Asia Pacific Journal of Health Management

Volume 10 Issue 1 – 2015

The Journal of the Australasian College of Health Service Management

ACHSM

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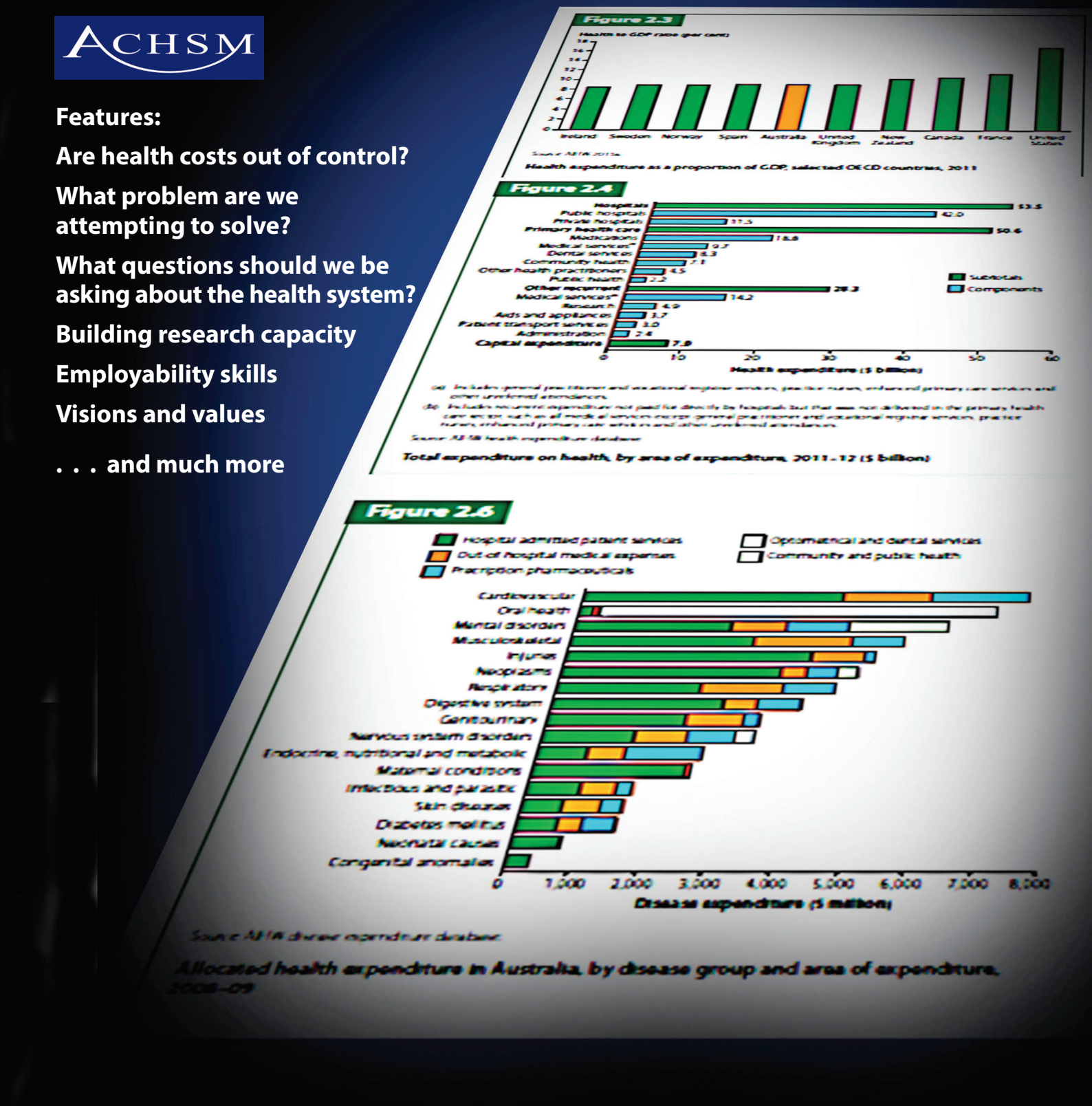

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Cover picture: The graphics highlight the importance of using evidence, best practice and proper application of theoretical constructs from health financing and health economics when considering public health policy changes. Based on Australian Institute of Health and Welfare material.

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ISSN 2204-3136

INVITED EDITORIAL

Strife with Fiscal Hygiene: are health costs out of control?

Jo M Martins

Jo M Martins is the President of the Centre for Health Policy and Management. He has graduate and post-graduate academic qualifications in economics and business. He has been a health service officer and senior executive of the governments of Ontario, Canada, New South Wales and the World Bank. He has also been an adviser to the World Health Organization at regional and global levels. He played leadership roles in the development and implementation of the New South Wales community health program and rationalisation of hospital services. He made significant contributions to the promotion of quality of care in changes that took place in the hospital accreditation program and then the establishment of quality improvement in New South Wales hospitals. He has also made major contributions to the understanding of health financing both in Australia and developing countries. He organised and managed the first training program on health economics and financing for the Western Pacific Region, led changes in perspectives on health financing in the World Bank and co-edited and co-authored the most downloaded book of the Bank on this topic. Jo. has taught health policy and management throughout his career at universities in Australia, the United States and developing countries. He has authored, co-authored or edited more than fifty papers on various aspects of health, four book chapters and five books.

The management of the Australian health system is of importance to all. However, the pathway followed will have an impact on the effectiveness of the system to keep people healthy. The course adopted will also affect efficiency in the production and distribution of services. The policy instruments used will determine the equity of the share borne by people with different resources. After experiments in the 1970s and 1980s, it is now accepted (at least in proffered statements) that Australians should have universal coverage of health services and that government has the major role to ensure accessible services and equity in contributions to its funding through the tax system. That is what the Pharmaceutical Benefits Scheme (PBS) and then Medicare and the public hospital funding agreements were, and are, about. This is acknowledged in the introductory remarks of the National Commission of Audit (NCA) in the section of its report concerned with health care. [1]

Examination of the health system can show where it can be enhanced. In addressing health service costs, the Federal budget deficit, as important as it is, should not and cannot be the only consideration. However, it seems to be the major concern of the Treasury in its report *Australia to 2050: future challenges* [2] and the National Commission of Audit in its report *Towards Responsible Government* . [1]

The proportion of Gross Domestic Product (GDP) spent on health services rose from 8.6% in 2002-03 to 9.7% in 2012-13 or by about 1.1%. [3] During that ten-year period, GDP grew by about 34% in real terms. Even though Australia had a large increase in population to be taken into account, GDP per head of population still went up by about 15%. [4] The increase in the proportion of GDP spent on health services represented about one fifth of the increment in GDP per head of population during that period. Further analysis indicates that about three quarters of this 1% was related to larger outlays in the recurrent expenses of hospitals (0.425%), mostly in public hospitals, private medical services (0.178%) and medications (0.129%). [3] The government

and private shares of the financing of the health system remained stable at about 68% and 32% respectively, with the private share growing at a slightly higher rate. [3] The private share of about one third of health expenditure in Australia is larger than the average of about one quarter (26%) in the industrialised countries of the Organisation of Economic Cooperation and Development (OECD). [5] Over the 10-year period, life expectancy at the age of 65 (when health services are likely to make a significant contribution) rose by about 1.5 years on average or about 7%. [6]

A fashionable way to convey an opinion about health service costs is to put it in terms of *sustainability*. Accordingly, NCA opined: …*a universal health scheme is unlikely to be sustained without reform*. [1] The proportion of GDP spent on health services has risen from 5.1% in 1960-61 [7] to 9.7% in 2012-13. [3] This increment of 4.6% represents less than 1% per decade. If this trend prevails, it would be expected to have about 14% of GDP spent on health services by 2059/60. Is this sustainable? According to OECD, the United States spent about that proportion of GDP in 2002 and 16.9% in 2012 and the Netherlands spent 12.1% in 2011. [3] The same source shows that government in the United States (through its general spending and social security) funded about 49% of health service expenditures in 2011 [5] or about 9% of GDP.

Australian GDP per capita has grown and is likely to keep growing, even if at a slower rate as projected by the Treasury. [2] This allows a choice to be made on what the increment is spent on. Accordingly, the rise in the proportion spent on health services need not lower the quantum of expenditures on other commodities. It is just a constraint on a greater proportion of the addition being spent on other items. A review of private consumption expenditure in Australia from 2002-03 to 2012-13 indicates that the proportion spent on health services rose more than the average, but that was also the case for other items such as recreation and culture, clothing and footwear, transport, communication, and the purchase of vehicles. [4] Are the above average increases on these other commodities more virtuous than that on health services? These are individual and social choices that take advantage of the rise in income per head of population.

Spending on health services can be looked at from a macroeconomic point of view. The World Health Organization report on macroeconomics and health stated that . . . *In economic terms, health and education are two cornerstones of human capital, which Nobel Laureates Theodore Shultz and Gary Becker have demonstrated to be the basis of an individual's economic productivity*. [8] From this perspective, health service expenditures are an investment in human capital and one of the keys to its productivity [9] that, according to the Treasury, is vital to future economic growth in Australia. [2]

The elephant in the room is the inevitable growth in the proportion of people 65 years of age and over due to the ageing of those born in Australia during the Baby Boom of the late 1940s and 1950s. This is what the Treasury indicated in its report to the nation in 2010. [2] The theme was taken up by NCA in 2014. [1] In the Treasury narrative, the ageing of the population will have a negative effect on productivity and will slow the rate of growth of GDP per capita. In turn, this will have an impact on government revenue. In parallel, the ageing of the population will increase the average per capita rate of use of health services and government outlays. Other things being the equal, the lower revenue growth and the higher outlays will place pressure on the Government's fiscal position and result in possible increases in the Federal deficit. The Treasury projections lead to an increase in Federal government spending on health services from 4.0% of GDP in 2009-10 to 7.1% in 2049-50. [2] The projections made by the NCA are similar from about 4% in 2011-12 to 7% in 2059-60. [1] It seems that the eight-year difference in the two projections will have no impact on the proportion of fiscal spending. One possible explanation is that the full weight of ageing will have been felt by 2049-50.

Modelling is a fashionable way to give weight to projections based on chosen assumptions. The analysis of historical trends relies on actual figures to establish possible reasons for actual changes that took place. In modelling, the start is usually based on actual figures but the change ingredients are the selected assumptions. The findings, by their nature, reflect the assumptions made that cannot be tested a priori. At issue is whether this modelled rise is *sustainable*. As shown, as early as 2011 government in the United States was spending about 9% of GDP on health services, a difference of about 2% from the 11% envisaged by NCA 50 years later in Australia. The assumptions made in modelling by the Treasury regarding lower productivity and government revenue seem to be made on a ceteris paribus basis regarding the level of taxation rates. There are alternative scenarios that could and should be explored. Unfortunately, the Treasury offered only one scenario. However, even if this single scenario becomes reality, the Treasury stated that it might be handled through . . . *innovation, funding cost-effective improvements in health care while being able to adjust spending levels in areas where better value for money could be obtained*. [2]

The NCA acknowledges that there are no easy solutions in healthcare and recommends that . . . *deregulated and competitive markets, with appropriate safeguards, have the greatest potential to improve the sector's competitiveness and productivity*. NCA also looks at the demand side of the market and recommended sending . . . *a signal to people about the consequences of the use of health care system*. This signal is in the form of co-payments for services used by people in general and by holders of concession cards. [1]. Martin Feldstein, Chairman of the Council of Economic Advisers and Chief Economic Adviser to two United States Republican Administrations, advised that there is usually inadequate understanding of economic behaviour in health services when rising costs are considered and that . . . *The simple models of traditional economic theory are inappropriate for this task and "common sense" conclusions based on that theory are likely to be misleading*. [10] Feldstein's warning should be heeded in the use of co-payments, a blunt policy instrument in health services. In the often cited RAND experiment, co-payments lowered utilisation. [11] Therefore, if that is the purpose they might work. However, if the purpose is to curtail the use of less effective services, only, then they may not. The experiment showed that co-payments reduced the use of both highly effective and less effective health services. [11] Another issue that governments need to consider is who are those most likely to be affected when health service use is reduced though co-payments. The RAND experiment demonstrated that co-payments were most likely to reduce utilisation of health services in the case of the poor and others with lower incomes. [11] This experiment indicated that co-payments are a blunt and poor policy instrument to improve the effectiveness, efficiency and equity of health care.

Faced with higher utilisation rates by an ageing population, and in the belief that de-regulated markets can improve productivity in healthcare, NCA recommended that one way to reduce the fiscal burden is to expand private health insurance for basic services currently covered by Medicare. The implication is that privatisation will enhance the efficiency of health services provided. The stick is to increase the Medicare Levy to 3% and 3.5% of income, if people in higher incomes choose to stay in Medicare rather than taking private health insurance. [1] A conservative health economist in the United States, Alain Enthoven, has recognised that . . . *a free market in health insurance cannot produce either equity or efficiency*. [12] The Private Health Insurance Administration Council tells us that the market for private health insurance in Australia is . . . *dominated by a small number of large insurers, with the top five insurers representing 82.3% of the policies nationally.* [13] This is what economists call oligopoly. The conventional understanding in economics is that oligopolistic competition does not enhance efficiency or serve consumer interests. This feature of the private health insurance market in Australia is likely to prevail due to need to pool risks of a large number of individuals and the relatively small and dispersed population of Australia. An indication of the relative efficiency of the industry is that it spends on average the equivalent of about 10% of the benefits paid in expenses including claims handling. [13] This is substantially higher than about 5% in the administration of Medicare. [14] One of the advantages of Medicare is that revenue is collected through the income tax system.

The NCA's recommendation would move Australia towards the United States model of financing health care: private health insurance covers those who can afford it, while services for the less advantaged are financed by the federal and state governments through Medicaid, and people 65 years of age and over are financed by the federal government through Medicare. What does that model show? Its effectiveness seems, at least to a point, to affect life expectancy that in the United States is rather low by Australian standards. The efficiency of services seems to be an issue as the United States system tends to produce fewer services per capita for a higher proportion of GDP spent. The financial burden to the United States government and individuals is larger than Australia's at about twice the proportion of GDP spent. [5]

Budget deficits arise from the difference between revenue and expenditures. They can be as much a revenue as an expenditure question. Over the last few decades, there have been reductions in income and corporate tax rates, as well as the often cited private health insurance tax rebate and the exemption from taxation of income received from superannuation, regardless of the level of income. Fluctuations in revenue levels have taken place in the past and affect the fiscal situation. For instance, in 1982-83 government revenue, at all levels, from taxation in Australia constituted 30% of GDP but only 27% in 2012-13. [15-17] If the predictions of the Treasury prove to be correct, there are two main ways to raise revenue to meet a shortfall. One is to increase the level of indirect taxation (eg, Goods and Services Tax). The other is to increase the rate of income tax, as recommended by NCA in a different context. The use of the income tax instrument takes advantage of its progressive nature and allows for the exemption of those with lower incomes, thus enhancing equity in sharing the fiscal burden. It also involves a smaller number of administrative and other transaction costs. Indirect taxation

suffers from similar disadvantages as those of co-payments. It taxes consumption rather than income and consequently tends to fall relatively more heavily on those with lower incomes.

There are no silver bullets. However, there are means available to improve the effectiveness and efficiency of Australia's health system. Usually, they involve enhanced management rather than simplistic and mechanistic thrusts that ignore the economic characteristics of the system.

Health services are human-resource intensive. Data from OECD indicate that the remuneration of doctors and nurses in Australia tends to be above average. [5] However, the way in which human resources have been managed has caused dissatisfaction and even burn-out that has led some leaving the health system. This issue is well documented in relation to nursing, [18-20] the largest professional group in health services, but also seems to apply to others. [21] Nevertheless, there is evidence that enhanced management of human resources can lead to improved retention rates and lower costs. [19] Further, the establishment of a learning and participatory management culture can lead to better results and that managers' facilitation of social support networks can also reduce work stress. [23,24]

The use of hospital services and their costs deserve attention if for no other reason than hospital use often reflects the effectiveness of services in other settings. Accordingly, the Australian Institute of Health and Welfare found that in 2007-08 about 9.3% of hospital inpatient episodes were potentially . . . *avoidable if timely and adequate non-hospital care is provided.* [25] Further, there are some conditions that can be effectively managed outside hospitals at lower cost. [26] This is another case where management in the organisation of services and the allocation of resources is often the missing factor.

The health system is fragmented between institutional and non-institutional based services and services in the public and private sectors. This leads to difficulties in coordinating services provided in different settings for given episodes of illness. Fragmentation is also an opportunity for cost-shifting between State and Federal governments in Australia that fund services in different settings. This requires management across different providers to enhance both health outcomes and efficiency. [27]

Improved knowledge and technology have offered opportunities to change services and the way in which they are delivered. However, professional boundaries and specialisation hinder flexibility in the role played by different health professionals and the acquisition of extended skills across professional boundaries that would diminish the transfer of users of services from one professional to another, either in the same or different settings. [28] Nevertheless, even within current structures, the examination of the pathways followed by users can lead to the identification of clinical practices and service disconnects prejudicial to the attainment of effectiveness and efficiency. Addressing these issues requires active management. [29]

Another feature of health services in Australia has been frequent changes in administrative structures, often under the *health reform* slogan. This practice has continued in recent times [30]. Where are the health benefits and efficiency gains from these changes? [31] These changes take time and have related opportunity costs. However, evidence is often missing that these costly and at times stressful changes promote either productivity or better health outcomes. [32]

The review of evidence shows that there has been substantial growth in the use of and expenditure on health services in Australia. However, they have been afforded within the bounds of the increment of GDP per head of population. There are factors in the system that could contribute substantially to improvements in health service productivity and outcomes. They demand active and purposeful management. This may also help with government fiscal hygiene, rather than doctrinaire pronouncements of no valuable application to the economics and practice of the health system.

Jo M Martins

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EDITORIAL

Clarifying what the Problem is by Asking the Right Questions: a better approach to health reform

There has been a lot of commentary recently about what appear to be one-off attempts at health reform that are expenditure reducing or restraining driven initiatives, mostly in the primary healthcare sector. The commentary is couched in terms of over-utilisation and unrestrained costs.

This reform is predominantly about primary healthcare (PHC), mostly about the delivery of general practice services by individual or group general practice 'small businesses' operated entities. That sector spends, or costs, or provides an investment to our individual and collective good health status of about 6.9% of total health expenditure, 28.5% if you add in the medications they prescribe. This compares with the nearly 40% of total expenditure utilised by hospitals. Contributions (co-payments) by individuals already comprise more than 17% of total expenditure. By all accounts our expenditure compared to GDP remains in the median range of OECD countries and yes, the percentage has increased in the last decade. [1]

However, the emphasis on 'cost restraints' in PHC remains a puzzle. This puzzlement is confounded by the fact that the PHC sector is meant to keep us out of hospitals (prevention) or at least keep us healthy after a hospital episode! After all, no less than the personage of the World Bank Group President emphatically states that ''when countries anchor their health systems in robust primary care and public health protection, health care costs can be controlled.' [2]

We know that healthcare financing is complex and that one-off interventions can have unintended consequences. Much of the debate is poorly informed and seems more about ensuing that those who can afford the cost bare their share. To help us better understand this complexity we have invited a colleague with some experience and expertise in financing health systems and health economics to provide an editorial in this issue. [3]

Given that we all have differing roles, perspectives and both personal and professional interests in the outcome of reforms perhaps it is better to step back and compare how our system fares by international comparison and by evidence-based research outcomes about what works best across differing health systems.

The Commonwealth Fund has an established reputation for comparative health systems reporting. In the 2014 Report [4] Australia is ranked fourth overall (2nd in 2011) and 2nd for quality. Australia was also the fourth highest ranked in terms of efficiency but fell to eight ranked out of eleven for access. Australia achieved this ranking with the third lowest per capita expenditure of $3,800US compared to the top spending United States at $8508 per capita. [4, p.7]

The criteria for 'access' in the Report are 'cost related problem' where we rank 9th and 'timeliness of care' at 6th. Equity is ranked at 5th. So what question does this finding pose in your mind? It suggests we are doing well and the problem appears to be access. The Netherlands, United Kingdom and Germany are ranked in the top countries highlighted in terms of access and they also have universal health care (UHC), low out of pocket expenses and 'maintain quick access'. [4, p.8] While the authors of the Report disclose its limitations and the difficulties inherent in across country health systems comparisons, it does give us broad indicators to define our problems and for us to ask the right questions.

In a more recent international comparison of fifteen countries the Commonwealth Fund recently published its authoritative International Profiles of Health Care Systems. [5] In tabular form it describes systems financing and coverage, health system indicators and performance indicators as well as provider organisation and payments. The report does not assess the Australian system against a gold standard or even an average. However, we fit reasonably with our peers in the performance measures reported.

Given the current interest in co-payments, this Report using 2012 data places Australia as the third highest in out-of-pocket expenses at $731 US behind the United States and Switzerland, compared with the United Kingdom lowest at $297.00. So to draw and adapt from a much earlier published

article on health system restructuring we need to ask 'what problem (is it) that we are attempting to solve?' [6]

'Access' is obviously an area of contention for Australia. Issues for Australia in terms of access are generally described as poorer health outcomes for rural, regional and remote communities, impacted by riskier lifestyles, distances and poor transport links from services, health workforce gaps and maldistributions, concentrations of poorer socio-economic status populations, the impact of waiting times for elective surgery, cost affordability and the confused array of service delivery at government levels. [1]

Access is about affordability and cost related issues and the timeliness of care. Universal health care (UHC) is the international response to access stating in general terms that all people should obtain the health services they need. A system of UHC is something, I suspect, that most Australians not only aspire to but expect and which the World Health Organisation sees as a post – 2015 global sustainable development goal. [7] As the President of the World Bank says 'we must be the generation that delivers UHC'. [2] Perhaps the primary health networks (PHN) about to be established will be tasked with the role of improving access?

In the absence of any definitive vision for the Australian health care system(s) I looked to the official documentation for the Federation White Paper on health issues [8] but was not comforted by any consideration of a vision statement or any commitment to UHC implicit in the document. So my first question for the consultation stage of this process and the pending Green paper is, can we have a vision for the Australian health system that effectively engages us and can we be encouraged that UHC will be at the centre of that vision?

Why UHC you say? Well if the WHO and the World Bank's emphatic support are not enough, let's see what the experts at the World Innovation Summit for Health had to say. [9] They said that:

> *UHC can deliver significant benefits: for individuals, in terms of access to health services and protection from financial ruin caused by ill health; for countries as a whole, in terms of population health and contribution to economic growth; and for the politicians who successfully lead its introduction.* [9, p.3]

These same authors suggest that 'publicly governed, mandatory financing through general taxation and social health insurance' is the best approach and that a financing system dominated by user fees (co-payments) and private voluntary insurance 'will never achieve UHC.' [9, p.4] This view is consistent with international experience and expertise that also sees health expenditure as an investment, not a production cost, but as something that achieves value for money invested. So getting back to that vision can we include 'investment' in the language please?

So if we are talking universal access and seeing health expenditure as an investment, the government would correctly be concerned with the value to be achieved from the investment. Perhaps, we should take account of international approaches that suggest a broader system of linked goals are required if higher valued healthcare is to be achieved. They take this approach because 'the remaining barriers to integrated care are not technical; they are political'. [10, p.759] These goals are described as 'improving the individual experience of care; improving the health of populations and reducing the per capita cost of care for populations.' [10, p.760]

The Health Issues Discussion Paper [8,p.29] does talk about the principles of subsidiarity and localism which gives some encouragement that those issues of community engagement and effective across provider coordination of service delivery through new organisational arrangements might be on the agenda.[11,p.5] PHC as an investment is also strengthened by extended patient and community participation, interprofessional education and representation, multiple funding and accountabilities and the diversification of non-governmental organisations (NGO) roles. [12,p.169]

This consideration of the principles of subsidiarity might go to the potential of self-care and individual health improvement as a commencement level into the health system. It might also consider that deploying the social capital of health professionals and health managers in more local contexts might also make a positive contribution to those communities overall intellectual and social capital. It might be a better value proposition than health management being distantly located from service delivery.

So, after the Green paper appears let us hope some of the questions posed in this editorial are adequately considered on the basis of international and national research evidence about what works best for Australian communities.

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Editor

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IN THIS ISSUE

The cover of this issue utilises some graphics from the publication *Australia's Health 2014*. The graphics were deliberately chosen to highlight the importance of using evidence, best practice and proper application of theoretical constructs from health financing and health economics when considering public health policy changes. The AIHW series is important in describing how the health system actually works and how it is financed. We appreciate the opportunity to utilise the graphics in this way.

The second purpose in utilising those graphics on the cover was to promote the Invited Editorial in this issue which has been kindly provided by College member and well known colleague to many of our readers, Jo M Martins. At our request Jo has provided an editorial entitled 'Strife with fiscal hygiene: are health costs out of control?' Jo. as you will see has considerable experience and expertise that allows him to respond to this question in a consummate, considered way that transparently addresses the impact of some ill-considered commentary about what our health financing and service delivery problems might be and what we should or should not do to address them.

The other editorial in this issue 'Clarifying what the problem is by asking the right questions: a better approach to health reform' suggests we need to understand the problem(s) that public policy interventions around co-payments and the implementation of primary health care networks are purporting to address. These changes are in advance of the White Paper on Federation, although a Health Issues Discussion paper has been published. The inter-relationship of these occurrences is considered by using comparative international evidence to firstly help define the problem we might be attempting to address and then to give us some insights into what works and doesn't work in implementing these reforms.

Following the emphasis of the editorials on using evidence-based research in developing public policy, the first article presented extends this into a discussion about building research capacity into an operational health service. Murphy and colleagues provide an analysis of management practice article on 'Building research capacity in a regional Australian health service'. The authors present a three step process that they believe is necessary to effectively build research capacity. They suggest the model might be modifiable by other health managers of similar health services in pursuing a stronger research culture.

Spencer and colleagues then provide a research article 'An efficient alternative methodology for bed occupancy data collection'. This article will be of interest to hospital managers and those charged with the accurate and timely collection of hospital utilisation data.

Messum, Wilkes and Jackson also provide a research article 'What employability skills are required of new health managers?' These authors surveyed senior health managers to rate employability skills for new graduates they employ. The authors conclude that the findings will inform curriculum development and will assist employers in considering what essential skills are required in employment advertising.

Continuing the emphasis on health management skills requirements, Ram and colleagues provide a research article that describes Pharmacists as managers in a New Zealand community pharmacy context. The aim of the research was to identify employers skills requirements when recruiting a pharmacy manager. It describes the main domains that employers look for and also touches on the tension inherent in the role where the manager is a healthcare provider and a retail business manager.

Leggat and Holmes provide a research article that utilises a content analysis approach to document the missions, vision and values of hospitals in one State in Australia. The article describes significant differences in approach between public and private hospitals and how there is room for improvement in the content of mission statements.

Shannon provides a review article about the implementation and integration into theory and practice of the health LEADS model in one Australian jurisdiction and suggests that the earlier work in the development of this model has led to the development of a 'policy community' that might provide the basis for future work.

Our regular and valued library bulletin from the ACHSM Librarian concludes this issue.

CALL FOR PAPERS

Asia Pacific Journal of Health Management Call for Papers

The Asia Pacific Journal of Health Management (APJHM) will be running a special edition on ***'The Ethics of Managing and Leading Health Services'.***

The special edition of the APJHM will be co-edited by Professor Gary E Day and Dr Gian Luca Casali.

Understanding ethics and ethical decision-making is a critical component for a successful management and leadership practice in healthcare services. In recent years, an increasing number of Inquiries into health system failures in Australia and overseas (Bundaberg Hospital; Campbelltown and Camden Hospitals; Royal Melbourne Hospital; King Edward Memorial Hospital; Bristol Royal Infirmary; Town Hill Hospital; Glasgow's Victoria Infirmary and the NHS Mid Staffordshire Trust) has turned both public scrutiny and organisational attention towards the decision-making processes of healthcare managers. As health managers are called increasingly to account for their decisions, exploring concepts around ethical decision-making and it's frameworks is critical to the development of tomorrow's healthcare leader.

The APJHM invites scholars and practitioners to submit manuscripts that cover:

- Ethical decision-making in health management and leadership;
- Empirical research and case studies addressing key aspects of ethical managerial decision-making;
- The interplay between politics, health policy and ethical decision-making; and
- International or cultural aspects of ethical managerial decision-making in healthcare.

Scholarly papers, case studies and commentaries for this special edition will close on the 30th June 2015. The special edition will be published before the end of 2015.

For further 'Guide to Author' details, please refer to http://www.achsm.org.au/members-services/journal/invitation-to-submit-an-article/

For further information, contact **Professor Gary E Day** on **g.day@griffith.edu.au**, **Dr Gian Luca Casali** on **luca.casali@qut.edu.au** or **Dr David Briggs** on **dsbriggs007@gmail.com**

Building Research Capacity in a Regional Australian Health Service: a management strategy analysis

K Murphy, D Stockton, A Kolbe, A Hulme-Chambers and G Smythe

Abstract

Research capacity building (RCB) can be challenging for health services, especially in non-metropolitan areas. This management analysis documents the RCB strategy recently initiated by Albury Wodonga Health (AWH), a large health service in regional Australia. AWH's strategy addresses three steps believed to be crucial in planning effective RCB: an initial needs assessment, identification of clear success indicators and multi-level structural considerations. In particular, AWH's strategy is based on current evidence pointing to the importance of external partnerships, the need for whole-of-organisation leadership, and the need to involve appropriate personnel. Early achievements of AWH's strategy include Executive-endorsed organisational research priorities, wide awareness of RCB as a whole-of organisation goal, agreed protocols for initiating and reviewing research proposals, formalised university partnerships, the establishment of a vibrant Research Interest Group, a number of current and planned collaborative projects, improved communication about research activities within AWH, and a program logic and evaluation framework to assist in maintaining focus and assessing the effectiveness of the strategy over the longer term. AWH's RCB strategy may serve as a modifiable model for managers of other similar health services pursuing a stronger research culture.

Abbreviations: **AWCHR – Albury Wodonga Collaborative Health Research; AWH – Albury Wodonga Health; CSU – Charles Sturt University; IKT – Integrated Knowledge Transfer; RCB – Research Capacity Building; RDB – Research Development Building; RIG – Research Interest Group.**

Key words: **Evaluation; logic model; program planning; program theory; research capacity development; professional development.**

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Research capacity building (RCB) refers to individual and organisational developments which lead to greater ability to access, conduct, and apply useful research. [1,2] Albury Wodonga Health (AWH) is a large regional health service committed to pursuing the benefits of RCB and, in 2013, began planning a comprehensive RCB strategy, including the development of an evaluation framework to monitor its effectiveness. This article describes AWH's strategy, the rationale behind it, and its preliminary outcomes.

The issue

The RCB Literature

Effective RCB in health services has numerous benefits. RCB can improve staff ability to apply research findings effectively [3] and have a positive impact on job satisfaction, everyday practice, and professional confidence. [4] The capacity of health professionals to engage in research

activities and evidence-based practice is also a strong predictor of staff retention. [5] To achieve these benefits, however, RCB initiatives must be sustainable. The existing literature is convergent regarding the conditions required for sustainable RCB activities. Three recurring themes dominate the literature.

The first theme is the importance of a collaborative or partnership approach that connects practitioners with university academics or with each other in collaborative interprofessional teams. [4,6,7,8,9] The second theme is the need for active high-level leadership across the whole organisation. [4,6,10,11] The third theme is the need to involve appropriate personnel, focusing on staff members who are interested in research. [12] Including professionals who have some expertise or previous experience in undertaking research is important for supporting staff who are new to research. [4,8]

The AWH context

The RCB initiative described in the current article is being undertaken in a regional health service. Regional areas are less likely to have conjoint appointments between health services and universities, and are involved to a lesser extent in medical research, such as clinical trials. Further, there are fewer formal relationships between health services and universities, compared with urban locations. There is a pressing need to support RCB in non-metropolitan areas. [13] In recent years, a number of AWH managers and executives have recognised that AWH, like many other regional health services, lacked a strong research culture.

The regional city of Albury-Wodonga spans the New South Wales (Albury) and Victoria (Wodonga) border in south-eastern Australia. AWH staff numbers have recently risen from 1800 to 2200 due to amalgamation of services. It provides a comprehensive and growing range of health services spanning the primary, sub-acute, and acute needs of regional residents. The catchment area population for AWH is estimated to be 260,000 people.

In addition to AWH, three universities engaged in allied health, nursing and medical training and research have a physical presence in the Albury-Wodonga region. AWH's RCB approach is based largely on a mutually beneficial collaboration between AWH and these three universities.

The management approach

AWH's approach addresses three elements believed to be critical to developing an effective RCB strategy: an initial needs assessment; identification of clear success indicators that reflect the purposes driving the RCB strategy; and structural considerations leading to multi-level interventions, spanning individual, organisational, and broader network levels. [12,14,15]

1. Needs assessment

Various models of needs assessment have been identified in the literature. [15] The 'corporate approach' involves soliciting the opinions and visions of key stakeholders and then establishing structures and interventions in an attempt to achieve the desired outcomes. AWH adopted this approach, seeking to engage all stakeholders. AWH commenced its RCB journey by seeking advice and support from a local university. Charles Sturt University (CSU) is one of the three universities noted above that provide health professional training in the region. AWH's initial collaboration with CSU assisted AWH to access RCB literature and identify a tool suitable for use in the needs assessment stage.

Initial self-assessment

The Canadian Health Services Research Foundation, now called the Canadian Foundation for Healthcare Improvement, offered a tool that assessed four research-capacity domains: how well the organisation is able to 'acquire', 'assess', 'adapt' and 'apply' research. [16,17] This tool is available with permission from http://www.cfhifcass.ca/PublicationsAndResources/ResourcesAndTools/SelfAssessmentTool.aspx With permission, the tool was distributed to Executive and Senior Clinical Leaders with background information about the aims of the self-assessment. Completing the questionnaire assisted these leaders to consider AWH's current capacity to access relevant research, assess the validity of its findings, and apply these findings to practice, in relation to questions about both clinical practice and broader service operations.

While response rates were lower than anticipated, anecdotal feedback indicated that this activity piqued interest in the potential benefits of increased internal and intersectoral research at AWH. Discussions were prompted which raised the profile of RCB as an organisational aim. This may have enhanced the motivation of some leaders and managers to participate in subsequent RCB activities. Feedback received from Senior Managers in the Clinical Operations and Medical Directorates indicated a range of areas in which enhanced research capacity would be beneficial to AWH. Overall, the results of this self-assessment reinforced the need to build AWH's research capacity. When discussed at the executive management level, a list of reasons for building research capacity at AWH was generated.

The next step was to ascertain what AWH staff believed AWH's priority research areas should be. This required the

engagement of staff at all levels, including practitioners, middle-level managers, expert clinicians, and senior managers. The AWH-CSU liaison group was initially formed to explore opportunities for collaborative research, but a major early focus became developing a RCB strategy for AWH, beginning with an AWH Research Priorities Forum.

The research priorities forum

AWH's Research Priorities Forum had three objectives:

- To identify a list of research priorities to guide AWH's selection of future research projects and university collaborations;
- To finalise a prioritisation matrix to be used to assess the merit of future research proposals; and
- To generate possible protocols for proposing and approving future research projects, including internal, external, and intersectoral projects.

All AWH staff were invited to respond to an anonymous online survey titled 'AWH Staff Research Directions survey'. The survey invited written responses to open-ended questions regarding areas of client care and service development that might benefit from 'new knowledge'. Written responses were received from 32 staff. Respondents included clinicians across a range of disciplines and clinical contexts, from critical care and acute inpatient services to rehabilitation and community outpatient services. These responses placed a high value on applied research with direct relevance to clinical care and service improvement.

From the written responses received, through a process of content analysis conducted by a CSU academic, 16 themes were identified. The number of survey respondents (n=32) was lower than ideal. This may be due to the fact that open-ended survey questions are relatively demanding, compared to tick-box and rating-scale questions. Informal conversations suggested that provision of hard copies of the survey in staff areas might have improved the response rate in some departments, where email/computer use is less frequent.

Senior managers, delegates, and consumer representatives were then invited to attend a half-day Research Directions Forum. Invitations were sent to senior managers and those with delegated decision-making authority across nursing, allied health, medicine, mental health, and quality services. The initial email flyer and invitation to the forum resulted in a poor response. However, follow-up with an Outlook Calendar meeting invitation worked more effectively, with 25 senior managers or delegates committing to attend the event.

The forum provided a further opportunity to raise the profile of RCB at AWH, which was enhanced by the use of external facilitators, two academics from CSU. The forum commenced with a presentation about the benefits of RCB in healthcare and the current research landscape, including national and state-level research priorities. After an explanation of the AWH Staff Research Directions survey process, the 16 identified themes were presented as possible research directions for AWH, which ultimately the forum attendees would be asked to rank and select a smaller subset from.

In small groups, attendees were asked to rank the research directions. Each group focused on four possible directions. This exercise was assisted by the use of a prioritisation matrix drafted in advance by the AWH-CSU Liaison group. The matrix enabled participants to 'score' the level of feasibility and importance of each possible research direction. The wording and structure was refined during the 'scoring' discussions. The matrix was also intended to ultimately serve as a tool for AWH to assess the merit of specific research project proposals. A valuable outcome of the forum was the refinement of the direction prioritisation matrix into a research proposal assessment matrix that can be used to guide the deliberations of the relevant AWH Executive Director when considering research proposals (see Figure 1). The seven highest-scoring directions included some specific to clinical care and others related to organisational culture and staff development. It was agreed these should be presented to the Board and Executive for endorsement as AWH's research priorities. A draft research proposal assessment protocol, in the form of a procedural flowchart, was also presented, discussed, and refined for proposal to the Executive.

The proposed research priorities were endorsed without change. The alignment of the forum process and outcomes with AWH's Strategic Plan was believed to be crucial in securing such strong high-level support. The endorsed research priorities were believed by the Executive to provide a useful foundation on which to invite university partners to contribute to AWH's research agenda.

On reflection, the AWH-CSU Liaison Group felt that the pre-forum survey, providing predetermined themes for ranking, provided a useful 'rock' for forum participants and contributed to the efficiency of the forum by guiding and focusing the discussions. It was also felt that the content analysis of the survey responses by an external person (a CSU academic) and facilitation of the forum itself by external facilitators (two CSU academics) was helpful in minimising the potential for perceived bias.

Figure 1: AWH's final research proposal assessment matrix

	VERY POSITIVE OR EASY (4)	SOMEWHAT POSITIVE OR EASY (3)	SOMEWHAT NEGATIVE OR DIFFICULT (2)	VERY NEGATIVE OR DIFFICULT (1)
Degree of fit with AWH's Research Priorities				
Degree of fit with AWH's Strategic Plan				
Ease of data collection • Data already exists = 4				
Expected cost / time required • No or little cost = 4 • Consider current staff skills & ease of developing staff skills • Consider availability of external assistance				
Potential for impact on AWH policies				
Potential for impact on AWH practices				
Potential to generalise or transfer findings to other services • May bear on potential for external funding and/or publication				
Potential to decrease identified risks				

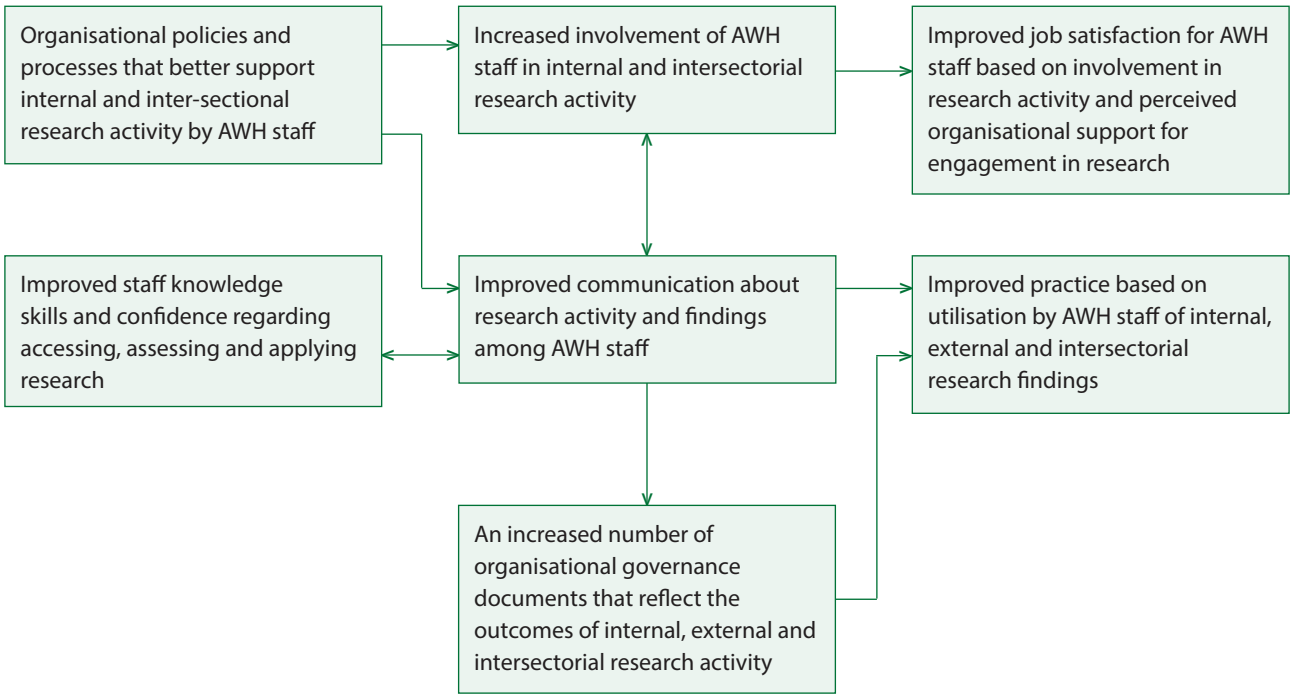
2. Identification of success indicators

Among other conclusions and recommendations, Cooke and colleagues [15] highlighted the need for the development of meaningful measures for assessing the outcomes of RCB in health services. In particular, they called for further research on the impact of RCB interventions on research utilisation in practice. Traditional RCB outcome measures (ie, successful grant applications and publications in peer reviewed journals) are important measures in university contexts, but such outcomes are often irrelevant to the aims of RCB in healthcare contexts. [14] For example, traditional research-output indicators do not capture progress amongst novice researchers, the impact on perceived organisational support for research, or the usefulness of the research undertaken.

The AWH Executive was asked to engage in a process of identifying the most important goals of RCB for AWH, beyond the nebulous outcome of increasing research capacity. Goals and objectives needed to be explicated to guide both the planning of RCB activities and the evaluation of the effectiveness of these activities. Goals, here, refer to the intended ultimate outcomes of the RCB strategy, and objectives refer to short and medium-term achievements believed to be necessary in order to meet these goals. The goals and objectives, once clarified, were organised into a program theory (also known as a program logic model), which is represented in Figure 2. As can be seen, AWH's ultimate goals concern (a) increasing perceived organisational support for research and associated job satisfaction and (b) improving managerial and clinical practice. The logic model shown in Figure 2 makes explicit the theoretical assumptions linking the planned RCB activities to the ultimate goals of the strategy. This model also provided a basis for identifying meaningful measures and indicators by which the overall success of the strategy will be evaluated. These measures and indicators are shown in Table 1.

Alongside the measures identified in Table 1, which are key to evaluating the longer-term outcomes of the strategy, process evaluation will be undertaken to assess how fully

Figure 2: The program logic underpinning AWH's RCB strategy



and effectively the planned RCB activities are implemented. Continual process evaluation will assist in understanding whether a failure to achieve any objective or goal was due to a program theory failure or a program implementation failure. [18] AWH's RCB strategy may be refined based on the findings of this continual evaluation process. The long-term evaluation findings will be published in due course.

Table 1: AWH's RCB measures and success indicators

	MEASURES	SUCCESS INDICATORS	TIMELINE
Immediate Objectives			
Organisational policies and procedures that better support internal and intersectoral research activity by AWH staff.	Analyse relevant documents to identify content that guides or facilitates internal and collaborative research activity.	New structures, policies, and procedures have been established to support internal and collaborative research activity.	2013-2015 (compared with pre-2013).
Improved staff knowledge, skills, and confidence regarding accessing, assessing and applying research.	Monitor Research Interest Group attendance, meeting frequency, and satisfaction-levels. Anonymously pre and post-test attendees on knowledge and self-rated research skills at each Research Interest Group training event. Survey all clinical staff re self-rated research utilisation confidence in annual learning needs survey (Likert scales)	Research Interest Group meetings are attended and reported by those involved to be informative and worthwhile (Likert scales). Increased mean knowledge scores and self-ratings for every training event. Increased mean ratings in all AWH departments	2014-2016

Table 1: AWH's RCB measures and success indicators *continued*

	MEASURES	SUCCESS INDICATORS	TIMELINE
Intermediate Objectives			
Increased involvement of AWH staff in internal and intersectoral research activity.	Draw on existing register routinely used to record AWH research activity: topics, departments, staff numbers, and collaborating partners. Collect additional data: research presentations, publications, and actual policy and practice outcomes of completed projects.	New internal projects initiated in line with newly developed policies and procedures. New intersectoral collaborations initiated in line with newly developed policies and procedures. Increased overall number of staff involved in internal or collaborative research, including presentations and publications.	2014-2016 (compared with projects registered pre-2014)
Improved communication about research activity and findings among AWH staff.	Review AWH newsletters In 2014 and again in 2016, survey all staff regarding awareness of RCB efforts at AWH, what is known about the RCB initiative and research activities at AWH, and the sources of this information; analyse by role in organisation (eg, clinical leadership) Audit research reporting by Manager. (PD&R), 2014-2015. Examine relevant AWH committee meeting minutes (Clinical Leadership, Clinical Governance, and Clinical Operations) for communication about actual and potential research activity.	Research update section (research activity and findings) is included in every AWH newsletter. From 2014 to 2016, 50% more respondents overall report awareness of RCB at AWH and 1+ example of research activity at AWH. Monthly research reports are submitted by Manager (PD&R) to relevant committees (Clinical Leadership, Clinical Governance, and Clinical Operations). Research discussion is regularly recorded in the minutes of relevant committee meetings as a standing agenda item.	2014-2016
An increased number of organisational governance documents that reflect the outcomes of internal, external, and intersectoral research activity.	Search organisational governance documents for reflections of research.	At least one new/revised governance document is generated that reflects research findings.	2014-2017

Table 1: AWH's RCB measures and success indicators *continued*

	MEASURES	SUCCESS INDICATORS	TIMELINE
Ultimate Goals			
Improved job satisfaction for AWH staff based on involvement in research activity and perceived organisational support for engagement in research.	Survey all staff re participation in research, perceived organisational support for research, and research related job satisfaction in AWH's Annual Learning Needs survey (Likert scales)	Increased mean ratings in all AWH departments.	2014-2017
Improved practice based on utilisation by AWH staff of internal, external, and collaborative research findings.	Determine if practice-based actions or decisions (including no change) resulted from completed research projects on the research project register.	Evidence-based actions or decisions (including no change) resulted from every completed research project.	2015-2017

3. Multi-level RCB interventions

The RCB activities described below are either already completed, ongoing, or planned for the future. For reasons mentioned above, these activities span inter-organisational partnership, whole-of-organisation, and individual levels. [6,8,12,9]

Partnership approach

A goal in AWH's Strategic Plan (2010-2015) is to develop 'a combined research capability' with external researchers. There are clear benefits of collaborative research by university academics and health service staff. Integrated knowledge translation (IKT) is a term coined by the Canadian Institutes of Health Research. [19] It refers to the engagement of potential users of health-research knowledge in the research process itself. In IKT, researchers and health service staff work together to shape the research process by collaborating to determine the research questions and methodology, develop tools and collect data, interpret the findings, and disseminate the research results. As such, IKT involves action-oriented research that is relevant to the needs of its end-users.

A formal committee of representatives from CSU (Albury), La Trobe University (Wodonga), and the University of New South Wales (Albury) was formed to facilitate IKT in the region. Called the Albury Wodonga Collaborative Health Research (AWCHR) Committee, its terms of reference include two key aims: to identify and facilitate collaborative research opportunities that align with the research priorities of partner organisations, and to facilitate professional development in health and clinical research for the staff of partner organisations. Early after its formation, the AWCHR Committee, in liaison with the AWH Executive, worked to develop the program theory and outcome measures presented above.

A major ongoing focus of the Committee is facilitating connections between regional academics, research students, and AWH practitioners. AWH's Manager of Professional Development and Research (Manager, PD&R) is a committee member well-placed to identify suitable AWH staff members for university academics to talk with about possible research projects. Likewise, local university representatives are well-placed to find academics at their institutions who may be interested in discussing research ideas with AWH staff. Already, CSU Allied Health Honours projects are being successfully co-supervised by CSU academics and AWH expert clinicians. Co-supervision of future Honours, Masters, and PhD research projects is being discussed.

Whole-of-organisation leadership

AWH's RCB quest has the support of the highest levels of leadership in the organisation. Strong leadership has been present from the beginning of the initiative. This began with early discussions at the executive level about the need to strengthen the research culture at AWH. It also includes the subsequent identification of two paramount goals by the Executive (see Figure 2), which provided direction regarding both RCB activity planning and the development of an appropriate evaluation framework (see Table 1).

The Board and Executive enthusiastically endorsed the research priorities identified in the Research Directions Forum, and the Executive adopted the proposed protocol for

accepting, reviewing, and approving project proposals. All levels of leadership (Board members, the Executive, Senior Management) have shown a keen interest in the initiative, itself led by a senior manager (Manager, PD&R). Recently, the term 'Research' was added to the position title of this manager, and research coordination and reporting has been added as a key performance indicator in the position-description of this manager. Key leadership committees are now expected to discuss current, recent and/or potential research activity as a standing agenda item in routine meetings.

Appropriate personnel

AWH is committed to building the capability of interested individual staff members to engage in research in the endorsed priority areas. The aim is to increase the knowledge and skill-levels of interested staff at all levels of the organisation to engage in research either internally within AWH research teams or with local university researchers. The assistance of the AWCHR Committee is being called on to facilitate training for AWH staff groups, specifically tailored to the needs expressed by the staff members interested in the training. A wide range of topic ideas has been generated by a recently formed Research Interest Group (RIG).

The AWH RIG was formed to support, inform, and encourage staff with an interest in research, including those with post-graduate research experience and qualifications. Over 20 staff members from across the organisation responded to the initial invitation to join the group, and this number is still growing. All staff interested in building or sharing their research insights and skills are simply added to an email list and invited to bimonthly meetings, held at various times. Convened by the Manager (PD&R), this group's membership is open and fluid, accommodating the varying needs and foci of the staff who attend.

In response to RIG suggestions, an Evidence Based Practice and Research Skills education program is evolving. Currently planned topics range from how to access research findings, initiate research at AWH, and apply for grants, to how to write a conference abstract or research article for publication. Training events are held separately from (ie, in addition to) the bi-monthly RIG meetings, at the request of RIG members, to protect meeting times as opportunities to informally support one another. AWH staff (eg, librarians) and academics from local universities represented on the AWCHR Committee run the training sessions, as appropriate. Training is also planned for middle-level managers in how to support and facilitate research by their staff, in line with AWH's new protocols in this area.

Early outcomes

Hindsight suggests some ways in which the initial needs assessment phase might have been conducted more effectively. For example, provision of hard-copies of the pre-forum survey, alongside the online version, might have attracted a higher response rate in some departments and raised awareness of the RCB initiative more widely. In addition, it is difficult to know if the CHSRF tool used in the initial needs assessment phase was the best tool for the purpose. An alternative would have been the Auditing Research Capacity (ARC) tool, [14,20] which focuses on evidence-based principles of health service RCB and provides a snap-shot of an organisation's research capacity. This might have provided an equally or more suitable tool for AWH's purposes, perhaps as a pre and post measure.

Notwithstanding this, a number of promising outcomes have been achieved by the strategy so far. These include a set of Executive-endorsed organisational research priorities, widening awareness of RCB as a whole-of-organisation goal, agreed protocols for initiating and reviewing research proposals (including a proposal assessment matrix), formalised university partnerships, the establishment of a vibrant Research Interest Group, a number of current and planned collaborative projects, improved communication about research activities within AWH (eg, in staff newsletters and as standing items in meeting agendas), and a logic model and evaluation framework to assist in maintaining focus and assessing the effectiveness of the strategy over the longer term.

In general, the alignment of AWH's RCB strategy with AWH's Strategic Plan is believed to be a major strength of the strategy, helping to secure support at all levels of leadership. Additionally, the involvement of regional university academics in the AWCHR Committee, including as key players in AWH's Research Directions Forum and in helping to develop a guiding program theory and evaluation framework, has been critical. The continued engagement of the AWCHR Committee will be crucial to the ultimate success of the initiative.

Competing interests

The authors declare that they have no competing interests.

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RESEARCH ARTICLE

An Efficient Alternative Methodology for Bed Occupancy Data Collection

L M Spencer, A Wong, R Eley, D A Cook, M Sinnott and E Kozan

Abstract

Introduction: The newly developed Bed Unit Day Investigation and Implementation (BUDII) information technology platform links a number of separate and distinct hospital data bases to provide a spatio-temporal map of inpatient movements and facilitate operational and research enquiries. The Bed Occupancy Audit Tool (BOAT) is used by the study hospital to conduct an annual census of the in-patient status of its operations. It is undertaken manually during one week each year and at two time slots within each of the seven days: 10am to 12 midday and 4pm to 6pm.

Objective: The objective of the study was to compare outcomes using the BUDII platform with outcomes from a BOAT audit.

Design: An experimental design was adopted. Data were assembled from two separate information systems for BUDII: the Hospital Based Corporate Information System (HBCIS) which tracks patients from in-patient admission to discharge and the Emergency Department Information System (EDIS) which contains patient data from presentation at, to departure from the ED. Data for BOAT were obtained from the manual census of the hospital.

Setting: The study was conducted in a tertiary Queensland hospital.

Findings: Figures from the 2012 BUDII trial and the 2012 BOAT census provided evidence that BUDII achieves comparable outcomes with BOAT with the added advantages of being low cost, with flexible census dates/times, and the provision of 24 hour a day data.

Conclusions: The BUDII platform is an effective source from which to measure bed occupancy and patient movements.

Abbreviations: BOAT – Bed Occupancy Audit Tool; BUDII – Bed Unit Day Investigation and Implementation; CAT – Capacity Audit Tool; ED – Emergency Department; EDIS – Emergency Department Information System; HBCIS – Hospital Based Corporate Information System; ORMIS – Operating Room Management Information System; PAH – Princess Alexandra Hospital; QUT – Queensland University of Technology; UR - Unique Record.

Key words: Bed occupancy audit tool; patient movements; spatio-temporal map.

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Introduction

Traditionally annual hospital bed census practices have been undertaken manually with a team of senior staff members conducting an audit (head count). More recently this has been facilitated by a Capacity Audit process and tool developed by the Royal Adelaide's Hospital Patient Pathways. [1] Designed to track bed utilisation and to identify delays to treatment and delays to discharge, the hospital used the tool over a two week period in both 2007 and 2008 and again for one week in 2010. [2] The Capacity Audit Tool (CAT) was, in turn, a modified version of a tool first described by Haraden in 2006. [3]

The current investigation was conducted at Princess Alexandra Hospital (PAH) in Queensland where a derivative of the CAT is used and is referred to as the Bed Occupancy Audit Tool (BOAT). It is applied in person and consists of the physical audit of occupied beds and patient movements over a period of one calendar week each year. It is undertaken by teams of senior nurses or patient flow officers.

Over the past year the research team has been developing a new information technology platform to link hospital datasets for the purpose of tracking patient flow. The platform, named the Bed Unit Day Investigation and Implementation (BUDII), links a number of separate and distinct hospital databases to provide a spatio-temporal map of inpatient movements and facilitate operational and research enquiries. Currently the databases that have been linked are the Emergency Department Information System (EDIS), the Operating Room Management Information System (ORMIS), and the Hospital Based Corporate Information System (HBCIS).

The operational unit of BUDII is the Bed Unit Day (BUD) which is a new unit of measurement developed by the Princess Alexandra Hospital emergency department (ED) research team, in collaboration with the Queensland University of Technology (QUT). It is used to measure a patient's time in the hospital and to assist with patient flow decisions. Patients are followed using their Unique Record (UR) and hospital episode numbers. In simple terms, as Wong et al describe, BUDII provides a unique spatio-temporal map of the patient's hospitalisation, and enables patient flow to be measured and monitored. [4] Work on the BUDII project commenced in 2011 at PAH, and is ongoing.

A function of BUDII is that a patient can be tracked within the hospital in real time and thus could provide the facility to replace BOAT. The study reported herein compares the data collected by the labour intensive BOAT methodology, with those generated automatically by the low cost BUDII platform. Although BUDII and BOAT both have the capacity to address a range of features of the patient journey throughout his/her hospital stay, such as time to operation, or delays to treatment, for the purposes of this paper the comparison will be confined to patient movements and bed occupancies.

Methods

Study Design

This is a comparative study of two audit tools; one electronic and one paper based.

Aim

The study trialled the new platform BUDII to compare outcomes from an interrogation of patient movements and bed occupancy data with those outcomes achieved by the one week long BOAT audit.

Methodology

The methodology used to develop BUDII is detailed elsewhere. [4] In summary, as the authors describe, the feature of a UR Number allocated to each patient is used to identify records in the various datasets. These records are linked through the time stamps allocated to each location and procedure (eg, patient admission, ordering of diagnostic tests, surgery). Rules are applied around the dates and times to ensure that each episode of hospital admission is separated for a patient with multiple episodes. [4]

In order to test the efficacy of BUDII as an alternative to BOAT equivalent information was required. The current study was designed to follow patient movements for a period of one week using the BUD measurement, and results compared with those of the annual BOAT census undertaken over the same week. With the permission of Metro South Hospital and Health Service Human Research Ethics Committee, data were obtained for BUDII for the census week 22 to 28 August 2012, as were the results of BOAT for that census.

BOAT methodology comprises an in-person audit of patient movements and bed occupancy. During 2012 it took place twice a day during the audit week in August, between 1000 and 1200 hours and 1600 and 1800 hours each day. Three teams of two staff members each undertook the census. The BOAT census studied 24 hospital wards or specialist units on a twice daily basis for the week of the review. The BUDII platform permitted the location of patients to be identified at all times in a more comprehensive fashion than BOAT. For example BUDII permits patients in the operating theatre to be recorded for any given time, but it was not possible for auditors to do so in the BOAT survey. Therefore operating theatre details have been omitted from these results. However, the beds in wards reserved for theatre patients to occupy on return were audited in both systems.

Setting

Princess Alexandra is one of five tertiary hospitals in Queensland. It provides acute medical, surgical, mental health, cancer, rehabilitation and allied health services. It has expertise in trauma management and is a major transplant centre for livers, kidneys, bone, cartilage and corneas. In 2011-2012, 82,172 patients were admitted to the

Table 1: Differences in bed count BOAT and BUDII

ABSOLUTE DIFFERENCE IN BED COUNT	NUMBER OF INSTANCES		ABS DIFF IN BED COUNT	
		%	TOTAL DIFFERENCE	% OF TOTAL BOAT COUNT OF ALL SAMPLES
δ	*N(δ)*	*N(δ)/N*	*D(δ) = δ* N(δ)*	*D(δ)/B*
0	96	34.3%	0	0.0%
1	100	35.7%	100	1.5%
2	41	14.6%	82	1.3%
3	23	8.2%	69	1.1%
4	13	4.6%	52	0.8%
5	6	2.1%	30	0.5%
6	1	0.4%	6	0.1%
> 6	0	0.0%	0	0.0%
Total	**280**	**100%**	**339**	**5.2%**

B Total number of beds occupied from BOAT
N(δ) the number of instances (ward/unit/session) with δ
D(δ) the total absolute difference in bed count for instances with δ
δ the absolute difference in bed count from BUDII and from BOAT
N the total number of instances (N = 280)

hospital. There were 55,220 presentations to its Emergency Department (a Level 1 trauma centre), and 18, 928 operating theatre cases were undertaken. [5]

Results

The total number of beds occupied was 6483 from the BOAT census over fourteen sessions (twice a day for one week) and 6466 from BUDII – a difference of 17 (0.3% variance). Table 1 shows the analysis of the BOAT and BUDII surveys. From Table 1 it is evident that patient counts from BUDII closely mirror those from BOAT. In 34.3% of all instances reviewed they were identical, while in another 35.7% they were within either plus or minus one patient of each other – a total of 70% in harmony between the two approaches. The seven instances where the maximum differences of five and six beds were recorded were investigated further. An account of the causes of the discrepancies is set out in Table 2.

Table 2: Observations on the cause of discrepancies from samples

OBSERVATIONS	COUNTS
Likely error in data entry to HBCIS	5
Likely error in BOAT count	5
Likely difference in temporary bed movements	6
Unsure about the reason	10

Discussion

BUDII is a tool that has been developed to track patients or groups of patients through the hospital. When fully operational it will combine all the hospital datasets and, as a seamless spatio-temporal tool, has multiple applications including interrogation of patient flow, diagnostic processes and times to treatment. It was not designed primarily as a device to determine bed occupancy however these results confirm the effectiveness of BUDII as an instrument to measure patient location.

The current results demonstrate that consistency was achieved between the two sources of data which indicates that BUDII is an effective alternative to the traditional approach. BOAT is utilised as a tool within the hospital to provide an annual snapshot of the state of the institution itself and the patients for whom it cares. It is recognised that neither BOAT nor BUDII can ever be 100% accurate.

There are explanations to account for the differences between BUDII and BOAT numbers. The morning details recorded on BUDII included all patients in the wards/units from 10.00 hours to 12.00 hours, whereas the BOAT

detailed only a headcount of those present in the ward at the time, on that day, when the auditors were in attendance. Consequently, some patients may have arrived and been discharged on that particular morning, prior to or after the hours in which those undertaking the BOAT audit were present. Patients without a bed or being transferred, such as those in the transit lounge or waiting for medications in a ward chair, were not recorded on BOAT, but were captured on BUDII until finally discharged.

Patients en route to treatments may have been in or out of the Intensive Care Unit or the operating theatre, at the time of the BOAT audit. One patient was recorded as staying in a particular setting in HBCIS and appeared in BUDII in this setting, but was listed as being in a different ward in BOAT. This could be attributable to a time lag between HBCIS data entry, and the BOAT team actually observing the patient in a bed in the ward they specified. No BOAT census is undertaken during the night shift. While it is assumed that patient movements are at a minimum during those hours, variations may arise without being noted.

Table 3: Similarities and differences between the two systems

BUDII	BOAT
Daily/hourly data	Annual data
Cost neutral/minimal cost	Expensive
Continuous data map 24/7	Twice daily snapshot for one week each year
Night shift included	No night time measure
All transfers and spatio-temporal mapping	Patient in transit data lost
OT and procedural data available	OT data unavailable

Table 3 highlights some similarities and differences between the two systems. Of significance are the economic benefits and flexibility of the BUDII system. Precise figures for the cost of the 2012 BOAT are unavailable however the following will provide an indication of the costs involved. At least half of the six person audit team was composed of permanent staff Registered Nurses at Grade 7 level. The pay scale for this group is $50.23-$54.56 per hour (2014 rates). Patient flow officers drawn from other employment categories such as administrators are on comparable salary scales. Each member of the audit team was employed full time on the project for the audit week resulting in a fee in excess of $12,000 excluding any additional costs such as the redeployment of other members of staff to backfill the auditors.

As patient flow and bed occupancy numbers can be determined in real time and retrospectively, and as on-demand requests from BUDII, the cost of the laborious BOAT audit, and the consumption of senior staff time, could be eliminated. This will also overcome obstacles such as patient movements that occur outside BOAT audit hours which are currently not being recorded, or being recorded inaccurately, thereby eliminating skewed data and results.

This study used retrospective data throughout the development of the BUDII platform. During 2014-2015 all hospital data bases will be linked in real time and, once the BUDII design and trial have been completed, the BOAT audit may not be required. BUDII data will be available instantaneously, so factors such as seasonal variation in demand for beds can be analysed, anticipated, and actions implemented to take them into account, thereby minimising wastage in such costly resources as rostered staff and equipment availability.

Limitations

The principal limitation of this study is that the annual census of BOAT in the week of 22-28 August 2012 has been used as a 'Gold Standard'. This may not be the best assessment of hospital occupancy and activity. The use of tools like BOAT is dependent on the physical inspection of hospital wards and interrogation of staff. Thus BOAT contains limitations that apply in this study. The information collected is point-in-time data so variations that occur outside the time of the headcount are not included. In addition, there is the potential for inconsistencies to apply in handover information sought from and provided by care staff to the auditors. The major limitation to the BUDII data is shared with BOAT and is data entry delay or failure due to human error in any one of the operating systems (EDIS, ORMIS, HBCIS) used by BUDII.

Conclusion

The BUDII platform enables a unique spatio-temporal structure on which patient flow and the hospital's operations to be depicted, and provides critical data for both management and research. Figures from the 2012 BUDII trial and the PAH BOAT census provide empirical evidence that BUDII has the advantages of: low cost; flexible census dates; and includes night movements. The new platform is, therefore, an effective data source from which to measure patient movement and bed occupancy.

Competing interests

The authors declare they have no competing interests.

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RESEARCH ARTICLE

What Employability Skills are Required of New Health Managers?

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Abstract

Background: Employability Skills (ES) for graduates are monitored by Graduate Careers Australia but not specifically in health management. Generic skills are increasingly important especially to help cope with increasing complexity and rapid change. There is little research in the health arena to identify specific skill requirements and gaps in observed skills to requirements. The study was conducted to inform curriculum development, help facilitate employment outcomes for new graduates and improve job matching for employers.

Method: Senior New South Wales health managers were surveyed to rate ES for importance and skill levels observed in recent graduates they employ. The ES gap between these two ratings was identified for 44 ES.

Results: Generic ES namely integrity and ethical conduct, interpersonal skills, teamwork, being flexible and open minded, written and oral communication skills, self-awareness, collaborative, planning and life-long learning are more important to health managers than job specific skills. Leadership skills were not found important. The largest gaps between observed skills and importance ratings were found for written skills, collaboration, negotiation, teamwork, cultural awareness, computing and software skills, strategic thinking, ability to scan the environment and self-awareness.

Conclusions: Generic rather than job specific skills are what health managers rate as important ES on the job. These findings can be used to inform curriculum development because other than writing skills, they are not the traditional skills taught by higher education institutions (HEIs). Employers also need to consider the essential skills used in job advertisements to better fill vacancies.

Abbreviations: ES – employability skills; HE – higher education; HEIs – higher education institutions; HRM – human resource management; ICS – interpersonal and communication skills; WIL – work integrated learning.

Key words: Employability skills; generic skills; health managers; higher education; leadership.

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Introduction

The purpose of this paper is to identify employability skills (ES) that senior New South Wales health managers perceive as important and the extent to which they observe these skills in recently employed graduates. This information can also be used by higher education institutions (HEIs) to inform curriculum development and help improve graduate employment outcomes, a sector performance indicator.

The underlying assumption is that criteria used to select future employees, match skills required on the job. However, it is acknowledged that the skills for ongoing performance may be different. [1] The skills typically required by employers are defined by the Commonwealth Department of Education and Training [2] as:

> Skills required not only to gain employment, but also to progress within an enterprise so as to achieve one's potential and contribute successfully to enterprise strategic directions. Employability skills are also sometimes referred to as generic skills, capabilities or key competencies.

According to Graduate Outlook Australia [3] from annual surveys of employers, the most important ES for the last five years have been interpersonal and communication skills (written and oral), passion/knowledge of industry/drive/commitment/attitude, critical reasoning and analytical skills/problem solving/lateral thinking/technical skills, calibre of academic qualifications, work experience, cultural alignment and values fit, emotional intelligence and teamwork. This is consistent with earlier findings [4] that formal qualifications and expert skills were not enough to predict employment success, but were a threshold requirement. Qualifications were an indicator of potential future learning not immediate competence and experience was more important. [5] Furthermore, job specific skills were necessary but not sufficient professional performance requirements: interpersonal and communication skills were more important. [6] Students have also recognised that a degree is not enough to secure employment, [7] and are interested in achieving competencies that will improve employment prospects.

There is limited research exploring ES requirements in the health arena. It has been argued that health managers require context specific skills that change over time. [8] Impacts on health workforce competency requirements include a shift from acute to chronic care [9] and the adoption of private sector management practices by the public sector. Also at the time of this study (2013) in response to Commonwealth government health reforms, New South Wales had recently decentralised into local health districts with a new focus on activity based funding. One New South Wales study [10] found skills in planning, evaluation and decision-making have endured, but new skill requirements have emerged, namely leadership, managing and leading change, mentoring others, financial management and personal qualities. Some of these could be considered position skills. [11] On the other hand, generic ES may be more useful than job specific skills for coping with rapidly changing and complex work environments. [10]

The problem is that Australian employers have some difficulty locating suitable graduates to employ. Some 22.4% of employers [3] indicated they had difficulty sourcing/recruiting graduates in health/social sciences. Over one-third in 2013 actively sought closer links with HEIs to improve recruitment strategies. Any mismatch may have several explanations. [8] However, ES are useful not only in recruitment processes but also for ongoing professional development because by definition ES are about advancement of both employees and employing organisations. This is recognised by the United Kingdom National Health Service which has used competency frameworks since 2000. [12] Certainly employers are increasingly recognising the value of generic competencies. [5,13]

The challenge is the process whereby current ES requirements are integrated into any curriculum. Higher education (HE) has traditionally focused on academic and technical knowledge competencies, keeping up to date through research activity and industry links. However, some academics are still resistant to the ES agenda, which they criticise as devaluing traditional tertiary qualifications, [13] but in this paper it is argued that the agenda is changing. For example, accreditation bodies and HEIs graduate attributes typically incorporate a mix of job related capabilities and generic skills. The growing interest in work integrated learning (WIL) with student industry placements is an example of how ES can be developed and better skill matching achieved.

This paper represents the second stage of a triangulation study exploring ES for graduates working in health services management. This higher degree research was undertaken with approval from the Human Research Ethics Committee, University of Western Sydney, (number H9344, 9 July 2013). The first stage analysed 100 advertised job vacancies for graduate health management positions in New South Wales, [8] identifying key ES. These ES were sorted into groupings or sub-scales for the current study, and the importance of all items was rated by senior New South Wales health managers in the current study. They also rated observed skills levels of recently employed graduates working with them in health management positions. The third stage will seek the views of recent graduates working in the field.

Method

Research Design

A survey was designed for completion by managers working in senior health management positions in New South Wales. Here senior managers were defined as Chief Executive Service or Senior Executive Service level employees or their equivalent. They were invited to participate because they supervised third year undergraduate and post graduate

students majoring in health services management from the University of Western Sydney on placement and in ongoing employment.

Survey sample

New South Wales senior health managers supervising students were requested to participate, once the university session commenced in 2013, a total of 40 managers. Two recently appointed managers declined, stating that they had too little experience in the health sector, yielding a response rate of 95%. Equal numbers of males and females responded. However, it took three months for all surveys to be returned.

Survey instrument

Based on a literature review and findings from our recent study [8] analysing ES required in graduate health management vacancies in New South Wales, an eight-page survey was designed. Questions for senior managers to complete included gender, years in current position, position, sector of employment, and ranking of top ten ES. A total of 44 items were clustered into five sub-scales based on the findings from the job vacancies study, for managers to rate using 5-point Likert scales ranging from not important (zero) to very important (four) and each cluster included a total score. The same items were also rated for skills observed in graduates, from no skills, ie requires training and development (zero) to excellent rated four. The five clusters included interpersonal skills and communication skills, experience and knowledge of the health industry (which emerged as important ES in the advertisement study), job specific skills, self-management and critical analysis skills. An open-ended question asked about perceived characteristics of the more successful graduates.

The survey instrument was pilot tested for usability with three current health managers, not included in the survey proper. They were invited to comment on the items allocated to each sub-scale and suggest changes or new items for inclusion, but no suggestions were made.

However, some repetition was removed and a question about years in the health industry added, not just years in the current position, given recent re-organisation of New South Wales health services.

Analysis

The ES items were checked for internal consistency using Chronbach's alpha. Factor analysis was not attempted given the small sample size. For the total 44 items internal consistency was good with a Chronbach's alpha coefficient of 0.89. The reliability of sub-scales was also examined. All sub-scales except experience and knowledge of health achieved a satisfactory Chronbach's alpha over .7, (ranging from .82 to .9), suggesting good internal consistency, ie they were measuring the same underlying construct. It is common to find quite low Chronbach values with scales of ten items or less, [14] so the experience/knowledge items were combined with job specific skills to total 18 items and this improved Chronbach's alpha coefficient to .87. This experience/knowledge of the industry sub-scale was originally included because this selection criterion was found frequently in our advertisement analysis study [8] and was ranked fifth in importance in the 2013 Graduate Careers Australia survey. [3]

Results

Respondents

The 38 respondents were senior management including CEOs, general managers or directors of health districts, organisations or services. Half worked in the public sector, one third in not-for-profit (NFP) or non-government organisations (NGOs), four in the private sector and two in aged care institutions.

Table 1: Years employed in current organisation and in health

YEARS	CURRENT ORGANISATION		HEALTH	
	N	%	N	%
0-1	7	18.4	0	0
2-5	12	31.6	2	5.3
6-10	7	18.4	8	21.0
11-15	5	13.1	7	18.4
15-20	1	2.6	5	13.1
>20	6	15.8	16	42.1
Total	**38**	**100***	**38**	**100***

**Rounded to whole number*

The mean number of years working in the current organisation was 8.13 and in health 19.46. About half the respondents had been employed in their current position for five years or less but half had worked in health for over 20 years. This was similar for male and female respondents. Seven had only worked in their current position for up to a year, but all had worked in the health field for much longer. All had supervised new graduates in the last three years.

Rating of employability skills

Overall mean scores for the four sub-scales comparing importance (the lower bar) of ES and skills observed in recent graduates (the upper bar) are depicted in Figure 1. In particular, this graph shows that actual skills observed were less than required on all items.

Interpersonal and communication skills (ICS), self-management and critical thinking were the most important ES for new graduates according to senior New South Wales health managers. Job skills and industry knowledge were less important. The biggest gap between rating of importance and observed skill level was for ICS. Each sub-scale will now be presented in turn.

In the self-management sub-scale shown on Figure 3, the most important ES of any in this study emerged: integrity and ethical conduct with a mean score of 3.91. After this flexibility and open mindedness, self-awareness, time management and lifelong learning were rated as highly important. The biggest gaps were for the same four items, the smallest gap was for tertiary qualifications. Experience in management and career planning skills were least important and also ranked lowest for skills observed.

Figure 1: Comparison of ES scales importance and observed skills in recent graduates

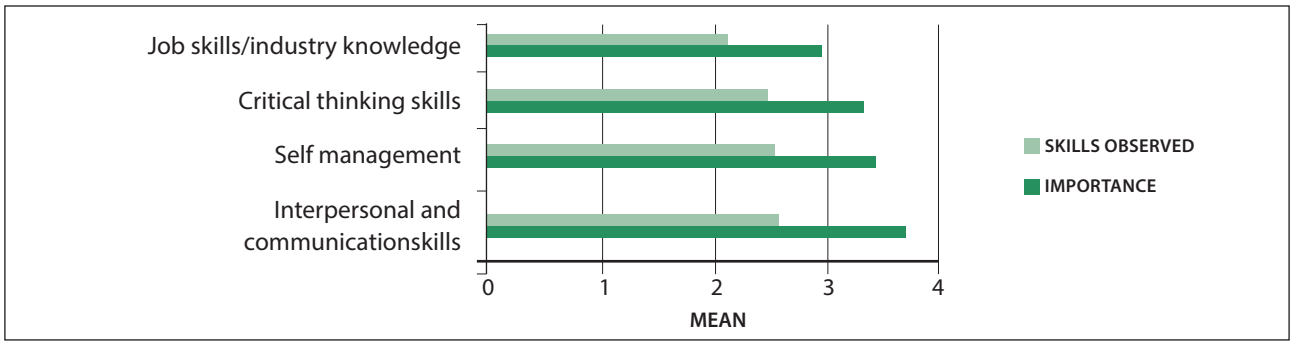


Figure 2: Importance of communication skills and rating of observed skills

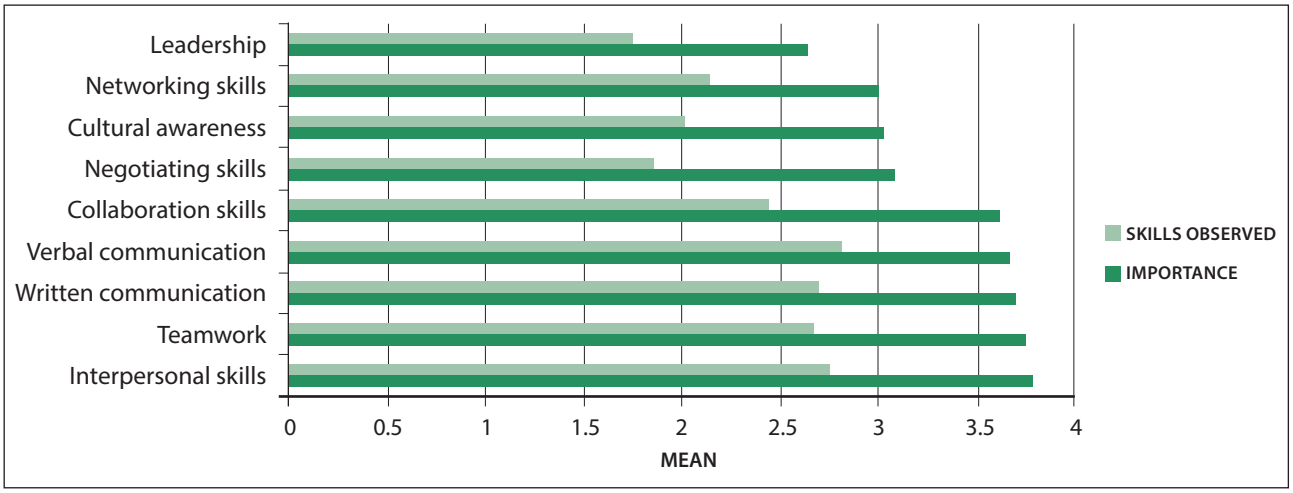


Figure 3: Importance of self-management and rating of observed skills

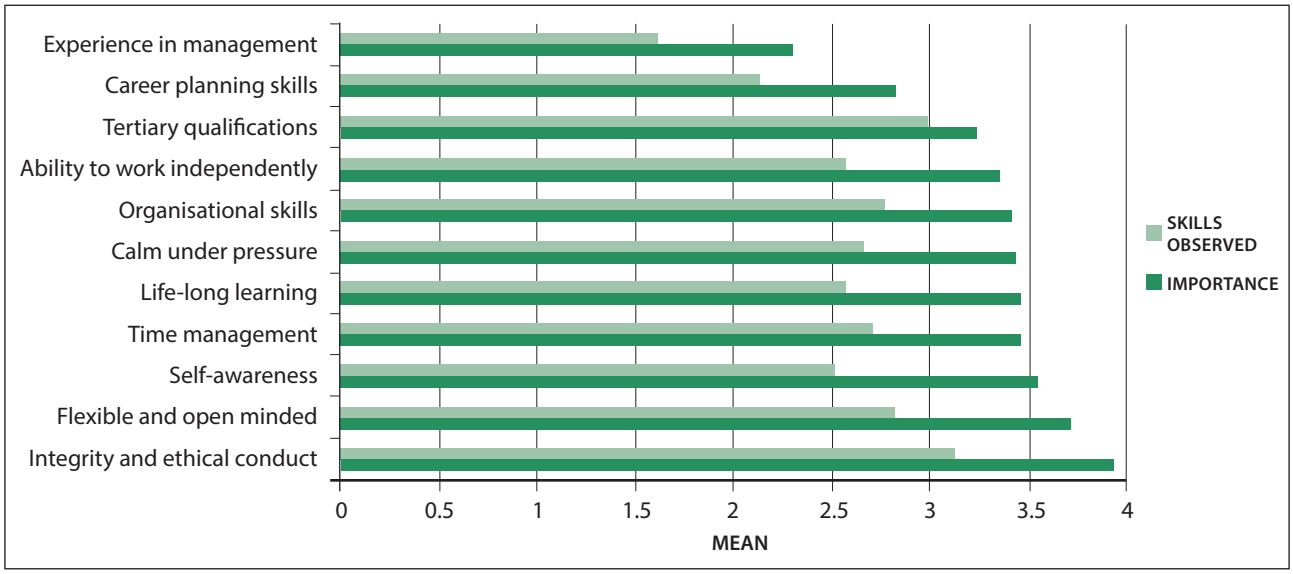
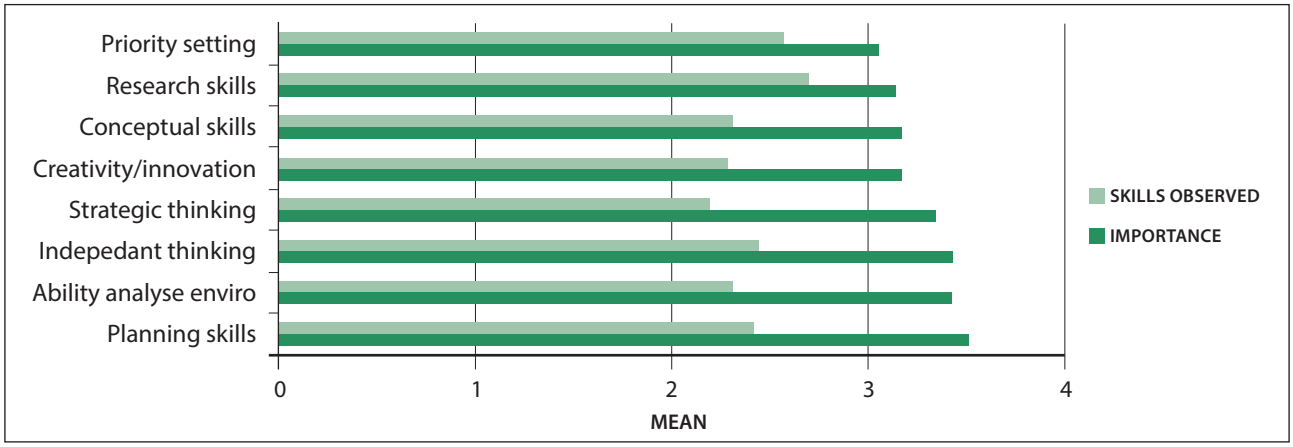


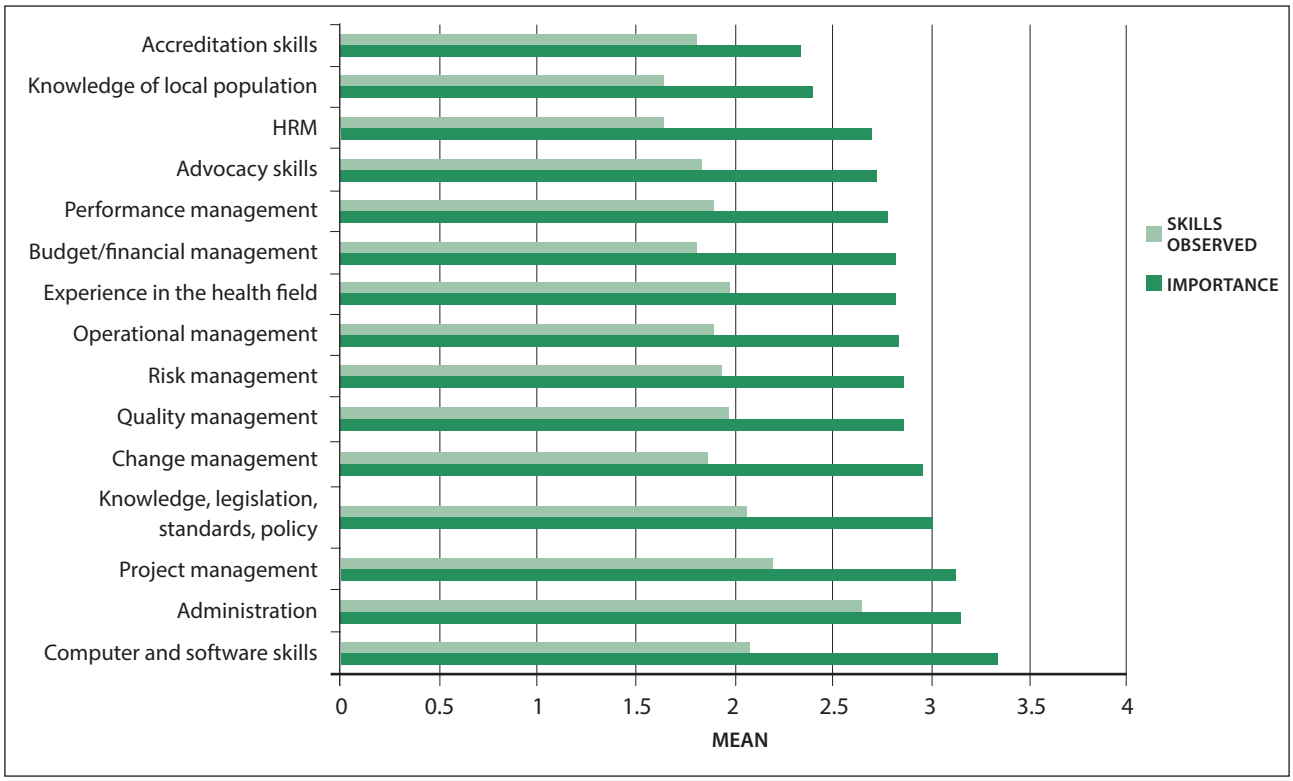
Figure 4: Importance of critical thinking skills and rating of observed skills



For the critical thinking skills sub-scale, importance rankings were all above a mean score of three. The most important aspects were planning skills, independent thinking, ability to analyse the environment and strategic thinking. The biggest gaps in observable skills were also for these items, the smallest for research skills and priority setting.

Lastly, Figure 5 shows the most important job skills and industry knowledge items as computer and software skills, followed by administration skills, project management then knowledge of legislation, standards and policy. The biggest gaps were for computing and software skills, budget/financial management skills, change management and project management. The smallest gap was for administration.

Figure 5: Job skills and industry knowledge importance and observed levels



Open-ended questions

Two thirds of respondents stated that the most important characteristic of the more successful graduates was willingness to learn eg, taking extra jobs, seeking help, being able to follow advice, listening and receiving feedback, showing interest and avoiding reasons for not doing something, keeping abreast of broader issues and reading the newspapers daily, 'rather than just Facebook'. Taking the 'less glamorous jobs' and not being 'precious' were also stated. ICS was important according to one third of managers, also being flexible and easy to get along with and pleasant. A quarter of managers wrote being open-minded, adaptable, open to opportunities and being willing to take risks and 'give it a go'; analytical skills, problem solving and decision making; being professional, prompt, courteous and reliable; requiring minimal supervision, excellent time management and able to meet deadlines. Lastly strong work ethic and being motivated was mentioned by 20% of managers. These characteristics would all be considered generic ES.

Given that preliminary findings from this study were presented at the Asia Pacific Congress on Health Leadership, Canberra August 2013, clarification of senior health managers' understanding of the word 'leadership' was sought. Just over half of the respondents stated this meant the ability to achieve a shared vision, being future oriented or selling strategies and business goals, and influencing/inspiring others to engage in that vision. Motivating, mentoring and encouraging employees, investing in team members and bringing out the best in people to achieve goals and celebrating accomplishments was noted by a quarter of managers. Leaders were seen as learning focused for themselves and others. Acting as a role model and leading by example were mentioned by a third of managers. Similar numbers said showing integrity, 'consistent behaviour' and making transparent decisions was important. Few (five) mentioned that leadership meant planning a vision, taking the initiative, being innovative and strategic, achieving change or searching out opportunities for improvement. Two noted that a leader could be anyone willing and able to drive improvement. One off comments included technical skills, working hard, showing perseverance, ability to say 'no', displaying corporate values in all interactions with stakeholders, being competent and having excellent communications skills. No one mentioned the difference between leadership and management.

Discussion

The top ten ES in terms of importance to senior health managers in New South Wales were: integrity and ethical

conduct, interpersonal skills, teamwork, being flexible and open minded, written then verbal communication skills, self-awareness, collaborative skills, planning skills and in equal tenth rank time management and life-long learning. These would be considered generic skills [5,13] and not job specific skills. Clearly communication skills were confirmed as the most important ES for new health graduates consistent with findings for all graduates from Graduate Careers, 2014. [3] Teamwork was also important and not an entirely surprising finding [8, 10] given the way health work is organised into multi-disciplinary teams. The primacy of integrity and ethical conduct may reflect social desirability bias but recent research has also showed that integrity is growing in importance [15, 16].

Collaboration, self-awareness and planning skills could be included in vacancy advertisements and ways found to assess these skills in interviews.

The bottom ES from last rank up were experience in management, accreditation skills, knowledge of local population, leadership, HRM, advocacy skills, performance management, budget/financial management, operational management and risk management. Many of these skills are covered in HEI curriculum. However, such skills may be better developed in context on the job.

The low importance given to leadership is consistent with other Australian findings [3,13] suggesting it is not expected of recent graduates. Leadership skills were considered to be the least important selection criterion to graduate employers in the Graduate Careers Australia report, 2014, [3] because employers viewed this as a skill that can be fostered once a graduate begins employment. In this study, senior health managers' understanding of the concept was more about the outcome of achieving a shared vision and motivating others to this end and less about planning a vision. Possibly they were not looking for leadership qualities in new graduates for this reason. If the more successful health graduates could be considered the potential leaders of the future, it appears that generic ES and personal characteristics are more important than positional characteristics especially willingness to learn and good communication skills.

Implications of the study

HE would be most interested in the gap between ratings of ES importance and observed skills in recently appointed health graduates. The largest gaps were found for teamwork, written skills, collaboration, negotiation, cultural awareness, computing and software skills eg, use of Excel, strategic thinking, ability to scan the environment and self-awareness. Other than written skills, these may not be considered the traditional skills taught by HEIs but rather generic skills which are the skills employers of health graduates want on the job.

Closer partnership with HEIs through employment placements can facilitate student ES development and employment outcomes. Although all respondents supervised recent graduates, one third did not take undergraduate placements. A fifth lectured at UWS, five gave course advice and five participated in research. Clearly many opportunities for greater involvement with HE exist.

Comparison of the results of this survey with findings from analysis of ES listed in the job advertisements study [8] revealed some interesting differences. Once a job is secured emotional intelligence eg, self-awareness, critical reasoning and analytical skills become more important than academic qualifications, previous work experience and knowledge of the health industry. Yet these were frequently listed as essential in public sector vacancies.

Tertiary qualifications were a threshold requirement but not enough alone to secure employment in health. This confirms previous findings [1,4,6,7] that skills required to get a job are not necessarily the same as skills required on the job. Interpersonal, communication skills and teamwork were the exception and may be the ES [5] that indicate potential for further learning. Findings call into question the selection criteria used for vacancies: planning skills, collaboration and teamwork should also be included to help employers find more suitable applicants. Less emphasis on experience may also help close the skill shortage.

Furthermore, the characteristics observed in the more successful graduates reflected advanced generic skills namely communication skills, being flexible, open minded and self-aware. However, health managers also want new graduates who require minimal supervision, self-starters with a good work ethic. Again these characteristics may be included in vacancy advertising and ways found for them to be assessed at interview.

Further research

Limitations of the study are that senior health managers in New South Wales only were surveyed and the sample size was small, which limits generality of the findings. It was also limited to managers who supervise students of UWS. A larger replication study across Australia of managers who supervise students of other health management courses is warranted to confirm findings. Larger numbers would also

permit more sophisticated data analysis and verification of sub-scale items. These items were largely based on the study of health management vacancies, in New South Wales only. Again a larger replication study is needed. Furthermore, selection criteria could be evaluated for value in predicting employment success over the longer term, rather than just for recent graduates in the last three years. Lastly, to complete the picture, views of graduates themselves need to be considered.

Conclusions

For the New South Wales health arena there are some pertinent findings about skill gaps that both employers and HEIs can address. Also selection criteria to find suitable applicants need closer consideration. Promotion of characteristics of the more successful graduates, a combination of positional and personal qualities is something all stakeholders can strive to develop. The match of supply and demand can be facilitated by the ES agenda, and used by HEIs to improve graduate employment outcomes. ES can also be better used by health management employers in employee selection as well as ongoing performance measurement. [1]

Competing interests

The authors declare they have no competing interests.

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RESEARCH ARTICLE

Pharmacists as Managers: what is being looked for by the sector in New Zealand community pharmacy?

S Ram, M Jensen, C Blucher, R Lilly, R Kim and S Scahill

Abstract

Aim: To identify employers' requirements when recruiting a pharmacy manager and evaluate the critical skills, knowledge and abilities sought.

Methods: Thirty to sixty minute, semi-structured interviews were carried out with employers of pharmacy managers (n=12) within the pharmacy sector in urban and semi-rural Auckland. Interviews were transcribed and thematically analysed.

Findings: The key domains that employers look for in pharmacy managers include humanistic characteristics of professionalism, empathy, trust and integrity. Important technical aspects such as clinical expertise, business acumen as well as leadership skills were sought.

Conclusion: Human (eg, communication skills to manage and motivate) and technical skills (eg, knowledge of pharmaceuticals) seem to be well recognised and articulated with conceptual skills (eg, executive and strategic skills) less so. The use of external consultants to manage pharmacies was dominant. The tension between being a healthcare provider and a retail business was manifest, which has implications for policy and future management practice. Further research in the area of leadership orientation within different models of pharmacy service delivery will be of benefit.

Abbreviations: AMS – Anti-Coagulation Management Services; CPD – Continuing Professional Development; DHB – District Health Board; MOH – Ministry of Health; MUR – Medicine Use Review; OTC – Over the Counter; PHO – Primary Health Organisations; TYV – Ten Year Vision.

Key words: Leadership; managers; community pharmacy; professionalism.

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What is already known?

Based on the dual nature of community pharmacy (as retailer and health professional) it seems rational that in order to be successful as a pharmacy manager under the current model of care, it will be necessary to maintain a balance between providing health-related care and steering a sustainable business.

What this study adds

There is much literature about the clinical 're-professionalisation' of community pharmacy, but less so about the management of community pharmacy services, particularly in New Zealand. The ability to control and coordinate an organisation's resources, provide prospects of growth and development of the profession, maintaining good relations with others and applying problem solving skills were found to typify effective pharmacy managers. However, do we look for these skills when recruiting pharmacy managers?

This study adds an understanding of what the sector is requiring of pharmacy managers in a turbulent policy driven environment.

Introduction

Clinical decisions have financial implications and the provision of healthcare must be well managed from fiscal and clinical perspectives. Individual practitioners, and the system as a whole, are expected to deliver high quality care within a defined budget. [1-3] The New Zealand Ministry of Health (MOH) provides overarching healthcare policy, [4-7] and a fiscal envelope for 23 District Health Boards (DHBs) with devolvement of some funding to Primary Health Organisations (PHOs) to provide health services to geographical populations.

As with general practice, community pharmacy is a significant provider organisation within the New Zealand primary healthcare sector. There are parallels that can be drawn between community pharmacy and general practice; particularly the nature of clinical service provision alongside the need to operate a profitable and viable business via sustainable service delivery models. Community pharmacy has been described as being dual in nature; as a retailer and as a healthcare provider. [8-10]

General practice can also be considered in this way, the subtle difference is the retail versus capitation-based funding which can make up the bulk of income in general practice.

In some regions of New Zealand, DHBs have implemented medicine use review (MUR) services where pharmacies are paid a set fee to manage patients at high risk of medicines non-compliance. There are also national initiatives being implemented as the result of successful pilot studies in clinical areas such as anti-coagulation management services (AMS). [11, 12] Income is also generated through retail sales in community pharmacy, either of 'over the counter' medicines (OTC) or through the sale of other medical and non-medical retail items. Based on the dual nature of community pharmacy it seems rational that in order to be successful as a pharmacy manager under the current model of care, it will be necessary to maintain a balance between providing health-related care and ensuring a sustainable business. [1-3]

Pharmacists are expected to be involved in medicines management, provision of patient-focused care, medicine monitoring, counselling and advice on medicines information in compliance with the professions competence standards. [13-15] There is literature around the clinical 're-professionalisation' of community pharmacy in New Zealand, [16] along with an understanding of what constitutes an effective community pharmacy [17] but less so about the management of community pharmacy services, particularly in the New Zealand context.

Following international trends, pharmacy ownership legislation has changed in New Zealand resulting in different models of ownership and the emergence of the nonowner pharmacist manager. [18, 19] Pharmacists may have a majority share in no more than five pharmacies but are permitted to have a minority share in any number of pharmacies. The requirements of an effective community pharmacy manager under current policy drivers has not been explored in the New Zealand context but there is a limited international literature to draw on; mainly from the United States. [1,20-22] Latif et al highlight three crucial components which are needed for managerial success in community pharmacy: behaviour, skill set and motivation. [20] Behaviour of pharmacy managers was found to be important as management skills are inextricably linked to management's ability to interact with other people. The ability to control and coordinate an organisation's resources, provide prospects of growth and development of the profession, maintaining good relations with others and applying problem solving skills were found to typify effective pharmacy managers. [20]

In another study, the competence to make executive decisions, the management of human resources, the capability to develop and lead a high performance team of professionals, and interpersonal skills, comprising of a range of effective communication skills, was considered to be the most valuable set of skills required for an effective pharmacy leader. [23] Meadows et al defined the concepts for managerial success as one's capacity to have certain skills, knowledge and abilities.

Skills were defined as technical expertise; knowledge was referred to as the collective possession of facts and principles while abilities designated physical, mental or legal powers. [22] Based on the lack of literature in the New Zealand context, the work of Meadows [12] and Latif [20] has been used as a framework for this paper with the objectives outlined following.

Objective

- To identify employers' requirements when recruiting a community pharmacy manager;
- To determine and evaluate what critical skills, knowledge and abilities are required for a community pharmacy manager working in New Zealand.

Method

Study population

Semi-structured interviews were carried out with employers (n=12) of pharmacy managers within the pharmacy sector in urban and semi-rural Auckland. Auckland city was chosen as it is the largest city in New Zealand and the research institution is located there. A purposive sampling method was used to identify a list of participants. [24] Franchise pharmacies included: UnichemTM, AmcalTM, Life PharmacyTM, Care ChemistTM and Radius PharmacybrandsTM [25] with at least one interview from each of these different brands being conducted, as well as representatives from independent pharmacy owners and semi-rural pharmacy owners. Non-pharmacist managers involved in the recruitment of pharmacy managers were included as potential participants.

Interview schema

Face to face, semi-structured interviews were conducted to gain a deep and rich understanding of participant views. [26, 27] Questions were developed from the research questions and the literature including: roles, skills required to be an effective manager, how skills are acquired and what skills will be required to meet the future needs of community pharmacy?

Study sample

A purposive sampling method was used to compile the list of participants. [26] Participants were selected to include representation from:

1) Independent owners
2) Franchise owners (Amcal, Unichem, Life Pharmacy, Care Chemist)
3) Community rural pharmacists
4) Pharmacybrands managers
5) Pharmacy recruitment managers

Management staff from Pharmacybrands Limited were chosen as this was the largest retail pharmacy group in New Zealand representing at least 303 of approximately 900 pharmacies operating throughout the country at the time of study. [25] These included the Unichem, Amcal, Life Pharmacy, Care Chemist and Radius Pharmacybrands. [25] Also included in the cross section of study participants was at least one semi-rural pharmacy manager to determine if any differences existed in requirements for managers in these areas as compared to urban areas. The participants were invited to participate over the telephone and the participant information sheet together with information about the interview was emailed to the participant. Where participants declined to participate, another participant was chosen based on similar demographics. As qualitative research is based not on sample size but data saturation, interviews were undertaken until no further new opinions or themes were expressed. [28] Data saturation was reached at 12 interviews.

Interview pilot

Piloting of the interview schema was carried out with a pharmacist to check suitability, wording and ordering of each question and allow changes to improve the schema. [28] This was an important part of the development process as small changes in the wording of an interview schema may elicit varied responses by participants. [29]

Interview process

Interviews were conducted by fourth year Bachelor of Pharmacy students undertaking a research project as part of the undergraduate Bachelor of Pharmacy degree at the School of Pharmacy, University of Auckland. The interviews were undertaken at the participants' place of choice and were approximately thirty minutes to one hour in duration. Two student researchers conducted each interview. One researcher was the primary interviewer, the other took notes and provided prompts if further information was necessary. Before commencing, the primary interviewer discussed the participant information sheet and the consent form was signed. The entire interview process was digitally recorded and transcribed verbatim. Once transcribed the audio tapes were deleted.

Ethics approval was obtained from the University of Auckland Human Participants Ethics Committee on 9 May 2011 for a period of three years with approval number 2011/C/010.

Theoretical framework for data analysis

Latif outlines crucial skill sets for pharmacy managers who assume managerial roles. [20] These categories provided the framework upon which the data set was made sense of. [20] The critical skill sets defining effective community pharmacy managers are: human, technical and conceptual. [20]

- ***Human skills*** include an ability to communicate with staff and patients effectively; good communication skills to manage and motivate a team to success.
- ***Technical skills*** include the theoretical knowledge in the pharmaceutical or business field and the ability to apply this knowledge.
- ***Conceptual skills*** include the ability to plan, organise and make executive decisions. Building relationships and connections with other people in management roles and the ability to use one's position to influence decision making for the benefit of the pharmacy. [22, 30]

Analytic process

The transcribed interviews were reviewed and coded by the individual researchers to gain a sense of the content and common themes arising using nVivo 9©. Within the domains of the theoretical framework, a general inductive approach was applied to derive emergent themes. [31] Individual researcher coding was compared and contrasted and consensus was reached on the labels of major themes and their content.

Results

Participant demographics

Participant demographics are provided in Table 1 and demonstrate that two-thirds of the participants were male and around the same proportion had undergraduate pharmacy qualifications (ie, are pharmacists).

Table 1: Participant demographics

	TOTAL (N)
GENDER	
Male	8
Female	4
QUALIFICATIONS	
Pharmacy Degree (Diploma/Bachelor)	8
Non-Health Related Degree	4
Degree in Both	1

Requirements of an effective pharmacy manager

The themes that emerged within the domains of the theoretical framework are outlined in Figure 1 and are described in the following sections.

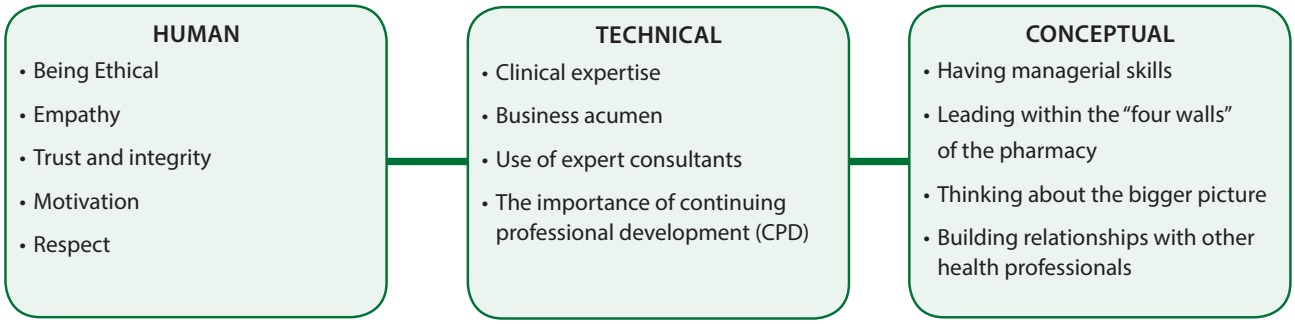
Human domain

Ethics

The participants stressed the importance of acting responsibly in managing a pharmacy as an ethical and profitable business. Pharmacists utilise their professional skills, and balance the business with standards whilst adding value to the healthcare outcome for patients.

> *So that as a manager's role you're making sure that the system, the business is delivering what is required as far as you know its ethical, it's professional, it's customer service oriented . . . it's run in an efficient way – that is profitable really. That's what it comes down to ultimately. All those things form part of the business but certainly the ethical and professional side is a very big part. That probably differentiates . . . pharmacy from other businesses if you like but it's no different to say a medical practice . . . you have to balance the professional side but obviously you have to . . . it's a business side as well . . . (Participant 6)*

Figure 1: Components of human, technical and conceptual domains



Empathy

The main personality traits for an effective pharmacy manager which were discussed by the participants were being motivated, driven, caring and empathetic, having a sense of humour and the right attitude. Of these traits, having the right level of empathy toward patients and staff was a recurring requirement.

You have to have a degree of empathy, to be empathetic with your customers, to be empathetic with your actual staff, to understand those actual issues (um) but you also at times have enough (um) emotional steel in you to be able to deal with situations that could be potentially unpleasant. (Participant 10)

Probably more importantly is (um) is sort of a caring attitude . . . most people that want to talk to a chemist usually have got a problem or want to know something so you've got to have knowledge and you've gotta have a bit of a caring attitude. (Participant 4)

They have to be relatively empathetic with people. (Participant 7)

Motivation

A pharmacy manager who is extroverted in character was a favoured quality with descriptions such as 'gregarious', having a 'bit of flair', 'self-confidence', 'having the X factor' and 'having a personality' and a 'passion for pharmacy' were used.

But actually, to me it's about personality. You know, have they got (um) a wide range of world view? Do they have a bit of spark? Bit of a bubble? You know?
Do they communicate well? (Participant 3)

With regards to interpersonal relationships, having good communication skills was mentioned by all participants. Additionally, the ability to relate to both patients and other staff along with providing good customer service were essential qualities.

You've got to be a good communicator I think. (Um) and you've got to be a good listener, know and understand people. (Participant 3)

You have to have some people skills. You have to have a sense of humour and you have to be able to engage and look at people and talk to people and you have to be able to listen. (Participant 5)

Having motivation and the ability to motivate the staff, especially to enable staff to work to their strengths was found to be a key component of an effective team leader.

So we are looking for I suppose their drive, achievement and drive in a person, (um) customer attitude, team building, coaching and developing people. (Participant 9)

I think you need to empower people. Give people roles and responsibilities and things but not so that they drown, you know? So you don't want to feel like you're totally bogged and you can't cope but people need to have meaning in what they do and I think that's really important. (Participant 3)

Being driven was also seen by participants as important as was managing one's self and self-discipline.

. . . Self development so knowing themselves what are their opportunities and strengths. (Participant 9)

Creating an environment where people work together as a team to get the best out of staff was also identified as an area that managers should excel in.

Taking people on a journey with you. (Participant 1)

Trust and integrity

Being trustworthy, honest and having integrity were traits identified by participants that effective managers need to demonstrate. Good ethical standards and professionalism were also deemed to be key characteristics.

One of the first things is honesty and integrity. (Participant 7)

. . . Personal integrity and ethics...having an inherent sense of right or wrong . . . (Participant 11)

. . . Professional standards and the ethical standards . . . ethics and the professionalism have to be the prime concern (Participant 6)

Respect

Respect towards others was also an attribute some participants mentioned:

A manager has to respect everyone's positions and what their needs are; so it's all about teamwork. (Participant 2)

I think you need to be patient with people; respect each individual and I can say I can probably find fault with everybody that works with me but they can probably find fault in me too. What's really important though is that we don't walk around those issues and we keep people working to people's strengths. (Participant 1)

Technical domain

Clinical expertise

Pharmacist managers were required to have strong pharmacy practice skills including accuracy of dispensing, medication and clinical knowledge.

> *Clinical knowledge and their qualifications, they would have to be a registered pharmacist . . . very effective drug management and have knowledge on clinical requirements in terms of drug management so that would be accurately fulfilling prescriptions (Participant 11)*

> *. . . Firstly I would look at clinical skills... (Participant 12)*

Business acumen

Previous experience and knowledge, in relation to business acumen and clinical expertise were the two areas found to be highly sought after in order to be an effective pharmacy manager.

Most participants mentioned that business aspects should be equally balanced within the pharmacy managers' scope of practice.

> *Commercial acumen, so how they understand the market (um) do they understand how the contracts work as far as the dispensing side of the business, how do they understand retail, what's happening in the retail market, what are the drivers in retail, what are the bigger pictures that they are looking at. (Participant 9)*

> *Well, you obviously need business acumen, business skills but you also need people skills. (Participant 5)*

Financial acumen and human resources were key areas that were identified as lacking in pharmacy managers.

> *(Pharmacists) are very good technically because when they do, when you do your studies it's all around dispensing and ethics and technical side of dispensing pharmacy but really you don't have a lot of exposure to the business side of running a business, the whole picture. (Participant 9)*

One participant, however, mentioned that financial management skills were not crucial:

> *There is a computer programme that solves every financial problem basically and that's why you hire your accountant and that sort of thing. So I don't think you need to have budgeting skills or everything like that. So I employ a human resource manager. (Participant 2)*

The importance of continuing professional development (CPD), personal responsibility for professional knowledge and training and keeping up to date with continuing professional development was a theme that was also identified by participants.

> *Personal responsibility for their own personal knowledge and training and professional memberships with themselves but also encouraging their staff to continue their own development but it also perhaps, encouraging their retail staff to train ...continual up-skilling of everybody in the business. (Participant 11)*

Conceptual domain

Having managerial skills

Managerial skills, particularly being well organised, was an attribute that was mentioned. The ability to manage staff was also considered to be important, which relates to the attributes mentioned in the human domain.

> *To be an effective pharmacy manager, you have to be organised (um) you have to be professional (um) you have to be patient-orientated and you have to be able to manage staff (Participant 6)*

A key role for pharmacy managers was the ability to oversee all of the pharmacy operations.

> *To make sure all the operations run smoothly and if there are any hiccups, to try sort out them out. (Participant 4)*

Leading within the 'four-walls' of the pharmacy

Being able to bring people along with what you're trying to achieve and inspire and lead was another attribute most participants thought effective pharmacy managers should demonstrate. Leading by example, motivating staff, communicating well and being able to delegate tasks were seen as important. Critical reasoning skills and good judgement was also mentioned by participants in being able to drive the business forward.

> *I think it is very important to take people on that journey that they know what you are trying to achieve because most people actually want to come to work to do more than just come to work, they actually want to be part of something that is having some success. (Participant 1)*

Thinking about the wider perspective

Although, recognising the importance of influencing health funders, planners and policy makers, the wider perspective was not a critical trait sought in pharmacy managers.

> *The potential is to get the people in the health areas to realise what the potential of pharmacy is because umm pharmacy can save the health department huge amounts of money if used properly. (Participant 6)*

Building relationships with other health professionals

Most participants stressed the need for communication skills and the importance of building relationships with other healthcare professionals. Participants discussed working collaboratively with doctors and integrated family health centres, breaking down the barriers to communication and working together.

One participant mentioned that it was important for pharmacists to be able to manage change, to be a part of the change process. Another participant felt that being organised and having a vision for the future was important.

> *. . . Other main focus is that we're organised and we're driving forwards so that we've got a vision for the future and that we're implementing new services and striving to be better . . . (Participant 3)*

> *You're part of a healthcare jigsaw and you have to be able to relate to other parties well within that jigsaw . . . (Participant 6)*

Discussion

This study set out to identify employers' requirements when recruiting pharmacy managers based on a predetermined theoretical framework including human, technical and conceptual skills. [20] Within the human domain, themes included being ethical and motivated, having empathy, trust, respect and integrity. The technical domain included clinical expertise, business acumen, and the importance of continuing professional development. The conceptual domain included having managerial skills, leading within the pharmacy, thinking about the bigger picture and building relationships with other health professionals.

It is interesting to find that ethical behaviours and balancing the responsibilities of business pressures with providing healthcare with professionalism and high standards was viewed as important by most interviewees. This reflects the dualism of community pharmacy (as health provider and retail business) and surprisingly, there is relatively little literature addressing this notion and the potential tensions associated with it. It is unknown what influence this might have on pharmacy management. [8, 9] The findings from this study are consistent with local and international work. In studies from Arizona, Tennessee, [21] and Canada [32] respondents ranked the demonstration of ethical conduct in all activities related to pharmacy practice as the most important managerial skill. [21]

A case-based study of New Zealand community pharmacy found that organisational culture manifests as a dichotomy with aspects of 'business retailer' and 'healthcare provider'. This was the case even in effective community pharmacies. [9] This has an influence over the achievement of outcomes valued by staff who have different roles, which could present as a challenge for pharmacy management. [9] Humanistic characteristics of pharmacy managers were seen as crucial in order to be able to address patient and staff needs in this study. Communicating effectively, motivating, gaining respect, demonstrating team leadership within the pharmacy, and taking empathetic approaches were deemed important. Again this is similar to the Arizona [21] and Canadian [32] studies where communication was ranked the second most important managerial skill, while effective communication was ranked sixth in the Tennessee-based study. [21] A Canadian study highlighted that due to the complexity in the practice of pharmacy, pharmacists require a variety of adaptive and responsive strategies to meet the needs of the professional relationships they encounter on a daily basis. [33] A local case-based study suggested there is significant variation in management orientation in New Zealand community pharmacy and that the different orientations influenced the effectiveness of pharmacy organisations in different ways. [9]

Managers were required to have strong technical skills in pharmacy practice. Some interviewees assumed that a manager would be a pharmacist. Expertise in the practice of pharmacy, together with the humanistic qualities to lead was the most dominant theme identified by the interviewees. This may be due to the technical aspect of the community pharmacy setting, where managers are experts on the dispensary floor which is seen as critical for effective pharmacy management. On-the-job experience was identified as a leadership pathway of importance for current health system pharmacy leaders as the details focused nature of pharmacy is depicted in the managerial skills sought. [23] Pharmacy staff tended to train through professional socialisation looking for role models and exemplars in the profession to mentor staff members.

Managers were expected to have the ability to understand the key market drivers and to build relationships in order to work in an effective and collaborative manner with other healthcare providers. However, unlike the Arizona and Canadian studies [21,32] where having the skill of managing change effectively was ranked the third most important, this skill did not feature strongly in discussions from New Zealand and likewise was ranked lower, at ninth position, in the Tennessee study. [21]

Human and technical concepts dominated the requirements of future pharmacy managers; and this is reflected in the

conceptual domain being discussed less and not being as well developed as the other two domains. This may be based on pharmacists' training within a scientific frame although three conceptual factors that manifest in this study have been previously reported as part of the New Zealand Ten Year Vision (TYV) study. [34] These include: inward and narrow focus, lack of teamwork and poor relationships with other healthcare providers, lack of a professional voice and not taking the time to think about the future. [34] Pharmacy is currently facing critical challenges with respect to its own 'reprofessionalisation' and this study adds weight to the belief that community pharmacist managers may be good within their organisations and within the pharmacy [35, 36] sector, however will need to also focus on the wider area of primary care, and overcoming barriers identified by earlier studies such as clinical confidence and professional responsibility for decisions. [37] The authors expected there to be more discussion from participants about external professional leadership, realising the importance of influencing decision makers at the policy level and negotiation skills in assuring a professional voice and place in the healthcare system. This paper suggests that little has changed in terms of leadership focus since the TYV study in 2005, [34] with only one participant in this study alluding to the need to lead a long-term vision.

The findings of this study have significant implications for the change required in New Zealand pharmacy practice, through the aforementioned policy drivers. This study has significant implications for employment related activities and the community pharmacy workforce. Having an internal focus on staff is essential; it is an important aspect to being an effective community pharmacy. [17] However, strong leadership in order to have an external as well as internal focus is vital to engage stakeholders from the wider primary care sector. [17] Canada and the United Kingdom also experience this phenomenon. [38-41] Tsyuki applies Kotter's organisational change framework to community pharmacy and highlights the importance of leadership and a guiding coalition in pharmacy. [42] Neither of these two facilitators of change is predominant in this study. At the micro level (within individual pharmacies, as well as within the pharmacy sector) leadership within the pharmacy is reported to be adequate. At the level of the four walls of the pharmacy (micro)this study adds that the profession seems to know what it wants in this domain. At the meso level (ie, inter-professional and inter-organisational) where pharmacy needs to integrate with other health professionals and primary health organisations (PHOs), pharmacy leadership across this wider sector may be lacking. At the macro-level, where policy is developed and distributed to the meso level for implementation, this study suggests community pharmacy may be under-represented; which supports previous findings from the New Zealand TYV study. [34] This may reflect the organisational culture of community pharmacy from micro through macro levels, and raises the question as to whether the pharmacy sector effectively enculturates its managers to think at all levels. This is very important to pharmacy in New Zealand, with recognition that significant change does not occur in any sector of health until there is effective leadership and change management strategies at each of these levels (micro, meso, macro) simultaneously. [43] This paper presents implications for training pharmacists for the role of pharmacy manager and for the practice roles of pharmacy. The skills, knowledge and attitudes identified by participants as well as skills that haven't been identified would warrant further critical evaluation to ensure they are ready to serve the requirements. The findings from this study could be used to re-examine how academic and professional pharmacy leadership bodies and pharmacy organisations develop their managers and leaders into the future.

Study limitations

Despite the breadth of participants selected, the local generalisability of findings is a limitation of this study. [44] Although it is generally accepted that qualitative research is value-laden and less generalisable, [26] responses from 12 participants selected purposively to gauge a range of opinions may not reflect the views of the groups they are expected to represent. This study is context bound and although the pharmacy sector in New Zealand has similarities with other high-income countries, there are also differences. Caution should be taken when applying the findings of this study to the international context. Timing is also a consideration as often-times staff turnover is greater at the start and end of the year and so respondents may not be looking for staff or thinking about recruiting during the study months.

Methodologically a theoretical framework was posited based on the work of Latif et al and the data was analysed around this framework. [20] Although it is common practice to do this, the approach is reductionist [44] and there is a possibility of excluding responses that do not fit into the ascribed categories during analysis. [45]

On the other hand the framework provided a rational way to approach the analysis of a rich data set [26] and it is believed the benefits of this outweigh the potential risk of excluding important data.

Implications for future research

This study has raised as many questions as it has answered. This work provides a foundation for large empiric studies which will be more generalisable. Such work is expected to confirm or refute the issues raised by this manuscript across a representative cohort of the profession. One area that requires considerable work is better understanding the dualism of community pharmacy (as business retailer and healthcare provider) and how different models of pharmacy service provision are influenced by this. Although some work has been undertaken in the area of personality types of pharmacy practitioners and students there is little understanding of the influence of different leadership orientations on pharmacy progression. The assumption of this study was that the manager needs to be a pharmacist. However, exploring the non-pharmacist manager as per some general practice models will be beneficial. The recurring theme in the literature that pharmacists are more 'inward looking' than they should be in-order to integrate within the rest of the primary care sector and to influence funders, planners and policy-makers and the health policy development process requires greater focus.

Conclusions

This study set out to identify employers' requirements when recruiting community pharmacy managers based on a predetermined theoretical framework including human, technical and conceptual skills. Human and technical skills seem to be well recognised and articulated with conceptual skills less so. The tension between being a healthcare provider and a retail business may manifest and this has implications for policy and future management practice. It has been suggested that more international work be directed toward understanding this dualism. [9, 46] Further research in the area of leadership orientation within different models of pharmacy service delivery will be of benefit.

Acknowledgements

Thank you to our participants and to Arnold Hermiz for his contribution to the research project.

Competing interests

The authors declare that they have no competing interests.

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Appendix 1

Interview Schema

Demographic Questions:

What is your named position within this organisation?
What is the organisation?
What are your main roles?
What qualifications do you currently hold?
How many years' experience do you have as pharmacist?
How many years' experience do you have as a manager?

1. What is the main focus of the pharmacy manager within this organisation? (For example managing staff, patient care, profit, etc.)
2. What skills do you think are required to be an effective pharmacy manager?
   a) Why?
   b) How are these acquired?
3. What behaviours/personality traits do you think are required in order to make an effective pharmacy manager?
   a) Why?
4. Research suggests that certain people are naturally born leaders. What are your views on this?

a) Do you believe that leadership skills can be taught to anyone?
   b) Can these skills be acquired through experience?

5. When hiring for a pharmacy managers position. What to do you look for in a CV?
6. After the interview process, what factors would deter you from hiring a future pharmacy manager? (Will they fit in/group dynamics/appearance/personality/gut instinct etc.)
7. Does your organisation have any training programmes in place for pharmacy managers? If so what are these? We've talked about pharmacy managers here and now, we feel that pharmacy is an evolving profession. The last few questions are with regards to pharmacy in the future in New Zealand.
8. What direction do you see pharmacy in New Zealand taking in the future?
   a) Why?
   b) How?
9. Are there any extra skills that may be required to progress with this change? What are these skills?
10. How do you feel about recently qualified pharmacists being prepared for the development of the pharmacy manager role in NZ?
11. Do you feel that tertiary education for pharmacy students is preparing them with adequate management skills?)

REVIEW ARTICLE

Content Analysis of Mission, Vision and Value Statements in Australian Public and Private Hospitals: implications for healthcare management

S G Leggat and M Holmes

Abstract

Background: **Effective use of a mission statement has been linked with better organisational performance. We have seen increasing importance placed on mission statements in hospital accreditation and in performance reporting.**

Purpose: **The aim of this study was to document the content of the mission, vision and value statements of Australian hospitals to better understand the focus of mission statements currently in use. A secondary aim was to compare the content of the mission statements of public and private hospitals located in metropolitan and regional and rural areas.**

Methodology: **Mission, vision and value statements from 43 public and 16 private hospitals in one state in Australia were analysed in relation to 23 previously identified mission statement components.**

Findings: **The analysis revealed a focus on communicating purpose and enhancing legitimacy and identity by the Australian public hospitals. There were significant differences among public and private hospitals with the private hospitals showing a greater focus on competitive strategy and providing direction for staff in their mission statements.**

Practice implications: **While our findings are consistent with how public and private hospitals currently operate in the Australian health system, we suggest that both public and private hospitals can improve mission statement content.**

Key words: **Mission statement; public hospitals; private hospitals; vision; values.**

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Introduction

Mission statements have been shown to be an effective management tool to assist in enhancing organisational performance. [1-4] Mission statements can provide a sense of purpose, define behavioral standards, foster employee identification with their organisation, give greater definition to the interests of external stakeholders, inspire employees, refocus the organisation during a crisis, improve the resource allocation process, and improve Chief Executive Officer control. [2,5-7] Defined as 'a formal written document intended to capture an organisation's unique and enduring purpose, practices and core values', [8,p.41] the healthcare management literature suggests that a mission statement should highlight the purpose of the hospital and how

the staff are going to achieve that purpose. [6] Mission statements assist hospital staff to understand 'What is our purpose?', 'Who are we?' and 'Why do we exist?', providing focused direction, [1,9,10] and inspiring and motivating employees. [6,10]

Hospitals are required by legislation, regulation or departmental decree to have a mission statement. For example, in the State of Victoria in Australia, public health services under section 65ZF of the *Health Services Act* 1988 are required to have a strategic plan, and in order for a strategic plan to be approved, the guidelines require that a mission, vision and values statement be included as part of the plan. [11] Healthcare accreditation standards specifically recognise the role of the governing body in defining and measuring achievement of the mission and goals. [12, p.10] However the composition of a mission statement continues to be contentious decades after mission statements were introduced. [4,10] In the last 20 years, mission statements have been increasingly used to define and communicate the kinds of relationships that an organisation wishes to establish with each of its major stakeholder groups such as investors, customers, and employees, [13] and organisations are encouraged to post their mission statements on the Internet to communicate with key stakeholders and other interested parties at minimal cost. [14] While there is clear evidence of the need for proper inclusive processes in the development and communication of the mission statement, [7, 15] there is little conclusive evidence about the appropriate content for a mission statement to assist health care staff to understand their organisational role.

The first aim of this study was to document the content of the mission statements of Australian hospitals to determine the focus and use of existing mission statements by health care managers. We also aimed to determine whether there were differences between metropolitan and rural/regional (non-metropolitan) hospitals. In Australia, public hospitals provide around 60% of the required healthcare, with private hospitals providing the rest, [16] suggesting the need to examine the mission statements of both public and private hospitals. This led to a third study aim to compare the mission statements of public hospitals with those of private hospitals.

Conceptual framework

Within the literature there was agreement on three main management uses for mission statements:

1) To confirm organisational purpose and direction. Mission statements can ensure unanimity of purpose, resolving divergent views among managers [5, 6] and balancing competing interests of various internal and external organisational stakeholders. [17] This confirmation of purpose and direction provided direction for decision-making and resource allocation. [6, 17-19]
2) To inspire, motivate, direct and control employees. [6, 17, 20]
3) To arouse positive feelings [5, 21, 22] and legitimacy for the organisation. [18]

These three aspects are consistent with the framework for construction of public sector organisations, [23] and useful in public sector research. [24] This framework comprises Rationality (confirming purpose and direction), Hierarchy (directing and controlling) and Identity (positive feelings and legitimacy) and has been useful in the analysis of mission statements of universities. [25]

In 1999 Bart and Tabone identified 23 components of mission statements, ranging from basic statement of purpose through to concern for survival. Table 1 outlines the categorisation of each of the 23 Bart and Tabone mission statement components [9] in relation to the Rationality, Hierarchy and Identify components of the construction of public sector framework [23] as the basis for the mission statement evaluation. Each of the 23 mission statement components can make a contribution to advancing the Rationality (confirming purpose and direction), the Hierarchy (directing and controlling staff) or the Identity (positive feelings and legitimacy) of the organisation. This categorisation was used as the conceptual framework for this study, enabling comparisons among metropolitan and non-metropolitan hospitals and among public and private hospitals.

Method

This study built upon healthcare studies in Canada [1] and Belgium [7] where organisational representatives were asked to indicate the content of their mission statements in a survey. We extended the method by analysing the existing mission, vision and values statements (mission statement) of all public and private hospitals in one Australian state. The State of Victoria was chosen as it was the only Australian state with public hospital boards in operation at the time of the study. In the other Australian states the public hospitals were directly managed by the government health department, which suggested there may be less variation in the public hospital mission statements.

Table 1: Mission statement components categorised by construction of public sector framework

	MISSION STATEMENT COMPONENTS	RATIONALITY	HIERARCHY	IDENTITY
1	Statement of purpose	X		
2	Statement of values/beliefs		X	
3	Specific customers served	X		
4	Unique identity	X		
5	Concern for satisfying customers		X	
6	Distinctive competence/strength	X		
7	Products/services offered	X		
8	One clear compelling goal		X	
9	Desired public image			X
10	Concern for employees		X	
11	Specific behaviour standards		X	
12	Concern for society			X
13	Statement of vision			X
14	Desired competitive position		X	
15	Specific non-financial objectives		X	
16	General corporate level goals		X	
17	Concern for stakeholders		X	
18	Location of business	X		
19	Competitive strategy		X	
20	Specific financial objectives		X	
21	Technology defined		X	
22	Concern for suppliers		X	
23	Concern for survival			X
	Component Count	**6**	**13**	**4**

Many hospitals around the world include mission, vision and values in their mission statement package and therefore to be as comprehensive as possible, the mission statement was defined to include mission, vision and value statements of the hospitals.

The mission, vision and values statements were downloaded from the hospital websites in 2009, and a review in 2014 found no material changes in the mission statement contents.

Each mission statement component was analysed by two researchers on a scale where:

1 = statement does not include component;

2 = statement includes the data component in vague terms;

3 = statement includes the component in specific terms.

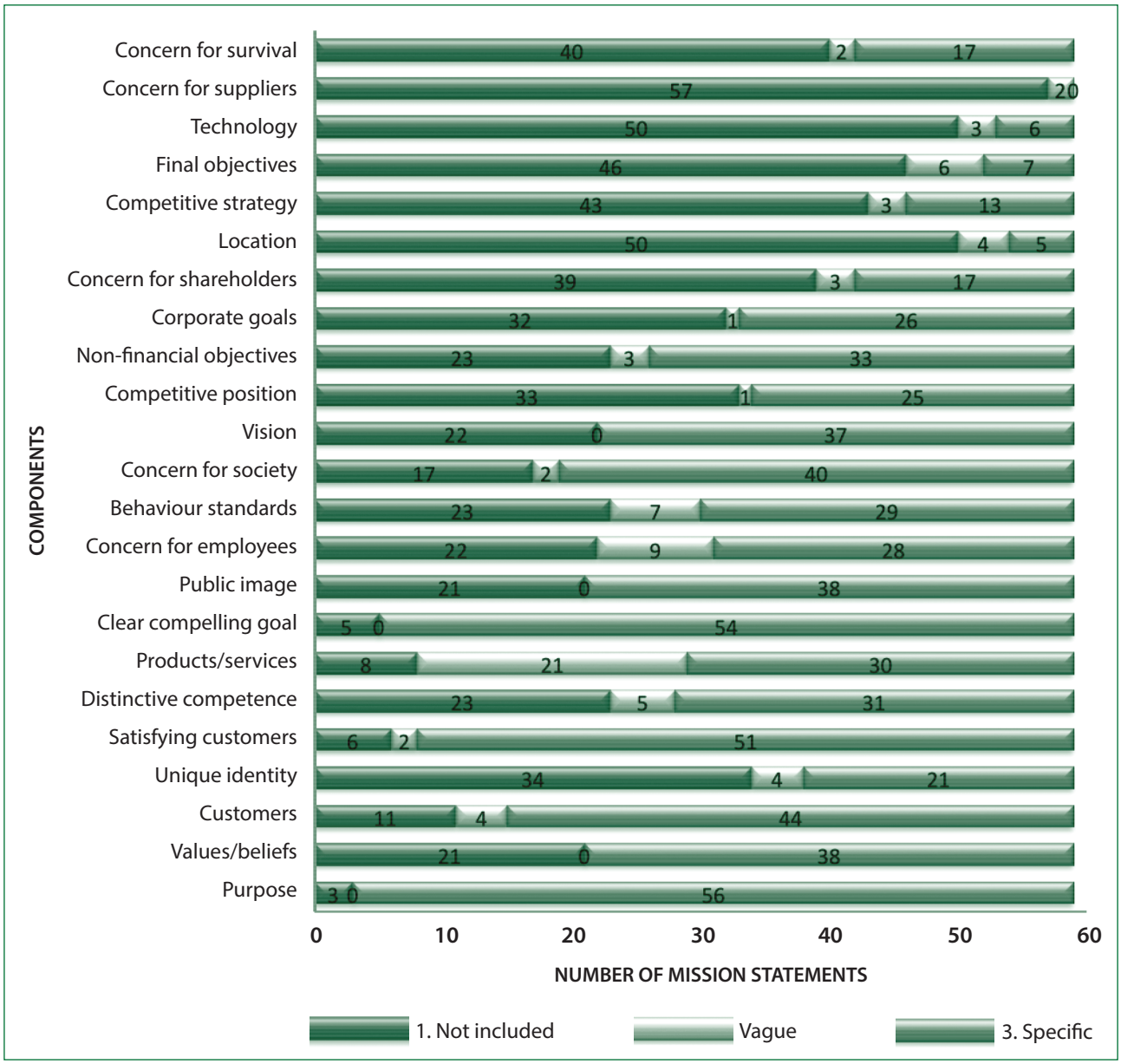
Discrepancies would be referred to a third independent researcher, with the majority score included in the data.

Results

The final sample included 59 hospitals: 14 metropolitan public hospitals, 29 non-metropolitan public hospitals, nine private metropolitan hospitals and seven non-metropolitan private hospitals. In Victoria, the metropolitan public hospitals were amalgamated into 14 health services in 2000, which explains the larger number of public hospitals outside of the metropolitan area. The private hospitals comprised both independent and corporate hospitals that were part of Australian private hospital organisations such as Ramsay Health, Healthscope and St John of God Health Care.

Throughout the State there are public hospitals that provide some private services, as well as private hospitals that provide public services, in all cases these hospitals were analysed in relations to their ownership. In some cases the mission, vision and values were provided only for the parent organisation and in some cases each of the hospitals

Figure 1: Mission statement component ratings



had its own statement. Figure 1 illustrates the distribution of scores assigned to each mission statement component for all mission, vision and values statements analysed.

There were no discrepancies between the two researcher ratings and therefore none of the ratings was referred to the third researcher. As illustrated in Figure 1, none of the mission, vision, and values statements included all of the 23 components. On average, the hospital mission statements contained 10.9 of the 23 mission statement components.

The top five most common components in order of frequency were *statement of purpose, one clear compelling goal, concern for satisfying customers, identification of specific customers,* and *concern for society*. The five least used components were *concern for suppliers, technology defined, location of the business, specific financial objectives and competitive strategy*.

Table 2: Kruskal-Wallis test results

MISSION STATEMENT COMPONENTS	CHI-SQUARE	DF	P VALUE
Statement of purpose	1.157	3	.763
Statement of values/beliefs	4.236	3	.237
Specific customers served	9.337	3	.025
Unique identity	17.006	3	.001
Concern for satisfying customers	.059	3	.996
Distinctive competence/strength	7.050	3	.070
Products/services offered	3.259	3	.353
One clear compelling goal	3.433	3	.330
Desired public image	1.997	3	.573
Concern for employees	.231	3	.972
Specific behaviour standards	.497	3	.919
Concern for society	2.601	3	.457
Statement of vision	7.588	3	.055
Desired competitive position	.879	3	.830
Specific non-financial objectives	1.427	3	.699
General corporate level goals	.941	3	.816
Concern for shareholders	4.706	3	.195
Location of business	10.727	3	.013
Competitive strategy	4.092	3	.252
Specific financial objectives	8.934	3	.030
Technology defined	4.789	3	.188
Concern for suppliers	1.144	3	.766
Concern for survival	3.172	3	.366

A Kruskal-Wallis analysis of variance revealed that there were significant differences ($p<0.05$) in the scores of five mission statement components (specific customers served, unique identity, statement of vision, location of business and specific financial objectives) between the metropolitan private, metropolitan public, rural private and rural public hospitals (Table 2). The components with significant differences are shaded in.

The Mann-Whitney U test was performed on the mission statement components that had a p value ≤ 0.10 in the Kruskal-Wallis test. [26] Table 2 shows the results from the Mann-Whitney U tests that revealed nine components with significant differences ($p< 0.05$) and two more approaching significance ($p=0.054$ and 0.057) in the shaded rows.

Five of the comparisons showed differences between metropolitan and rural hospitals of the same type and three comparisons showed differences among public and private hospitals.

Differences between metropolitan and non-metropolitan hospitals

Metropolitan public hospitals were more likely to include their unique identity and distinctive competence/strength than non-metropolitan public hospitals. Non-metropolitan public hospitals were more likely to include their location in their mission statement than the metropolitan public hospitals. The non-metropolitan private hospitals were more likely to include specific financial objectives and to a lesser extent, statement of vision, than the metropolitan private hospitals.

Differences between public and private hospitals

Non-metropolitan public hospitals were more likely to include specific customers served and statement of vision than the non-metropolitan private hospitals. Non-metropolitan private hospitals included specific financial objectives significantly more than metropolitan private and non-metropolitan public hospitals. The private hospitals, similar to the metropolitan public hospitals, included unique identity and distinctive competence/strength, more

Table 3: Mann-Whitney U test results

MISSION STATEMENT COMPONENT	TYPE OF HOSPITAL 1 (M RANK, N)	TYPE OF HOSPITAL 2 (M RANK, N)	Z SCORE	P VALUE
Specific customers served	MPr (10.28, 9)	MPu (13.11, 14)	-1.21	.261
	MPr (8.39, 9)	RPr (8.66, 7)	-.117	.907
	MPr (13.28, 9) R	Pu (21.43, 29)	-2.708	.007
	MPu (11.61, 14)	RPr (9.79, 7)	-.768	.442
	MPu (19.46, 14)	RPu (23.22, 29)	-1.436	.151
	RPr (13.79, 7)	RPu (19.64, 29)	-2.043	.041
Unique identity	MPr (13.72 ,9)	MPu (10.89, 14)	-1.130	.259
	MPr (9.22, 9)	RPr (7.57, 7)	-.855	.392
	MPr (29.06, 9)	RPu (16.53, 29)	-3.630	.000
	MPu (10.96, 14)	RPr (11.07, 7)	-.042	.967
	MPu (29.11, 14)	RPu (18.57, 29)	-3.127	.002
	RPr (24.86, 7)	RPu (16.97, 29)	-2.354	.019
Distinctive competence/strength	MPr (11.94, 9)	MPu (12.04, 14)	-.037	.970
	MPr (8.44, 9)	RPr (8.53, 7)	-.065	.948
	MPr (24.50, 9)	RPu (17.95, 29)	-1.743	.081
	MPu (10.96, 14)	RPr (11.07, 7)	-.045	.964
	MPu (27.57, 14)	RPu (19.31, 29)	-2.242	.025
	RPr (23.21, 7)	RPu (17.36, 29)	-1.507	.132
Statement of vision	MPr (9.06, 9)	MPu (13.89, 14)	-1.928	.054
	MPr (6.78, 9)	RPr (10.71, 7)	-1.906	.057
	MPr (12.22, 9)	RPu (21.76, 29)	-2.655	.008
	MPu (10.75, 14)	RPr (11.50, 7)	-.319	.749
	MPu (20.82, 14)	RPu (22.57, 29)	-.537	.591
	RPr (18.36, 7)	RPu (18.53, 29)	-.052	.959
Location of business	MPr (12.00, 9)	MPu (12.00, 14)	.000	1.000
	MPr (8.50, 9)	RPr (8.50, 7)	.000	1.000
	MPr (15.00, 9)	RPu (20.90, 29)	-1.871	.061
	MPu (11.00, 14)	RPr (11.00, 7)	.000	1.000
	MPu (17.50, 14)	RPu (24.17, 29)	-2.301	.021
	RPr (14.00, 7)	RPu (19.59, 29)	-1.661	.097
Specific financial objectives	MPr (11.44, 9)	MPu (12.36, 14)	-.441	.681
	MPr (5.00, 9)	RPr (13.00, 7)	-3.561	.000
	Mpr (21.00, 9)	RPu (19.03, 29)	-.790	.430
	MPu (9.57, 14)	RPr (13.86, 7)	-1.725	.084
	MPu (24.46, 14)	RPu (20.81, 29)	-1.393	.164
	RPr (25.57, 7)	RPu (16.79, 29)	-2.877	.004

Abbreviations: metropolitan private (MPr); metropolitan public (MPu); rural private (RPr); rural public (RPu)

than non-metropolitan public hospitals. Although not quite significant the metropolitan public hospitals were more likely to include statement of vision than the metropolitan private hospitals.

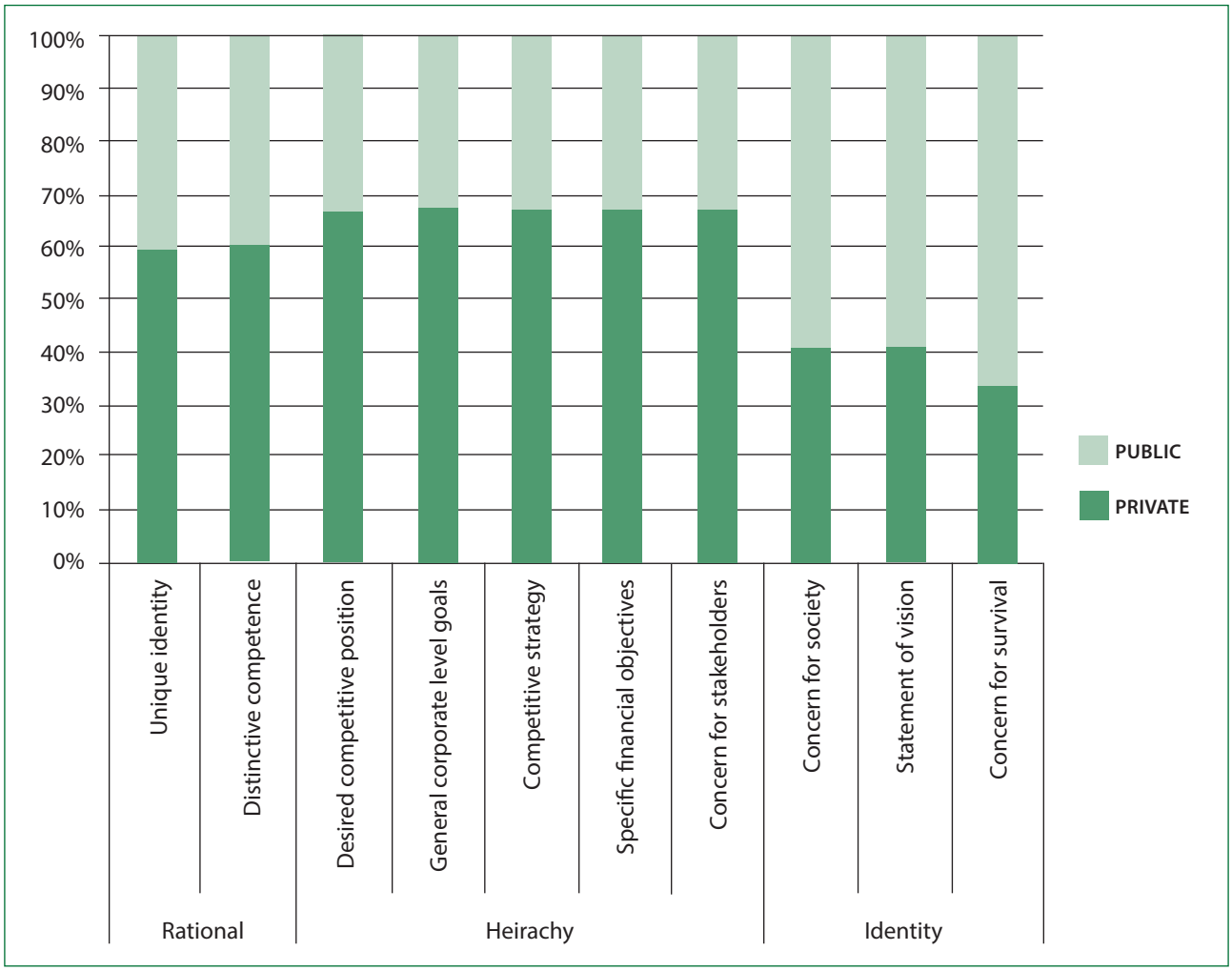
Discussion

The first finding of this study was that the content of mission statements has not changed since the earlier studies in the 1990s enabled the construction of the framework of mission statement components. We did not find any aspects of the mission, vision and values statements that were not covered in the Bart and Tabone (1999) framework, and as expected, none of the hospital mission, vision and values statements in this study contained all 23 components. In addition, the content of these Australian hospital mission statements was largely consistent with the findings of hospital studies in Canada in 2004 [1] and in Belgium in 2007. [7]

Public and private hospital mission statement components

About half of the mission statement components had the same frequency in the public and private hospitals and about half were different. There were 13 items, out of the total 23 (57%), with the same scores for both public and private hospitals. This included ten items where the component was included in specific terms and three components that were included very infrequently. This left ten components with differences between the public and private hospital mission statements (Table 4). Of the ten items with specific statements recorded for both public and private hospitals, three (out of a possible six) were related to Rationality items; six (out of a possible 13) were related to Hierarchy items; and one (out of a possible four) was related to Identity. There were three items that neither public nor private hospitals tended to include in the mission, vision and values package: location of the business (Rationality) and technology and concern for suppliers (Hierarchy).

Table 4: Mission statement components with public private differences in median score



As outlined in Table 4, the private hospitals demonstrated a significantly greater focus on Hierarchy or direction for staff while the public hospitals appeared to have a greater focus on the Identity items.

Despite the suggestion that mission statements are largely directed to an internal audience, [13] in our study the mission statements of the public hospitals were focused outwards. We believe that this is because the pressures for mission and strategy in the public sector come from outside the hospitals, through government regulators and accreditation agencies. Public hospitals appeared to focus on how they are meeting government policies and directions. In comparison private hospitals are not solely reliant on government funding, and gaining legitimacy is less important than for public hospitals. However implementation of the competitive strategy is essential for the survival of the private hospital. This appears to result in greater attention paid to the Hierarchy mission statement components to ensure achievement of the competitive strategy and less concern for Identity in the mission statement. Results from similar studies in other countries found concentration on the same mission statement components. [7,10]

The evidence from studies exploring mission and organisational performance in public sector organisations suggest that this outward focus among public hospital mission statements may be detrimental. Moynihan and Pandey [27] found that public sector organisations where managers perceived that they received sufficient internal communication on strategic direction, organisational tasks and performance feedback were more likely to have a strong focus on results, as compared to those organisations with more limited internal communication. In addition, better financial performance was found to be associated with alignment of the mission statement with the internal organisational performance evaluation system. [15] Not only does this content analysis suggest a lack of focus by public hospitals on the direction of staff, but a previous study has identified the lack of performance management practices in these hospitals. [28,29] Ford, Sivo, Fottler, Dickson, Bradley and Johnson [30] found a link between a hospital mission statement that includes a commitment to customer service and service excellence organisation outcomes. Although 51 of our sample of 59 hospitals [86%] included a statement on customer satisfaction in the mission, vision and values package, other important Hierarchy items related to corporate level goals, and competitive position and strategy that would further reinforce the commitment to customer service were missing from the majority of the public hospitals.

Metropolitan and non-metropolitan mission statement components

The difference between the identified mission statement content of the metropolitan and non-metropolitan public hospitals is relatively easy to explain. Two components were found to be significantly different. Metropolitan public hospitals were more likely to include distinctive competence and non-metro public hospitals were more likely to include location of business. Non-metropolitan public hospitals would not include distinctive competence (or unique identity) in their mission statements, as they would be the only public hospital service 'in town' and therefore take on broad community focused roles, which would be well known in their communities. On the other hand, hospitals outside of larger metropolitan centres are often major employers who play a strong role in the local community, suggesting that 'pride of place' may encourage these public hospitals to include their location in their mission statement.

The private hospitals were significantly more likely than the non-metropolitan public hospitals to include a description of the specific customers served in their mission statements. As described earlier the public hospitals outside of the metropolitan centre, by definition, serve the broad healthcare needs of the community, with little opportunity to limit community access. On the other hand private hospitals would need to be clear about their customers (patients), as many private hospitals do not offer a full range of healthcare services, but often direct complex patients to the public system. [41]

There was greater variation in the mission statement components between the metropolitan and non-metropolitan private hospitals than was found for the public hospitals. While the metropolitan-based private hospitals had a greater focus on Hierarchy items and a lower focus on Identity items than the public hospitals, this was not consistent between the metropolitan and non-metropolitan private hospitals. The non-metropolitan private hospitals had a greater focus on the Identity components than the metropolitan private hospitals. These non-metropolitan private hospitals would likely be in competition with the public hospital in their area for a relatively small population. This may be the reason the private hospitals included more mission statement components related to Identity and legitimacy that were similar to the public hospital mission statement contents.

Limitations

This study was limited to public and private hospital in one state in Australia. This is because at the time of the study the other states directly managed the public hospital system, limiting the variation in the mission statements. Current health system reform in Australia is leading to different governance models and it will be important to repeat this study to enable better generalisation across Australian public and private hospitals. This study did not explore the processes for creating mission statements or the processes for communication and dissemination, which are arguably important aspects of mission statement use, but not the focus of this study.

Practical implications

Previous studies have confirmed that mission attachment by employees is positively related to job satisfaction [31-33] and intention to stay with the organisation. [34] Our findings confirm differences among the mission statements of public and private hospitals in Australia that, as suggested by Campbell [35] and Campbell and Yeung, [36] may assist in appropriately matching hospital workers with hospitals. The mission statement content of public hospitals may attract those staff who, as Boyne [37] suggests, have a stronger interest in serving public interest.

Hospitals are required to have mission statements, and our results suggest that hospital boards and managers should review their mission, vision and values statements to ensure they are effective. Bart and Tabone reported that Canadian public hospital managers indicated that 20 of the 23 mission statement components (all except specific non-financial objectives, concern for survival and concern for suppliers) influenced their behavior. In this study the hospitals had, on average, 10.9 of the 23 possible mission statement components, suggesting missed opportunities to influence staff behavior.

This may be especially true of the public hospitals, where fewer of the components related to providing staff direction were included in their mission, vision and values packages. This may be particularly important as public hospitals aim to establish patient-focused care and service excellence. As suggested by Ford et al [30] it is essential to ensure commitment to customer service is explicitly included in the mission statement. Given the reported differences in understanding and implementation of mission statements between those who create the mission statement and the organisational middle managers who need to translate the mission for staff, [38] clear description of the expectations of staff is essential.

Although public and private hospitals in Australia are not always in direct competition for patients, as they offer different services and the private hospitals are reliant on users having private health insurance, they directly compete for staff and reputation. Current branding research would suggest that it is essential for organisations to differentiate themselves to maintain competitive advantage [4, 39] and our study suggests that both public and private hospitals have fallen into a pattern of mission statement construction that does not advance their competitive advantages. Private hospitals must consider how to present an Identity focus in their mission, vision and values that strengthens competitive advantage, while public hospitals need to focus more on Hierarchy to direct and control staff. We suggest that the lack of emphasis on employees and employee direction found in the public hospital mission statements is consistent with the general lack of attention to best practice human resource management in these hospitals reported in other studies [28,29, 40] and suggest this needs urgent attention.

Conclusions

We completed content analysis on the mission, vision and values statements of public (n=43) and private (n=16) hospitals in Victoria, using an existing framework of 23 mission statement components. [9] We categorised these components in relation to the Rationality, Hierarchy and Identity aspects of the framework for construction of public sector organisations. [23] We found that despite the substantial timeframe between this study and previous studies of the mission statements of hospitals, there had been very little change in mission statement components. We also found that the public and private hospitals stressed different components in their mission statements, with a greater focus on staff direction and less focus on legitimacy and identity in the private hospital statements in comparison to the public hospital statements. While our findings are consistent with how public and private hospitals currently operate in the Australian health system, we suggest that both public and private hospitals can improve mission statement content.

Competing interests

The authors declare that they have no competing interests.

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RESEARCH ARTICLE

Health LEADS Australia: implementation and integration into theory and practice

E A Shannon

Abstract

This article reviews the development, implementation and impact of the national health leadership framework, Health LEADS Australia. While influenced by the Canadian LEADS in a caring environment approach, the Australian model had significant stakeholder engagement due to the collaborative and consensual process led by Health Workforce Australia.

As stakeholder ownership has passed to formal licensees and other interested parties, adoption and adaptation has raised concerns about framework fidelity. The danger of fragmentation associated with the development of local variants is decreased by two elements of a 'second wave' of implementation. The incorporation of the framework into the academic curricula, where it becomes part of the existing body of knowledge, provides greater depth of intellectual resources. The development of practical resources and tools, such as a related competency framework, assists in jurisdictional implementation. Framework implementation within the Tasmanian Department of Health and Human Services and the University of Tasmania School of Medicine postgraduate program demonstrates these dynamics in this article.

Mapping the relationship of Health LEADS Australia domains to mainstream leadership theory, this article contributes to the small, but growing, literature associated with this new field. The article concludes by discussing the disestablishment of Health Workforce Australia and the implications for the future of the Framework. The national and international connections formed during the development of Health LEADS Australia has resulted in a 'policy community' that provides the basis for future work.

Abbreviations: **ADKAR – Awareness, Desire, Knowledge, Ability, Reinforcement; DHHS – Department of Health and Human Services; HLA – Health Leads Australia; UTAS – University of Tasmania.**

Key words: **Leadership development; health and human services; implementation research.**

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The publication of a national health leadership framework in July 2013 – Health Leads Australia (HLA) – was intended to provide a foundation and reference point for individuals, organisations and professions, as well as education and training initiatives throughout the sector. [1] This review article looks at the influences that shaped HLA and how HLA has been implemented in one jurisdiction, Tasmania. The article then describes how the process of embedding the HLA framework into the education and training curricula has provided an opportunity to integrate HLA into leadership theory and practice. The article concludes with some considerations about the future of HLA.

Shaping the Australian health leadership framework

Over the last 25 years, there has been tremendous growth in the level of interest in the theory and practice of leadership. [2] In the health services sector, leadership frameworks have been developed to bring together concepts from a diverse range of theories, in order to provide a purposeful structure that develops and informs the practice of both managers and clinicians. [1,3-7] Competencies (also described as capabilities) are the demonstrated qualities associated with leadership and have been used as a measurement of the degree to which an individual understands and possesses leadership. [8] Leadership development programs seek to assist individuals to cultivate these competencies.

The shift in focus from 'management development' to 'leadership development' has been criticised by some human resource management practitioners and academics as confusing and misleading. [9,10] There is evidence to suggest, however, that leadership development programs that are grounded in leadership frameworks have engendered competences that contribute to the delivery of safe, efficient, quality health care; [11] health services reform and redesign; [12] as well as staff self-efficacy and resilience. [13]

The concept of an Australian national health leadership program emerged in 2010, when leadership was nominated by the Australian Health Ministers' Conference, as one of five domains for action from the newly-formed Health Workforce Australia. A Background Paper cited systemic failure within the system as pointing to the need for leadership, at all levels, to support innovation and reform. Resources, such as the existence of a rich field of leadership theories; competency frameworks; and existing investment in leadership development across jurisdictions, were also noted. [14]

Scoping and assessing this broad body of knowledge, within a system under strain, meant that the process of achieving national agreement on a single framework was a challenging task. While the existence of the Canadian LEADS in a Caring Environment (the 'Canadian model') [7] and the United Kingdom's National Health Service Leadership Framework [5] demonstrated that it was possible to achieve that goal, they did not provide a process map for getting there.

The approach taken by the Workforce Innovation and Reform section of Health Workforce Australia provided a holistic view of leadership, in light of current theory and practice. A literature review was conducted, [15] key stakeholders interviewed [16] and an environmental scan of current practices was undertaken. [17]

Consultation and development meetings were held at national level and were deliberately inclusive of major employer, academic and professional bodies. The focus was how leadership development might be applied to dealing with the needs of communities, consumers and colleagues in Australian health services.

An early draft framework illustrated the difficulty of coming to terms with this complexity, however, when it resulted in a detailed typology combining five areas, 13 elements, 12 domains for action and 60 attributes. [18] A decision to 'go back to basics' and further discussion resulted in the three principles that support HLA:

- everyone owns leadership;
- developing capable leaders builds health leadership capability; and
- the person you are is the leader you are. [1]

Subsequent drafts continued the simplification process and the resulting 'national agreement' moved towards a framework similar, but not identical, to the Canadian model. The domains of the Australian and Canadian models are compared in Table 1.

Within the Canadian model, the *Leads Self* domain describes leaders as self-aware, managing themselves, developing themselves and demonstrating character. [19] In HLA, all domains are summarised into three points. This was a deliberate choice, made as part of the desire to keep the framework simple and memorable. The focus on 'strength of character' was seen to incorporate self-management and the demonstration of (good) character. Strength of character includes attributes such as honesty, integrity, courage and resilience. [1] In the Canadian framework, leaders *Engage Others* to communicate and contribute to the development of individuals, teams and organisations. [19] The HLA framework also emphasises communication but talks about 'strengthening' rather than 'developing' others and includes cultural responsiveness and valuing diversity. [1] The Australian revision has renamed the *Achieving Outcomes* domain from the Canadian achieving results. [2] This aligns with project management methodology – widely practised by stakeholders participating in the Health Workforce Australia consultations – without significantly changing the focus of the domain.

Table 1. The Canadian model and Health Leads Australia domains compared

CANADIAN FRAMEWORK	HEALTH LEADS AUSTRALIA
Leads Self • Self-aware • Manage themselves • Develop themselves • Demonstrate character	**Leads Self** • Self-aware • Develop themselves • Strength of character
Engages Others • Foster development of others • Contribute to the creation of healthy organisations • Communicate effectively • Build teams	**Engages Others** • Values diversity and models cultural responsiveness • Communicates with honesty and respect • Strengthens consumers, colleagues, others
Achieves Results • Set direction • Strategically align decisions with vision, values and evidence • Take action to implement decisions • Assess and evaluate	**Achieving Outcomes** • Influences and communicates direction • Is focused and goal oriented • Evaluates progress and is accountable for results
Develops Coalitions • Purposefully build partnerships and networks to create results • Demonstrate a commitment to customers and service • Mobilise knowledge • Navigate socio-political environments	**Drives Innovation** • Champion the needs for innovation and improvement • Builds support for change • Positively contributes to spreading innovative practice
Systems Transformation • Demonstrate systems/critical thinking • Encourage and support innovation • Orient themselves strategically to the future • Champion and orchestrate change	**Shapes Systems** • Understands and applies system thinking • Engages and partners with consumers and communities • Builds alliances

The *Drives Innovation* domain represents the most significant change in the translation from the Canadian framework to the Australian HLA. Whereas the Canadian framework focuses on developing coalitions, HLA looks for innovation and change. [2] Dickson and Tholl (p. 38) attribute this to the 'high priority the Australian providers, health stakeholders and government give to the need for not only innovating for reform and improvement, but doing so in ways that will maximise the diffusion and take up of successful improvements'. [6]

The Canadian model originated from an individual province, becoming a national framework in its second stage of development. This bottom-up approach may favour a focus on the importance of coalitions. In contrast, HLA was developed through a national process facilitated by Health Workforce Australia. This top-down approach meant that Australian stakeholders did not need to think about developing coalitions, focusing instead on the potential results of collective efforts.

In the *Shapes Systems* domain, the HLA framework has again rephrased the wording from the Canadian 'systems transformation'. Both the Canadian and HLA frameworks focus on the interconnectedness and interdependency of health services with policy, funding and community, in a complex adaptive system. [1, 19] Whilst developing the HLA framework, some stakeholders expressed a degree of 'change-weariness' that mitigated against the idea of including 'transformation' as a concept.

The similarities between the Canadian and Australian models outweigh the differences in their detail. [19] The connection that has been established through the process of developing HLA provides on-going opportunities for collaborative, transnational research activity into the future.

Jurisdictional implementation – the Tasmanian example

Through the Department of Health and Human Services (DHHS), Tasmania was a contributor to Health Workforce Australia's development of preliminary documentation; an active jurisdictional participant in national consultation and development meetings; and a supportive 'local partner' in publicising and conducting stakeholder meetings. [16, 17]

Leadership was an area of growing organisational interest for DHHS. Since 2009, the DHHS had partnered with the University of Tasmania (UTAS) School of Medicine to provide a suite of postgraduate courses in management and leadership (the 'Academic Program'). [20] The DHHS also provided an 'in-house' management and leadership development program (the 'Development Program') for frontline and aspiring managers. [13, 21]

Following finalisation of the HLA framework, interviews with key DHHS senior executives were undertaken to inform its adoption in Tasmania. Mapping to a national framework was seen as having the potential benefit of providing more training opportunities across jurisdictions, as well as increasing the employability and transferability of staff. The main barrier to adoption of the national framework was the 'health-specific' language in HLA – this was seen as inappropriate for an organisation that included both health and human services. Small alterations to HLA wording, to include human services, were made in order to fit the DHHS structure. [22]

Consultation through videoconference and survey also documented strong support for a localised version of the HLA framework – one that included human services. As a result, a modified HLA, retitled 'LEADing in Health and Human Services' was adopted in October 2013. [23] It was determined that the 2014 Development Program would be realigned this framework.

One of the unexpected pieces of feedback from the October 2013 executive consultations was the demand for an 'in-house' program for senior leaders. In previous years, the prevailing opinion had been that senior executives, and clinical salaried equivalents, would not attend such a program. However, senior executives were receiving positive feedback from their own staff about the learning strategies applied in the Development Program and, in the absence of additional funding for education and training, it was thought that a similar program could be developed for this strata of management, based on the five HLA domains. [22]

This new development was somewhat complicated, however, by the 2013 release of the Tasmanian State Service Senior Executive Leadership Capability Framework (the 'TSS Framework'). [24] Based on the Australian Public Service Senior Executive Leadership Capability Framework, [25] it was to become the mandatory leadership standard for all senior executive staff by mid-2014. Interviews with DHHS executives suggested that, while the LEADing in Health and Human Services framework should be the focus of DHHS leadership development, there should be a clear 'line of sight' between the two frameworks. [22]

The necessity to incorporate human services into the local version of HLA, and the imperative to relate to leadership initiatives being carried out across the Tasmanian State Service, mitigated against implementing the 'pure' HLA in Tasmania.

Embedding HLA into the postgraduate health leadership curricula

The DHHS adoption of a modified HLA had a flow-on effect to the UTAS Academic Program. A postgraduate unit designed to act as a bridge between the DHHS Development Program and the UTAS Academic Program, was significantly revised to reflect these changes. This unit now requires students to reflect on the theory and practice of leadership, as it relates to the Tasmanian version of the HLA, as well as their own experience.

In this unit, each of the HLA domains is investigated; initially aligned with a prominent leadership text, which is explored in-depth, and then contextualised in relation to other, similar, approaches to leadership. The Leads Self focus on personal characteristics is the link to other leadership theories that focus on the individual leader, such as authentic leadership, [26] psychodynamic leadership, [27] and ethical leadership. [28] While the key perspective presented in this section of the unit – that of 'positive leadership' – is somewhat broader, it maintains the key element of a focus on self, and is also central to the philosophy behind the DHHS Development Program. [13]

Theories associated with team leadership, [29] transformational leadership, [30] and leader-member exchange [31] are discussed within the context of the *Engaging Others* domain. The key perspective explores

Lencioni's approach to team leadership. [32] The choice of this particular leadership text reflects the focus of the DHHS Development Program on middle and aspiring managers [13] and reflects the popularity of Lencioni's approach amongst DHHS management.

The *Achieving Results* domain is explored in depth through Adair's model of action centred leadership. [33] This approach to leadership brings the individual, the team and the task together, reflecting the first three LEADS elements. Consideration of this approach acts to consolidate student learning to this point. Other, contextualising theories explored in the academic unit are situational leadership, [34] contingency leadership, [35] and path-goal leadership. [36]

The *Drives Innovation* domain takes a change management approach as its key perspective. The ADKAR model takes a five-step approach to leading change which requires the development of an awareness of the need to change, from which emerges the desire to support change. Development of knowledge about how to change is required prior to the ability to undertake activities in a new way. The last step is to provide a reinforcement for the change. This completes the ADKAR process. [37] This approach was chosen above all others due to the alignment between the ADKAR change management approach and the project management approach contained within the Tasmanian Government Project Management Guidelines. [38] In line with the HLA aim of encouraging 'diverse voices', other theories associated with this domain focus on the contribution to innovation provided by gender, culture and age diversity.

The *Shapes Systems* domain is aligned with Archer and Cameron's theory of collaborative leadership, which uses a typology of governance (formal structures), operations (processes) and behaviours (individuals) to describe how leadership may be expressed across organisations. [39] Other theories considered in this domain are consumer leadership [40] and strategic leadership. [41] This represents the 'big picture' approach to thinking and doing leadership, beyond the organisation or sector.

Future directions

The process of HLA framework development left a deceptively simple result in its wake, but stimulated significant engagement with the final product by those who participated. The recent disestablishment of Health Workforce Australia has meant that new administrative arrangements will need consolidation following formal transfer of responsibilities to the Australian Department of Health. The dynamic trajectory of this collaborative creation has already moved from the initial top-down, national approach, to a bottom-up jurisdictional implementation. As stakeholder ownership passes to the next level, the pressure for additions and changes to the framework will grow.

The licencing process instituted by Health Workforce Australia resulted in approximately 60 contracts being signed by individuals, business units and organisations. The contact details of all licensees have not been shared but these contracts provide a commitment to maintain the integrity of the HLA framework. In spite of these measures, implementation of HLA within DHHS has already required some minor modifications, and there are three separate licence agreements within this one organisation. At the same time, New South Wales Ministry of Health has developed its own version of the Canadian model. [4] This raises questions of framework integrity – how much local adaption can be incorporated before a framework can no longer be identified as HLA? When HLA itself is so closely related to the Canadian model, it is difficult to persuasively argue that change cannot be permitted.

However well-informed and broadly applicable, the HLA framework is the creation of a particular group of stakeholders, using a particular process, at a particular time. Here the HLA principles may provide a common orientation for variants of the framework and guidance for its future evolution. They define Australian health leadership as distributed (from the 'ward to the board'), cumulative (many individual changes create organisational or system change) and contextual (accepting of diversity). Adherence to the principles may be one test for future models. An evaluation framework focused on measuring the specific impact of HLA is currently in development [42] and this may form another test, in determining whether change is necessary.

This also reflects the fact that the collective, consensual, process of developing the HLA framework meant that documentation was streamlined to ensure all material was acceptable to all parties. That means that the HLA is a lean document, with little elaboration of key concepts available. This is very evident when comparing HLA to the Canadian model, which has an extensive stock of downloadable resources, managed by a national LEADS Collaborative. [7] While Health Workforce Australia conducted a literature review as part of the development of the HLA framework, [15] with few exceptions, [42-44] at this time there are very few publications which map the finished product back into the existing body of knowledge. This is work that must be undertaken if HLA is to have continuing relevance and influence.

Embedding HLA – and its variants - within the academic curricula creates a new institutional 'home' for this work, as well as the requirement to consider the HLA in relation to the full range of leadership theories and practices. The danger of fragmentation associated with the development of local variants is decreased by this approach, while the maintaining the influence of HLA on those working and training within the Australian health and human services system. At the same time, resources and tools, such as a HLA competency framework, are in current development at State and Territory level. It is anticipated that these efforts will also continue through the community of interested parties that has been formed.

The HLA represents a significant milestone in the integration of health leadership thinking across national and international borders, as the structure of the final HLA framework was strongly influenced by the Canadian model. [19, 42] Both the development process and the final product reflect what the literature would describe as the creation of a 'policy community' of health leadership development. A policy community involves a 'group of actors sharing motivation, expertise and information about a common problem'. [45] The 'community', once formed, provides networks and connections that transcend the institutional bases from which they were formed.

This suggests that the continuation of Australian-Canadian collaboration is not only desirable [19, 42] but also likely to progress as the 'shared experience of learning' continues. [45]

Conclusion

This article has reviewed the processes, frameworks and theories that have influenced the creation and implementation of HLA. The creation of a national health leadership framework is a major milestone for leadership development in Australia. Prior to its disestablishment, the Workforce Innovation and Reform Section of Health Workforce Australia led a collaborative process that stimulated widespread stakeholder engagement. The resulting HLA document has been implemented in some organisations but the demand for associated resources and local adaptation suggests a 'second wave' of development is now required. As demonstrated by the implementation process in Tasmania, both academic and jurisdictional initiatives have commenced this work.

Acknowledgements

I would like to acknowledge the outstanding project leadership demonstrated by Andi Sebastian (Workforce Innovation and Reform, Health Workforce Australia) throughout the development of the Health LEADS Australia framework.

Competing interests

The author declares that she has no competing interests.

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Egan, N
Australian Ageing Agenda 2015, Jan-Feb:36-37.
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International Survey Of Older Adults Finds Shortcomings In Access, Coordination, And Patient-Centered Care
Osbourn, R., et al.
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Eleven countries including Australia are included in this survey.
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Influenza vaccination rates and beliefs about vaccination among nursing home employees
Daugherty, J., et al.
American Journal of Infection Control 2015, 43(2): 100–106
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Martin, K.
Australian Ageing Agenda, Community Care Review 2015, Jan: 32-35.
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Uptake of telehealth services funded by Medicare in Australia
Wade, V., et al.
Australian Health Review 2014, 38(5):528-532
The authors report that specialist consultations via video rose to 6000 per month which accounts for 0.24% of all consultations.
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Journal of Healthcare Management 2014, 59(6):447-460
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Australian Family Physician 2014, 43(12):831-831
http://www.racgp.org.au/afp/2014/december/technology-in-practice-%E2%80%93-gp-computer-use-by-age/

The broadband-enabled innovation program: a working demonstration of the effective use of technology in community-based patient care
Towers, C. & Tyler, M.
Australian Family Physician 2014, 43(12):848-851
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Digital technologies and chronic disease management
Georgeff, M.
Australian Family Physician 2014, 43(12):842-846
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Patient use of the internet for health information
Wong, C., et al.
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Reduction in adverse events can offset costs of eMM systems
Mcdonald, K.
Pulse+IT (2015)
http://www.pulseitmagazine.com.au/index.php?option=com_content&view=article&id=2289:reduction-in-adverse-drug-events-can-offset-costs-of-emm-systems&catid=16:australian-ehealth&Itemid=327

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Noone, Y.
Hospital & Agedcare 2015, Jan/Feb:16-18.
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Allen, M.
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http://pediatrics.aappublications.org/content/135/1/e273.full.pdf+html

A qualitative study of senior hospital managers' views on current and innovative strategies to improve hand hygiene
McInnes, E., et al.
BMC Infectious Diseases 2014,14(1):611.
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Zaheer, S., et al.
Health Care Management Review 2015, 40(1):13-23
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McFadden, K., et al.
Health Care Management Review 2015, 40(1):24-34
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Rees, G.
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Lim, K.
Sydney Morning Herald, 3 Dec 2014
http://www.smh.com.au/comment/gps-and-patients-under-threat-when-health-care-is-driven-by-cost-20141202-11xlvt.html

GUIDELINES FOR CONTRIBUTORS

Manuscript Preparation and Submission

General Requirements

Language and format

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

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

Title page and word count

The title page should contain:

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

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

Abstract, key words and abbreviations page

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

Main manuscript

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

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

Major and secondary headings

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

Figures, tables and illustrations

Figures, tables and illustrations should be:

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

Copyright

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

Ethical approval

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

References

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

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

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

Books and Monographs

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

Chapters published in books

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

Journal articles

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

References from the World Wide Web

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

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

Types of Manuscript - some general guidelines

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

Content

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

Abstract

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

Main text

Structured appropriately. A suitable structure would include:

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

Word count: general guide - 2,000 words.

References: maximum 25.

2. Research article (empirical and/or theoretical)

Content

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

Abstract

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

Word count: maximum of 300 words.

Main text

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

The discussion section should address the issues listed below:

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

Word count: general guide 3,000 words.

References: maximum of 30.

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

3. Research note

Content

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

Abstract

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

Word count: maximum 200 words.

Main text

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

Word count: general guide 2,000 words.

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

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

References: maximum of 25.

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

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

Content

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

Abstract

Structured appropriately.

Word count: maximum of 300 words.

Main text

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

Word count: general guide 3,000 words.

References: maximum of 50

5. Viewpoints, interviews, commentaries

Content

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

Abstract

Structured appropriately.

Word count: maximum of 200 words.

Main text

Structured appropriately.

Word count: general guide 2,000 words.

References: maximum of 20.

6. Book review

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

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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 ACHSM 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, ACHSM (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.

Acknowledgement should be made if an article has been posted on a Website (eg, author's Website) prior to submission to the Asia Pacific Journal of Health Management.

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 ACHSM on acceptance of the manuscript for publication in the APJHM. This document should be completed and signed and then faxed to: The Editor, APJHM, ACHSM (02 9878 2272).

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

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

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

Criteria for Acceptance of Manuscript

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

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

Only original contributions are accepted (ie the manuscript has not been simultaneously submitted or accepted for publication by another peer reviewed journal – including an E-journal).

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

Peer Review Process

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

The process involves:

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

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

Submission Process

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

(Preferred approach)

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

   Or

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

All submitted manuscripts are acknowledged by email.

NB

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

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

About the Australasian College of Health Service Management

ACHSM (formerly Australian College of Health Service Executives) was established in 1945 to represent the interests of health service managers and to develop their expertise and professionalism. Today, the college is the leadership and learning network for health professionals in management across the full range of health and aged care service delivery systems in Australia and New Zealand and the Asia Pacific with some 3,000 members from both public and private sector organisations and non-government and not-for-profit organisations.

ACHSM aims to develop and foster excellence in health service management through the promotion of networking, the publication of research, and through its educational and ongoing professional development activities, including accreditation of tertiary programs in health service management, mentoring and learning sets.

ACHSM has Branches in all Australian States and Territories, New Zealand and Hong Kong. Memoranda of Understanding link ACHSM with other health management bodies in the Asia Pacific. As an international organisation, ACHSM is able to draw upon the experiences of researchers and managers in Australia, New Zealand, Hong Kong and other countries within the region to give readers valuable insights into management issues and approaches in a range of cultures and jurisdictions.

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