authors. Using the Delphi method, the study sought to identify medical interventions which a panel of clinical experts considered to be relatively ineffective and a panel of lay persons regarded as non-essential from a public subsidy point of view.**

Results: **Consensus existed among and between doctors and lay persons on a small number of interventions for which a fee should be charged, generally (1) elective procedures; (2) interventions where cheaper substitutes were available; and (3) preventive and early detection services.**

Conclusions: **The current policy of providing most public hospital services free or at a nominal charge should continue, as the bulk of these services do not fall within the three categories identified for exclusion by this study. Hence, adopting a policy of excluding non-core list items must not be seen as the sole solution to health care financing problems in Hong Kong, as the amount of money that can be recovered from excluded services is not likely to be significant.**

Abbreviations: COS – Chief of Service; PPMI – Privately Purchased Medical Item

Key words: Priority setting; rationing; hospital services; community values; Hong Kong

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Introduction

Priority setting and rationing of health services have been experimented and/or implemented in many countries in North America, Australasia and Europe. [1,2,3,4,5,6] In Asia, most countries have not yet embarked on similar initiatives, even though health cost-containment reforms are high on many governments' agendas. However, as priorities are often perceived to be linked to community values and culture, medical interventions which are regarded as important and necessary in western societies cannot simply be assumed to be so in Asia.

The context

The Hong Kong Government allocates 90 percent of its healthcare budget (roughly US$4 billion a year) to the Hospital Authority which operates all public hospitals in the region. These hospitals provide in-patients with a comprehensive range of treatments and services at an all-inclusive per diem fee of approximately US$13, which represents, on average, three percent of the actual per diem costs. [7]

In addition to the per diem fee, a small proportion of patients who require "Privately Purchased Medical Items (PPMI)" (Table 1) must also bear the full cost of these separately. The PPMI list is historical and arbitrary, drawn up largely by the management of individual hospitals without consulting providers, patients or the public as to what should be included.

Table 1: Privately Purchased Medical Items (PPMIs) in Public Hospitals

1. Percutaneous Transluminal Coronary Angioplasty (PCTA) and other consumables for interventional cardiology
2. Cardiac Pacemakers
3. Intraocular Lens
4. Myoelectric Prosthesis
5. Custom-made Prosthesis
6. Implants for purely cosmetic surgery
7. Appliances for prosthetic and orthotic services, physiotherapy and occupational therapy services
8. Growth hormone and interferon
9. Home use equipment, appliances and consumables

Source : http://www.ha.org.hk/

The fee and charging system in public hospitals in Hong Kong is clearly unsatisfactory. The amount of revenue generated from the per diem fees and the PPMI list is too low to be of any significance. The system does not target government subsidies to services that are cost-effective or to individuals who are particularly vulnerable or to services society considers most worthwhile. Although the scope of public hospital services has expanded significantly over the past few decades, the system has remained basically unchanged, leading patients to expect ever-better services at no increase in cost to themselves.

In theory, public hospitals provide almost everything to every Hong Kong resident at a nominal fee. In reality, individual providers in public hospitals decide what interventions to give or withhold. Such implicit rationing is practised extensively in a highly variable and non-transparent manner.

In 2000, a Government consultation paper proposed a review of the existing hospital fee structure with a view to the better targeting of public funds. [8] In addition, the Hospital Authority proposed to divide services into categories with different levels of public subsidies. [9] However, neither the Government nor the Hospital Authority indicated how these concepts were to be implemented.

Priority setting approaches

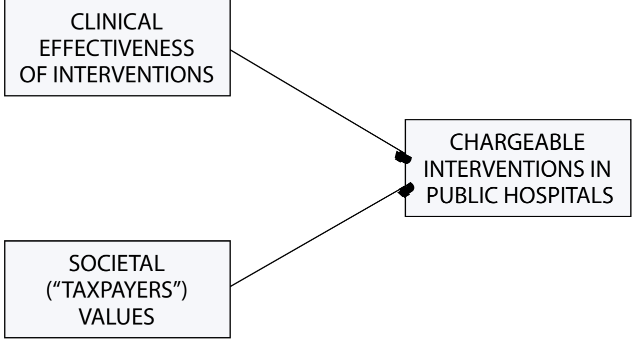
Existing priority setting exercises, or rationing, can be categorised by two major approaches, depending on whether they focus primarily on (1) "technical rationality"; or (2) "political rationality". The first approach, more popular in the 1980s and early 1990s, places greater emphasis on the economic evaluation of interventions using utility-based measurements such as Quality Adjusted Life Years (QALYs) [10] and Disability Adjusted Life Years (DALYs). [11] The initial stages of the Oregon experiment in the USA [1] represented this approach in its most ambitious and comprehensive form.

The second approach seeks to move towards a more politically focused process. Greater emphasis is placed on involving the public in making health care rationing decisions. This ranges from conducting opinion surveys, [5] to the involvement of a "citizen's jury" in the development of health priority guidelines and the drawing up of a "core list" of publicly funded services or pharmaceuticals. [18] The Committee on Health and Disability's development of New Zealand's purchasing guidelines [3] and the Swedish Parliamentary Commission's publishing of its "ethical platform principles" and "priority group lists" [19] are examples of this approach.

In light of well-documented criticisms of the theory and practice of the "technical rationality" approach, based on philosophical and methodological grounds, [12,13,14,15,16,17] this study adopted the "political rationality" approach as its primary research direction. Utility, in terms of cost, benefits, and effectiveness of medical interventions, was treated only as one of the many factors in the overall priority setting exercise. Greater emphasis was placed on empirically measuring the goals and values of taxpaying lay persons who ultimately fund public hospitals.

The study started with the premise that the bulk of the existing medical interventions provided in public hospitals in Hong Kong were suitable and should be publicly subsidised, and that only those interventions that were clearly (1) not effective; and (2) not in line with societal values should be excluded. The study sought to create a high degree of consensus within and between the medical experts/providers and the lay persons/consumers of health care on the type of medical interventions that should not be subsidised with taxpayer money. The conceptual framework of the study is illustrated in Figure 1.

Figure 1: The Conceptual Framework of the Study



Objective

The study sought to demonstrate a more rational and transparent methodology for patient fee-charging and service priority setting in public hospitals in Hong Kong. It was based on medical interventions that were considered by clinical experts to be ineffective as well as those that were regarded by "lay persons" (viz, taxpaying white-collar middle managers) as non-essential from a public subsidy point of view. It was hoped that both the process and findings of the study would provide useful insights for regional policymakers in their endeavours to reform health care financing.

Methodology

The study was divided into two phases, each consisting of a "three-round Delphi". The Delphi Method is a group-consensus approach that was originally developed to identify goals, reveal group values and establish priority on the basis of pooled judgement. [20,21] It consists of successive rounds of inquiry, in which a panel of participants is asked to respond to questions while knowing the collective views of the panel, but not the views of its individual members. Such a process eliminates all interpersonal dynamics that tend to exist in face-to-face group decision-making.

Phase 1

The first phase of the study attempted to guide clinicians towards a consensus on the kind of medical interventions which should be charged to patients in public hospitals on the basis of their clinical ineffectiveness.

Rather than sampling the views of the entire medical community, one manageable pool of experts consisting of public hospital Chiefs of Service (COS) was selected. COS were chosen because they are required to perform a dual role in their day-to-day decision making (1) as clinical experts in their specialty and (2) as managers of their specialty department's one-line budget. All of the 100-plus COS in Hong Kong were invited to participate. Thirty-five responded positively, covering all of the major specialties and subspecialties.

Phase 1 of the study involved three rounds of Delphi panels conducted via mail or fax.

In Round 1, participants were first asked to list, in the form of "diagnosis-treatment pairs", those medical interventions which they considered were of questionable clinical effectiveness and therefore should not be provided free of charge in public hospitals. "Medical interventions" were defined as drugs, diagnostic and treatment procedures, devices and consumables. Examples of "diagnosis-treatment pairs" shown to the participants were:

- Biliary Atresia/Liver Transplant
- Cirrhosis of Liver or Biliary Tract/ Liver Transplant
- Hodgkin's Disease/Bone Marrow Transplant
- Hodgkin's Disease/Radiation Therapy
- Impotence/Medical Therapy-Viagra
- Healthy infant/Circumcision

Participants were then asked to list interventions which they considered should be charged because of other reasons (eg too costly, non-essential, etc).

In Round 2, the two lists of interventions obtained from Round 1 were compiled and organised under eight major specialty headings:

1) clinical oncology;
2) ear nose & throat;
3) medicine (including geriatrics, accidents & emergencies (A&E) and items identified by participants from pathology, intensive care unit (ICU), anesthesiology and diagnostic radiology);
4) obstetrics & gyneacology;
5) ophthalmology;
6) orthopaedics & traumatology;
7) paediatrics; and
8) surgery (including neurosurgery and cardiothoracic surgery).

Participants were then asked to indicate on a 4-point Likert Scale, whether or not each of the listed items should be charged in public hospitals. The descriptive guidelines for the 4-point scale were as follows:

SA (Strongly Agree) implies that there is little evidence on the effectiveness of the intervention or that there is evidence to the contrary. You, therefore, would strongly agree that such an intervention should be charged to the patient.

A (Agree) implies that evidence on the effectiveness of the intervention is weak or conflicting. You, therefore, would agree that such an intervention could be charged to the patient.

DA (Disagree) implies that evidence on the effectiveness of the intervention exists, and it includes observational studies published in reputable journals. You, therefore, would disagree that such interventions should be charged to patients in public hospitals on effectiveness grounds.

SD (Strongly Disagree) implies that the evidence on the effectiveness of the intervention is strong, and includes studies involving randomised trials. You, therefore, would strongly disagree that such interventions should be charged to patients in public hospitals on effectiveness grounds.

Participants were requested to provide a score for all of the items in their own specialty, as well as those in other specialties/subspecialties, for which they felt comfortable doing so. Participants could also add new items to the list.

In Round 3, participants were shown the results of Round 2 in the form of a score for each of the identified interventions, computed by aggregating the responses made by participants in Round 2 using the following scale:

Strongly Agree:	+2
Agree:	+1
Disagree:	-1
Strongly Disagree:	-2

New items which were added to the list by participants were assigned a score of 0.

A high positive score indicated strong consensus among participants that the item should be charged to patients. A negative score suggested that the majority of participants were against charging a fee, or that the panellists were divided. After seeing how other panellists had responded, each participant was asked, once again, to score the items in their own and the other specialties. The final score for each item was then derived using the responses from Round 3 computed according to the above scale. A full discussion of this phase of the Delphi exercise has been published elsewhere. [22]

Phase 2

Phase 2 of the study sought to inject societal values into the consensus-building process by asking a panel of lay persons to finalise the list of chargeable interventions generated by the COS in Phase I.

The second Delphi panel comprised 43 white-collar middle class management or professional persons, reflecting not only lay healthcare consumers but also taxpayers who finance a large part of the public hospital system. It was also by design that the profile of this panel resembled, not that of the general public, but groups such as legislators and government advisory bodies, who were generally involved in advising on healthcare policy. The demographic characteristics of the panel were as follows:

Gender:	Male: 49%; Female: 51%
Age:	18-34: 63%; 35-54: 37%; 55 and above: 0%
Monthly household income:	Less than HK$20K: 2% Between HK$20K to HK$40K: 31% Between HK$40K to HK$60K: 26% Above HK$69K: 41% (1US$=HK$7.8)
Education:	University or above: 100%
Private Health Insurance:	Yes: 49%; No: 51%

As members of this panel were lay persons who might not be knowledgeable about specific medical conditions and interventions, the Delphi rounds took place in three separate meetings of the participants and not via mail/fax, as with the COS panel.

In Round 1, the Lay Panel was shown a list of all the interventions which had received a positive score in Round 3 of the COS Delphi, along with the final scores assigned by the COS. Each diagnosis-treatment pair was briefly described by the researchers.

The participants were then asked to discuss among themselves in groups of five to six persons but to scale the items on the questionnaire on an individual, non-consensus basis. Participants could also introduce items not on the list. The researchers were available to answer questions. A number of data bases were also available to participants: an online medical dictionary, costing information of interventions based on the AN-DRGs, and information on effectiveness of interventions from the Cochrane Database.

The aggregated scores obtained from Round 1 for each of the listed items were shown to participants at the beginning of Round 2, along with new items introduced by participants. Having seen the scores from Round 1, participants were asked to score each of the items a second time. Round 2 scores were then aggregated and shown to participants for final scoring in Round 3. The method of scoring was the same as for the COS Delphi. The results from the two phases were compared with the aid of Rank Correlation Analysis. [23] The process is illustrated in Figure 2.

Figure 2: The Research Process

Phase 1: Delphi with Chiefs-of-Service (COS) Panel

Round 1

Round 2

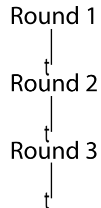
Round 3

Phase 2: Delphi with Lay Panel

Round 1

Round 2

Round 3



A LIST OF CHARGEABLE INTERVENTIONS IN PUBLIC HOSPITALS

Delphi results

Prioritisation by clinicians

In Round 1, 35 COS returned the forms, listing a total of 246 interventions which they considered should be charged in public hospitals.

In Round 2, 30 COS participated and 145 of the 246 listed interventions received a positive score. New items identified by participants were added with a score of 0.

In Round 3, 29 COS participated and 127 items received a positive score for the final round. A polarisation effect was observed, with the top two items in each specialty from Round 2 tending to receive a significantly higher score in Round 3.

Prioritisation by the Lay Panel

Of the 107 items assigned a positive score by the COS Panel, only 65 were similarly scored by Lay Panel members at the end of Round 1. This number was reduced to 59 interventions in the final Lay Panel round, which was significantly less than for the COS Panel final round.

The Appendix shows items which received a positive score after Round 3 of the two Delphi panels. Tables 2 and 3 show the top ten scoring items from the COS and Lay Panels, respectively.

Table 2: Top 10 interventions as rated by the Chiefs-of-Service (COS) Panel in Round 3

RANK AND INTERVENTION	SCORE*
1. Healthy Person/Routine Health Check	30
1. Healthy Person/CT Lung	30
1. Non-urgent cases at Accident & Emergency Departments/All Treatment	30
4. Cosmetic Surgery (all kinds)	29
5. Aging Face/Facial Plastic Surgery	28
5. Cosmetic Breast Augmentation	28
7. Cord Blood Banking for Possible Future Use	26
7. Impotence/Viagra	26
7. Specific Brand Name instead of Generic	26
10. Health Infant/Circumcision	24

*29 Chiefs-of-Service participated in the 3rd Delphi Round.
The maximum possible score for each item was 58.

Table 3: Top 10 interventions as rated by the Lay Persons (Taxpayers) Panel in Round 3

RANK AND INTERVENTION	SCORE**
1. Cosmetic Breast Augmentation*	71
2. Specific Brand Name instead of Generic*	68
3. Non-urgent cases at Accidents & Emergencies Depts/All Treatment*	67
3. Trans-sexualism/ Sex Transformation Surgery	67
5. Cosmetic Surgery (all kinds)*	66
6. Aging Face/Facial Plastic Surgery*	63
6. Cutaneous Acquired Lesion (eg tattoos)/ Laser Therapy	63
6. Hypochondriasis/Demanded Investigations	63
9. Healthy Person/PSA	62
10. Refractive Error/LASIK or Refractive Surgery	58
10. Termination of Pregnancy other than Medical Reasons	58

*Also appeared in the Chiefs-of-Service (COS) "Top 10" List.
**43 lay persons participated in the 3rd Delphi Round.
The maximum possible score for each item was 86.

Analysis of results

Results of this study suggest the following:

Overall consensus exists for a small number of public hospital interventions:

The number of interventions receiving a high positive score in the final Delphi round was relatively small. Of the 246 interventions identified as potential candidates for charging in the first Provider (COS) round, only 59 received a positive score at the end of the final Lay Panel round. This finding suggests that consensus for patient fee-charging exists only for a small number of interventions. To impose charges on interventions other than those which received a high score is likely to generate public controversy.

Given that the number of identified interventions is small and that they are not amongst the most expensive in terms of unit cost or volume, the results also suggest that the amount of money that can be recovered by imposing a patient charge on them is not likely to be substantial.

Differences between medical and lay panels:

The results show that medical practitioners and lay persons have both differences as well as common views over patient fee-charging for interventions in public hospitals.

Lay members, in general, showed a higher degree of consensus over what should and should not be charged. This was reflected in the high and low values of the aggregated scores, as well as the large number of items receiving such highly positive and highly negative scores. By contrast, providers (COS) were more equivocal, especially about items in specialities other than their own. They also tended to be more divided over the effectiveness of certain interventions.

Rank Correlation Analysis showed that the scores for the two panels were positively correlated (Spearman's Rho of 0.581; significant at 0.01 level), suggesting agreement between the two panels on general directions, but with important differences in a number of areas. Lay members were, in general, not supportive of charging for interventions that some COS considered ineffective. They were, however, less sympathetic than their medical counterparts regarding conditions related to patients' life-style (such as smoking complications, self-inflicted injuries, and hallus valgus (a condition often caused by wearing high-heeled shoes). These received a very low positive score (2 to 4) from the COS panel, but a rather high score (42 to 56) from the Lay Panel.

Consensus between medical and lay panels:
The interventions that received high positive scores from both medical and lay panels were: (1) elective procedures; (2) interventions where cheaper substitutes were available; and (3) preventive and early detection services.

Elective procedures are services based primarily on needs defined by the patient and not by the doctor, eg cosmetic surgery, caesarean delivery on request, circumcision for healthy infants and interventions for sex related conditions - such as impotence, sex transformation, assisted reproduction, termination of pregnancy and sterilisation. Many of these services have also been specifically identified by health authorities in Sweden and the UK as excluded procedures for public funding. [24,25]

Interventions where cheaper substitutes were available included normal delivery by a doctor (instead of by midwife), the use of brand name drugs (instead of generic drugs), and surgery for myopia (instead of wearing glasses). Examples of preventive and early detection services included cancer screening for family members of cancer patients, routine health checks, screening and mammography for healthy women, and weight reduction classes. This lack of support for subsidy contrasts sharply with experience from other countries.

In Oregon, USA, for example, prevention ranked highest in a list of thirteen values. In Sweden, prevention and screening were designated as the second (out of five) in their priority setting guidelines. [24]

Procedures of questionable cost-effectiveness:
While one of the main aims of the research was to identify procedures which were not cost-effective, the overwhelming majority of items with final high positive scores were actually interventions which should be charged for other reasons. While many interventions of questionable effectiveness appeared in the first COS Delphi round (eg Asymptomatic Disseminated Lung Cancer/Chemotherapy or Radiation Therapy; Ischaemic Stroke/Thrombolytic Therapy; Glaucoma (end-stage)/Valve Implant; Ischameic Heart Disease/Cardiac Transplant), lay panellists eventually eliminated all of these in their Delphi.

Existing Privately Purchased Medical Items (PPMI) list:
It is worth noting that only five of the nine items in the Hospital Authority's existing PPMI list (Growth Hormone and Interferon, Percutaneous Transluminal Coronary Angioplasty (PTCA), Intraocular Lens, Prosthesis for Joint Reconstruction, and Prosthesis for Breast Reconstruction) received a positive final round score from the COS Panel. The other four items either did not appear at all, or were eliminated in the early COS Panel rounds. Of the five surviving PPMI interventions, all but two (Implants for Cosmetic Surgery and Intraocular Lens) were later rejected by the Lay Panel.

Conclusions

This study demonstrates that, given a properly designed group decision-making process, participants are not averse to excluding certain interventions from public funding. Both doctors and taxpaying lay persons can arrive at some degree of consensus on a number of medical interventions that should be charged in public hospitals, even though the number may be relatively small.

The study reveals that it is rather fruitless to try to single out interventions on the basis of effectiveness, because clinicians were generally equivocal while lay persons were opposed in principle. The latter appeared to take the view that there might be individual cases where a particular intervention could be effective and worthy of public subsidy, and the decision whether or not to provide the intervention should therefore be made by clinicians on a case-by-case basis.

The study also revealed that the current practice of requiring patients to pay in full for PPMI is inappropriate and, in general, has no support from either the medical or lay communities.

From the study, it is clear that the current policy of providing most public hospital services free or at a nominal charge should continue, as the bulk of these services do not fall within three categories identified for exclusion by this study. Hence, adopting a policy of excluding non-core list items must not be seen as the sole solution to health care financing problems in Hong Kong, as the amount of money that can be recovered from excluded services is not likely to be significant.

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Competing Interests

The authors declare that they have no competing interests.

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Appendix: Priority Setting of Public Hospital Services Delphi Panels' Final Scores

SPECIALTY: CLINICAL ONCOLOGY

Interventions	COS[1] Panel	Lay Panel[2]
Surgical Scar/Prophylactic Irradiation	24	27
Family Members with NPC/Screening	14	25
Unrecognised Indications/Taxol	10	15
HBV+ve Patients/Screening for Liver Cancer	9	-29
Metastatic Breast Cancer/ Bone Marrow Transplant	4	-46

SPECIALTY: EAR, NOSE & THROAT

Interventions	COS[1] Panel	Lay Panel[2]
Ageing Face/Facial Plastic Surgery	28	63
Tinnitus/MRI	7	38
Nasal Deformity/Aesthetic Surgery	6	25
Laryngitis, nodule/Speech Therapy	6	-5
Bell's Palsy/Methycobal	6	-22
Globus Pharyngeus/Endoscopy	4	-25
Sensory-neural Hearing Loss/ Sermion, Duxaril, Methycobal, Sibelium	6	-32
Hearing Loss/Hearing Aid	3	-50

SPECIALTY: ORTHOPAEDICS AND TRAUMATOLOGY

Interventions	COS[1] Panel	Lay Panel[2]
Hallus Valgus/Metatarsalgia	2	56
Industrial Injuries with insurance	18	32
Joint Reconstruction/Prosthesis	2	-32
Sport Injuries/Knee Reconstruction Procedures	5	-35

SPECIALTY: MEDICINE
(Including Geriatrics, A&E and items identified by participants from Pathology, ICU, Anaesthesiology and Diagnostic Radiology)

Interventions	COS[1] Panel	Lay Panel[2]
Specific Brand Name instead of Generic	26	68
Non-urgent cases at A&E (triaged Cat III or IV) /All Treatment	30	67
Hypochondriasis/Demanded Investigations	11	63
Healthy Person/PSA	22	62
Healthy Person/Routine Health Check	30	56
Impotence/Viagra	26	54
Self harm/Salvage Treatment	4	42
Healthy Person/CT Lung	30	51
Smoking Complications/Treatment	2	49
Healthy Person/Mammography	20	34
Low Risk Population/Hepatitis B Vaccination	13	20
Vegetative State/Life Maintenance	3	15
Healthy Person/Pap Smear	15	11
Hepatitis B/Interferon	9	-23
Migraine/Imigran	4	-23
Hepatitis C/Interferon and Ribavirin	4	-24
Arterial Occlusion/Vascular Stenting	2	-35
Ischaemic Heart Disease/PTCA	3	-39
Atherosclerotic Vessel Disease/Vascular Stenting	4	-40
Osteoporosis/Bisphosphonates	13	-44
Arterial Narrowing or Stenosis/Angioplasty	4	-44
All A&E Patients	3	-44

SPECIALTY: OBSETRICS & GYNAECOLOGY

Interventions	COS[1] Panel	Lay Panel[2]
Termination of Pregnancy other than Medical Reason	21	58
Normal Pregnancy/ Caesarean Delivery on Request	15	57
Prophylactic Hormonal Replacement Therapy	15	44
Healthy Women/ Screening in Well Women Clinics	16	41
Normal Delivery of Baby/by Doctors	3	29
Sterilisation	7	26
Vaginal Discharge in the absence of Pathology/ Medical Treatment	17	24
Infertility (Subfertility)/ Assisted Reproduction or IVF	21	13
Hormonal Replacement	5	12
Inpatient Care of New Born Well Babies	9	-11
Postmenopausal Osteoporosis/ Calcium Supplement	6	-42
Subfertility due to Pelvic Endometriosis/ Danazol or GnRH Agonist	6	-43

SPECIALTY: OPHTHALMOLOGY

Interventions	COS[1] Panel	Lay Panel[2]
Refractive Error/LASIK or Refractive Surgery	13	58
Mole/Laser Therapy	10	51
Myopia/Keratoplasty	10	49
Astigmatism/Topography	7	42
High Myopia/Clear Lens Operation	11	35
High Myopia/Phakic Intraocular Lens	10	32
Ptosis/Cosmetic Surgery	6	14
Xanthelasma/Xantheloma Excision	8	6

SPECIALTY: PAEDIATRICS

Interventions	COS[1] Panel	Lay Panel[2]
Jehovah's Witness/Erythropoietin	21	56
Poor Appetite/Vitamin	13	52
Cord Blood Banking for Possible Future Use	26	51
Childhood Obesity/Weight Reduction Class	9	40
Milk Powder for Newborn	16	-7
Enuresis/Enuresis Alarm	12	-14
Down's Syndrome/Growth Hormone	6	-22

SPECIALTY: SURGERY
(Including Neurosurgery, Cardiothoracic Surgery)

Interventions	COS[1] Panel	Lay Panel[2]
Cosmetic Breast Augmentation	28	71
Trans-sexualism/Sex Transformation Surgery	13	67
Cosmetic Surgery (all kinds)	29	66
Cutaneous Acquired Lesion (eg tattoo)/ Laser Therapy	22	63
Health Infant/Circumcision	24	42
Impotence/Artificial Implant	23	39
Breast Reconstruction/Prosthesis	10	37
Impotence/Surgical Therapy	5	16
Benign Prostatic Hyperplasia/ Transurethral Microwave	14	-1
Benign Prostatic Hyperplasia/Proscar	6	-4
B.P.H./Laser Rx	3	-8
Asymptomatic Gallstone/ Laparoscopic Cholecystectomy	8	-26
Varicocele/Laparoscopic Surgery	3	-29
NSAID Patients/Antacid	2	-30
Harelip (Cleft Lip/Cleft palate)	*	-38
Biliary Tract Stone/ESWL	10	-39

Notes: 1. COS Chiefs-of-Service of public hospitals in Hong Kong; 2. Lay Panel members were white-collar middle managers selected to reflect the views of taxpayers; *item introduced by a Lay Panel member in Round 1 of the Lay Panel rounds.

RESEARCH NOTE

The Thai-Australian Health Alliance: a case study of inter-organisational collaboration

P Taytiwat, J Fraser, D Briggs

Abstract

Aim: To describe early stages in the development of a cross-cultural strategic alliance known as the 'Thai-Australian Health Alliance'. The aim of the alliance is to improve rural medical workforce recruitment, retention, education and training. Early stage development focuses on achieving a sustainable set of relationships between participating organisations since June, 2004.

Design and data collection: A qualitative research design with a descriptive account of stages involved in the development of the Thai-Australian Health Alliance. Data collection included author field notes, reports and meetings plus semi-structured interviews with key stakeholders.

Setting: Rural medical workforce health training organisations in northern Thailand and north western New South Wales.

Main outcome measures: Perceptions of key stakeholders in December, 2005 as to the success of the alliance and factors influencing same.

Results: Evidence supporting the strength of the emerging alliance included:

- Collaborative goal setting;
- Support of senior management;
- Satisfaction of key stakeholders with exchanges between members of the alliance.

Conclusions: The research findings suggest that the implementation of cross cultural strategic alliances need to consider the needs of member organisations, undertake visionary goal setting, gain senior management support, commence with pilot collaborative projects and build linkages based on trust and mutual respect.

Key words: strategic alliance, collaboration, partnership, rural health, medical education, health management.

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Introduction

The question of how to establish an effective and sustainable strategic alliance among two or more organisations is a challenge for the individual, the organisation, and society. The challenge is even greater when the organisations involved are from different countries. [1] This form of interorganisational collaboration has increased dramatically in the latter half of the twentieth century, particularly in the education and health sectors. Driving forces for alliance formation include increased competition for resources and globalisation of the world economy. [2]

For many education and training organisations in the health industry the potential benefits of joining an international alliance are numerous and include increased market opportunities, access to partners' resources (eg relevant skills, knowledge, finances), gaining a competitive advantage and enhanced organisational performance. [3]

In the tertiary sector, some international alliances have failed due to poor management of exchanges between member organisations, including failure to recognise and respect cultural differences. As a result a lack of trust has developed among the key players. [3] Walt (2005) identified three important activities in developing and maintaining successful international health alliances: 1) consensus building and advocacy; 2) cross-learning and transfer of knowledge; and 3) production and sharing of international public goods. [2]

Australia and Thailand's health systems share some similarities. Both countries have a maldistribution of their health professional workforce with a higher representation of doctors in urban regions than in rural regions. [4,5,6] Both countries have a public universal health care system (viz, 30 Baht Scheme and Medicare) and both have a mixture of public and private health service provision. In addition, both countries face the challenge of providing services to their ageing populations and to people living in socioeconomic disadvantaged rural areas. [6,7]

Unlike the situation in Australia where general practitioners are considered to be specialists in family medicine, [8] Thai general practitioners are considered to be junior medical officers who have yet to undergo specialist training. [9] As a result, Family Medicine in Thailand, is poorly developed and the major emphasis has been on hospital based care. [10,11] At present, few Thai doctors assume roles which facilitate continuity of care for their patients or develop programs to address the needs of a community. [11]

This paper describes the development of a Thai-Australian health alliance during its first 18 months of operation. The six members of the alliance include rural medical workforce training and health service management organisations predominantly in the New England region of New South Wales and Northern Thailand.

Methods

An exploratory qualitative research design [12,13] with a descriptive account of stages involved in the development of the Thai-Australian Health Alliance.

Data collection included field notes, reports, minutes of meetings and semi-structured, self-administered questionnaires. In addition, each of the three researchers maintained a journal of their interactions with one another and these were used for critical reflection on a regular basis. [14]

In May and August 2005, a qualitative evaluation of the status of the alliance was conducted. This involved four semi-structured interviews with senior Thai academics and Australian partners to the alliance. These interviews were conducted in May 2005 and repeated in August 2005 before and after respective visits to Thailand and Australia by the parties interviewed. Data drawn from these taped and transcribed interviews were strategically important to the future of the alliance because they enabled a greater depth of understanding of the perspectives of the partners and, the issues for them associated with the alliance's progress. [15]

Interactive reading techniques [16] and theme analysis were used to analyse the data. This process was informed by Austin's (2000) theoretical framework [1] (Table 1).

Austin identified certain characteristics associated with different stages in the development of strategic alliances involving nonprofit organisations and corporations and suggested that these descriptors may be useful in analysing other across-sector collaborative ventures (eg those involving government entities and foundations). According to Austin, the development of an alliance can be described as being somewhere on a continuum which has three relationship-dimensions. At one end of the continuum is the "Philanthropic" relationship in which the *Level of Engagement* between the parties is relatively low and the *Strategic Value* ascribed to the alliance by the parties is modest. In the middle of the continuum is the "Transactional" relationship while at the other end of the continuum is the "Integrative" relationship in which the *Level of Engagement* is high and the *Strategic Value* placed on the alliance by the partners is major. Other descriptors on the continuum include *Importance to Mission*, *Magnitude of Resources*, *Scope of Activities*, *Interaction Level* and *Managerial Complexity*. Additional characteristics identified by Austin to describe the status of an alliance include *Collaboration Mind-set*, *Strategic Alignment*, *Collaboration Value* and *Relationship Management* (Table 1).

In our study, we made use of Austin's conceptual framework to describe changes in the status of the Thai-Australian Health Alliance and to facilitate discussion about the future of the relationship.

The Human Research Ethics Committee of the University of New England approved the research project.

Table 1: Austin's Theoretical Framework: stages and characteristics in the development of strategic alliances

	RELATIONSHIP CONTINUUM – FROM PHILANTHROPIC TO INTEGRATIVE		
RELATIONSHIP STAGE	ONE – PHILANTHROPIC	TWO – TRANSACTIONAL	THREE – INTEGRATIVE
1. Level of engagement	Low . . . . High		
2. Importance to mission	Peripheral . . . . Strategic		
3. Magnitude of resources	Small . . . . Big		
4. Scope of activities	Narrow . . . . Broad		
5. Interaction level	Infrequent . . . . Intensive		
6. Managerial complexity	Simple . . . . Complex		
7. Strategic value	Modest . . . . Major		
PARTNERSHIP CHARACTERISTICS			
1. Collaboration mind-set	Grateful,charitable, separatedness	Partnering, trust, understanding	'We' ahead of 'Us and them'
2. Strategic alignment	Minimal fit	Overlap in mission, values and vision	Strategic significance, shared values, broad scope
3. Collaboration value	Generic,unequal	Greater equality and core competency exchange	Joint benefit creation, shared equity, mutual return
4. Relationship management	Lower personnel status, minimal performance	Expanded relationships, emerging infrastructure	Expanded opportunities, cultural influences across

Source: Adapted from: Austin JE. The collaboration challenge – how nonprofits and business succeed through strategic alliances. San Francisco: Jossey-Bass; 2000. Figure 1, p. 35 and Table 2.1, p. 36-37.

The Thai-Australian Health Alliance

The Thai-Australian Health Alliance began in mid 2004 when a current Thai scholar and academic staff member of the Faculty of Public Health at Naresuan University, Thailand, studying for the Doctor of Health Services Management (DHSM) award at the School of Health, University of New England, expressed a desire to establish links between Thai health workforce training organisations and key rural health training organisations in North Western New South Wales.

Thai organisations willing to enter into an alliance with rural health training organisations in Australia in 2004 were Naresuan University and the Ministry of Public Health.

By 2006, four Australian organisations had joined the alliance: the University of New England, the Hunter New England Area Rural Training Unit, the New England Area Training Services and the Australian College of Health Service Executives.

Members of the Alliance

1) Naresuan University is a state comprehensive university in the lower-northern region of Thailand. Since 1993, it has had a rural medical school with a unique program called the 'new tract doctors'. This program provides opportunity for rural students, as graduates of health sciences, to study medicine. The program includes a compulsory rural practice requirement. In 2006, there were some 300 medical graduates from this program, most of whom were working in rural areas. [17]

2) The Thai Ministry of Public Health operates public hospitals throughout Thailand and has responsibility for implementing the 30 Baht Universal Health Care Scheme. In recent years, this Scheme has shifted some funds away from major hospitals in order to fund primary health care. [10]

This policy change has generated renewed interest among health workers and educators in building capacity in family medicine and health service management. [10]

3) The University of New England is located in a regional centre of New South Wales, Australia. It has a School of Health that provides undergraduate and postgraduate courses and research degrees in health management, gerontology, nursing, counselling and the health sciences and, is currently proposing the establishment of a rural medical school.

4) The Hunter New England Area Rural Training Unit, located within the Hunter New England Area Health Service, is funded by the Government of New South Wales to promote the recruitment and retention of rural health professionals, potentially from high schools, into undergraduate programs and providing post graduate training in rural general practice.

5) The New England Area Training Services is a regionally based training consortium for general practitioners, with a Board of Directors representative of rural general practitioners.

6) The Australian College of Health Service Executives is an association that provides a range of member services, accreditation of tertiary health management programs and professional development programs for health service managers in Australia and the Asia Pacific.

The strategic direction of the College has as an objective to extend its membership into the Asia Pacific region through collaboration with like organisations and reciprocal membership arrangements. The College has entered into a specific Memorandum of Understanding with the Thai partners to assist the development of a similar organisation and services in Thailand.

Stages of implementation of the Thai-Australian Health Alliance

Stage 1: Collaboration in defining the expected benefits of the alliance

In order to progress the development of the alliance, each researcher was responsible to their respective organisation to foster interest and support for the alliance and to provide feedback to key stakeholders. During this stage, potential beneficial outcomes for the respective organisations were defined. These are listed in Table 2.

Stage 2: Gaining the support of senior stakeholders

Stage 2 involved establishing strategic support for the alliance amongst senior staff of the respective organisations.

Table 2: Expected benefits of the Thai-Australian Health Alliance

Expected benefits for Thailand and Thai member organisations
• Increased ability to: – demonstrate innovation in rural medical education and health service management; – expand training in family medicine; – enhance the educational and professional development skills of Thai physicians and – hospital directors; – improve the recruitment and retention of rural health professionals. • Increased capacity through collaboration and networking with Australian partners to participate in public policy development to improve health outcomes for Thai people. • International recognition and benchmarking of rural medical education programs (Naresuan University). • Potential for collaborative research into rural health and workforce issues between the two regions.
Expected benefits for the University of New England
• Increased enrolments in postgraduate courses and doctoral programs in health service management and medical education. • Collaborative research between the two regions. • Ability to learn and adopt innovative Naresuan University programs (eg., its rural based medical education program). • Increased international profile in Thailand and South East Asia. • Commencement of regular staff and student exchanges
Expected benefits for Hunter New England Area Rural Training Unit and the New England Area Training Services
• International recognition of the quality of the programs offered by the organisations. • Potential to exchange staff and develop training sites. • Ability to learn and adopt innovative Naresuan University programs (eg its rural based medical education program).
Expected benefits for the Australian College of Health Service Executives
• Achievement of the strategic objective of increased membership through international collaboration. • Extend the strategic objective of furthering the profession of health service management through assisting in the establishment of similar organisations to the College in the Asia Pacific. • Achieve implementation of the Memorandum of Understanding with Thai partners which is an early established outcome of participation in the Alliance.

In 2004 high level visits between each university and the Thai Ministry of Public health occurred. In 2005, the researchers visited Thailand, held seminars at Naresuan University, visited rural health services, and participated in a ceremonial presentation with Her Royal Highness Princess Sirindhorn.

In late 2005, a delegation involving a senior Naresuan University Professor and six doctors from the University, with significant management and medical education responsibilities in northern Thai hospitals, visited north western New South Wales. The delegation met with a range of key health people, visited a range of health service organisations and participated in a two week medical education and health management program that was theoretical and experiential. All participants agreed that the program had achieved its objectives by adding to their understanding of the Australian health care system, the management of health services, rural medical education, and adult learning and teaching skills.

Stage 3: Planning and resourcing collaborative projects

Both Australian and Thai members of the alliance have agreed to explore and develop further links in the collaborative in 2006. Proposals to fund future joint research and educational projects with a focus on rural medical education and health service management are being developed. In addition, a longer term evaluation of the outcomes of the educational exchanges is planned for later in 2006.

Stage 4: Monitoring and evaluating alliance formation and development

As previously indicated, assessing progress toward the development of the alliance was perceived by the researchers to be strategically important to its success because it provided a 'feedback loop' as to the perceptions of key stakeholders. It also enabled the early identification of potential barriers and the development of preventive strategies.

Four major themes and several potential barriers to the success of the alliance emerged from the interviews conducted with key stakeholders. These themes were:

1. Development of common goals and articulation of expected benefits

All participants emphasised the importance of collaboration in the development of a set of common goals. All participants perceived that it was important for each party to articulate the benefits its organisation expected from being in the alliance. All participants believed it was important to define activities that enabled the parties to work together. Comments from participants included 'having common goals and common benefits are good …' (Thai) and '… try some small collaborative projects and see what will come out' (Australian). All informants mentioned the importance of gaining the strong commitment and involvement of the leader of each organisation. For example one participant commented '…the best prevention [from collapsed collaboration] is convincing the executives' (Thai).

2. Trust

All participants agreed that trust was central to the management of the relationship (eg one participant commented 'I had a chance to meet my old friends…in Australia and this strengthens our good relationships' [Thai]). Factors that assisted in the building of trust were perceived to be respect and acknowledgement for the differences of each partner, such as, culture, language and working style. One of the participants stated 'you will fall into a trap if you impose your own view point onto others when you go into a different culture ... I think that you need to recognise those differences' (Australian).

3. Communication

The importance of two-way communication was emphasised in comments such as:

'…so I asked them a lot (during the visit) and this gave me a much clearer understanding' (Thai). 'It needs to be two ways to be collaborative' (Australian).

4. Learning and innovation

Innovation was perceived by participants to bring benefits to the alliance and to help establish richness in collaboration. This sentiment was demonstrated by comments such as '… some of the problems or challenges were similar to what we face in Australia. We saw some good examples of good models of care and service delivery' (Australian), and '…we can replicate some ideas from Australian experts but not directly copy how it is accomplished in Australia (Thai).

5. Barriers to the Collaboration

Lack of financial and organisational support from key stakeholders was seen as a potential barrier to the success of the alliance. These perceptions were exemplified in comments such as '…I guess bureaucracy of getting things approved and how we manage our side would be pitfalls' (Australian). 'I also hope that experts from Australia…would help develop this particular project without commercial expectation' (Thai).

These comments also reflected the need for the Alliance partners to be cognisant of any resource constraints and accountability requirements of the respective parties to the Alliance.

Discussion

Our study identified factors important to the early-stage development of cross-cultural strategic alliances involving education and training organisations. These factors included ensuring that due consideration is given to the needs of each member organisation, collaboration in visionary goal setting, gaining the support of senior management, commencing with pilot collaborative projects and building linkages based on trust and mutual respect.

Strengths and weaknesses of the study

The authors recognise that their involvement as researchers and key participants in the alliance building process can be seen as both a strength and a weakness. The close involvement of the authors added to the richness of the data collected and strengthened the validity of the findings. While the research process was rigorous, the reader might consider the authors as potentially biased because of their key representative and research roles. A further weakness of our study is that it reports observations from a single case.

Our study was strengthened by the use of Austin's [1] theoretical framework in analysing the status of relationships between members of the Thai-Australian Health Alliance. Based on Austin's alliance relationship-continuum (Philanthropic to Transactional to Integrative) we found that in the beginning the relationship focused on activities and partnership characteristics reflective of the Transactional stage and then quickly moved to levels of activity and partnership characteristics that reflected the Integrative stage. The seemingly rapid move across Austin's continuum was enabled by the close strategic alignment of the partner-organisations as publicly funded education and training providers, albeit from two different countries, and the close alignment of the partners' mission, strategies and values. Austin suggests that alliances tend to move forward and back across his conceptual framework as circumstances change and that 'knowing where you are is critical to deciding where you want to be'. We found that as the alliance developed there was a need to respond to each organisation's policy and procedural requirements where specific activities were proposed. This requirement was characteristic of the transactional relationship.

Austin's framework has been useful in allowing the partners to think strategically about the Alliance and we intend to continue to use it to develop strategic options to sustain a collaborative and integrative alliance. According to Austin, [1] a challenge for the future will be to manage the Alliance in a way that generates "joint benefit creation", "shared equity" and "mutual return", while at the same time meeting each organisation's accountability and performance reporting requirements.

According to Walt, [2] the Thai-Australian Health Alliance has delivered on two of the three activities identified by him as essential for successful international alliance development (viz, consensus building and transfer of knowledge) and discussions are well advanced for the production and sharing of international public goods, the third essential activity described by Walt.

Implications for health and aged care services managers or policy makers

Given the globalisation of the world economy and the impact of this phenomenon on national health systems, there will be increasing need for international collaboration between health systems and their member organisations to maximise the use of finite resources to advance the health of populations. This will require a range of alliances across national boundaries that will transcend traditional aid/donor or transactional relationships to more integrative relationships characterised by mutual respect for the needs of each member organisation. This study demonstrates that health managers, educators and policy makers need to be aware that clear strategic thinking is required together with collaborative goal setting, time, trust and mutual respect to develop robust and enduring cross cultural alliances.

Unanswered questions and future research

Further research involving other cross-cultural health alliances is required to establish the robustness of the findings arising from this case study. We propose to undertake further descriptive evaluation of the Thai-Australian Health Alliance as joint research, education and training activities occur between the existing partners and potentially new partners (or recipients of the products and services) join the Alliance.

Competing interests:

The Authors declare that they have no competing interests.

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RESEARCH NOTE

Methodological Challenges to Researching Nursing Turnover in New Zealand: a progress report of a national study

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Abstract

Objective: The paper reports on the availability and usability of New Zealand public hospital data to calculate registered nurse turnover and its costs.

Design: A pilot study using a retrospective design was conducted to test an instrument for the measurement of nursing turnover and to refine a methodology for use in a national longitudinal study. Subsequently the longitudinal study was implemented in three stages. This paper focuses on constraints in conducting the pilot study. These constraints related to the availability of, access to, and comparability of data.

Setting: The pilot was conducted in two self-selected nursing units in one public hospital in New Zealand. The longitudinal study is currently in progress and is being conducted in 32 randomly selected medical, surgical and mental health nursing units in public hospitals run by 11 of the 21 district health boards in New Zealand with Stage 1 involving 20 of 21 Directors of Nursing.

Main outcome measures: The focus of the pilot was the availability of accurate and reliable data and the validity of the selected instrument for measuring nurse turnover and the appropriateness of the proposed research design for the longitudinal study.

Results: The pilot study demonstrated that data across public hospitals related to nurse turnover and its costs varied between and within hospitals, were often difficult to identify and disaggregate from other data, and sometimes were not available at all.

Conclusions: More robust data than are currently available in New Zealand public hospitals to inform practices and policies related to nursing turnover are needed before managers can make workforce decisions that are evidence-based.

Abbreviations: RN – Registered nurse; FTE – Full-time-equivalent

Key words: nursing turnover, turnover costs, nursing management data

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Introduction

Nursing turnover has become a critical issue for health services and policy makers as nurse shortages reach a level of urgency throughout the Western world. While the benefits of turnover are acknowledged and include the introduction of new practices and ideas through the renewing of a workforce, losing staff the organisation prefers to retain is regarded negatively. In this article, 'turnover' refers to the process by which employees leave their primary employment position and includes internal transfers and leaving the organisation.

As the likelihood grows of Registered Nurses (RNs) leaving the profession prematurely, declining numbers of graduates entering the profession are contributing to nurse shortages, placing strain on health systems and negatively affecting quality of care and patient outcomes. [1,2,3]

High rates of nursing turnover and tight budgets in New Zealand, as elsewhere, have resulted in nursing shortages and a reliance on the casual nursing workforce, leading to instances of inadequate experience and inappropriate skill mix in patient care. [4,5,6,7] Nursing turnover represents a direct loss of dollars that otherwise would be available to improve clinical outcomes for patients.

International research has demonstrated that regular turnover of nursing staff has a negative impact on the care patients receive as health care teams become destabilised, staff morale declines, communication lines become disrupted and strain is placed on resources while temporary cover is arranged. [8,9,10,11] In addition, efficiency is reduced and nurse safety is compromised by staff shortages, increasing the likelihood of such incidents as needlestick injuries. [12,13,14] Few policy and health service decision makers have addressed the link between staff numbers, skill mix, characteristics of work environment and the impact on patients, nurses and the hospital system as a whole. [15] A recently published extensive review of nursing turnover literature concluded that while the problem of nursing turnover is acknowledged, research is marked by methodological challenges and inconsistent uses of terminology and design. [16] The review highlighted that most research has focused on determinants of turnover, while economic impacts, and consequences for specified patient and nurse outcomes, have received little attention. Evidence to underpin policy and staffing practices, though required, lacks rigour and generalisability, largely because of methodological limitations.

Reflecting methodological challenges, research on the cost of turnover has produced widely varied estimates of the cost of replacing a nurse because of the differences in components included and where the study was conducted. For example, in Britain investigations of turnover costs in the National Health Service showed costs varying between £1,250 and £7,760 per nurse. [9,10] Similarly, recent US studies have produced estimated costs ranging between $10,000 and $60,000 per nurse, depending on level of specialisation. [18,19] Inconsistent and unreliable data in turn hampers policy and organisational efforts to address the issue. Frequently included are direct costs, that is those incurred during the hiring process such as advertising, recruiting, hiring, and use of temporary cover, and some readily identified indirect costs such as those related to termination and orientation.

However studies have demonstrated that other indirect costs such as decreased productivity are also major contributors to costs of turnover. [17,18,20]. Although cost associated with lower productivity is acknowledged, this cost is seldom quantified because of the complex calculations required and therefore is not reflected as a recognised budget expense. Yet when in one study a rigorous accounting methodology was applied to six groups of health care workers including nurses, a significant proportion of costs was attributed to reduced productivity. [20]

As nursing shortages become endemic and at the same time the significance of a skilled nursing workforce to patient care is recognised, a better understanding of the supply of nurses in the workplace and the ability to measure the cost components of turnover at organisational and sector levels has become a priority to support decisions on workplace and staffing practices that contribute to turnover and its costs.

An international research consortium was established in 2002 to investigate the cost of nursing turnover using a comparable methodology to allow comparisons between countries and assessment of broader health systems costs. The premise of the consortium was that longitudinal studies involving multiple nursing units, organisations and countries, using standardised terms, methods and protocols, promised to produce a more robust understanding of the phenomenon. [16] The New Zealand Cost of Turnover study, in association with the international study, set out to answer the question:

What are the levels of nursing turnover and associated costs (direct and indirect), and the impacts on patient, nursing workforce and health systems outcomes?

Objective

The present paper reports on the methodological constraints to researching nursing turnover first encountered in our New Zealand pilot study and also evident in the early stages of the longitudinal study. In particular the availability of data in health service organisations and its utilisation in managing retention and turnover of the nursing workforce is discussed.

The objective of the pilot study, which was conducted in 2002, was to test the nursing turnover checklist tool developed by Buchan and Seccombe [9] within a New Zealand context, and to refine a methodology to be used consistently in countries participating in the cost of nursing turnover research consortium.

Subsequently funding was gained to conduct a longitudinal study over one year involving randomly selected nursing units in half the public hospitals in New Zealand. The first stage of the study was a national survey of directors of nurses to contextualise the longitudinal study. [21] The findings of this survey will be reported in a subsequent article.

Methods

The pilot study was designed to test an existing instrument using a retrospective, cross-sectional design. This methodology was developed by the international consortium of researchers with the intention that all participating researchers use a common approach including the involvement of at least one medical and one surgical unit (in New Zealand one of each participated), over a specified six month period.

The adopted approach assesses the cost of nursing turnover using a largely 'bottom up' approach focussing on the hospital unit level.

The bottom up approach evaluates the costs and impacts of turnover through a checklist method which allows a detailed picture to emerge of the costs of turnover within individual nursing units. It can also assist operational management to identify major sources of costs and potential cost saving policies. [9] The checklist was used to identify and calculate costs and to establish where the absence of data did not allow costs to be estimated.

Turnover was defined for the purposes of this study as 'the process whereby nursing staff voluntarily leave or transfer from their primary employment position'. Nursing staff included registered nurses but not enrolled nurses or unregulated personnel.

The checklist disaggregated turnover costs as nine direct and 13 indirect costs under the categories shown in Table 1. As well as reporting the data and determining or estimating costs, the researchers also reported on whether or not data were available and if so what were the sources.

Table 1: Checklist for measurement of registered nurse turnover

	DIRECT COSTS	INDIRECT COSTS
DETERMINING COSTS PER NURSE TERMINATION (1)	TEMPORARY REPLACEMENT • Costs associated with temporary replacement mechanisms (overtime, agencies etc). • Clerical/administrative time. • Time spent by permanent staff instructing temporary staff. • Leaving rituals.	TERMINATION(1) • Service bonus, holiday pay. • Manager's time (references). • Clinical/Administrative time. • Interviewer's time-exit interview. • Unused sick time.
DETERMINING COSTS PER NEW NURSE APPOINTMENTS (2)	RECRUITMENT • Advertising. • Recruiter's pay and costs.	ORIENTATION/TRAINING COSTS • Formal off-job. • On-job orientation. • Salaries of trainers. • Training equipment. • Time spent by preceptors in training.
	APPOINTMENTS(2) • Management time. • Processing costs. • Pre-employment medicals. • Applicant's expenses.	DECREASED INITIAL PRODUCTIVITY • Hours in orientation/training. • Time required to reach 100% productivity.

Notes: 1. Termination includes nurses who leave the organisation and internal transfers; 2. The term "appointments" reflects terminology in New Zealand. The international study uses the term "hires".

In addition, data were collected about the unit and its nursing workforce: number of beds and occupancy, budgeted and actual RNs, and the numbers of RNs leaving and joining the unit during the six month period. In summary, by using the checklist we sought to determine costs related to each dimension (listed below) of replacing a nurse who left:

- costs associated with processing a nurse leaver's separation from employment by the organisation;
- costs associated with the methods the employing organisation adopted in the interim period until a permanent replacement was recruited;
- costs incurred by the organisation in searching for, and appointing, an appropriate permanent replacement for the leaver; and
- costs associated with induction and training of the replacement nurse, and costs incurred during the time elapsed until the replacement was determined to be providing an equal contribution to that provided by the leaver.

Data were systematically collected from the human resource managers, payroll, nurse managers and charge nurses for the medical and surgical units. Using the checklist, a research assistant tracked down what data were available, who held the data and recorded costs against the checklist for the two units in the specified six month period. Some data, such as productivity loss costs, were simply not available and therefore not included in the estimate. Nursing turnover rates were based on the number of RN full-time equivalent staff (FTE) terminations per fiscal year calculated as a percentage of the average annual budgeted RN FTEs.

Ethics approval for the pilot study was obtained through the Auckland Health Board Research Committee.

Findings

The hospital involved in the study was known to have high rates of turnover, had made major reductions to its budget and had carried out managerial restructuring in previous months. As a result of these pressures a layer of nursing leadership had been removed and the employment of new staff had been frozen.

Unexpectedly, the study hospital provided us with three different levels of budgeted FTE RNs per fiscal year: the units' own reported figures, those of the human resource department, and those from the payroll data base. The nurse managers' FTEs were based on the actual number of RNs working in the units. Figures reported by the human resource department were based on budgeted FTEs and were between 2-3 FTEs lower than those reported by the nurse managers. The reasons for the discrepancies were explained as being due to the software system used by the payroll department, where annual leave and sick leave dollar amounts were deducted from the budgeted FTEs, and that human resource department estimates reflected a forecasting based reporting system. For the purposes of the pilot, the FTE-based nursing turnover rates were extracted from actual FTEs who worked in and were paid from the budget of the units analysed.

A medical and a surgical unit participated in the pilot. Each had 27 beds and an average occupancy rate of 93%. The pilot found that in the two self-selected nursing units with a total budgeted equivalent full-time nursing staff of 58.9, there were 3 terminations and 5.8 appointments of RNs during the six month period, giving an RN annual turnover rate of 10.2%.The formula used to calculate turnover rates was to divide the number of RN terminations within the six month period (viz, 3) by budgeted staff numbers (58.9), multiply by 100 (= 5.1) and then multiply by 2 to provide an annual rate of 10.2%. This turnover rate for RNs was considerably lower than the hospital's annual turnover for all health professional staff which was 18.2% for the same year. The excess of new appointments over terminations suggested that the six month data collection period began with vacancies.

The conservative cost of RN turnover per nursing unit for the six month period was just under $29,000. It was found that the single largest contributor to total turnover costs was temporary replacement mechanisms, followed by costs related to orientation and training (Table 2). Altogether missing from Table 2 is the cost of lost productivity, potentially one of the main contributors to cost of turnover. There are two possible ways in which nurse productivity is lost: first, when permanent experienced nurses act as 'preceptors' or 'buddies' to recently appointed nurses; and second, the time required by experienced nurses to provide a new recruit with suitable orientation and support until they reach full productivity.

Table 2: Measurable nursing turnover costs, by type of cost

	COSTS (NZ$)	% OF TOTAL COST
1) DIRECT COSTS [1]		
Temporary replacement costs	40,674.00	70.26
Recruitment costs	3,134.70	5.41
Appointment costs	2,360.50	4.08
2) INDIRECT COSTS [1]		
Termination/Separation	1,141.00	1.97
Orientation/Training	10,583.00	18.28
3) PRODUCTIVITY LOSS [2]	–	–
Total cost	**57,893.20**	**100.00**

Notes: 1. Direct costs referred to those costs directly attributable to nurse turnover. Indirect costs referred to other costs incurred in nurse turnover; 2. The study hospital was unable to provide data about productivity costs associated with nurse turnover.

Table 3 summarises the availability of data on nursing turnover costs. Actual amounts were collected where available, and 'unavailable' costs were estimated. However as seen in Table 3, much of the data required to complete the nursing checklist on a retrospective basis were unavailable or the accuracy could not be assured. Where costs were incomplete, or unable to be calculated, the researcher qualitatively described the limitations to procuring the data. Some of the required data were available on an aggregated basis only, and in these situations a per-nurse figure was estimated based on the number of nurse-leavers during the time period. Costs of time spent on administration procedures associated with nurse-turnover were required but not available, and in these instances conservative estimates of time spent were made, as many of the costs involved in nurses leaving were not recorded.

Table 3: Analysis of data availability and total nurse turnover costs in a medical and a surgical unit at a New Zealand public hospital, 2002

DIRECT COSTS	*Recruitment*	Advertising costs	$1,211.22
		Recruiter's pay and costs	Estimated[1]
	Temporary Replacement	Costs associated with temporary replacement mechanisms	$25,200.00
		Costs of clerical and administration time arranging and paying for temporary cover	Unavailable[2]
		Time of experienced staff to provide on the job instruction to temporary staff	Unavailable[2]
	Hiring	Management time	Estimated[1]
		Processing costs and supplies	$550.70
		Pre-employment physical examination	$1,809.90
		Applicant's expenses	Not Applicable
INDIRECT COSTS	*Termination/ Separation*	Holiday pay	Estimated[1]
		Manager's time writing reference	$318.00
		Clinical administrative time	$25.00
		Exit interview time	Not Applicable
		Unused sick time	Not Applicable
		Leaving rituals	$798.00
	Orientation/ Training	Formal off-job training	Estimated[1]
		On-job training	$10,583.00
		Salaries and benefits	Incorporated
		Training equipment	Not Applicable
		Reduced efficiency of preceptors	Estimated[1]
	Decreased productivity of new employee	Number of hours orientation/induction to achieve 50% of full contribution of nurse	Unavailable[2]
		Number of hours orientation/induction to achieve 100% contribution of nurse	Unavailable[2]

Notes: 1. These figures were not collected by the hospital administration- an estimate was provided; 2. These figures were not available as the numbers were too variable to calculate costs with accuracy, or the costs related to the units in the defined time period could not be disaggregated from general figures.

Discussion

The main finding of our pilot study was that the study hospital did not maintain a central database about nursing turnover and its costs from which accurate information could be retrieved on a retrospective basis to enable full completion of the Buchan and Seccombe checklist. Therefore the costs that were determined were not complete and in some cases were based on an estimate only and therefore believed to be indicative at best. Furthermore, because the study hospital collected and stored data for purposes other than monitoring nursing turnover and its costs, much of the data required to complete the checklist entailed additional effort by the hospital's human resource and nurse management staff.

The challenges we experienced in our New Zealand pilot study reflect the acknowledged challenges of researching RN turnover costs reported by Hayes et al (2006). [16] Our findings contribute to the literature by shedding some light on why it is that other researchers have reported widely varied estimates of replacing a nurse. [16] Our study found that costs incurred in administering termination, recruitment, appointment and orientation were more readily identified and therefore captured, than were those related to temporary cover and productivity loss. Although temporary cover costs were well documented, no distinction was made between cover for absences such as sickness, and costs related to productivity loss were missing because charge nurses of the participating units were unwilling to estimate such costs retrospectively. Because the costs associated with these latter activities are more complex and difficult to measure, they may be excluded from the equation. [17,18,20]

The implications of the pilot study for the design of the main study were considerable. For example, a prospective approach rather than a retrospective approach was selected in the light of the challenges experienced in collecting data on a retrospective basis. The need to more concisely define variables was highlighted and undertaken in preparation for the longitudinal study. These design changes were undertaken in collaboration with researchers from the other countries participating in the international study. Some aspects of the pilot study were not changed, and these included the definition of turnover, the method of calculating annual turnover rates and the basic checklist used. A key change from the self-selection employed in the pilot was to randomly select participating units; however the inclusion and exclusion criteria for those units were in the New Zealand study unchanged.

As a result of the pilot study, changes were made in procedures to establish unit costs that were then applied to turnover, and in setting up mechanisms to enable the identification and collection of data systematically, including the development of electronic spreadsheets to capture data.

An outcome of the pilot study was funding to undertake a year-long prospective study involving randomly selected units throughout New Zealand's District Health Board run hospitals.

Conclusions

The pilot study achieved its main objectives, which were to assess the applicability of an instrument for the measurement of nursing turnover and associated costs and to refine a methodology for a more detailed study of this phenomenon.

Against a background of growing shortages of skilled nurses, the study highlighted the fact that data on nurse turnover were not systematically collected and analysed by the study hospital. A consequence of the lack of consistent and accurate information was that the true cost to the organisation associated with nursing turnover was not known and therefore was not used to inform workforce practices and policies. The lack of regularly collected data surrounding nursing turnover, and for that matter turnover of other health professionals, suggests that staff retention as a strategy is not well supported administratively.

Workforce strategies that improve retention of nurses whom the organisation wishes to retain can be expected to improve unit workforce stability and morale, reduce the costs of temporarily covering and replacing those nurses, and improve quality of patient care. Indeed, money saved on replacing nurses is money available for direct patient care.

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Team members represent five countries and include the following: Dr James Buchan (Queen Margaret University College, Edinburgh, UK); Dr Christine Duffield (University of Technology, Sydney, Australia); Dr Frances Hughes (Ministry of Health, Wellington, New Zealand); Dr Heather Laschinger (University of Western Ontario, London, Ontario, Canada); Dr Patricia Stone (Columbia University, New York, NY, USA); and Dr Pat Griffin (Health Canada, Ottawa, Canada).

Competing Interests

The Authors declare that they have no competeing interests.

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MANAGEMENT PRACTICE

Leadership of the Combined Australian Surgical Team – Aceh (CASTA) in Operation Tsunami Assist: disaster medicine in action

S York

Abstract

The paper tells the story of the initial Australian medical response to the city of Banda Aceh, Indonesia, following a tsunami. The focus is the leader and his team. The story is based on interviews with members of the surgical response team. The article provides examples of the application of situational leadership theory and concludes that this approach to leadership contributed to the success of the team.

***The best [leader] is the one who has sense enough to pick good men to do what he wants done, and self-restraint enough to keep from meddling with them while they do it.* [2].**

Key words: leadership; disaster medicine; tsunami; Indian Ocean; South East Asia-Australian relationships; Australian history

Abbreviations:
CASTA – Combined Australian Surgical Team – Aceh;
EMA – Emergency Management Australia;
SCAT – Special Casualty Access Team (Paramedic);
SMEAC – Situation, Mission, Execution, Administration and Logistics, Communications, Command and Control.

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Introduction

On the morning of Sunday, 26 December 2004, an earthquake erupted in the Indian Ocean. Registering 9.0 on the Richter scale, the seismic activity then triggered a wall of water, up to fifteen metres in height, which crashed through a coastal city of Indonesia. It drowned thousands instantly, and its deadly composite of swirling, broken wreckage injured thousands more. Eleven other countries were also affected, and the final toll would be over 200,000 dead. It was a natural disaster the like of which the modern world had never seen before.

On the evening of Thursday December 30, 2004, help arrived in the form of the Combined Australian Surgical Team – Aceh (CASTA). Within 24 hours of their arrival in this devastated area, this dynamic team of Australians were operating on the injured Acehnese. The team was lead by an Australian doctor, Dr Michael Flynn.

CASTA'S mission and its operations

CASTA's mission was straightforward. Go to a tsunami-affected area and do some good. Go there in a self-sufficient capacity so as not to create a burden for the local afflicted area. Translated into reality: take only people who will cope in an austere environment, and who are expert in their fields, so as not to require burdensome supervision in stretched circumstances. Professionally and personally, they needed to be suited to the task. As they headed towards South-East Asia via Darwin, Dr Flynn made an important decision. The team could help best if it went to the emerging epicentre of the disaster, Banda Aceh.

CASTA operated at three hospitals. One, a 40-bed privately – owned hospital called Fakinah, which was secured by the Acehnese Police; the second, a 300-bed public hospital called Kesdam secured by the TNI (the Indonesian military); and later at a third hospital about 200 kilometres away, in a coastal town called Sigli, in response to a request for supplementary help from Médecins Sans Frontières.

Approximately three hundred patients presented each day to the Emergency Department at Fakinah hospital. Admissions included those with saltwater pneumonitis, tetanus, malaria and complications from infected injuries. Fifteen major limb amputation operations were performed at Kesdam. Wound debridements were the principal operations performed at Fakinah and Sigli.

Leadership

The CASTA team was made up of highly experienced and professional people, many with previous experience in war and disaster situations. Dr Flynn therefore adopted a style of leadership appropriate to the situation and the environment. He was leading an expert team that would require very little direct supervision.

Blanchard and Zigarmi (1994) maintain that the best leader will be able to adapt their personal leadership style depending upon:

a) the needs of the individuals being led;

c) the needs of the group as a whole; and

d) the requirements of the mission or task at hand.

While there are many models of leadership, the model chosen to base an analysis of the leadership for the mission to Banda Aceh is the situational leadership model. Originally conceived by Paul Hersey and Kenneth Blanchard, [3] it is taught in initial officer training in the Royal Australian Navy. Dr Michael Flynn, Commodore in the Naval Reserves and now in charge of the medical disaster response for the New South Wales Ambulance Service, would have had comparable training.

The four methods of leadership are distilled and labelled as:

S1: Directing (which is deemed appropriate for D1 "enthusiastic beginners");

S2: Coaching (for D2 "disillusioned learners");

S3: Supporting (for D3 "reluctant contributors"); and

S4: Delegating (for D4 "peak performers").

The style which will elicit the most productive response is the one matched appropriately to the level of those being led.

The S1 Directing method is when you tell people what, when and how to do something and supervise them as they do it. It is high on direction and low on support. (Support is usually listening and consulting to assist with problem-solving.) In the S1 category, decisions are made by the leader and the subordinates are told what must take place. It is appropriate for enthusiastic beginners (D1) who have low competence or little experience but are eager to get on and do the work.

The S2 Coaching method is highly directive but also highly supportive. It is most apt for disillusioned learners (D2), who have some competence but little drive, and so require high direction - but also require supportive input from the leader to motivate them. They are still inexperienced and require encouragement and boosting of their self-esteem and confidence, to achieve their potential.

The S3 Supporting method is appropriate for reluctant contributors (D3), people who have competence, insofar as their experience and training is concerned, but their commitment is low or variable. They do not need high levels of direction, but they need support and facilitation from the leader, which will bolster their confidence and increase their drive.

The S4 Delegating method is for peak performers (D4). These people have high competence and high commitment. Self-motivated, they have an abundance of drive. Their self-assurance flows from being both excellent and experienced at what they do. They do not require supervision; they require only a low level of direction, if any at all, from the leader.

Dr Flynn had highly experienced people, many of whom had operated in war and disaster situations already. Self-initiating and self-motivated, it would have been quite inappropriate and unnecessary for him to direct them every step of the way. It would have been counter-productive in any event, as they were people with good practices and ideas who wanted to put them into action and would have felt constrained if they could not. They were highly competent, and highly committed. All he had to do was let them do best what they could do, whilst he focussed on communication - offering support and promoting team building. Dr Flynn used the S4 style of leadership, appropriate for peak performers (D4) in the situation they were in.

What did the leader of CASTA do?

Dr Flynn, like most Australians, was enjoying his Christmas break when the news broke that a tsunami had struck. As he was the New South Wales Health Services Functional Area Co-ordinator for Disasters, one of his first actions was to fax Emergency Management Australia (EMA - a Commonwealth Department) with a list of what supplies were required to cope with 500 casualties over three days. It was a list that he had contributed to when it was first formulated in 1995, and the same list he carried with him in his communications folder. It included all surgical and medical supplies such as drugs, dressings, solutions and instruments.

Dr Flynn briefs the team members at Richmond Air Base

He had made use of this list in the past in relation to the relief effort following the first Bali Bombings (2002) and in relation to Baghdad, Iraq (2003).

Moves were already underway to respond to the disaster. Using military reserves' networks, four medical teams were swiftly assembled. Having a military background was considered an asset, as it would indicate training for spartan environments. Support structures and services in the tsunami-affected areas were strained or non-existent, either because of the tsunami's destruction or physical remoteness. In addition, some were war zones.

Dr Flynn was selected by EMA to head up the Alpha team. Bravo team was headed up by a Group Captain physician from the Air Force Reserves. In Jakarta, it was decided the teams should combine. They were named CAST-A.

CASTA comprised 28 personnel: four surgeons, four anaesthetists, eight nurses (four emergency, four theatre), two public health physicians and one infectious diseases physician, two emergency physicians, two SCAT paramedics, two firemen, two team leaders; and a doctor with rescue equipment and disaster medicine training, in charge of logistics.

On meeting the team at Richmond Air Base, Dr Flynn moved around the group, greeting each person quietly and individually, before briefing them all as a group. He gave them a short, written SMEAC plan (Situation, Mission, Execution, Administration and Logistics, Communications, Command and Control), eliminating guesswork and instilling confidence. For those who had never met Dr Flynn, they met a man with a calm temperament, who gave them all the relevant information available at that point in time.

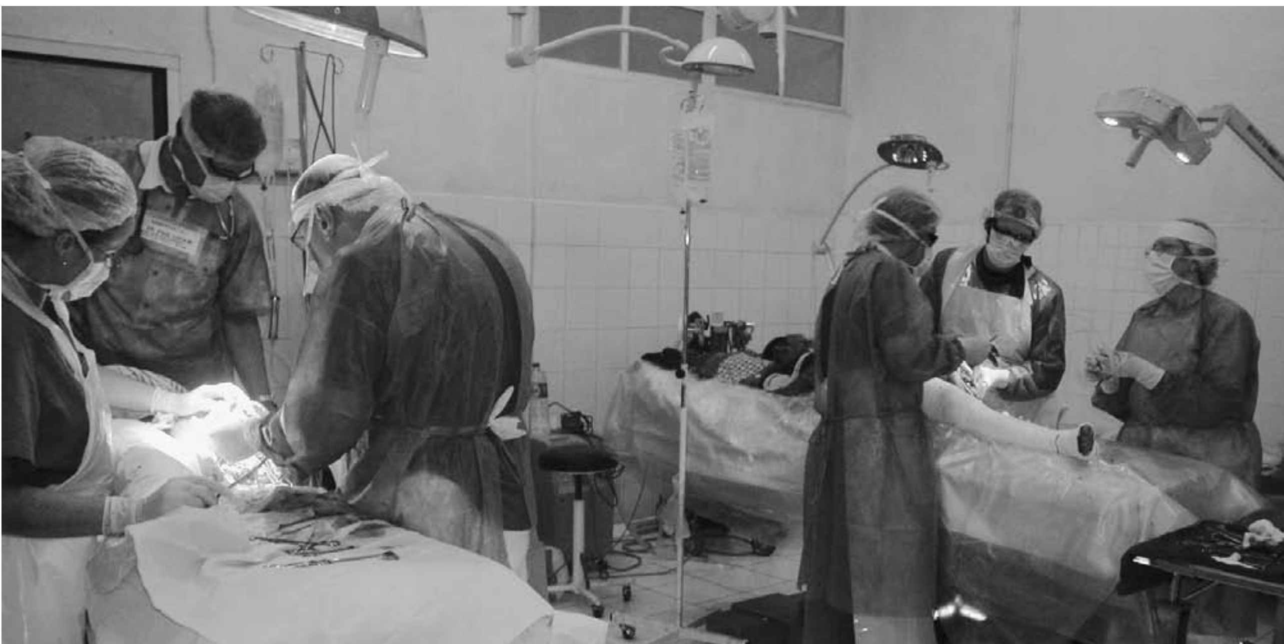
As mission information was constantly changing and being updated, he remained flexible in his demeanour, leading by example on how to cope with the frustration of waiting. The team at that point had no idea where they were headed, and the staggering extent of the world-wide tragedy was unfolding by the hour.

The leader in action – some examples

Dr Flynn identified early who had what training and experience. As an example, one of the team members had worked in a tsunami before, in Aitape, Papua New Guinea. He listened and learned what to expect: limb injuries as opposed to head and torso. Her input also assisted later in devising practical methods to prevent lung infection - using readily available water bottles and straws, and training patients in air-expelling techniques. Dr Flynn thus enabled the team to draw upon another's knowledge and experience.

The CASTA team arrived in Banda Aceh on the evening of Thursday, December 30 2004. The first task was to unload the supplies from the aircraft by hand. The task involved team members moving 17 tonnes of heavy boxes of supplies, four times in the heat: off the plane, from the airfield onto trucks, from trucks onto the grounds of Fakinah Hospital, and then upstairs into designated rooms. A member of the team (a doctor who worked for Care Flight and was thoroughly versed with the running of a supply cache) was delegated the responsibility of leading the team in this difficult and important task. This situation required a specific type of leadership, experience and skills base. Leadership theory suggests that leaders tend towards leadership styles which come naturally to them. It was a measure of Dr Flynn's abilities and recognition of the expertise within the team, that he yielded command in this part of the operation. In a contrast of leadership styles, the doctor outlined the goals for the team members in an S2 fashion, coaching and encouraging them when they flagged. This part of the deployment was not what the medical team members had signed up for, neither was it something in which they had expertise. In that sense, they were disillusioned learners (S2). The doctor's style was correct for the team in this situation and worked well, as they were not experienced labourers - but a job needed to be done. Fortunately, nobody was injured in this part of the process and it was completed promptly.

CASTA operated at the three hospitals and the team worked side by side with Indonesian clinical staff. Dr Flynn set the tone for their stay from the outset. They were guests in a foreign country and would be under the critical governance of their hosts.



CASTA performing amputations in trying conditions at Kesdam hospital

They were there to serve. He had the team stand for the Indonesian professor who was in charge of surgery co-ordination in Aceh province, then opened the initial meeting with a few words of Bahasa, thanking the hosts for the welcome. From an international relations point of view, Dr Flynn's gestures were vital in attracting acceptance of not only his own team, but successive teams as well.

Communication and team support were vital to the team during the mission. Each night, Dr Flynn held a meeting in the dormitory to update the team and to share ideas. Nothing was off-limits. Issues were raised to do with shortages of supplies and vital surgical instruments, staffing levels, security reminders and departure plans. He also gave them a run-down of what was happening outside their hospitals – the bigger picture. The meetings were held late at night – at around 10 pm when the majority of the team was present.

Dr Flynn's leadership style throughout the time in Banda Aceh was S4 (ie, delegating for "peak performers"). He allowed the team to do what they did best, in their respective roles. He adopted a facilitator's role, making known to them that he was there to serve if they had requirements.

He visited the surgeons, anaesthetists, nurses and paramedics in theatre and wards at each of the two Banda Aceh hospitals, liaised with the firemen as they did their ubiquitous repair work, and he attended meetings each day with the public health doctors. All were working with stretched resources and improvising to manage.

He also attended to the marshalling of international field hospitals. The arrangements for the delivery of patient care had to be handled with sensitivity. Language barriers were one aspect, and valuing the contribution of arriving medical personnel was important. There had to be a central figure co-ordinating the myriad arrivals, otherwise it could have quickly become chaotic and useless. He was able to take on this additional role because his team was competent and did not require micro-management.

Was the mission a success?

CASTA's mission could be gauged a success based on the health care provided and the specific issues that needed to be managed, including, religious sensitivities, differences in medical practices, cultural and personal issues, the media and addressing basic human needs.

1) Health care

The team members provided life-saving critical surgical care to many injured and treated many ill patients. Some patients had both injury and illness. The team also assisted in immunisations and a public health watch which prevented the outbreak of diseases such as measles, cholera and typhoid. They set up a functioning pharmacy. They departed on good terms with hierarchy and medical staff, leaving a positive legacy of goodwill which facilitated a smooth transition for incoming Australian teams.

2) Issues Managed

- ***Religious:*** there were religious sensitivities which had an impact upon medical care. Australians were from a predominantly Christian nation, it was a devout Muslim province. Some of the patients refused life-saving amputations because they believed such an operation would render them imperfect and unfit for a heavenly after-life. They would rather die, dying intact. The team was respectful of their beliefs, even at one point assisting in recovering a discarded amputated limb, to allow for a whole-of-body burial.
- ***Medical:*** a recurring issue was the differing medical practices ranging from basic, essential pain relief to the treatment of wounds, creating professional tension. The team built up trust, using respect and tact, by sharing medical knowledge, practice and experience with the Indonesian doctors in an informal, non-threatening manner.
- ***Cultural and personal:*** the Australians were entering a private hospital where the owner was unsure of their intentions, and where there was an early gender issue between the Australian woman surgeon and one of the male Indonesian surgeons. The matter was largely resolved by focussing on the medical expertise of the woman surgeon. The expertise she possessed was seen to be essential to the overall medical effort. Its value was emphasised to the Indonesian surgeon.
- ***Political:*** there were political tensions. The team was surrounded by armed personnel at all times. There had been thirty years of war between GAM (Gerakan Aceh Merdeka – the Free Aceh Movement) and Indonesian government forces. Whilst it made the atmosphere more tense than it would otherwise have been, the Indonesian medical teams working alongside the Australians saw the former enemy as humans in desperate need rather than combatants. The team was instrumental to a degree in this attitudinal change, by focussing on the medical needs of these patients and promoting the philosophy of medical care being provided on clinical need rather than political background and alliances. The tsunami itself and the momentous relief effort provided an impetus for peace which resulted in a formal peace treaty being signed in the months which followed, saving many lives in the future.
- ***Media:*** the team worked under constant media scrutiny and had to provide the media with interviews. They did so, with excellent results. It was seen as essential to provide the "outside world" with an accurate and professional account of what was happening and to provide the facts in a positive way as much as possible. This required team members to commit the time to provide useful interviews with the media, despite often being exhausted and in demand for clinical work. The coverage of the team's work triggered charitable donations internationally of record proportions, which will fund reconstruction programmes for the future, facilitating the recovery of the devastated, decimated community.
- ***Basic human needs:*** some of the most abiding issues were basic human needs. Rest and food are essentials of life. But fatigue, heat, long hours, ration-packs and physical exertion were unavoidable. They were set against a backdrop of terrifying and recurrent earth tremors, day and night. All these factors had an impact and had to be taken into account. Dr Flynn's emphasis on support and communication, and his respect for team members' skills, assisted in recognising, discussing and managing these stress factors. The care and concern each member showed for each other in this personal climate were critical to team-building.

Did leadership contribute to the success of the mission?

There are always lessons to be learned from any life experience. CASTA's experience reveals how leadership can contribute to the success of a mission. In the future people will be asked to respond to a disaster and may draw from CASTA's experience.

Dr Flynn's leadership style is identified and described in this article as situational leadership, type S4. This style describes leaders who delegate responsibility to those in their team. This situational leadership model also describes those to whom responsibility is delegated as having the characteristics of being experienced at the job, comfortable with their own ability and possibly more skilled than the leader in a particular area.

Leaders must possess certain attributes to command leadership and the most important is character. [4] "For, such as we are made of, such we be". [5] Dr Flynn exhibited great strength of character during and following the mission to Aceh.

The tragedy of the tsunami. Bodies in the river at Banda Aceh

Dr Flynn was well spoken and intelligent, with an even temperament. He was consistent. Despite having a hierarchical military background, he was quite comfortable with having a fairly flat management structure and being addressed in a civilian team by his first name. He was approachable. His naval background gave him credibility and experience. He had been to many countries in his time at sea and had been posted to Asian countries.

He had no ego issues, and was happy to allow different team members to assume a leading role in different settings. Dr Flynn was also content for the team members to have their own time in front of the media and did not monopolise the spotlight.

Personally, he set a good example – working diligently, being always respectful. He worked long hours, which did not go unnoticed. The team could rely upon what he said. He never gossiped and had the broad shoulders needed for any complaints which came in. He did not burden the team members with his own needs, fears and emotions.

He had a strategy. He stressed the importance of not being judgemental of any other race's cultural and medical practices. He allowed and encouraged the team members to have a much-needed break from their duties and encouraged them to visit Banda Aceh, to understand what they were involved in, and to give them a realistic frame of reference for their medical work and advice to patients.

Dr Flynn prepared for the media when the team arrived home in Sydney, running his proposed words past the team members. As usual, he respected their ideas and appreciated their input, but ultimately had the confidence to make his own decisions.

Dr Flynn also held the rituals and ceremonies which confirmed the bond between members of the team: helping organise recognition events afterwards and keeping in touch with the team members even after the deployment was over, by letter, email and telephone calls. His interest in them was genuine and he carried the leadership mantle for as long as the team wanted him to.

Some of the team members have had Dr Flynn's help with ongoing matters in their lives. The fall-out from disaster work is that it takes a toll on the participants, even those who are strong and back into their normal jobs.

Was Dr Flynn a successful leader?

Leadership to some is like art. One can recognise when it is good, and be appalled when it is bad. Or, as one team member put it, bad leadership is something which can be spotted in mufti at 50 paces. Good leadership is perhaps less obvious and less definable, its virtues becoming most apparent with the wisdom and clarity of hindsight.

Mission complete - CASTA departing Banda Aceh airfield

Dr Flynn was fortunate to have good people: an experienced leader as his deputy, a number of senior practitioners (a vital resource for consultation) and a team of highly motivated volunteers. Due to the limited duration of the mission, it can only be conjectured whether or not his style of leadership would have been the correct style for a longer-term situation. For the deployment as it was, it seems Dr Flynn was the right person. He had the right temperament and background experience. He took the team members through the problems which arose, he communicated often and thoroughly. Correctly, he had security, health and morale as priorities. Significantly, he applied the right leadership style to the situation and the needs of the CASTA team, with the ultimate goal of achieving as much as was humanly possible for the disaster victims of Aceh.

He brought every one of the team home alive, safe and well. The mission was a success, and its leadership undoubtedly a vital contributor.

Acknowledgements

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Competing Interests

The author declares that she has no competing interests.

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IN PROFILE

Kate Carnell AO

In this issue of the Asia Pacific Journal of Health Management we asked Kate Carnell a few questions on her career as a health manager and the challenges that such a role brings.

Kate was born in Brisbane and studied Pharmacy at the University of Queensland. At the age of 25 Kate bought her first pharmacy business and tripled the turnover within three years. Within a few years she had become National Vice-President of the Pharmacy Guild of Australia – the first woman in Australia to hold this position. In 1992 Kate entered politics and in 1995 became Chief Minister and Treasurer of the ACT. During her period with the ACT Government, Kate also served as Minister Responsible for Business Development and Minister for Health and Community Care. Since leaving politics in 2000, Kate has enjoyed a number of senior leadership roles, including Chief Executive of TransACT Development and the National Association of Forest Industries. In 2004 Kate became the Chief Executive Officer of the Australian Divisions of General Practice (ADGP).

In addition to her demanding role with ADGP, Kate serves as a chair and director for a broad cross-section of industry training groups and is patron of several community associations. Kate shares some of the valuable lessons she has learned from a long career in health management.

1. What made you venture into health management?

I have been involved in health forever. I started doing Medicine at Queensland University while I was working in my local pharmacy. I really enjoyed the work so transferred to complete a Pharmacy degree. I bought my first Pharmacy when I was 25 and quickly became involved in the Pharmacy Guild, going on to become the first female National Vice President. It was probably being involved in the negotiation of the first Guild/Government Agreement that really whetted my appetite for health management and policy.

After being elected to the ACT Legislative Assembly in 1992, I was appointed as the Opposition spokesperson for Health. After winning the 1995 election, I became Chief Minister and gave myself the Health portfolio – not exactly conventional political wisdom – although I did give myself Treasury as well!

On resigning from the Assembly in 2000, I was privileged to become the inaugural chair of GPET.

So, all in all, I have been involved in health from a range of different perspectives for a very long time so when the position at ADGP came up I knew this was a job I really wanted to do.

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

My position at ADGP gives me the opportunity to work with a large group of truly talented people who are committed to making a difference in general practice, primary health care and to the health of Australians.

I believe strongly that the key to a more effective and efficient health system is greater investment in a primary health care model that is wellness and prevention orientated. The Divisions Network has such huge potential to play a central role in this restructuring of health care in Australia to produce a greater focus on health promotion, risk factor identification, self management, early intervention and chronic disease management.

3. What is the greatest challenge facing health managers?

As I have been a Health Minister, I know how hard it is to divert adequate dollars to prevention and early intervention programs.

Hospitals, waiting lists and waiting times and Accident and Emergency overcrowding fascinate the media and get more than their fair share of front pages in newspapers.

It is hard not to spend whatever dollars are available attempting to "solve" or at least neutralise these issues.

Our biggest challenge as health managers, is to maintain our commitment to the changes that are required in the health system to adequately invest in the areas where we know we get "best bang for the buck" . There is now good evidence that systems with strong primary health care and general practice rather than continued emphasis on specialist and hospital care will deliver improved population health outcomes, improved equity, access, continuity of care and lower costs.

We have to "educate" the media and our politicians that long term investment in keeping communities healthy, with adequate exercise , balanced diets, appropriate use of alcohol and no use of tobacco is essential if we are to manage our growing burden of chronic disease in an ageing society. This is a "must have" part of all health budgets not an "extra" if the budget permits. We have to look no further than the alarming increase in childhood obesity and the projected costs if this is not addressed for future health budgets (over a billion dollars annually) to see just how true this is.

Of course, it is impossible to discuss challenges without focusing on workforce issues. Problems recruiting and retaining doctors, nurses, allied health professionals and health administrators will continue into the foreseeable future. Even the significant expansion in medical school places will not produce sufficient doctors to address the shortfall and it is hard to see how the health system will provide adequate practical training in hospitals and general practice for these new graduates.

As health managers, we will have to look for new and innovative ways to address this issue. This will require reassessing roles and responsibilities and ensuring that all health professionals are working to their maximum level of competency and training.

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

If I have to focus on one thing, it would be sorting out roles and responsibilities of the various health funders. The incredible costs and time wasting that goes on between Commonwealth and state governments and private health insurers making sure that they do not pay for anything that should (or could) have been paid for by another party, is truly counterproductive.

This has greatly impeded good coordinated care and chronic disease management, caused significant under funding of mental health and services for people with disabilities, but probably most importantly has significantly slowed the progress for a shared patient record and appropriate patient information management.

This is a quality and safety issue. It is simply unacceptable that in our so called "clever" country, we have so many health "misadventures" (often deaths) that can be attributed to lack of information about such simple things as allergies, current medication and patient history.

It is unbelievable that GPs still regularly, do not receive timely hospital discharge records. The technology exists – it is the joint will of governments, health professionals and the private sector that has been lacking. Hopefully, the recent COAG agreement will see some significant change in these areas.

5. What is your career highlight?

There is no doubt that my time as Chief Minister and Minister for Health was a highlight. It was great being able to cut through the bureaucracy and get things done, although in hindsight there was lots more we should have done. That said, my current job is really stimulating. Being part of a dynamic team promoting and supporting Divisions to take a much greater role in primary health care and in seeing the strengthening of general practice with multidisciplinary teams of practice nurses and other allied health professionals is really exciting. The real winner out of this will be the patient.

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

Probably the thing that has had the biggest influence on my career is having had the opportunity to see health policy and management from a variety of different perspectives, as a pharmacist and business owner, as an elected representative of an industry group, as Health Minister, as Treasurer, as Director of a number of government owned health related companies and now as CEO of ADGP. This experience has given me a better understanding of the challenges and constraints that people face across government and the health system.

I have had the opportunity to work closely with a number of really outstanding health administrators and policy makers (if I mention names I am sure to forget someone). Australia is blessed with very talented and committed people in all aspects of health.

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

Health management will not get easier but it will continue to be extremely important to the future of our nation as the pressures on health budgets get worse and community expectations continue to increase. Keeping people healthy and in the workforce for longer will be essential to maintain economic growth in an ageing society.

Health Managers will have to become even more professional, keeping abreast of world trends, managing changing workforces and roles with budgets that remain under pressure.

The single biggest change will be embracing community expectations that they will be consulted and have a real say in the how the health system is run, what services are provided and where the system is heading. Culture change will be required in many of our health services to make community involvement systemic across the health system.

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

The health system will continue to change rapidly with new challenges and pressures, so I suppose my main advice is to stay flexible and passionate and to become more involved in organisations like the Australian College of Health Service Executives (ACHSE). It is essential to be able to listen and share with others in health management positions and in the industry.

Without this external interaction , it is easy to become insular and to stop looking for those innovative solutions that really make a difference.

Attributes, Education and Competences Required to be a Success in Health Management

In each issue of APJHM we ask experienced health managers from around the Pacific to reflect on one aspect of health management practice. Nine managers, with diverse experience and a wealth of expertise, considered the following question: ***" To be a success in health management, what attributes, education and competencies are really required?"***

1 If health managers are to make a full contribution to the issues facing the health system, they need three key personal attributes beyond the expected management competencies:

First, they need to be well educated in a broad, liberal sense. The health sector is full of clever practitioners and policy-makers and to work alongside these demanding colleagues health managers need to be well developed intellectually, with awareness of the wider context of health in society.

Second, they will have a commitment to health as a social benefit and to value it as an important 'input' into society, contributing to the development of the community overall. Good managers will be aware of social and health inequalities and, within the scope of their job, work to minimise these.

Third, good health managers will have a strong research orientation both to management and to health as a whole. They will be committed to evidence-based practice and will promote research in the clinical, service and management spheres of their own organisations.

Associate Professor Pauline Barnett
Department of Public Health and General Practice
Christchurch School of Medicine and Health Sciences
University of Otago, New Zealand

2 The successful health manager in this time of constant change should have the astuteness to position themselves, the guts to take risks, the gumption to persist in adversities and the heart to empathise with the sick and those they manage. They should be honest with others and with themselves in their basic assumptions about reality in the new "knowledge society", and have a sense of humour to forgive others as well as themselves.

They should possess the humility to be educated continuously, the curiosity to learn from errors and from other people's experiences, as well as the ear and the mind that are open to new and innovative ideas.

They should have the wisdom to know that the manager and the managed are sometimes relative – they too can learn from the ones they are managing.

They should be competent to master, organise and apply new information technologies and to tell the difference between noise and truth. They should be able to communicate with all stakeholders and all walks of life, including co-workers, clinicians, patients, the public and board members.

Dr Grace Cheng
Knowledge Management
Hong Kong Hospital Authority

3 A health administration degree is necessary, but this could be a post graduate course after undergraduate studies in a variety of other courses whether they be health related or business related.

You need to be dedicated to the ideals of the health organisation, politically sensitive, reliable and diligent. Strategic thinker but still be able to ensure that the simple tasks of the organisation are completed effectively and in a timely manner.

You must be a team player, with a participative approach and recognise all levels of the workforce, including volunteers within the organisation and be able to respond to all opinions even if it is not possible to implement them all.

You must be able to inspire your team and provide coaching and mentor support personally.

You need to establish clear objectives and business goals and strive to be the benchmark within your comparative group.

You need to be an effective communicator, with superior interpersonal skills, be financially literate and be able to support your staff in order for them to achieve a balance between professional and family life, to the point that you become the employer of choice.

David Connell
Director of Corporate Services
Canterbury Hospital – Sydney

4 To be a success in health management a person must demonstrate effective stewardship of a finite resource, therefore, a capacity to question the distributional effects of the resources that go into the delivery or financing of care. It requires the capacity to lead a team of similarly oriented individuals who together put in place mechanisms assuring a level of transparency and accountability in the maintenance of probity. There is an expectation that the individual will hold sufficient tertiary qualifications to reflect a set of skills, and therefore capabilities, oriented to the enhancement of quality health care.

This commitment enables the individual to be assessed on performance reflecting competency in management, leadership and financing processes, but moreover on reputation measured on the type and extent to which participation occurs in professional events, or vocational forums and continuous professional development.

The successful individual is therefore one who leads by way of example, shows a desire to continuously monitor and improve their own performance and is seen to be involved in the discipline and professional networks existing in their environment.

Angela L Magarry *FCHSE*
is a Visiting Fellow at the Australian National University Medical School's Centre for Health Stewardship;
and Faculty of Economics and Commerce,
School of Business and Information Management.

5 In my experience successful health managers are also good leaders with a combination of characteristics that give them the ability to create, drive and deliver successful outcomes.

The personal attributes include being able to make tough decisions and then take full responsibility for the impacts of the decisions.

Showing empathy and being genuine in all personal interactions with people is also important as well as being available and willing to provide clear direction, share experiences and help problem solve without "interfering".

Having a solid education is important. My education has provided me with a broad knowledge of the "technical aspects" of management and provided me with many tools to make my work more efficient. Adopting a theoretic approach to some areas of management, such as decision making, has been very helpful. Having a solid understanding of the health system beyond your own organisation and using a "systems thinking" approach to management are also essential features.

But by far the most important attributes are purpose and passion.

Jane Pickering
Chief Executive Officer
Metropolitan Domiciliary Care – Stirling, South Australia

6 From my some 40 years plus experience in the area of health management I feel very strongly that one needs to have a very positive attitude towards life generally. This is then reflected in your day to day management style. Leaders need to be optimistic when addressing the many challenges facing us in today's health environment.

Formal qualifications in the areas of Business Management or Behavioural Sciences are just about essential to manage our scarce resources – people, money and infrastructure. Good communication skills and a consultative approach are paramount to motivating health professionals where the emphasis is constantly on the dollar or shortage of it.

An effective health manager needs to facilitate an environment which encourages staff to use their initiative and come up with innovative responses to the challenges they face in their day to day work.

Nancye Piercy *PSM, AFCHSE*
Chief Executive Officer
Riverina Division of General Practice – Wagga NSW

7 The qualities of the successful health manager are threefold:

First, they are bright. That means they have attained excellence in their chosen field and can digest and analyse vast and different types of information when and if required. If they are knowledgeable and well prepared and 'quick on their feet', they are well on their way to success. This quality correlates highly with a well-developed sense of humour. It is the opposite of arrogance, ie I know it all already.

Secondly, successful health managers have a well-developed work ethic: a commitment to the highest levels of accomplishment combined with integrity.

The third quality that distinguishes successful health managers is what I refer to as the 'X Factor'. This requires creativity, insight, interpersonal skills and perserverence.

The X Factor is the ability to imagine something, to make it happen and to follow it through to successful fruition. This requires that one is able to harness the support of those who will make it happen, and overcome the resistance of those who would rather the initiative not succeed.

Professor Stephanie Short
Dean, School of Public Health, Teaching & Learning (Health Group)
Griffith University – Queensland

8 Health management is so broad that any hope of an individual to encompass it all is folly. Rather, health managers need to have full command of their own area, with a sound understanding and a respect for all their health colleagues' roles.

All of this, of course, requires experience. It follows that for this and other reasons, maturity is an essential attribute. As for attributes of character, as in other battle zones – for that is where we are – we must possess endless patience, courage (to do what is right and not merely what is expected), and imagination.

Staying in your box brings security, but not success. And a sense of humour sustains us. Education must be comprehensive and an endless process. Management education is essential, but clearly a background education in your own field is fundamental. This is as important for commanding the respect of peers and colleagues as it is for understanding your job.

Successful health managers change things (for the better). Change is a ubiquitous fear. The change manager is a reassuring leader; honest and brave; fair-minded and always congratulatory.The health manager must be articulate, erudite, and imaginative – even radical.

Dr Chris Swan
Medical Director, Midwest Murchison Region
Western Australia Country Health Service

9 To be successful health managers need to be flexible and have the ability to anticipate the future, adapt themselves and prepare their organisation to achieve higher performance to meet unpredictable changes. The successful health manager must be proactive and have a diversity of management styles relevant to changing situations. The key attributes include ability to successfully develop and achieve goals; to think strategically and systematically; high levels of trust by colleagues and staff; ability to motivate people to accept the need for change and ability to understand and empathise the values, traditions and cultures of health services.

The essential competencies are those of general management in a health services context. They include leadership; negotiation; public relations and communication; financial management; problem-solving; decision-making and planning; developing others; managing change; and relationship management.

Education is the key to health managers managing successfully. With organisational learning as an ultimate goal, both formal and informal education needs to address real life problems and be a continuous, life-long learning journey.

Prawit Taytiwat *MD, MPH (Hons), AFCHSE, Thai Board Certified in Family Medicine*
**Faculty of Public Health,
Naresuan University, Phitsanulok, Thailand**

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This Library Bulletin is part of a service offered by the Health Management and Planning Library of ACHSE. The Library provides information on topics such as health services management, organisational change, corporate culture, human resources and leadership. The Bulletin highlights some of the most up to date articles, books, features and literature on health management from both Australia and internationally. Copies of these articles are available at a small charge. The first article costs $10.00 then $5.00 for each additional article. All prices are inclusive of GST.

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http://www.dh.gov.uk/assetRoot/04/12/72/34/04127234.pdf

NHSScotland Scottish Executive
Building a Health Service Fit for the Future: A National Framework for Service Change in the NHS in Scotland
(The Kerr Report) 2005
http://www.scotland.gov.uk/Resource/Doc/924/0012113.pdf

NSW Health
Costs of Care Standards 2005/06
November 2005
(These Standards provide details of the approach to estimating standard costs of admitted and selected non-admitted services in acute public hospitals.)
http://www.health.nsw.gov.au/policies/gl/2005/GL2005_071.html

Organisation for Economic Co-operation and Development
Economics Department, Projecting OECD Health and Long-term Care Expenditures: What are the Main Drivers?
Working Papers no 477, 2006
http://www.oecd.org/dataoecd/57/7/36085940.pdf

Productivity Commission
Australia's Health Workforce
Research Report
December 2005
http://www.pc.gov.au/study/healthworkforce/finalreport/healthworkforce.pdf

Queensland Health
Queensland Health Code of Conduct
Updated March 2006
http://www.health.qld.gov.au/about_qhealth/cc.asp

Rand Health, Charles Meade
Planning the Safety of Healthcare Structures
Working Paper
October 2005
(After hurricane Katrina, decision making and strategies to make hospitals more resilient to natural disasters and hospital building codes will be reviewed. Should special provisions be made for hospitals?)
http://www.rand.org/pubs/working%5Fpapers/2005/RAND%5FWR309.pdf

(UK) Department of Health
Our Health, Our Care, Our Say: A New Direction for Community Services, 2006
(The White Paper sets out a vision to provide people with good quality social care and NHS services in the communities where they live.)
http://www.dh.gov.uk/PolicyAndGuidance/OrganisationPolicy/Modernisation/OurHealthOurCareOurSay/fs/en

UK Department of Health
NHS Winter Report 2005/06
March 2006
(Also contrasts performance now with performance in 1999/2000 and provides a number of case studies. The report states that the efforts of the NHS to improve winter health care have resulted in significant benefits.)
http://www.dh.gov.uk/assetRoot/04/13/22/25/04132225.pdf

Victoria Department of Human Services
Care in Your Community: A Planning Framework for Integrated Ambulatory Health Care
February 2006
(The future Victorian health care system will plan and deliver health care that is person and family centred, based in community settings and planned for the needs of local populations. Health care in the future will be integrated and coordinated around the needs of people, rather than service types, professional boundaries, organisational structure, funding and reporting requirements.)
http://www.health.vic.gov.au/ambulatorycare/careinyourcommunity/

Manuscript Preparation

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 or Acrobat (PDF).

All pages should be numbered consecutively at the centre bottom of the page starting with the Title Page, followed by the Abstract 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 but informative and include information that will facilitate electronic retrieval of the article.
2. Word Counts. 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).

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

Abstract and Key Words Page

The abstract may vary in length and format (i.e. 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 250 words is requested, while for a management analysis a shorter (200 word) unstructured abstract is requested (for further details, see below – Types of Manuscript – some general guidelines).

Key words – three to seven key words should be provided that capture the main topics of the article.

Abbreviations

A definition of all abbreviations/acronyms used in the text should be provided.

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;
- 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 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
- Conclusions.

Word count: 1,500-2,000 words

References:

Maximum 20

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 250 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);
- 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: Maximum of 3,000 words.

References:

Maximum of 25

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) [3] 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. 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) and Word count: Maximum of 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);
- Unanswered questions and future research.

References:

Maximum of 20

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) [3] 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'.

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 250 words

Main text:

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

Word count: Maximum of 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 150 words.

Main text:

Structured appropriately.

Word count: Maximum of 2,500 words.

References:

Maximum of 10

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].

References

1. British Medical Association. Reference styles: Harvard and Vancouver. London: BMA; 2005. Available <http://www.bma.org.uk/ap.nsf/content/LIBReferenceStyles#Vancouver (Accessed 19/05/06)
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 Healthcare 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)