Asia Pacific Journal of Health Management

Volume 11 Issue 3 – 2016

The Journal of the Australasian College of Health Service Management

Critical Issues and Perspectives from the Asia Pacific *(Invited Articles)*

- Indigenous Health and Equity
- Preventability, Safety, Quality and Price
- Performance, Systems Measures and Health Outcomes
- Key Principles for Medicare and Federalism
- The Language of Health Reform and Management
- Health Workforce Global, Regional Perspectives and the Tyranny of Size
- Sustainable Development Goals and Strengthening Health Systems
- Reforming, Restructuring and Resourcing, Regional Perspectives

ACHSM Australasian College of Health Service Management

Better leadership. Healthier communities.

Your voice for better professional development, networking, advocacy, recognition, innovation and excellence

Network

- Access over 100 workshops and seminars a year
- Expand your networks with special interest groups
- Connect with key players and build your skills at our congress

Learn

- Attain key tools of professional development
- Free webcasts and online seminars valued at over $5,000
- Dedicated library and information service
- Peer-reviewed industry journal

Advance

- Mentoring and Fellowship programs
- Exclusive access to job postings and career resource tools

Influence

- Get involved in influencing health
- Exclusive access to job postings and career resource tools

Give your health management career the boost it deserves.
Visit achsm.org.au and join today!

CONTENTS

COVER: The cover design celebrates the achievement of 10 years of publication of the APJHM with a special invited articles only issue.

ASIA PACIFIC JOURNAL OF HEALTH MANAGEMENT

SUBMISSION OF ARTICLES

All articles, including letters to the editor, are to be submitted on-line through the scholar one portal. The web address is **http://mc04.manuscriptcentral.com/apjhm** you can log in here and set up an account if you are a new user. Guidelines for contributors are available on the ACHSM web site www.achsm.org.au or a hard copy can be obtained by calling the ACHSM National Office on 9878 5088 or emailing the editor at **journal@achsm.org.au**

MISSION STATEMENT

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

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

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

MANAGEMENT PRACTICE ARTICLES

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

RESEARCH ARTICLES

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

RESEARCH NOTES

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.

REVIEWS

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

PEER REVIEW

The Journal publishes original articles and has a policy of blind review for all contributions. This means that authors and reviewers are not disclosed to each other during the review and publishing process.

VIEWPOINTS

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

LETTERS TO THE EDITOR

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

ADVERTISING

All booking and enquiries concerning advertising in the Journal should be directed to the Production Manager (Editorial Office) or email journal@achsm.org.au

COPYRIGHT

ARTICLE REPRINTS AND PERMISSIONS

Reprints are available in hard copy or as electronic downloads with permission to print. Reprint prices are as follows:

1 – 9 copies	$6.00 each
10 – 49	$5.50
50 – 79	$5.00
80 – 99	$4.50
100 – 499	$4.00

(Minimum order $10.00)

For an article reprint please email library@achsmnsw.org.au
All costs are in AUD.

FOR INFORMATION OR TO ORDER:

Health Planning and Management Library
PO Box 671
GLADESVILLE NSW 1675
Phone: 61 2 8753 5122
Fax: 61 2 9816 2255
Email: library@achsm.org.au

DISCLAIMER

All articles published in this Journal including editorials are the opinions and views of the authors and do not necessarily reflect those of the Australasian College of Health Service Management unless otherwise specified.

Australasian College of Health Service Management
PO Box 671, Gladesville NSW 1675
Phone: 61 2 8753 5100
Fax: 61 2 9816 2255
Email: journal@achsm.org.au
ISSN 2204-3136

GUEST EDITORIAL

The Journal – a Critical Development in the Professional Journey of the College

In the professional journey of the College in February 2006 I was a participant in early meetings of a Federal Council-endorsed Steering Committee to develop the College's own professional journal.

The thinking behind this initiative centred on the fundamental belief that a professional body should have, under its auspices, a peer reviewed professional journal with a focus on its particular body of knowledge.

Events that took place in the preceding twenty years, had led to this step.

In 1990 the College was created with a new Memorandum and Articles of Association that saw the former Australian Institute of Hospital Administrators become the Australian College of Health Service Administrators. That body subsequently became the Australian College of Health Service Executives (ACHSE).

The key shift in the 1990s was to move from the role of an Institute to that of a College. A College required a greater focus on a body of knowledge and expanded academic and continuing professional learning.

A College also warranted clearer assessment processes for an individual member's entry, advancement and ongoing standing within it.

As these developments took place, ACHSE and SHAPE (Society of Health Administration Programs in Education) also worked closely together to give impetus to both organisations in their objective to formalise material for that body of knowledge. ACHSE also reviewed its consultation mechanisms and procedures supporting its activities to accredit formal academic programs in health services management.

In a parallel series of developments, commenced in the 1980s, ACHSE made positive efforts to strengthen its relationships with existent and early stage health service management bodies in the Asia Pacific region.

In 1996 Memoranda of Understanding were created between ACHSE and the New Zealand Institute of Health Management as well as with the Hong Kong Society of Health Service Executives. Formal liaison was also established with the Indonesian Association of Health Service Managers and with those involved in the early developments to form similar bodies in Malaysia, New Guinea and Thailand.

An ACHSE professional journal thus had two potential roles. One to be the College's necessary professional publication that was conducted in close association with its academic partners, to develop its body of knowledge. The other was potentially to become a vehicle to help draw together the health management professional bodies in the Asia Pacific region.

So in February 2006, representatives of Federal Council, SHAPE, National Office staff and interested members came together to develop the proposed College journal.

The meeting presented several outcomes for Federal Council to consider. Firstly, a plan to publish a first edition in 2006 was proposed. Secondly, the title for the new journal was suggested as the *Asia Pacific Journal of Health Management* (APJHM). The supporting infrastructure was conceived as an Honorary Editor supported by an Editorial Committee and an overarching Journal Advisory Committee. Calls for expressions of interest for Peer Reviewers were proposed as well as a call for papers. Federal Council adopted these recommendations.

The most significant outcomes, however, from this Steering Committee for Federal Council to consider, were the recommendation to approach Dr Mary Harris to become Foundation Honorary Editor and the proposal for Carolyn Marsh, then the senior staff member in the National Office, and Rose Ellis an experienced person in journal publication, to work together on producing the journal.

Mary's thorough and skilled efforts as Foundation Editor were of the same order as all her other many significant contributions to the College and SHAPE over many years. In 2002 Mary had been awarded the prestigious ACHSE Gold Medal for her many contributions to the profession of health services management. She was simply outstanding in the APJHM Editor's role through her personal abilities and hard work. Previously Mary provided leadership and impeccable

coordination to the producing and editing of the significant SHAPE/ACHSE text book *Health Service Management: Concepts and Practice*, which in its first two editions received wide acclaim.

The text became a major resource for Australian and New Zealand health management practitioners and students. Her efforts as APJHM Foundation Editor were of the same order. She was an inspired nomination. Another ACHSE Gold Medal winner followed Mary Harris as Honorary Editor in the form of David Briggs. David has been one of the really exceptional leaders of the College, with continuing contributions now extending over a forty year period. National Presidency, the development of South East Asian linkages, valuable academic and health governance contributions plus significant roles in achieving initiatives such as the formation of the NSW Aboriginal Health Management Training Program, have been part of David's ACHSE career. He has continued his fine efforts for the College with his highly effective and thoughtful Honorary Editor role of APJHM.

The Journal has become open access, available freely to all members and non members alike. For those not aware of the College, it is accessible through Informit and EBSCO Research Databases. Endeavours continue to be made to extend listings as the APJHM meets the relevant criteria. Interestingly it is now attracting authors and reviewers engaged in the health system, but not previously involved with the College.

Now, ten years on from the ambitious agenda developed by the Steering Committee in 2006, the APJHM is the keystone in an overarching structure that links academic and professional practitioner interests across the Asia-Pacific geography and will continue to define much of Australia's future.

In more recent times the Board of the College has moved to strengthen the focus on knowledge in health service management as the fundamental focus of the organisation. The College is now named the Australasian College of Health Service Management. Its title is unambiguously on the 'What' of the profession of health service management. The organisation's geographic membership coverage is now declared as the wider span of the Asia Pacific region. I was privileged to have worked for some ten years, prior to 2006, as a part time National Director of the College. and to have been part of launching the first steps that created the APJHM.

Federal Council, however, supported my request in early 2006 for leave of absence to go to Canberra to serve for six months as the Interim CEO of the National Health and Medical Research Council. Other opportunities for roles with the Australian Commission on Safety and Quality in Health Care arrived at the end of that time and I did not return to the College.

My expectations, in 2006, for the introduction and development of a College professional journal have been more than met by the efforts of Mary Harris, David Briggs and all associated with the *Asia Pacific Journal of Health Management*.

Congratulations to all involved, and to the then Federal Council and now the Board of the College, for their far sighted and ongoing support for this fundamentally vital element of a professional body's offerings.

Bill Lawrence AM
Life Member, ACHSM

What Problem is being solved? Critical Issues in Health Systems Management

Introduction

This issue represents the 10th year anniversary edition of the Asia Pacific Journal of Health Management (APJHM) that was established by the Australasian College of Health Services Management (ACHSM). Due recognition of those who contributed to the development of the Journal is expressed in the Editorial contributed by Bill Lawrence. To recognise and celebrate this milestone the editorial team agreed to publish a special issue anniversary edition. It was decided to be an invited article only edition around the theme 'What problem is being solved? Critical Issues in health systems management'. This theme is an adaption of a similar challenge issued more than a decade before. [1]

Authors invited included many who contributed articles to the first issues published a decade ago plus others who are recognised as having expertise in the topic area. Most have responded positively while others were unable to assist.

Context

To give some guidance to invited authors context was provided. The authors were asked what critical issue(s) in health systems management do we need to address to improve the healthcare outcomes of patients, communities, States/Provinces and Nations? This question was set in the following context.

Most health systems continue to be restructured or be modified without much thought to underlying public policy. Health systems shift from perspectives of health being seen as a public good to a series of products being delivered in competitive markets through insurance systems, fundholding and commissioning. Services are privatised and/or delivered by non-government organisations. Acute care continues to be delivered in large centralised systems sometimes described as 'local', often funded historically despite the availability of tested casemix systems. Patient safety, quality and innovation are monitored through a range of state/province and national agencies while performance measures and outcomes are regularly measured and the results published. Primary healthcare, in many systems, remains fragmented. We seem to be transfixed about the implications of ageing populations and the chronic disease burden. Communities with poor socio-economic indicators do not seem to respond to current traditional health services and this raises the question of where the boundaries of healthcare might necessarily be drawn?

Within the system we manage through the strong personal commitment of health professionals with the hope that the language we use will bring needed change and improved healthcare delivery. Our narrative is about greater use of technology, e-health, electronic records, a focus on 'avoidable admissions', evidence-based practice, clinical pathways, hospital in the home and patient-centred care, healthy ageing and innovation at all levels. Meanwhile, our research scientists and research institutions continue to stretch the boundaries of care and cure and, perhaps prevention, beyond that previously thought possible. International comparisons suggest that despite the context many are performing well!

In this issue

While In This Issue traditionally outlines the content in this issue we have added some analysis, commentary, discussion and conclusions.

Our editorial by Bill Lawrence addresses the establishment of the Journal as 'a critical development in the professional journey of the journal' and is followed by a new innovation for the Journal, a poem by Colin Grant. The poem demonstrates the power and importance of the written word and literature in describing the complex relationships within health organisations and that above all the concept that healthcare is a people to people environment where interpersonal relationships are significant. It builds on the theme of the importance of language in health reform in a subsequent article by Briggs and Isouard.

Our first article is a review by Judith Dwyer and colleagues that draws attention to concerns around 'Equitable care for Indigenous people: every health service can do it'. This is a very important call for health professionals and services to reflect and rethink how we approach improving the experience and outcomes of care for indigenous people. It

is published at a time of intense media and public discussion about Indigenous concerns so it is a timely contribution to those discussions and the debate. The idea for the development of the article came from the 'Chris Selby Oration' at the 2016 Society of Health Administration Programs in Education (SHAPE) 2016 Annual Symposium. The second theme in the oration delivered by Judith challenged health managers to be more active and central to the pursuit of effective health reform. This challenge begins to be addressed in this special issue.

For those who may not be familiar with Chris Selby, he was an eminent Australian scholar who held senior roles in public policy, education and health both in Australia and internationally and was also a former President of SHAPE. The oration recognises his significant contributions to national and international public policy, particularly in education and health. The next group of articles draws our attention to issues of performance and the links to health reform and improvement and the language is replete with performance measures, system level measures and the measurement of health outcomes. Stephen Duckett provides a viewpoint that has as a focus 'Preventability' and the case of pricing for safety and quality'. The critical issue internationally is said to be the need to improve the safety of care. 'Preventability' is described as 'a slippery concept'. Importantly, the connection between financial incentives and improved safety as a national initiative to be introduced in Australia in 2017 makes this article required reading for health managers whose accountabilities in this reform will be strengthened.

Stephen Leeder in his viewpoint article describes reform occurring without much thought to underlying public policy and continues the theme that patient safety, quality and innovation are regularly measured and the results published and that primary care in particular remains fragmented. This has led our health system to be measured and monitored through its component parts. He describes the critical issue as the need to move to a whole of system approach through the development of an outcomes based approach to performance measurement.

Andrew Podger, one of the contributors to the first issues of the APJHM, again contributes to this special 10th year anniversary issue. The analysis of management practice article addresses Federalism and Australia's national health and health insurance system. This is seminal work for us considering health reform because it describes the foundation of our health system that requires the collaboration of the Commonwealth and States in the funding and delivery of differing components of the health system. The article raises the challenge of emerging reform around developing a more integrated, patient orientated system. The recent 'mediscare' campaign at election time is also addressed and a case is made for the adoption of key principles in favour of universal access to be formally confirmed as a centrepoint for our health system.

In the next article, this Editor and colleague Godfrey Isouard in an analysis of management practice respond to the second challenge posed by Judith Dwyer in the oration described earlier; the challenge for health managers to become more central to the designing and implementation of effective health reform and to develop a national health management curriculum that is more relevant to managers leading effective health reform. This challenge and context requires us to think differently about management. A critical inquiry approach is suggested that examines the language of health reform and the health management role might be a good starting point. It might influence the future education, continuing professional development and importantly influence curriculum to focus on what should be rather than what was and is in the health management role.

The next group of articles address critical issues but also include perspectives from differing nations states of the Asia Pacific region and indeed, beyond that region. Jo Martins provides an analysis of management practice to consider choices and challenges from an Australian perspective by a comparison of that system with those in place in the United Kingdom, the United States, Canada and New Zealand. The comparative analysis addresses lifestyle performances and outcomes, health workforce outcomes and comparisons, major service provision, health expenditure and health outcomes. This represents a significant contribution to our knowledge and the author then discusses what choices and challenges are evident from the data providing the opportunity for the reader to both absorb the data and reflect on the findings. In the view of the Editor this contribution provides a significant opportunity for health professionals and health managers to learn from diverse systems and reflect on what might work best in our health system by using the differences as boundary objects rather than necessarily the similarities.

Stephanie Short and colleagues in a research article provide a focus on many of the nation states in the Asia Pacific in respect to the health workforce, migration and sustainable development goals (SDGs). They correctly describe health workforce in global contexts and the need for countries to

work in a co-ordinated way to ensure that the workforce is adequate, appropriately trained and retained. They indicate that this approach is particularly critical for the least developed countries and small island developing states, most notably the Maldives, Timor-Leste, Kiribati, Samoa, Solomon Islands, Tuvalu and Vanuatu. Again a further significant contribution to the challenges of delivering an effective health workforce.

Richard Taylor provides an analysis of management practice article that is entitled 'The Tyranny of Size: Challenges of Health Administration in Pacific Island States'. The article addresses the small Pacific Island States, the difficulty in providing and accessing specialist services, the outmigration of health professionals and the small scale of health services. Smaller populations, fewer resources, the influence of international aid. The author suggests small health services are not scaled down versions of larger country health systems but are qualitatively different and intractable. Creative and particularistic solutions may require the involvement of more endowed Pacific states and Pacific rim countries.

Robin Gauld from New Zealand provides a research article that looks at the health system restructuring experience in that country and emphasises more recent stability in the structure of the system which has now become more incremental and evolutionary. The Australian system has become interested in the current innovation in the NZ system and this is despite there being significant difference in the structure of the two systems.

Despite those differences the author describes similar challenges for the NZ system as are currently being considered in Australia. These include greater moves to team care, access to services, closer to home, population focus, connecting systems and engaging patients more closely in the design and delivery of care.

Phudit Tejativaddhana and colleagues proved a further analysis of management practice article moving from global to local, in this case Thailand, to examining proposed strengthening of district health systems which act as the entry point to local health services. The objective is to work towards achievement of health related sustainable development goals (SDGs). The approach to these challenges has focused on the 'implementation of knowledge based health development'. The approach is best described as managing connected, integrated care focused both on individuals as patients and communities with a strong emphasis on primary healthcare, prevention and evidence based practice. This approach provides recognition of the need to build the capacity and capability of health professionals in the management and leadership of health systems and Thailand is moving towards this goal in implementing specific health systems management curriculum.

The concluding research article is from Geoffrey Lieu from Hong Kong entitled 'Launching Hong Kong's healthcare financing reform: why continued inaction?' Hong Kong has been examining and recommending approaches for long term financial sustainability for a considerable time without gaining ready acceptance or implementation. This article analyses the various attempts at reform to determine the inhibitors of change and suggests a more phased approach might be productive.

The articles in this issue are completed with the provision of the library bulletin provided by ACHSM librarian and member of the APJHM editorial staff, Yaping liu.

Results

In the 10th Anniversary year of publishing the APJHM the ten articles from invited authors in this Issue represent the collective views, expertise and wisdom of those authors in describing the critical challenges in health reform. Analysing these articles from the perspective of what might be the language and lexicon of health reform gives us some perspectives on what that lexicon might be. An analysis of trending words (most commonly used) from the authors 'key words' and other contemporary key health management and health policy words, courtesy of this Editor, gives some context around what is happening in health reform.

In this analysis 'hospitals' remain a significant interest although collectively, the words 'health services, healthcare and health systems' are in more dominant use and 'primary care' is in diminutive scale. Likewise, 'health workforce' is dominant terminology throughout but there is little discussion around the major professions. 'Safety and quality' together are of relatively equal interest or in use in the articles. As you would expect in an issue with a focus on health reform there is relatively high use of that term and an equally low use of the term restructuring and, little if any focus on things 'bureaucratic'.

Surprising perhaps given the majority of our services are located in bureaucracies. There is a strong focus on 'effectiveness' and much less emphasis on 'efficiency and resourcing'. Disappointedly, to some of us the words 'prevention, promotion and wellness' receive scant attention as do notions of 'community, consumer and patient engagement'. While there was strong use of the word 'local' and some use of 'boundaries and networks'

collectively, there was little use or reference to 'integration, innovation or collaboration' and not much discussion about 'commissioning'. There was some interest in 'chronic care' but not much discussion of 'ageing'.

Naturally in a health management journal the focus on 'managers and management' was extensive suggesting the authors and the Journal are strongly focused on its primary objective and market readership.

Conclusions

Readers will make what they will of this analysis and will all take away differing perspectives about what their personal learnings might be. This editor suggests that the themes arising from this issue might be summarised as:

- Health reform is increasingly becoming focused on achieving better outcomes by seeking systems improvement and the earlier focus on reform through restructuring is much diminished.
- The focus on performance measurement needs to have a broader focus on health outcomes particularly system level measures.
- The health workforce has become global, is seen as a critical issue and requires a coordinated focus by nation states of the Asia Pacific region.
- There is much to be accomplished in the education development and personal learning of health professionals in the emerging language of 'collaboration, innovation and collaboration' through networks and from the diversity of differences of health systems across the nation states of the Asia Pacific region.
- In that learning there needs to be a greater emphasis on evidence-based management, health prevention, promotion, wellness and meaningful 'engagement of communities, consumers and being patient centric'.
- This learning needs to be strengthened by a greater emphasis on the evidence base of population health, the socio-economics determinants of health and the achievement of forthcoming sustainable development goals.

I would like to conclude this analysis by suggesting that health is a human enterprise, people engaging and serving other people and that our 'presence' in that system and the values we present are most important. [2] The creation of health reform requires the triangulation of the 'creation of relevant knowledge through research, social movement and learning' with effective engagement… 'and political involvement' . [3]

The Journal would welcome your feedback and further contributions.

DS Briggs
Editor

References

1. Dwyer JM. Australian Health System Restructuring – what problem is being solved? Australia and New Zealand Health Policy. 2004; 1:6
2. Verghese A. The Importance of Being. Health Affairs. 201635,(10) 1924:-1927. doi:10.1377/hlthaff.2016.0837. Available from http://content.healthaffairs.org/content/35/10/1924.
3. Wasi P. 'Triangle That moves the Mountain' and Health System Reform in Thailand. Human Resources for Health Development Journal (HRDJ). Vol 4 (2)106-107.

NIGHT LIGHTS

She went north, across the border,
with her husband, furniture, dog
and tractor - in that order.

First she planted, then learned
to nurse where lights are dimmed
but never out at night, though often
souls leave bodies in the dark.

She nursed and let the souls go free
when she could do no more.

For this few thanks: medical men
on their visits knew her competence
and her place; higher nursing ranks
cared more about themselves; and managers
could manage without her at a pinch.

They pinched until, tired of it all,
she let go and left tomorrow
to nurse itself.

Col Grant 10/85

Col Grant enjoyed a career as an academic in health service management at the University of New South Wales and is an active member of the North Shore, Sydney, Australia Poetry Group. Col was born in Cardiff and had his early education in Cheltenham, United Kingdom.

EDITOR'S NOTE:

Col is well known and respected by many Australian health managers fortunate enough to have had the opportunity to know him in the early days of the foundation Bachelor and Masters of Health Administration programs at the University of New South Wales, where many of us benefited through our interactions with Col and his colleagues at the start of our journey of what turned out to be lifelong learning. That journey was linked to lifelong friendships and active engagement in what is now known as the ACHSM, the originators of this Journal.

This poem is also unique as the first published in the APJHM. It resonates with the article by Briggs and Isouard in this issue that argues that the language of health reform is a powerful lens through which the role of health management might be critically appraised and its teaching modified and made more relevant to teaching and learning health management. An understanding of history or literature is fundamental to the theories that underpin health management.

This poem will have different meaning and nuances for individual readers. It may provoke a response but equally it might invite the reader to submit a scholarly article around the themes it presents.

Dr DS Briggs
Editor

REVIEW ARTICLE

Equitable Care for Indigenous People: every health service can do it

J Dwyer, K O'Donnell, E Willis and J Kelly

Abstract

Problem and its context: Indigenous peoples in many countries suffer poorer health and poorer access to good healthcare than their non-Indigenous counterparts. In Australia, enduring barriers to good health and good healthcare remain, in spite of long-standing policy priorities. These barriers include the ongoing reality of colonisation, and silence about its implications. People working in and using the health system need to relate across cultures, but they approach this endeavour with a complex mixture of goodwill, defensiveness, guilt and anxiety.

Methods: We analysed what is known in Australia about differentials in access to good care, and the underlying factors that entrench them, as well as strategies for developing mainstream competence in care for Aboriginal and Torres Strait Islander patients and communities.

Analysis and Conclusions: The available evidence of differentials in access and quality that are not explained by clinical or demographic variables is unequivocal. Official policy needs to be implemented at the system and organisation level through operational policies, programs and protocols, and through relationships with Aboriginal healthcare providers and community organisations. The concept of racism anxiety provides a way of making one important barrier visible, and moving beyond it can enable people of goodwill to 'see' where change is needed, and to see themselves as part of the solution. It is time to get beyond the barriers and attend to practical improvements in care, focused on the care system, not simply on the skills and knowledge of individuals within it.

Abbreviations: ACCHO – Aboriginal Community Controlled Health Organisation; CC – Cultural Competence.

Key words: Indigenous health; health equity, hospitals; cultural safety; systemic racism.

Professor Judith Dwyer
Flinders University School of Medicine
Dr Kim O'Donnell
Flinders University School of Medicine
Professor Eileen Willis
Flinders University School of Health Sciences
Dr Janet Kelly
Adelaide University School of Nursing

Correspondence:
Judith.dwyer@flinders.edu.au

Introduction

Indigenous peoples in many countries suffer poorer health and poorer access to good healthcare than their non-Indigenous counterparts. In Australia, enduring barriers to good health and good healthcare remain, in spite of long-standing policy priorities. These barriers include the ongoing reality of colonisation and silence about its implications. People working in and using the health system need to relate across cultures, but they approach this endeavour with a complex mixture of goodwill, defensiveness, guilt and anxiety.

Methods

We conducted a literature review of Australian evidence on differentials in access to good healthcare affecting Aboriginal and Torres Strait Islander people (henceforth,

Aboriginal), and on strategies for working towards equitable care. We analysed this evidence in the light of our own research on the challenges facing mainstream healthcare staff in attempting to implement better care.

Differentials in access and quality

Australian research on differentials in care has established that systemic racism is real, with damaging effects on access and quality. While there is a need for more evidence in particular areas (to inform the health system about opportunities for improvement), the evidence from existing research focused on both various clinical specialties (we address three below) and on indicators of good processes of care is consistent.

Care for cancer

While the higher cancer mortality of Aboriginal patients is well known (e.g. 2.5 times more likely to die within five years of diagnosis in the Northern Territory) [1] the possible factors underlying this differential are many and complex. A literature review of evidence in relation to barriers to optimal lung cancer care for Aboriginal people [2] identified a combination of individual beliefs and behaviours, health-care system issues (including discrimination and racism) and the impact of social determinants. These conclusions are supported by Boffa, [3] who identified many practical barriers to access, based partly on assumptions about patients' treatment preference and likely compliance.

Cardiovascular care

The Heart Foundation and the Australian Healthcare and Hospitals Association [4] identified an inpatient death rate of twice the national average, and a 40% lower rate of intervention for Aboriginal patients. There is some evidence of improvement in a recent national report on cardiac health, [5] although Aboriginal people still have higher death rates and lower rates of access to effective treatment, with strong regional variations. A qualitative study of Aboriginal cardiac patient journeys [6] identified barriers to use of health services at both organisational and individual levels, including perceptions of interpersonal and institutional racism among patients, families and health care staff.

Kidney care

Differential access to kidney transplantation [7] is particularly important given the high incidence of kidney disease (eight times the national average, [8]) and the heavy burden of dialysis for patients. As part of a large qualitative study, [9] Anderson et al [10] addressed the views of renal physicians, who reported that they commonly identify Aboriginal patients as both non-compliant and high-risk candidates for kidney transplant. Although the definition and assessment of noncompliance were neither systematic nor based on evidence about the value of compliance in predicting transplant outcomes, some physicians gave considerable weight to compliance and risk in their decision-making. The authors concluded that it is likely that reliance on assessment of compliance by some renal physicians will continue to disadvantage Aboriginal patients with kidney disease.

Other indicators

Other indicators of differential access to care include longer waiting times for Aboriginal patients to be seen in hospital emergency departments, [11] and for surgery. [11,12] Longer waiting times are one factor that influences Aboriginal people to leave hospital without being treated, or against medical advice.

National data indicates that Aboriginal people were six times more likely to leave hospital without medical discharge; [13] and a regional study in New South Wales describes higher rates of Aboriginal people leaving without treatment, or against medical advice, from rural hospital emergency departments. [14] Self-discharge from inpatient care is also higher for Aboriginal patients, [15] with communication failures prominent among the identified factors influencing this outcome. Most of the Aboriginal patients did not know the reason for their admission or their predicted length of stay. The involvement of Aboriginal Liaison Officers was associated with reduction in self-discharge. The authors conclude that improving cultural safety may be the key.

Disparities have been documented in relation to screening, prevention of complications and potentially preventable hospitalisations, [16] rates of intervention, [17] continuity of care [18] and supportive services such as cardiac rehabilitation. [19] The impacts of past and present experiences of exclusion, shaming and stereotyping; [4,20-23] and language and interpersonal communication difficulties [20,24,25] have also been demonstrated. Experiences of racism in healthcare have been associated with high psychological distress, and have more impact than experiences of racism in other settings. [26]

While evidence of differentials in access and quality of care has been established, and inferences can be drawn about the impact on health outcomes, there are other important causes of poorer health outcomes for Aboriginal people that lie outside the health system (principally, exposure to the negative impact of social and cultural determinants of health). In an influential study of comparative burden of disease, Vos et al [27] showed that disparities are spread

across all major disease groups, with cardiovascular diseases, injuries, diabetes, mental illness (including substance use disorders) and respiratory diseases contributing the highest excess burdens of illness. While acknowledging the complex causation of these differences, the authors suggest that the higher case fatality rates for most diseases are related to poorer access and poorer quality of care (including late presentation, problems in acute management and poor follow-up). These health policy/care factors also contribute to higher burden of illness for those who survive.

Acknowledging systemic racism

Evidence of differentials in access to and quality of healthcare that are not explained by clinical or other relevant factors (including disease prevalence and geography) constitutes evidence of systemic or institutional racism. That is, systemic racism is encoded in the policies and funding regimes, healthcare practices and prejudices that affect Aboriginal people's access to good care differentially. It is the impact on health and care, not the intention of policy-makers or care providers, which matters.

With colleagues, we have investigated the gap between high level policies (which seek to re-dress discrimination and disadvantage) and the implementation of effective strategies to enact those policies in practice. [28] While in many ways the question of interest is what to do about it, it is unlikely that such efforts will be well founded without an explicit analysis and understanding of systemic racism and how it works.

It is one thing to recognise and understand the purpose, methods and impacts of systemic racism, and quite another to explicitly and directly confront it in efforts to reduce its impacts on health and mainstream healthcare in practice. Our research with clinical teams who provide care for rural and remote Aboriginal patients found that healthcare staff tend to hold two contradictory ideas in relation to this group of patients. Firstly many of them acknowledge and understand their particular needs, and sometimes put great effort into crafting appropriate responses (and they also reported finding it hard to get those responses incorporated into ongoing operational procedures). At the same time, staff reported a reliance on the principle of equal treatment (as in the statement 'you treated them like any other Tom, Dick or Harry that came through the ward'. [28 p.549] The principle of equal treatment is a very important one, particularly in a public health system, but always carries a qualifier: 'in accordance with need'. In the case of Aboriginal patients, it seemed that the legitimacy of their particular needs (such as for interpreters, or for support in their often arduous journeys to receive care) was somehow compromised. We concluded that this collective ambivalence in the provision of healthcare rested on the broad social silence, discomfort and denial that characterises mainstream Australian thinking about the position and role of Aboriginal people in Australia, and our shared history of colonisation.

If denial and silence are part of the problem, skirting around it is unlikely to be part of the solution. But while change strategies need to be based on an analysis of how systemic racism really works (and who benefits), the most effective methods for change are not likely to rely primarily on earnest discussions of Whiteness [29] and privilege by clinical teams. In reflecting on the findings of the research cited above, and our experience of discussing them with team members, we came to the conclusion that the very anxiety that non-Aboriginal staff feel in contemplating the question of discriminatory practice is a barrier that impedes action.

'Racism anxiety' is the term we use to describe this barrier. For those seeking to improve equity, it is a problem that staff tend to feel that their moral standing is under attack if the topic of discrimination is raised. 'I'm not racist' is the defensive position, and anxiety about this perceived allegation tends to deflect attention from the problems at hand. This is not hard to understand – racism is commonly seen as working at an individual rather than systemic level. The idea that policies and practices can be discriminatory without conscious intention by those implementing them or working within their rules is not widely understood. Indeed, the logical implication of the system's focus on cultural awareness training for staff is precisely that individuals are primarily responsible for discriminatory practice. And when staff perceive that they are being asked to first acknowledge a moral failing in themselves before they roll up their sleeves and fix the problem, it is not surprising that most people tend to put the issue in the too hard basket, or simply turn away. [30] Thus while it is essential that action to improve equity in healthcare for Aboriginal people is based on acknowledgement of the racism that is built in to the health system's policies, practices, protocols and programs, this is not enough. For effective action to improve access to equitable care, there needs to be a way of releasing staff from the paralysing grip of racism anxiety. We need to name it, acknowledge its power, and find ways to deal with it constructively.

Competence for Culturally Safe Care

The evidence on improvement strategies indicates that existing approaches have been less effective than claimed, and systematic multi-level strategies are required. There are many concepts and approaches in this field. We suggest that two are essential. The first is cultural safety, which we define in this context as the patient's experience of care that is respectful of cultural identity and integrity. [31,32] The second is the competence of the healthcare organisation to deliver culturally safe care, which requires strategies, policies, practices and programs at all levels of the organisation that enable it, through its staff, to reliably provide care that is responsive to need and does no harm to patients' identity and cultural integrity. We prefer not to use the term cultural competence [33] in the current context, because it implies the need for healthcare organisations and their staff to become competent practitioners of a culture to which they don't belong.

Organisational competence for culturally safe care requires the effective implementation of practical measures to reduce discrimination, enhance respect for cultural identity, and remove barriers to access. Given the complexity of healthcare, and the wickedly specific requirements in each clinical area, we suggest that specific measures need to be developed, tested and shared by health services, within a supportive framework – a framework that encompasses all levels of the system that lie between high policy goals and the practice of healthcare staff. [34]

Cultural awareness approaches

Evaluation of the cultural awareness approach documents its lack of the desired impact. [35] These and other authors [36, p.1210] point out that the apparent failure of cultural awareness training seems predictable because it tends to both 'essentialise' Aboriginality and make 'other' Aboriginal people. The very act of giving health workers a sense of some knowledge of Aboriginal cultures keeps the focus on Aboriginality and away from the need for healthcare practice to be based on an understanding of the ways in which the mainstream system denigrates and discriminates against Aboriginal people. It also may encourage health workers to make assumptions about their Aboriginal patients as people who will conform with stereotypes, a practice that is not helpful to the quality of the healthcare relationship, or to diagnosis and treatment. Cultural awareness training may thus defeat its goal which is to enable the provision of care that treats Aboriginal patients as individuals, according to their needs, with respect and without prejudice.

The evidence for 'cultural competence'

The literature in relation to 'cultural competence' (CC) is growing, but the evidence of impact is not yet strong. Studies of the effectiveness of this approach for Indigenous people in Australia, New Zealand, Canada and the United States were found to be of questionable quality in a recent systematic review. [37] The main benefits reported were improved patient satisfaction and access to care, and improved confidence for health professionals. The main intervention strategies reported were training, culturally specific health services and increasing the Indigenous health workforce.

Bainbridge et al [34] found the formation of partnerships with local Aboriginal communities, as well as action to embed CC in governance, policies and programs, to be useful, and they suggested legislation or policy to entrench a requirement for attention to CC, as is the case in the United States and New Zealand. In a recent systematic review of 19 reviews, Truong, Paradies and Priest [38] examined the evidence for cultural competency, which they defined to include interventions (principally training) aimed at healthcare staff, as well as those applied at the level of the organisation or system. They found some evidence of a link between the cultural competence of organisations and that of their staff (but this is a long way short of evidence of safer care). They found moderate evidence of improvement in provider knowledge/skill and healthcare access/usage, but weaker evidence for improvements in patient or client outcomes. They also found that few of the reported interventions included attention to racism and discrimination, and only some included attention to self-reflection and awareness of one's professional and social culture. [39]

While there is, as yet, little evidence of outcomes from organisational cultural competency approaches in the mainstream Australian health system, recent research supports two important foundational ideas: the first is to base approaches on an explicit recognition of the ongoing impact of racism and colonisation; and the second is to use a comprehensive and sustained set of strategies in policy, practice, programs, training and reward systems for staff. [40-46]

Evidence of mainstream responses

There is reason to believe that since the transfer of responsibility for Aboriginal health from the Aboriginal and Torres Strait Islander Commission to the health portfolio in 1995, there has been slow and patchy but sustained growth in efforts within the mainstream health system to improve

access and quality of care for Aboriginal people. This view is supported by Australian research evidence that experiences of racism are less common in healthcare than in other settings. [26,47] Examples include the national Better Cardiac Care measures, [48] the sustained effort by the Hunter New England Health Service [49], and increasing attention by professional groups and organisations to the implications for practice in cardiovascular health. [50]

What is to be done?

As always in healthcare, knowledge of problems and the development of strategies to address them will emerge from practice; and a supportive environment is needed to enable solutions to be embedded rather than lost. This is the fundamental purpose of quality improvement methods, and they are being used successfully to improve access and quality of care for Aboriginal patients. For example, Kelly and colleagues [51] report on changes in end-of-life care for renal patients, based on the careful work of a group of renal nurses to map patient journeys, followed by the development of new pathways and the resources to support them. We suggest that in the case of Aboriginal patient care, this practice-based knowledge often lacks the necessary supportive organisational environment; and creating or strengthening it is a challenge that healthcare leaders can meet.

There are several frameworks that can guide health services, including at least two developed in Australia. [52,53] These frameworks, and the evidence cited above, reinforce the importance of two foundational principles for health services.

Work in alliance with local ACCHOs and community organisations

It is essential for health services to work actively and collaboratively with the Aboriginal and Torres Strait Islander communities they serve. Local health and community organisations provide an existing structure and networks to enable this engagement.

Aboriginal Community Controlled Health Organisations (ACCHOs) and some other Indigenous-specific teams and organisations play a critical role in providing culturally and clinically safe primary healthcare to their patients and communities, and bring essential expertise. They address the negative impact of continuing discrimination, and work with mainstream health services and other health institutions to support efforts to improve mainstream care. [54-56]

Action needs to be targeted, but the opportunities are at all levels

The second foundational principle is the need for coordinated attention across the organisation. The challenge is to understand and then act to change the often invisible ways in which Aboriginal people are excluded and discriminated against. The direct caring relationship between staff and patients is where culturally safe care is delivered, but the barriers to competence for culturally safe care are in policies, practices, protocols and programs (or their absence) throughout the organisation. This doesn't mean organisations have to try to change everything at once, but rather that they need to analyse their own problems, and prioritise action to remove or reduce them.

And most importantly, strategies need to be tested and the knowledge about what works needs to be shared. Solutions and strategies will always need to be locally planned and implemented, but they will be more effective if informed by evidence and the experience of others. As always, more research is needed, and in this case, comparative intervention studies of known methods and approaches are a high priority.

Competing interests

The authors declare that they have no competing interests.

References

1. Condon JR, Barnes T, Armstrong BK, Seval-Nayagam S, Elwood JM. Stage at diagnosis and cancer survival for Indigenous Australians in the Northern Territory. Med J Aust. 2005;182(6):277-80.
2. Davidson PM, Jiwa M, Digiacomo ML, McGrath SJ, Newton PJ, Durey AJ, Bessarab DC, Thompson SC. The experience of lung cancer in Aboriginal and Torres Strait Islander peoples and what it means for policy, service planning and delivery. Aust Health Rev. 2013; 37(1):70-8.
3. Boffa JD. Cancer care for Indigenous Australians. Med J Aust. 2008; 188(10):560-561.
4. Better hospital care for Aboriginal and Torres Strait Islander people experiencing heart attack. National Heart Foundation of Australia and Australian Healthcare and Hospitals Association; 2010.
5. Australian Institute of Health and Welfare. Spatial variation in Aboriginal and Torres Strait Islander people's access to primary health care. 2015. AIHW cat. no. IHW 155.
6. Artuso S, Cargo M, Brown A, Daniel M. Factors influencing health care utilisation among Aboriginal cardiac patients in central Australia: a qualitative study. BMC Health Serv Res. 2013;6(13):83.
7. Cass A, Devitt J, Preece C, Cunningham J, Anderson K, Snelling P, Eris J, Ayanian J. Barriers to access by Indigenous Australians to kidney transplantation: the IMPAKT study. Nephrol. 2004;9(s4): S144–6.
8. Preston-Thomas A, Cass A, O'Rourke P. Trends in the incidence of treated end-stage kidney disease among Indigenous Australians and access to treatment. Aust N Z J Public Health. 2007;31(5): 419-21.

9. Devitt J, Cass A, Cunningham J, Preece C, Anderson K, Snelling P. Study Protocol – Improving Access to Kidney Transplants (IMPAKT): A detailed account of a qualitative study investigating barriers to transplant for Australian Indigenous people with end-stage kidney disease. BMC Health Serv Res [Internet]. 2008 [cited 2015 Aug 19]; 8(31). Available from: http://www.biomedcentral.com/1472-6963/8/31
10. Anderson K, Devitt J, Cunningham J, Preece C, Jardine M, Cass A. If you can't comply with dialysis, how do you expect me to trust you with transplantation? Australian nephrologists' views on indigenous Australians' 'non-compliance' and their suitability for kidney transplantation. Int J Equity Health. 2012;11(1). DOI: 10.1186/1475-9276-11-21
11. Australian Institute of Health and Welfare. Australian hospital statistics 2010/11. 2012. AIHW cat. no. HSE117.
12. Australian Institute of Health and Welfare. Australian hospital statistics 2012–13. 2014. AIHW cat. no. HSE 145.
13. Australian Institute of Health and Welfare. Aboriginal and Torres Strait Islander health performance framework, 2008 Report: Detailed analyses. 2008. AIHW cat. No. IHW 22.
14. Wright L. They just don't like to wait!': A comparative study of Aboriginal and non-Aboriginal people who do not wait for treatment or discharge themselves against medical advice from rural emergency departments. Port Macquare: New South Wales Health; 2007.
15. Einsiedel LJ, van Iersel E, Macnamara R, Spelman T, Heffernan M, Bray L, Morris H, Porter B, David A. Self-discharge by adult Aboriginal patients at Alice Springs Hospital, Central Australia: insights from a prospective cohort study. Aust Health Rev. 2013;37(2): 239- 245.
16. Department of Health and Ageing. The state of our hospitals June 2009 report. Canberra: Australian Government; 2009.
17. Australian Institute of Health and Welfare. The health and welfare of Australia's Aboriginal and Torres Strait Islander people: an overview. Canberra: Australian Government; 2011.
18. Lawrence M, Dodd Z, Mohor S, Dunn S, de Crespigny C, Power C, Mackean L. Improving the patient journey. Darwin: Cooperative Research Centre for Aboriginal Health; 2009.
19. Strengthening cardiac rehabilitation and secondary prevention for Aboriginal and Torres Strait Islander peoples [Internet]. Canberra: National Health and Medical Research Council; 2005. Available from: www.nhmrc.gov.au/publications/synopses/_files/ind1.pdf
20. Purdie N, Dudgeon P, Walker R. Working together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice. Canberra: Department of Health and Ageing; 2010.
21. Eckermann A-K, Dowd T, Chong E, Nixon L, Gray R, Johnson S. Binan Gonnj: bridging cultures in Aboriginal health. Elsevier Churchill Livingstone, Marrickville, NSW; 2006.
22. Alford K. Comparing Australian with Canadian and New Zealand primary care health systems in relation to indigenous populations: literature review and analysis. Melbourne: Onemda VicHealth Koori Health Unit, The University of Melbourne; 2005.
23. Rogers GD, Barton C, Pekarsky B, Lawless A, Oddy J, Hepworth R, Beilby J. Caring for a marginalised community: the costs of engaging with culture and complexity. Med J Aust. 2005;183:S59–63.
24. Taylor K, Guerin P. Health care and Indigenous Australians: cultural safety in practice. Melbourne: Palgrave Macmillan; 2010.
25. Cass A, Lowell A, Christie M, Snelling P, Flack M, Marrngnanjin B, Brown I. Sharing true stories: improving communication between Aboriginal patients and healthcare workers. Med J Aust. 2002; 176:466- 70.
26. Kelaher M, Ferdinan, A, Paradies Y. Experiencing racism in health care: the mental health impacts for Victorian Aboriginal Communities. Med J Aust. 2014;201(1):44-47.
27. Vos T, Barker B, Begg S, Stanley S, Lopez AD. Burden of disease and injury in Aboriginal and Torres Strait Islander Peoples: the Indigenous health gap. Int J Epidemiol. 2009;38:470–477.
28. Dwyer J, Willis E, Kelly J. Hospitals caring for rural Aboriginal patients: holding response and denial. Aust Health Rev. 2014;38(5): 546-51.
29. Kowal E, Paradies Y. Race and Culture in Health Research: A Facilitated Discussion. Darwin: Cooperative Centre for Aboriginal and Tropical Health; 2003.
30. Wilson AM, Magarey AM, Jones M, O'Donnell K, Kelly J. Attitudes and characteristics of health professionals working in Aboriginal health [Internet]. Rural and Remote Health. 2015 [cited 2015 Aug 31]; 15:2739. Available from: http://www.rrh.org.au/publishedarticles/article_print_2739.pdf
31. Papps E, Ramsden I. Cultural Safety in Nursing: the New Zealand Experience. Int J Qual Saf Health Care. 1996; 8(5):491-497.
32. Downing R, Kowal E. A postcolonial analysis of indigenous cultural awareness training for health workers. Health Sociol Rev. 2011; 20(1):5-15.
33. Cross T, Bazron B, Dennis K, Isaacs M. Towards A Culturally Competent System of Care. Washington: Georgetown University Child Development Center, CASSP Technical Assistance Center; 1989.
34. Bainbridge R, McCalman J, Clifford A, Tsey K. Cultural competency in the delivery of health services for Indigenous people. Closing the Gap Clearinghouse. Issues paper no. 13. Canberra: AIHW and AIFS; 2015.
35. Downing R, Kowal E, Paradies Y. Indigenous cultural training for health workers in Australia. Int J Qual Health Care. 2011; 23(3):247-257.
36. Williams DR, Mohammed SA. Racism and Health II: A Needed Research Agenda for Effective Interventions. Am Behav Sci. 2013; 57(8:SI):1200-1226.
37. Clifford A, McCalman J, Bainbridge R, Tsey K. Interventions to improve cultural competency in health care for Indigenous peoples of Australia, New Zealand, Canada and the USA: a systematic review. Int J Qual Healthcare. 2015;27(2):89–98.
38. Truong M, Paradies Y, Priest N. Interventions to improve cultural competency in healthcare: a systematic review of reviews [Internet]. BMC Health Serv Res. 2014;14:99. Available from: http://www.biomedcentral.com/1472-6963/14/99
39. Kowal E, Franklin H, Paradies Y. Reflexive antiracism: a novel approach to diversity training. Ethnicities. 2013;13(3):316-337.
40. Durey A, Thompson SC. Reducing the health disparities of Indigenous Australians: time to change focus [Internet]. BMC Health Serv Res. 2012;12(151).
41. Durey A, Thompson SC, Wood M. Time to bring down the twin towers in poor Aboriginal hospital care: addressing institutional racism and misunderstandings in communication. Intern Med J . 2012;42(1):17-22.
42. Rix EF, Barclay L, Stirling J, Tong A, Wilson S. The perspectives of Aboriginal patients and their health care providers on improving the quality of hemodialysis services: a qualitative study. Hemodial Int. 2015;19(1):80-89.
43. Rix EF, Barclay L, Stirling J, Tong A, Wilson S. Beats the alternative but it messes up your life': Aboriginal people's experience of haemodialysis in rural Australia [Internet]. BMJ Open. 2014;4(9). Available from: http://bmjopen.bmj.com/content/4/9/e005945.full
44. Rix EF, Barclay L, Wilson S, Stirling J, Tong A. Service providers' perspectives, attitudes and beliefs on health services delivery for Aboriginal people receiving haemodialysis in rural Australia: a qualitative study. BMJ Open. 2013;3(10).

45. Lau P, Pyett P, Burchill M, Furler J, Tynan M, Kelaher M, Liaw S-T. Factors influencing access to urban general practices and primary health care by Aboriginal Australians – A qualitative study. AlterNative. 2012;8(1):66-84.
46. Reibel T, Walker R. Antenatal services for Aboriginal women: the relevance of cultural competence. Qual Prim Care. 2010;18:65-74.
47. Willis E, Dwyer J, Owada K, Couzner L, Wainer J. Urban Aboriginal women's expectations of clinical care during treatment for a gynaecological cancer: exploring the gaps in the research. Aust Health Rev. 2011:35(1):1-5.
48. Australian Institute of Health and Welfare. Better Cardiac Care measures for Aboriginal and Torres Strait Islander people: First National Report. [cited 18 August 2015]. Canberra: AIHW; 2015. Available from: <http://www.aihw.gov.au/publication-detail/?id=60129551940>
49. Closing the gap in a regional health service in NSW: a multi-strategic approach to addressing individual and institutional racism. Hunter New England Health Aboriginal and Torres Strait, Islander Strategic Leadership Committee; New South Wales Public Health Bulletin. 2012;23(3-4):63-67.
50. Davidson PM, MacIsaac A, Cameron J, Jeremy R, Mahar L, Anderson I. Problems, solutions and actions: addressing barriers in acute hospital care for indigenous Australians and New Zealanders. Heart Lung Circ. 2012;21(10):639-43.
51. Kelly J, Wilden C, Herman K, Martin G, Russell C, Brown S. Bottling knowledge and sharing it – using patient journey mapping to build evidence and improve Aboriginal renal patient care, Renal Society of Australasia Journal. 2016:12(10):48-55.
52. Tynan M, Atkinson P, Smullen F, Stephens K. Developing an Aboriginal Cultural Competence Framework and Audit Tool for health services in regional Victoria: lessons for implementation. Aust NZJ Public Health. 2013;37(4):392-3.
53. Marrie A, Marrie H. A Matrix for Identifying, measuring and monitoring Institutional racism within Public Hospitals and Health Services [Internet]. Gordonvale: Burkal Consultancy Services; 2014. Available from: http://www.avidstudy.com/wpcontent/uploads/2015/08/Matrix-Revised-2-9-14.pdf
54. Panaretto K, Wenitong M, Button S, Ring I. Aboriginal community controlled health services: leading the way in primary care. Med J Aust. 2014;200(11):649-652.
55. Baba JT, Brolan CE, Hill PS. Aboriginal medical services cure more than illness: a qualitative study of how Indigenous services address the health impacts of discrimination in Brisbane communities. Int J Equity Health. 2014;10(13):56.
56. Freeman T, Edwards T, Baum F, Lawless A, Jolley G, Javanparast S, Francis T. Cultural respect strategies in Australian Aboriginal primary health care services: beyond education and training of practitioners. Aust NZJ Public Health. 2014;38(4):355-61.

What Problem is Being Solved: 'preventability' and the case of pricing for safety and quality

S Duckett

Abstract

One of the critical issues facing healthcare systems internationally is to improve safety of care. Unfortunately, safety discussions, both in hospitals and in policy documents, often quickly turn to identifying and acting on 'preventable' mishaps. But preventability is a slippery concept, which this paper discusses.

A contemporary policy response is to introduce financial incentives in hospitals and/or states to improve safety, proposed for national implementation in Australia from 1 July 2017. This has the potential to change the internal dynamic of hospitals to enhance the focus on safety. The implications for hospitals of this change are also discussed.

Abbreviations: **COAG – Council of Australian Governments.**

Key words: **safety of care; pricing; quality.**

Stephen Duckett
Grattan Institute – Health Program
Victoria, Australia

Correspondence:
stephen.duckett@grattaninstitute.edu.au

Healthcare systems face challenges across four domains: equitable access; safety and quality of care provision; financial and workforce sustainability; and adjusting to the previous three challenges over time. It would be a luxury to face only one problem to be solved at any one time, without having to worry about the constraints in the other domains. The essence of management is dealing with situations of conflict, be it interpersonal conflict, conflict of goals or priorities, or conflicts of constraints.

In this paper I will reflect on the problems being faced in one domain: quality and safety of care, and within that, focus on safety. I will also limit my consideration to hospital safety and particularly challenge the concept of 'preventability' of adverse events and discuss the role of pricing in addressing hospital safety.

What is the current state?

The recent review of hospital quality in Victoria reported that in 2014-15, there were more than 600,000 additional diagnoses recorded for patients that occurred after they were admitted to hospital (see Table 1); about one in every eight patients had some form of complication during their stay.

Table 1: Incidence of all hospital-acquired diagnoses classified by CHADx major class, Victorian hospitals, 2014–15

MAJOR CHADX CLASS	PUBLIC	PRIVATE	ALL
01: Post-procedural complications	34,106	17,808	51,914
02: Adverse drug events	14,858	6,402	21,260
03: Accidental injuries	6,078	2,179	8,257
04: Infections	12,846	2,694	15,540
05: Cardiovascular complications	47,304	17,984	65,288
06: Respiratory complications	23,499	8,737	32,236
07: Gastrointestinal complications	36,815	19,118	55,933
08: Skin conditions	18,196	7,509	25,705
09: Genitourinary complications	27,575	9,753	37,328
10: Hospital-acquired psychiatric states	16,959	5,934	22,893
11: Early pregnancy complications	2,710	757	3,467
12: Labour and delivery complications	76,050	20,600	96,650
13: Perinatal complications	40,458	4,424	44,882
14: Haematological complications	12,994	3,970	16,964
15: Metabolic complications	45,536	10,743	56,279
16: Nervous system complications	4,245	1,429	5,674
17: Other complications	40,535	17,563	58,098
Total	**460,764**	**157,604**	**618,368**

This rate is probably significantly higher than patients would expect.

These raw numbers tell an incomplete story. The language used in the previous paragraph was carefully chosen: it simply referred to additional diagnoses (now usually simplified to 'hospital acquired' diagnoses) and complications. There is a plethora of terms used to indicate 'a patient was injured' or 'a mistake was made' in the course of healthcare, a situation which has been described as 'perplexing on a good day and near impossible on a bad one'. [2] A focus on mistakes can quickly be turned by the media into a hunt for people to blame. [3]

Describing the problem is only the first step toward solving it. While the table shows all hospital acquired diagnoses, it does not attempt to identify 'preventability' of any of the complications, nor grade those complications by their sequelae, which may be great (e.g. death) or small (treated and resolved with medication).

Preventability is not where to start

Adverse events are, by definition, adverse, unfortunate and harmful. Thus one is immediately (and appropriately) drawn to what might be done to reduce them. The next common leap is to attempt to identify those adverse events which could have been prevented, or defensively define most harm as 'unpreventable'. This leap, to label as 'preventable' or otherwise, is flawed. A better approach is to look at all such events, and to identify where the rate in a particular hospital differs from the system-wide average or the hospital's own past trend.

The concept of 'preventability' in discussing safety in hospitals is fraught for seven main reasons.

The first is that different definitions of preventability abound with no consistency in terms of underlying logic, most being locally derived, and with weaknesses in almost all the definitions used. [4] Second is 'the 'eye of the beholder' problem: that is, inter-rater reliability in assigning this status to specific cases. Typically studies cite very low rates of agreement between reviewers of medical notes [5-9] Experienced reviewers only slightly improve agreement. [10]

The third problem is a temporal one. What might be 'preventable' changes over time and with advancing medical knowledge: what was not preventable yesterday (say, an adverse drug reaction) is preventable today because of better knowledge of patient factors predisposing to such a reaction. [11] With the new knowledge, the event becomes 'preventable' where it wasn't before. By ignoring those events currently not deemed to be 'preventable', opportunities for developing such new medical knowledge are lost.

Fourthly, 'preventable' is location or facility-specific Diagnostic technologies to identify underlying disease, for example, may not be accessible in every facility in order to make a timely clinical decision. Thus, such judgements entail an implicit imperative to prevent adverse outcomes, regardless of the economic or geographic logic of doing so. The 'first do no harm' ethic is an important one in medicine, but increasingly, patient safety interventions face the same expectations of cost-effectiveness as other clinical interventions. [12]

Fifthly, when 'preventable' is treated as a dichotomous (yes/no) variable, opportunities may be lost to reduce rates of harmful clinical outcomes, even if such outcomes are not 'preventable' in every patient. [13]

Sixthly, studies of adverse events regularly report the proportion that are 'preventable' and any 'preventable' outcomes (for example, 'preventable mortality'). Describing an adverse event as preventable, however, might lead one to believe that, absent the adverse event, the patient's outcome would have been different. [14] Adverse events often occur in very sick patients (15), and it may be impossible to determine the extent to which their prognosis was affected by the adverse event. Few studies have attempted the difficult task of estimating the 'conditional prognosis'- the prognosis without the adverse event – Hayward and Hofer [7] being an exception.

The final and seventh problem with the concept of 'preventability' is that it is very easy to slip from an untoward event being 'preventable' to a hunt for whose failure it was that it wasn't prevented.

Contemporary best practice in safety is to understand the complex system factors involved in patient harm and to avoid blame. Learning from adverse events should be the goal of patient safety activities. [16-19]

Having fewer adverse events is certainly better than having more of them, but best practice is more about ensuring that future adverse events are avoided than identifying and pointing a finger at the individual who slipped up on a particular occasion. A good hospital is thus one which encourages reporting of incidents, [20] embraces the failure associated with adverse events, acknowledges what went wrong and puts in place systems or training to ensure that it is unlikely to happen again.

'Good' is thus not simply having an adverse event rate below a particular threshold, but rather having a culture that accepts and learns from such events.

The place of pricing

The Council of Australian Governments (COAG) recently (1 April 2016) endorsed a new Heads of Agreement, which included the following commitments about pricing for quality and safety:

> While most healthcare in Australia is associated with good clinical outcomes, preventable adverse events or complications continue to occur across the health system. By reducing hospital acquired complications, there is potential to not only improve patient safety, but also achieve efficiencies. The Parties … will develop a comprehensive and risk adjusted model to integrate quality and safety into hospital pricing and funding.
>
> a. The model will determine how funding and pricing can be used to improve patient outcomes and reduce the amount that should be paid for specified adverse events, ineffective interventions, or procedures known to be harmful.
> b. This could include an adjustment to the amount the Commonwealth contributes to public hospitals for a set of agreed hospital acquired conditions...
>
> The Parties agree to develop the model for implementation by 1 July 2017. [21]

Although well-intentioned, the phrasing of this commitment is a complete muddle.

Sub-paragraph a, for example, states that the funding model has two distinct objectives to 'determine how funding and pricing can be used to improve patient outcomes' and how the model can 'reduce the amount that should be paid for specified adverse events'. The latter objective is a legitimate and obvious one for a funding model. The former is not so clear. A funding system can certainly provide *incentives* to improve outcomes, but in and of itself, a funding model won't improve outcomes at all.

In addition, sub-paragraph a is quite broad, referring to 'specified adverse events, ineffective interventions, or procedures known to be harmful'; these are narrowed down to 'a set of agreed hospital acquired conditions' in subparagraph b.

The logic for providing financial incentives on hospitals to reduce rates of adverse events is quite sound and many options exist for how this might be done [22-23] but pricing incentives may not be the place to start for reducing ineffective interventions, [24] or procedures known to be harmful.

One solution, one problem

Nobel laureate in economics, Jan Tinbergen, famously established that multiple economic problems require multiple economic instruments to solve them. [25] The same is true in health policy: rarely can one solution fix multiple problems. Unfortunately the rhetoric around the COAG meeting did not make clear why a pricing strategy was being pursued to reduce adverse events, especially when the Australian Commission of Safety and Quality in Healthcare published a very sceptical literature review on this topic in 2013. [26]

Hospitals (and their clinicians) are influenced by a range of incentives, not all of which are financial: reputation and intrinsic motivations are very important to quality improvement in the health sector. [27] The pricing incentives proposed by COAG are a signal that heads of government (or their advisers) think that more action needs to occur in safety and quality. This may be an altruistic motivation – pushing the safety and quality agenda may reduce safety failures and benefit patients – but it may equally be motivated by a desire to reduce spending, or perhaps both as the second sentence of the quoted paragraph suggests.

The implications for hospitals

It is tempting for hospital managers to deride any policy change as a poorly thought through unnecessary imposition, or, as a reader of this series of papers might infer, a solution to a problem which may not exist. So just what is the problem being solved with a potential new pricing regime?

Certainly no one can be complacent about the series of safety and quality scandals Australia has seen in recent years, so there is a real problem affecting real people. Introducing a safety and quality component into activity based funding is a logical next step. Governments and private health insurers are upping the ante on managers.

Changing the nature of the financial incentives on health service managers is part of signalling the importance of this issue. Managers cannot say that safety and quality issues are the sole preserve and responsibility of clinicians (if that ever were a reasonable position). Poor quality will directly impact on a hospital's performance.

Poor quality care costs money, [28] and hospital acquired diagnoses add millions to the cost of the Australian healthcare system. [29-31] Introduction of financial

incentives sheets responsibility for these additional costs back to where they belong – at the local hospital.

From a clinician's perspective, the introduction of a financial incentive for higher quality adds another basis for arguing for resources to improve quality of care. The new incentives mean that it is now in the financial interest of hospitals to improve their care, reinforcing other motivations, and making it feasible for clinicians to mount a 'business case for quality' [32] and for managers to garner the attention of their boards. [33]

The renewed focus on hospital safety and quality is to be welcomed, and not criticised as another imposition. Unlike other possible policy changes, introduction of a pricing incentive for safety is soundly based, and is not simply a case of a solution in search of a problem.

Competing interests

The author declares that he has no competing interests.

References

1. Review of Hospital Safety and Quality Assurance in Victoria [Chair: Dr Stephen Duckett). Targeting zero: supporting the Victorian hospital system to eliminate avoidable harm and strengthen quality of care. Melbourne: Department of Health and Human Services, 2016.
2. Weingart S. Beyond Babel: prospects for a universal patient safety taxonomy. Int J Qual Healthcare. 2005;17(2):93-4.
3. Li JW, Morway L, Velasquez A, Weingart SN, Stuver SO. Perceptions of Medical Errors in Cancer Care: An Analysis of How the News Media Describe Sentinel Events. J Patient Saf. 2015;11(1):42-51.
4. Nabhan M, Beraima Elraiyah T, Brown D, Dilling J, LeBlanc A, Montori V, et al. What is preventable harm in healthcare? A systematic review of definitions. BMC Health Services Research. 2012;12(128)
5. Wilson RM, Runciman WB, Gibberd RW, Harrison BT, Newby L, Hamilton JD. The Quality in Australian Healthcare Study. Med J Aust. 1995;163(6 November):458-71.
6. Walshe K. Adverse events in healthcare: issues in measurement. Qual Healthcare. 2000;9:47-52.
7. Hayward RA, Hofer TP. Estimating hospital deaths due to medical errors: preventability is in the eye of the reviewer. JAMA. 2001; 286(4):415-20.
8. Thomas EJ, Lipsitz SR, Studdert DM, Brennan TA. The reliability of medical record review for estimating adverse event rates. Ann Intern Med. 2002;136(11):812-6.
9. Marang-van de Mheen PJ, Hollander E-JF, Kievit J. Effects of study methodology on adverse outcome occurrence and mortality. Int J Qual Healthcare. 2007;19(6):399-406.
10. Localio A, Weaver S, Landis R, Lawthers A, Brennan T, Hebert L, et al. Identifying adverse events caused by medical care: degree of physician agreement in a retrospective chart review. Ann Intern Med. 1996;125(6):457-64.
11. Pronovost PJ, Colantuoni E. Measuring preventable harm. JAMA. 2009;301(12):1273-5.
12. Warburton RN. Patient safety-how much is enough? Health Policy. 2005;71(2):223-32.
13. Murphy DJ, Pronovost PJ. Reducing preventable harm. Arch Intern Med. 2010;170(4):353-5.
14. Kable AK, Gibberd RW, Spigelman AD. Adverse events in surgical patients in Australia. Int J Qual Healthcare. 2002;14(4):269-76.
15. McDonald CJ, Weiner M, Hui SL. Deaths due to medical errors are exaggerated in Institute of Medicine report. JAMA. 2000;284(1):93-5.
16. Perrow C. Normal accidents: Living with high-risk technologies. Princeton: Princeton University Press; 1999. p. 451
17. Reason J. Seven myths about human error and its management. KOS: Rivista di Medicina. 2001;187:10-7.
18. Dekker S. Just culture: balancing safety and accountability. Aldershot, Hampshire, England; Burlington, VT: Ashgate; 2012.
19. Dekker SWA, Hugh TB. A just culture after Mid Staffordshire. BMJ Qual Saf. 2014;23(5):356-8.
20. Howell AM, Burns EM, Bouras G, Donaldson LJ, Athanasiou T, Darzi A. Can patient safety incident reports be used to compare hospital safety? Results from a quantitative analysis of the English National Reporting and Learning System Data. PloS one. 2015;10(12): e0144107.
21. Council of Australian Governments. Heads of Agreement between the Commonwealth and the States and Territories on Public Hospital Funding. Canberra: COAG, 2016.
22. Duckett SJ. Designing incentives for good-quality hospital care. The Med J Aust. 2012;196(11):678-9.
23. McNair P, Jackson T, Borovnicar D. Public hospital admissions for treating complications of clinical care: incidence, costs and funding strategy. Aust NZ J Public Health. 2010;34(3):330-3.
24. Duckett S, Breadon P, Romanes D, Fennessy P, Nolan J. Questionable care: avoiding ineffective treatment. Melbourne, Vic: Grattan Institute; 2015.
25. Tinbergen J. On the theory of economic policy. Amsterdam: North-Holland Pub. Co; 1952.
26. Eagar K, Sansoni J, Loggie C, Elsworthy A, McNamee J, Cook R, et al. A literature review on integrating quality and safety into hospital pricing systems. Wollongong: Centre for Health Service Development, Australian Health Service Research Institute, University of Wollongong; 2013.
27. Frølich A, Talavera JA, Broadhead P, Dudley RA. A behavioral model of clinician responses to incentives to improve quality. Health Policy. 2007;80(1):179-93.
28. Goudie A, Dynan L, Brady PW, Fieldston E, Brilli RJ, Walsh KE. Costs of Venous Thromboembolism, Catheter-Associated Urinary Tract Infection, and Pressure Ulcer. Pediatrics. 2015;136(3):432-9.
29. Ehsani J, Duckett SJ, Jackson TJ. The incidence and cost of cardiac surgery adverse events in Australian (Victorian) hospitals 2003–2004. Euro J Health Econ. 2007;8(4):339-46.
30. Ehsani J, Jackson T, Duckett S. The incidence and cost of adverse events in Victorian hospitals 2003-04. Med J Aust. 2006; 184(11):551-5.
31. Jackson T, Nghiem HS, Rowell D, Jorm C, Wakefield J. Marginal costs of hospital-acquired conditions: Information for priority-setting for patient safety programmes and research. J Health Serv Res Policy. 2011;16(3):141-6.
32. Reiter KL, Kilpatrick KE, Greene SB, Lohr KN, Leatherman S. How to develop a business case for quality. Inter J Qual Healthcare. 2007;19(1):50-5.
33. Tsai TC, Jha AK, Gawande AA, Huckman RS, Bloom N, Sadun R. Hospital board and management practices are strongly related to hospital performance on clinical quality metrics. Health Aff. 2015;34(8):1304-11.

Towards More Meaningful Measures in Healthcare

S Leeder, L Russell and A Beaton

Abstract

Most health systems continue to be restructured and modified without much thought to underlying public policy. Patient safety, quality and innovation are monitored through a range of agencies while performance measures are regularly measured and the results published. Primary healthcare in many systems remains fragmented. To achieve value of the whole health system as well as its component parts, the development of an outcomes-based approach to performance measurement is required to guide the delivery of constantly improving health services. This is a critical issue in health systems management.

Abbreviations: **KPI – Key Performance Indicator; SLM – System Level Measures.**

Key words: **health outcomes; primary care; system level measures.**

Stephen Leeder AO, MD, PhD, FRACP, FAFPHM
Professor of Public Health and Community Medicine
Menzies Centre for Health Policy
The University of Sydney

Chair Western Sydney Local Health District Board
Director Research Network
Western Sydney Local Health District
Sydney, New South Wales, Australia

Lesley Russell
Adjunct Associate Professor,
Sydney Medical School

Honorary Associate
Menzies Centre for Health Policy
The University of Sydney
Sydney, New South Wales, Australia

Angela Beaton PhD
Centre for Health and Social Practice
Te Kura Mō Ngā Mahi Tiaki I Te Hapori
Waikato Institute of Technology
Hamilton, New Zealand

Menzies Centre for Health Policy,
University of Sydney
Sydney, New South Wales, Australia

Correspondence:
Stephen.leeder@sydney.edu.au

Key performance indicator (KPI) data are used internationally to enable health system-wide quality improvement and reforms; and to measure the extent to which there is equity in health, access to healthcare and financing. [1] They can be applied to those who provide services to specify volume, style and cost and can link to other measures, both clinical and financial, of achievement and outcome. However, of themselves the vast majority of indicators concern processes of performance and sometimes its structural context, but rarely its ultimate outcome. [2] Moreover, in Australia attention has centred on KPIs for acute hospital specialty care rather than primary or continuing care, further limiting their clinical reach and utility. With new technology and expanding expectations of those who use and pay for services, the range of KPIs is widening, which is aided by the rapid expansion of information technique in health systems.

The place of KPIs in assessing the managerial machinery, clinical processes and financial performance of health systems is now deeply entrenched. KPIs pertaining to process and structure have, however, set the hares running – if we have KPIs for these things, why not for outcomes, life gained, and suffering relieved, or deterioration of the chronically ill patient prevented? If we decide that we value outcomes such as coordinating care for patients with serious and continuing illness or achieving health gain in the community through prevention, then KPIs will be

required that tell us how well we are doing in achieving those outcomes. KPIs relating to the structure and process of care are insufficient.

KPIs relating to the prevailing general practice business models are generally similar to those that underpin activity-based funding in hospitals – they do not always measure achievement of the goals of patient-centred medical homes or community-controlled models of primary healthcare. [3] Indigenous providers are key players in the Indigenous community in exercising self-determination and improving health outcomes; therefore, it will be important for Indigenous providers to grow capability and capacity for data collection and analysis, because data will increasingly drive funding decisions moving forward. [4]

The complex task of measuring outcomes

The process of healthcare is generally judged to be valuable by most humane societies, though the proportion of their national treasure that they devote to healthcare varies greatly, as does the way in which it is spent and the extent of government versus private investment. But if the purpose of healthcare is held to be to improve the health of the public, then outcomes provide the information that can assure investors that the product matches their expectations. This becomes the central KPI. We can only be certain that efforts to improve health and the health system are well-directed if we measure the outcomes. [5]

For example, comprehensive primary care uses integrated, team-based services for those with complex and continuing multiple chronic disorders. This enables timely recognition and early intervention in acute deterioration with the intention of stopping it getting worse and cascading into a clinical disaster. To achieve this the system of care must be sensitive to patient/carer needs and perspectives [6] and these are critically important elements for which process and structure KPIs serve a valuable purpose. If we consider it important to focus efforts on equity within the health system, we will not be satisfied with performance indicators that do not reflect equity and accessibility of care. While public health has traditionally been more focused on equity issues, primary care, acute care, community care, longterm care – together with agencies, providers and service users – must be engaged in the process to implement indicators that are truly valuable.

Performance indicator overload

Currently there are mountain ranges of performance indicators and reporting requirements in Australia.[1] There is an understandable tendency to measure what can easily be measured, which as often as not concerns process and activity rather than outcome – so many hernia operations this year, a certain percentage of patients presenting to emergency departments processed within four hours and so on. Many current performance indicators are bothersome obsessions with inconsequential processes, small details of financial management and risk management of media-sensitive matters that have little to do with health. Few indicators evaluate team work and transitions of care across sectors throughout the patient journey. KPIs easily become the Bitcoin of heroic power plays within the monumental bureaucracy of the average health service.

What to do with the data

What happens to the data that are collected from performance measurement? Over decades, much was warehoused or buried in a data cemetery. There is light, however – contemporary information technology systems in which these data are stored provide for the power of 'big data' analytics to come into play. While many of these data do not connect directly with health outcomes, action is taken on KPIs that relate to processes that in other settings have a strong connection to a health outcome, for example, with high-quality clinical practice guidelines.

Several questions remain for policy makers who are increasingly making use of the data collected for performance measurement. How are performance measures being used in practice? What types of system and outcomes changes have occurred as a result of information from these measures? What could facilitate the use of performance measures and the data they generate? What are, or should be, the consequences of poor performance? While there is no magic inherent in outcome data, appropriate publication of data has been shown to drive improvement. [7]

International lessons for Australia

In New Zealand it is accepted that measurement of health system performance and outcomes requires a system-level strategic framework. That includes an integrated data infrastructure across health and social systems with the ability to measure progress towards a reduction in health disparities among different population groups (utilising National Health Index numbers, a unique identifier that is assigned to every person who uses health and disability support services in New Zealand).

[1] National Health Performance Framework, last updated in 2009; National Key Performance Indicators for Aboriginal and Torres Strait Islander Primary Healthcare; and A Set of Performance Indicators across the Health and Aged Care System, which was developed by the Australian Institute of Health and Welfare in 2008.

For example, one measure of care integration is whether patients aged 75 years or more were admitted to acute care more than twice a year. [8] If high compared to a predetermined standard, this measure of the use of acute care bed days for a targeted group indicates that primary care (health and social supports) need to be reviewed for these patients.

In early 2016, New Zealand introduced System Level Measures (SLMs), or high-level goals for the health system. The measures were intended to show how the country's health and social welfare systems are performing and the value the country is receiving from them.

Each part of the system is important in determining how well the overall goal is met. For example, the measure 'acute hospital bed days per capita' above depends upon good primary care, discharge planning and communication between hospitals and community organisations; these linked local contributory measures contribute to the overall SLM.

Contributory measures for 'acute hospital bed days per capita' include acute readmissions, length of stay and influenza vaccinations in the elderly. The most important contributory measures to address can be chosen locally, based on the needs and priorities of local communities and health services, and local drivers of variation. [9] By identifying the correct contributory measures to address, and using quality improvement methods to improve their performance, the SLM should also improve.

There are many potential problems to be avoided. Lessons from the United Kingdom show that factors which help in the derivation, implementation and use of indicator systems include clear objectives, involvement of stakeholders in development, and use of 'soft' data to aid interpretation. [10] Major problems reported include: the availability, validity and reliability of data; confounding; problems with robustness, sensitivity and specificity; the potential for perverse incentives; and system gaming.

Finally, a recent report from the Kings Fund provides salient advice. [11] It pushes for 'intelligent transparency' with an emphasis on a tiered approach to indicators that might populate a local health system scorecard. It also reiterates the need for radical simplification and better alignment of the disparate performance assessment frameworks currently in use, thus consolidating several national outcomes frameworks into a single, coherent entity covering the NHS, public health and adult social care.

Conclusions

The current and proposed reforms to primary care services in Australia – including the coordinating and commissioning roles of Primary Health Networks, mental health reforms and Healthcare Homes – all require the concurrent development and implementation of meaningful performance measures to ensure improved patient and population health outcomes, equity and efficiency, value to taxpayers, information to inform policy, and greater transparency. Similar needs persist in the acute hospital sector.

Lessons from other countries with similar health systems show that integration of healthcare and social data is a complex and long-term enterprise and that it can benefit from specialist agency contributions that are at arm's length from government, independent, and well-resourced. Capacity and capability building in the use of big data is also essential for Indigenous providers to ensure funding decisions are evidence-based. Multiple opportunities are now presenting in abundance through the use of information technology to determine how we are doing in our primary goal of improving the health of the community and how we can continue to close the gap between Indigenous and non-Indigenous populations in Australia and internationally.

Competing interests

The authors declare that they have no competing interests.

References

1. Hibbert P, Hannaford N, Long J, Plumb J, Braithwaite J. Final Report: Performance indicators used internationally to report publicly on healthcare organisations and local health systems. Australian Institute of Health Innovation, University of New South Wales; 2013.
2. Ayanian JZ, Markel H. Donabedian's Lasting Framework for Healthcare Quality. N Engl J Med. 2016; 375:205-207. DOI: 10.1056/NEJMp1605101.
3. Panaretto KS, Wenitong M, Button S, Ring IT. Aboriginal community controlled health services: leading the way in primary care. Med J Aust. 2014;200(11):649-652. DOI:10.5694/mja13.00005.
4. Penman-Aguilar A, Talih M, Huang D, Moonesinghe R, Bouye K, Beckles G. Measurement of health disparities, health inequities, and social determinants of health to support the advancement of health equity. J Public Health Manag Pract. 2016 Jan-Feb;22 Suppl 1:S33-42. doi: 10.1097/PHH.0000000000000373.
5. Alderwick H, Robertson R, Appleby J, Dunn P, Maguire D. Better value in the NHS: the role of changes in clinical practice. London: King's Fund; 2015.
6. Stange KC, Nutting PA, Miller WL. et al. Defining and measuring the patientcentred medical home. J Gen Intern Med. 2010; 25:601. doi:10.1007/s11606-010-1291-3.
7. Fung CH, Lim YW, Mattke S, Damberg C, Shekelle PG. Systematic review: the evidence that publishing patient care performance data improves quality of care. Ann Intern Med. 2008;148(2):111-23.

8. Health Quality and Safety Commission New Zealand. Available: New health sector System Level Measures have quality improvement focus; 2016. Available: https://www.hqsc.govt.nz/our-programmes/health-qualityevaluation/news-and-events/news/2500/
9. McDonald A. Case study: Harnessing data for local quality improvement in diabetes. Te Awakairangi Health Network (TeAHN): New Zealand; 2016. Available: https://www.hqsc.govt.nz/assets/Health-Quality-Evaluation/PR/Case-study-TeAwakairangi-Health-Network-diabetes-Jan-2016.pdf
10. Freeman T. Using performance indicators to improve healthcare quality in the public sector: a review of the literature. Health Serv Manage Res. 2002;15(2):126-137. DOI: 10.1258/0951484021912897
11. Ham C, Raleigh V, Foot C, Robertson R, Alderwick H. Measuring the performance of local health systems: a review for the Department of Health. London: King's Fund; 2015.

Federalism and Australia's National Health and Health Insurance System[1]

A Podger[2]

Abstract

While health reform in Australia has been marked by piecemeal, incremental changes, the overall trend to increasing Commonwealth involvement has not been accidental or driven by power-hungry centralists: it has been shaped by broader national and international developments including technological change and the maturing of our nation and its place internationally, and by a widespread desire for a national universal health insurance system. In many respects the Australian health system performs well, but the emerging challenges demand a more integrated, patient-oriented system. This is likely to require a further shift towards the Commonwealth in terms of financial responsibility, as the national insurer. But it also requires close cooperation with the States, who could play a firmer role in service delivery and in supporting regional planning and coordination. The likelihood of sharing overall responsibility for the health system also suggests there is a need to involve the States more fully in processes for setting national policies.

This article draws heavily on a lecture presented at the Australian National University in October 2015. It includes an overview of Australia's evolving federal arrangements and the context within which the current Federalism Review is being conducted. It suggests Australia will not return to 'coordinate federalism' with clearly distinct responsibilities, and that greater priority should be given to improving how we manage shared responsibilities.

There is a long history of Commonwealth involvement in health, and future reform should build on that rather than try to reverse direction. While critical of the proposals from the Commission of Audit and in the 2014 Budget, the lecture welcomed the more pragmatic approaches that seemed to be emerging from the Federalism Review discussion papers and contributions from some Premiers which could promote more sensible measures to improve both the effectiveness and the financial sustainability of Australia's health and health insurance system.

The Commonwealth's new political leadership in 2015 seemed interested in such measures and in moving away from the Abbott Government's approach. But the legacy of that approach severely damaged the Turnbull Government in the 2016 federal election as it gave traction to Labor's 'Mediscare' campaign. In addition to resetting the federalism debate as it affects health, the Turnbull Government now needs to articulate the principles of Medicare and to clarify the role of the private sector, including private health insurance, in Australia's universal health insurance system. Labor also needs to address more honestly the role of the private sector and develop a more coherent policy itself.

Abbreviations: **COAG – Council of Australian Governments; NHHRC – National Health and Hospitals Reform Commission; PHI – Private Health Insurance; VFI – Vertical Fiscal Imbalance.**

Key words: **Medicare; federalism; health insurance; health outcomes; roles and responsibilities; coordinated care; private health insurance.**

Andrew Podger
Honorary Professor of Public Policy
Australian National University
Canberra, Autralian Capital Territory, Australia

Correspondence:
andrew@podger.com.au

[1] This article draws heavily on the 2015 Australian National University – Order of Australia Association Lecture delivered at ANU on 12 October 2015.

[2] Andrew Podger is Honorary Professor of Public Policy at ANU and a former Secretary of the Australian Department of Health and Aged Care. He also conducted a review of the delivery of health and aged care services for Prime Minister John Howard in 2005. He was the author of feature articles on health reform in the first two issues of APJHM.

Background

The future of Australia's federal system, and in particular how it deals with health and health insurance, is an issue that would benefit from less ideological debate and more informed public discussion and engagement focused on health outcomes. Perhaps Australia's relatively new political leadership will be more willing than in the recent past to promote such public engagement despite the complexity and sensitivity of the issues involved.

Federalism and the subsidiarity principle

The subsidiarity principle emerged in Europe in the middle ages as the Catholic Church grappled with managing its vast empire. In essence, the principle is that responsibilities should be managed at the lowest or most local level where the public interests concerned are shared. Higher level intervention may only be justified if there are genuine interests beyond the local community to be considered. A corollary of the principle often mentioned in debates today is that each level of government should be responsible for the revenues needed to pay for its responsibilities, or vertical fiscal balance (VFI), though this corollary comes at the expense of preventing horizontal fiscal equity – the capacity to redistribute revenue from rich localities to poor ones.

The subsidiarity principle has several benefits including responsiveness to local conditions and preferences, a check on central power and potential efficiency gains as each local community weighs up the costs and benefits of government. Federal systems differ from decentralised government in that the sub-national governments have sovereignty and not just delegated authority. Thus they apply the principle of subsidiarity in a way that involves much more autonomy including the making of laws and the power to negotiate with other governments including the national government, rather than be ruled or over-ruled by the centre.

There are many forms of federations. Ours was originally a 'coordinate federation' where responsibilities are distinguished and each government is able to exercise sovereignty over its areas of responsibility. This was done in Australia with minimalist powers given to the Commonwealth, the outcome of the negotiations amongst the six colonies anxious not to cede too many of their powers to the new fledgling national government. The States retained almost all of their broad ranging powers under their own constitutions, but any law they pass that is inconsistent with a Commonwealth law (under the powers specified in its Constitution) is invalid. In effect, all the other powers remain with the States. Canada's constitution uses the reverse arrangement to achieve the same end: it specifies the powers of the provinces leaving the rest to the national government. Germany has a rather different approach where most policy responsibility lies with the national government but most administrative responsibility lies with the states (or Bundeslander).

These descriptions, however, greatly simplify the institutional arrangements involved including the design of the legislature, the structure and authority of the judiciary, the administrative arrangements and the inter-governmental machinery. The institutional arrangements reflect each country's history, geography and culture. The descriptions also fail to reveal the dynamic nature of any federal system as it adjusts to changing social, economic and technological circumstances.

The Australian federation

Our federation was forged out of the history of separate British colonial settlements each operating under delegated British authority in a huge country with immense distances between capitals. Despite the geography, there was and remains a remarkable degree of homogeneity amongst the non-Indigenous populations of the States. Under the Constitution, until 1967, the Indigenous population was seen as a matter for the States and the federation was not driven by the need to assuage any other different ethnic or religious or language groups, or by vast differences in income and wealth.

This may help to explain why the Australian Senate, unlike the Canadian Senate, never operated as a States house but, from the beginning, operated on a party basis. Party distinctions have always been seen as more significant than state differences.

The steady accretion of power to the Commonwealth over the twentieth century may also be explained in part by the considerable homogeneity of the population. More important, I suspect, has been changing social and economic circumstances driven in part by technological change. A large part of the shift has come through High Court decisions and some federalists, of course, complain that excessive judicial adventurism was involved. Yet it is important to remember that in every case the Court was required to decide on constitutionality in the context of how to manage a particular and difficult public policy matter. That the answer tended mostly to involve a wider definition of Commonwealth power does not signify a centralist High Court so much as the nature of the policy matters involved and the changing social, economic and technological context in which they had to be managed.

The Australian experience of increasing national power is not unique, though it has gone further than in many other federations. Most developed nations now face the challenge of highly mobile populations and capital requiring the national government to collect most revenue. Most also have economies that are not only more nationally integrated but also have substantial interaction internationally requiring national governments to take more responsibility for economic regulation, transport and communications. Modern communications technology and population mobility are also widening people's contacts and associations, weakening some local cleavages and strengthening national and international orientations. All these forces have been increasing the role of national governments, but not necessarily removing responsibilities from sub-national governments: a common trend is an increase in shared responsibilities with the challenge of managing such responsibilities well and ensuring proper accountability.

Former conservative Prime Minister John Howard referred to his experience as an Australian politician with his fingers on the public pulse, including through his regular talk-back radio appearances, of voters today identifying far more with being Australian than belonging to a particular State or region, and of expecting the national government to address their concerns. [1, p.101]

Nevertheless, there is a real danger of the national government taking undue advantage of its revenue-raising capacity to meddle in matters that are not the business of those beyond each State. Also, of course, States may well meddle excessively in matters better managed by more local communities.

Federation Review

The Government embarked on a Review of the Federation in 2014 working closely with the States in the process. The Review did not get off to a good start however with the Commission of Audit pressing for each jurisdiction to be 'sovereign in its own sphere of responsibility', the 2014 Budget unilaterally withdrawing promised funds to the States for hospitals and education, and the Review terms of reference repeating the simplistic line about 'sovereignty in its own sphere'. [2] Fortunately, the discussion papers produced by Commonwealth officials convey more of the nuances of the issues and challenges Australia actually faces. (See in particular Department of Prime Minister and Cabinet, 2014b.) [3] They offer options not only for a significant shift of responsibilities back to the States but also some serious options that would shift some responsibilities further to the Commonwealth. Most importantly, they give a great deal of attention to the challenge of better managing the growing range of shared responsibilities. They also include a more considered assessment of the oft-quoted concern about VFI – the sharp differences between revenues and expenditures that necessitate large transfers from the Commonwealth to the States. In doing so, the papers clarify that increasing State expenditure responsibilities would exacerbate the problem and therefore require an even bigger shift to the States' revenue raising responsibility if VFI were to be reduced.

Commonwealth political leaders are yet to respond seriously to the substance of the issues and options raised. Fortunately, there have been some signs of more leadership at the State level, particularly from New South Wales, assisted by some very capable State civil servants (some being refugees from the Commonwealth). [4]

Despite claims by the Commonwealth that tax reform must deliver lower, simpler and more efficient tax, the premiers take the view that we will almost certainly need more revenues to pay for the services the community wants, whether delivered by the States or the Commonwealth. There are always ways to deliver government services more efficiently and we do need to limit government expenditure to what the community and the economy can afford but, as we become an older society, and as we become wealthier and health becomes increasingly important to us, it is inevitable that we will want to spend more on health and related services and that this is likely to involve more public as well as more private spending.

Just as a shared approach to tax reform is needed, a shared approach to expenditure reform is needed, and the outcome is unlikely to involve a total split of responsibilities establishing 'sovereignty' over revenue collections or expenditure policies. This is not to suggest no room for reform, but to suggest greater priority be given to improving how we manage shared responsibilities and focus more on achieving better health and education and housing outcomes, and a more efficient economy, rather than wasting effort on trying to re-establish a federation suited to 1901.

Health reform

Health is perhaps the policy area most adversely affected by current federal arrangements, despite the fact that on most measures our health system performs well, particularly in terms of life expectancy and years of healthy living.

Long history of Commonwealth involvement

Commonwealth involvement in health goes back to federation with the Constitution specifying that power relating to quarantine was concurrently enjoyed by the Commonwealth. It was based on this power that the Commonwealth first established a Department of Health in 1921 following strong encouragement by the Rockefeller Foundation concerned about the influenza pandemic after the First World War. Communicable disease was identified as a major concern that could not be managed by the States on their own, but nor could it be managed by the Commonwealth without involving health service providers across the country. By that time, the Commonwealth was also extensively involved in health care through the Constitution's defence power, providing support for war veterans and their dependants under the repatriation system.

Until after the Second World War, the Commonwealth focused on public health and health and medical research (and war veterans) but, in line with the war-time compact to expand social services after the privations of the war (developed largely by a Parliamentary Committee), interest turned to developing a national health insurance system complementing the national social security system that began with the introduction of age pensions in 1909. [5-7, 8] The 1946 Constitutional change gave the Commonwealth new powers including to provide 'medical and dental services (but not so as to authorise any form of civil conscription)' and 'pharmaceutical, sickness and hospital benefits'.

The Chifley Government then enacted the *National Health Service Act* but it was never fully implemented. Instead, the Menzies Government implemented what became known as the Page Plan through regulations under Chifley's legislation involving the first Pharmaceutical Benefits Scheme and a Pensioners Medical Service (which included grants to the States for hospital care), and then hospital benefits and a Medical Benefits Scheme both based on voluntary private health insurance.

Under Menzies, the Commonwealth also entered the field of residential aged care, funding charitable organisations to provide nursing home and hostel care for eligible older Australians. And it operated large repatriation hospitals in every State.

By the time of the Whitlam Government, the Commonwealth was already dominant in the areas of non-hospital aged care, medical benefits and pharmaceutical benefits, and was involved with hospitals through funding to the States, hospital benefits for privately insured Australians and the direct operation of repatriation hospitals. Despite the public controversies surrounding the original Medibank proposals, Medibank did not represent a massive extension of Commonwealth involvement; it did, however, radically shift the health insurance system from subsidised voluntary private insurance to a universal public insurance approach. Whitlam kept an insurance model, despite some Labor colleagues pressing for a British-style National Health Service, and he chose not to take over responsibility for hospitals but to greatly increase grants to the States on condition that hospital services for all public patients would be free.

Debates about universal health insurance continued throughout the 1970s and 1980s and into the 1990s, through a series of Medibank schemes under the Fraser Government that wound back universal insurance, the resurrection of the original scheme by the Hawke Government under the name 'Medicare', and promises by the conservative Opposition to abolish Medicare and to rely again on private health insurance. In 1996, however, John Howard promised to 'maintain Medicare in its entirety' and the scheme has had considerable bipartisan support ever since.

Indeed, for the most part the Howard Government initiatives built on the Hawke/Keating developments including in particular the strengthening of primary healthcare, moving away from just paying medical benefits to re-shaping general practice encouraging computerisation, bigger practices, incentives for better treatment of the chronically ill and improved immunisation and other screening. Bulk-billing in fact increased, services for Indigenous Australians continued to be extended and services in rural and remote areas improved. The Commonwealth also greatly extended its support of aged care beyond residential care, encouraging 'ageing in place', and establishing stronger quality controls.

The Commonwealth became more interested in health outcomes and the effectiveness of the health services it was funding, not just in health financing and insurance. Its agreements with the States on hospital funding began to identify performance and to promote increased efficiency and, working with the States, it began to take a direct interest in quality and safety. By then, the Commonwealth had withdrawn from directly managing its repatriation hospitals but had developed sophisticated approaches to purchasing hospital services for veterans from both State and private hospital providers.

I mention this long history in part to demonstrate the degree of bipartisanship involved in the increasing role of the Commonwealth in health, notwithstanding periods

of bitter debate about the best approach to health insurance, but also to highlight the scale of Commonwealth involvement and the lack of any sense of public opposition to the Commonwealth widening its interest in healthcare services. While he may not have handled the situation well, Kevin Rudd gained considerable public support in 2007 for his suggestion (or threat) that the Commonwealth take full financial responsibility for public hospital services. To the extent there was concern about the Commonwealth involvement, it was about unnecessary bureaucratic processes, too many small programs each with its own rules, and the lack of a clear overall strategy.

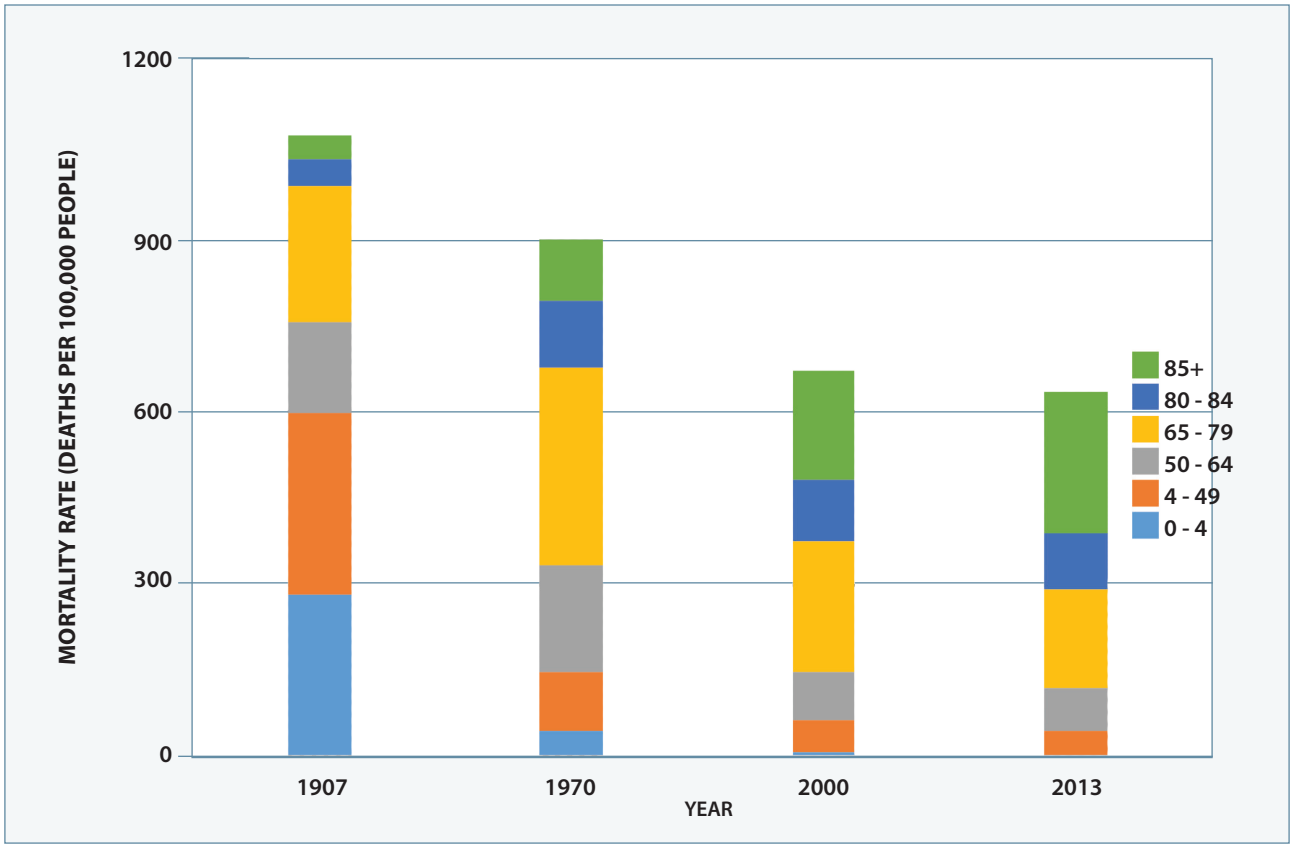
Blurred accountabilities, however, remain a major problem as our history of piecemeal developments has left the Australian system with a very confusing division of responsibilities and funding arrangements that has resulted in the so-called 'blame game'. But there is no evidence of public support for transferring responsibilities away from the Commonwealth to the States.

So what are the practical problems with current arrangements, and where might future reform take us?

Changing demand on the health system

In many respects our biggest challenges are the flipside of our successes. Life expectancy has increased steadily at a remarkable pace – around one extra year of life every four years. Most of the increase is in years of healthy living, with the average period of incapacity declining as a proportion of our lives. Whereas the increase in life expectancy over most of the last century was the result of reductions in mortality amongst children and then amongst those up to middle age – meaning many more people reached age 50 or more – the increase in life expectancy since about 1970 has been driven more by reductions in mortality at older ages – meaning people having reached age 50 live longer. This trend is continuing. Since 1970, mortality rates amongst those aged 50 to 64 and amongst those aged 65 to 79 have steadily fallen. We all have to die sometime so the rates for those over 80 have increased, but now the rates for those aged 80 to 84 are actually falling. Projections suggest rates for those aged 80 to 89 may soon start to decline, with only rates for over 90s increasing.

Figure 1: Changes in Mortality Rates 1907 to 2013, Australia



Source: Australian Institute of Health and Welfare, 2016a [9]

The downside of this remarkable success is that we have many more frail old people now and more with chronic illnesses such as heart disease, cancer and diabetes even while average years of healthy living are increasing at least as fast as life expectancy. Modern technology also means large numbers of people with chronic conditions are able to live comfortably and even independently, fully participating in society. But they, and those with more debilitating conditions, most often rely on a mix of services and medicines. So demand on our health system has shifted dramatically from people requiring episodic care via occasional visits to the GP or to a hospital or finally to support in an aged care home, to the chronically ill and frail aged needing a mix of support from GPs, specialists, hospital visits for surgery, physiotherapy, psychology, dialysis and so on. The Australian Institute of Health and Welfare estimates the chronically ill now represent about 80 per cent of the burden of disease. [10, p.54] Not all of the shift is age-related, with increasing concern about obesity in particular raising the risks of chronic illness at young as well as older ages. The yawning gap between Indigenous and non-Indigenous health demonstrates that there remain serious failures to address, but evidence suggests that these too require a holistic approach to health service delivery rather than reliance on separate service providers.

This demand shift that has been underway for over thirty years now has exacerbated the boundary problems that have long existed in our health system, problems that were already more serious in Australia because of the unique division of responsibilities between the Commonwealth and the States, and between public and private health insurance arrangements.

The challenge is to shift the architecture of the system away from an emphasis on the different types of providers and products – GPs, specialists, pharmaceuticals, hospitals, aged care facilities – to a focus on patients according to their particular health needs.

Measures being taken

Considerable effort has been made to move in this direction over the last twenty five years. The gradual strengthening of general practice and encouragement of better management of chronically ill patients has begun to widen the healthcare services available, improve coordination and promote more continuity of care. The developing role of regional primary health organisations, despite some unfortunate politicking and unnecessary disruptions, has the potential to facilitate better links between hospitals and primary healthcare and to lead to useful initiatives such as better out-of-hours GP services and other measures to reduce pressure on emergency rooms. This seems to have been most successful where partnerships have been forged between the organisations and the regional hospital networks managed by the States.

The increasing role of aged care packages is also ensuring a more careful approach to responding to healthcare needs, offering services appropriate to individual needs and allowing more choice about where people may live. The packages also have the potential to reduce demand on hospitals.

There have been major investments into information systems and there are signs of improving information exchange between GPs, specialists and hospitals. The goal of a single electronic health record is still a long way off, but we should not ignore the improvements that have been made.

Further steps are on the agenda, amongst them the MBS Review Taskforce which is examining the list of medical services on the MBS and the Primary Health Care Advisory Group which recently identified further opportunities to reform primary healthcare focusing on the management of people with complex and chronic disease. [11,12] A tantalising possibility identified by the Advisory Group is to shift further from reliance on fee-for-service (which encourages more services) to other forms of funding for the chronically ill to promote continuity and coordination of care and better health outcomes. [12, p.9]

Some direct attempts have also been made to address boundary problems but so far with limited success. In the late 1990s Coordinated Care Trials were conducted with the Commonwealth and the States pooling funds for identified patient groups and allocating these to a care coordinator to purchase the health services for the group. The evaluation suggested the quality of care generally improved with the likelihood of better health outcomes in time, but that the funding arrangements trialled were problematic, total costs generally increasing without satisfactory controls. [13] The Commonwealth-State healthcare agreements at that time also included an option to 'measure and share' aimed at addressing some specific boundary issues such as the provision of prescription drugs on hospital discharge and the management of outpatient services with a view to sharing the risks and the benefits of a more cooperative approach. Unfortunately little progress was made at that time.

More recent developments and options

In 2004 John Howard asked me to conduct a review into the delivery of health and aged care services. I reported in 2005 (the report has never been made public) recommending a package of incremental reforms, most of which he and his health minister, Tony Abbott, accepted, including to widen Commonwealth involvement in aged care, invest further in primary healthcare and invest further in information technology; I also recommended strengthening regional health service planning and coordination but that idea was not pursued at the time. In the longer term, I suggested, the Commonwealth should consider taking full financial responsibility for the health and aged care system based on a regional framework, advising that this was indeed viable but also noting the scale and risks involved in such a reform The Prime Minister and Health Minister agreed that in principle the Commonwealth having full financial responsibility made considerable sense, but in view of the risks involved in any transition they decided to focus attention on the incremental measures I had recommended. These, I had emphasised, were designed in part to make it easier sometime in the future to consider again this more radical structural reform.

When he came into power in 2007, Kevin Rudd flirted, as mentioned, with the idea of a full financial takeover but he ended up pursuing a less radical (but by no means modest) set of reforms. He established the National Health and Hospitals Reform Commission, (NHHRC) which recommended in 2009 substantial structural changes. [14] These included the Commonwealth taking full financial responsibility for primary healthcare, Indigenous health and aged care, sharing directly the risks associated with hospital financing to reduce any incentives to cost shift, and establishing a firmer regional planning framework building on the Divisions of GPs; but the report fell short of recommending a full Commonwealth financial takeover. The report also identified an even more radical option for more careful study, that would allow individuals to select their own insurer or healthcare manager to manage their Medicare health service entitlements in exchange for receiving their assessed Medicare risk-related premium, a 'managed competition' option they named 'Medicare Select'. In this model, people would either charge their medical, pharmaceutical and hospital costs to Medicare as most do now, or to their chosen insurer or healthcare manager which the Government would pay via an assessed Medicare-equivalent premium (and which might charge an additional premium for additional coverage). The payment of Medicare premiums to funds would replace the PHI rebate and the Medicare surcharge exemption for PHI members.

Rudd did not pursue Medicare Select but he did propose going somewhat further than the NHHRC Report's main recommendations, in particular increasing Commonwealth financial involvement in hospital financing in exchange for a share of GST revenue as well as widening the Commonwealth's role in primary health and aged care. This was clearly a bridge too far at the time and the subsequent Gillard Government negotiated a deal that confined itself to some but not all of the Bennett Report measures. Gillard retained the proposed regional primary healthcare organisations (unfortunately named 'Medicare Locals' by Rudd), relying on these to work with State regional hospital networks and new regional aged care arrangements to soften boundaries between primary and acute care and between aged care and hospitals. This complemented the most expensive measure in the deal, the Commonwealth agreeing to share directly the risks associated with hospital services by replacing block grants to the States with payments directly to hospital networks for a fixed share of the 'efficient price', whatever the level of demand.

The Abbott Government's approach was confusing. While promising not to cut health spending, Abbott had foreshadowed concerns about both spending levels and the role played by the Medicare Locals, the latter reflecting criticism by some GPs that their role in primary healthcare was being undermined. There was some basis to this criticism and the very name, 'Medicare Locals', suggested they would deliver services directly rather than focus on planning and commissioning existing providers to fill gaps. The Government abolished the organisations and replaced them with so-called Primary Health Networks; hopefully, these will be able to draw on the often positive experience and expertise of those involved in the former Medicare Locals (and the GP Divisions before that), and not have to reinvent the wheel entirely.

Of more concern was the Commission of Audit Report which not only suggested establishing a clearer division of responsibilities between the Commonwealth and the States with each jurisdiction having sovereignty over its own area of responsibility, but that the Commonwealth consider limiting its involvement in hospital funding. [2, p.103] These ideas seemed to gain some official support when in the 2014 Budget the Commonwealth announced unilaterally that it was not proceeding with the risk-sharing arrangement agreed previously with the States but returning to a form

of block grants indexed to prices. The terms of reference for the Review of the Federation released later included similar language, seemingly hinting that there might be a further shift of responsibilities to the States and a firm separation of responsibilities within the health system. [15]

Next steps

Fortunately, the bureaucrats responsible for preparing discussion papers for the Review were able to convince their political masters to allow other approaches to be canvassed, ones that start by addressing the issues from the perspective of more effective and efficient health services and improved health outcomes. Of the five options identified in the paper prepared for the June 2015 Council of Australian Governments (COAG) Retreat, only one involved a significant transfer of responsibility to the States (via full responsibility for public hospitals). [3] Two options involve more sharing of responsibilities (for care packages for the chronically ill and for regional purchasing agencies) and two involve transferring more responsibility to the Commonwealth (via a new hospital benefit and via a health purchasing agency).

There was no sign of support amongst Premiers for the first option, but comments by South Australian Premier Weatherill suggested there may well be support for the option of a Commonwealth hospital benefit. This could build on the Rudd/Gillard initiative for the Commonwealth to share the risk of growth in hospital episodes, at least to some proportion of the efficient price. This is already promoting greater efficiency in public hospitals and, if taken further, could also promote greater cost effectiveness in the health system as a whole. It could for example make it easier to introduce the option of shared funding of care packages for the chronically ill, managing this at the regional level between the States' local hospital networks and the Primary Health Networks, and reducing the current emphasis on fee-for-service for GPs through whole-of-care funding for registered chronically ill patients.

In other words, future reform that would actually improve the health system is most likely to involve more Commonwealth financial involvement, not less, and probably more shared responsibilities not fewer. The danger, however, is that this will continue or increase the blurring of accountability and mean the blame game will continue.

An approach that would limit this risk is to clarify respective roles within areas of shared responsibility, and to reform the way in which national policies are established when responsibility is shared. In particular, the Commonwealth might continue to increase its share of financial responsibility playing the role of the national health insurer, while the States might increase their role in service delivery. To promote greater integration of services on the ground and more patient-oriented care, States need to continue to strengthen local and regional capacity for planning and coordination (working with the regional Primary Health Networks) and for local delivery (in the case of public hospitals). This transformation has been underway for some time now, and may take more time to complete, but it would be unfortunate if we were to reverse the process. It has been contributing to improvements in the health system and, if well handled, could also contribute to improvements in the federation and in expenditure control.

Reforming the way national policies are established when responsibility is shared, means giving the States a genuine place at the table. It also means constraining the capacity of the Commonwealth to impose additional rules and processes that may limit local flexibility and innovation. Recent experience, not just under the current government, has been in sharp contrast with such an approach. Hopefully the atmosphere of cooperation that seemed to surround the COAG retreat in June 2015, combined with the change in the leadership of the Commonwealth Government, is the beginning of a more cooperative style.

Private health insurance and Medicare

The role of private health insurance (PHI) in our national health and health insurance system may also have significant implications for federal relationships. Regulation and support for has been a Commonwealth responsibility since the early 1950s under the Page Plan.

Australia's approach to PHI is unique, and uniquely confused. While Medicare provides universal health insurance cover (unlike the United States), nearly half the population retains PHI and is encouraged to do so by government (unlike the United Kingdom or Canada). PHI covers members for hospital services they might otherwise use as public patients funded by Medicare, and also offers choice of physician, greater amenity and the ability to reduce waiting times for various 'elective' procedures and diagnoses. The confusion caused by the system is best demonstrated by that uniquely Australian question people face in emergency departments: 'do you want to go public or go private?' The right answer for those with PHI is rarely obvious, confirming the policy's lack of coherence.

Government policy tends to focus simply on the level of PHI membership; it rarely focuses on the more important issues of efficiency and effectiveness of the insurance and the services covered, and the ease for consumers to decide on their cover and how to use it.

There are two main options for making our approach coherent and user friendly. The first is to remove any government support for PHI and to allow it to play a residual role to the universal health insurer, Medicare, where people may choose to opt out at their own expense. The second is the Medicare Select approach where Medicare can be managed by PHI funds (or other health management organisations), people being able to choose to direct their Medicare risk-rated premium to their preferred fund. The funds could charge extra to cover more services or particular service providers, but must cover at least those otherwise met by Medicare. This article does not canvass the relative merits of these two options, but notes that either would make more sense than current arrangements. Several other observations are relevant to federal responsibilities and to possible policy directions for the two major parties. The first is that the second approach could only be implemented if the Commonwealth had full financial responsibility for Medicare and could appropriate the money for the risk-rated premium vouchers to be passed on to the nominated PHI funds. Proponents of a greater role for PHI need to appreciate that that almost certainly implies a greater role for the Commonwealth in funding the national health insurance system. The Medicare Select approach is mentioned in the COAG discussion paper but is not included in the list of options for reform at this time because of its complexity, but it remains a serious model for future consideration.

The second point is the lack of a coherent approach by either side of politics at the moment. Labor's 'Mediscare' campaign in the 2016 federal election accusing the Turnbull Government of planning to privatise Medicare does them no credit. Medicare is an insurance scheme not a national health system like the United Kingdom's; health services are delivered by both the private and the public sector and, to some extent, Medicare's health insurance has been delivered in part by the private sector as well. Parts of the payment system such as its IT support have long been outsourced. Moreover, Labor continues to support subsidies for PHI via both the PHI rebate and the Medicare levy surcharge exemption. Its means testing of the PHI rebate was also a sleight of hand; high income earners with PHI paid more tax through the loss of the rebate and those without PHI paid more tax through the increased levy surcharge, so that the measure was just a messy tax increase that in fact increased subsidies for PHI and reduced transparency.

The Coalition's apparently unconditional support of PHI, on the other hand, allows critics to doubt its commitment to Medicare. Labor's 'Mediscare' campaign gained traction for this reason, and because of the measures pursued in Abbott's 2014 budget. Complaints about Labor's tactics might have more credibility if the Turnbull Government articulated the Medicare principles it is committed to, and moved to clarify the role it sees for the private sector consistent with those principles.

The Canadians have demonstrated the value of articulating the principles behind Medicare. Our principles may differ a little from Canada's and we may not need to follow Canada's practice of putting them into legislation. We should however look to explore our system's principles through COAG in order to gain a shared Commonwealth and State view, and to debate them in the Parliament. The key principles in my view are:

1. Universal coverage: that all Australians should have access to health services according to their health needs;
2. Equitable financing: that the health system should be funded according to people's capacity to pay;
3. Efficiency and effectiveness: that government support for the system should be based on cost effectiveness in terms of health outcomes; and
4. Consumer and provider satisfaction: that the system should be oriented to patients and consumers, providing safe, high quality and convenient healthcare, while also respecting the professionalism of those providing the services.

The Turnbull Government initiated consultations on PHI late last year led by Graeme Samuel. [16] We are yet to see the results, but Samuel's background suggested the possibility of reforms to increase competitiveness in our PHI system and in the delivery of health services. Subsequently, the Minister announced a new advisory committee chaired by Jeff Harmer, a former departmental secretary, with representatives of a range of interest groups; the prospects for reform may therefore be more limited now. [11] With serious reform, current subsidies could be redesigned to more properly reflect the costs PHI funds meet that genuinely replace those otherwise met by Medicare, and to ensure they and the related regulatory arrangements better promote efficiency and contain PHI premiums and copayments. In time, such reforms could facilitate renewed consideration of Medicare Select.

Expenditure control

Another critical issue is the growing total cost of Australia's health system and the risk that we are not achieving value for money. How can we improve efficiency and cost effectiveness, and are there implications here also for the most appropriate federal arrangement?

Health insurance, like any insurance arrangement, presents the risk of 'moral hazard': the fact that a third party – the insurer – must pay for a service provides an incentive for both the insured person and the service provider to press the envelope and oversupply. This may involve increasing the price, adding extras to the service, exaggerating the event that gave rise to the insurance claim and so on. Insurers try to contain the problem by imposing copayments or by limiting eligible service providers or by having their own inspectors assess the damage or by requiring service providers to compete; they also look to reward behaviour which reduces risks. Moral hazard is much harder to handle in the case of health insurance.

While there are no doubt cases of conscious exploitation, more commonly the problem arises because doctors really do want the very best for their patients and they view any attempt by the insurer to constrain the service as placing in jeopardy the doctor-patient relationship. It is also clear that information asymmetry (the reliance of patients on their doctors' advice) and the limited level of competition amongst doctors allows some doctors to charge substantial fees reducing the value of the insurance product.

Health economists emphasise the importance of supply side measures in controlling expenditure and addressing value for money, and not just demand side measures (health economists also emphasise investment in preventative measure to reduce demand and not just co-payments). Allocative inefficiency has also long been a concern and the increasing level of chronic illness increases this risk as too much may be spent on hospitalisations and not enough on GPs and allied health support, or on preventive measures and early detection of illness.

Let me touch on each of these aspects of cost control and achieving best value for money. First, the issue of co-payments as a form of demand-side control. The Commission of Audit and the 2014 Budget proposal to introduce a GP co-payment was widely criticised for being unfair. In my view, the proposal was deeply flawed not because it was unfair but because it was unlikely to have much effect on efficiency, and because it failed to address the need to develop a more coherent system-wide approach to co-payments and safety nets that might constrain over-servicing while guaranteeing maximum total out-of-pocket expenses and preserving good access to cost-effective primary healthcare. We have an extensive system of co-payments and safety nets applying to prescription drugs, a haphazard system of copayments for GP and specialist visits and no co-payments for public patients in hospitals. Achieving a coherent system that is not based on each service but on each patient's total Medicare services and expenses will remain hard while we have separate funding arrangements.

Second, the issue of supply-side measures. Australia was a pioneer in introducing cost effectiveness rules for listing and pricing pharmaceuticals on the PBS. As the Grattan Institute has observed, however, we could apply the rules more firmly, in particular making more use of generic drugs and using their prices as benchmarks for relevant new products. [17] Australia also broke new ground when it imposed similar cost-effectiveness rules to new MBS services. The current MBS Review Task Force is rightly now examining all the existing services on the schedule to see whether they are justified and whether the price reflects their effectiveness. The Grattan Institute has also identified several cases where evidence reveals that the medical service subsidised by Medicare is not only not cost-effective, but is not effective at all and is possibly unsafe. [18] As with the PBS process, this review needs – and has – firm clinical leadership but also economic input. As mentioned earlier, the Primary Health Care Advisory Group also advocated reducing the MBS reliance on fee-for-service (which tends to encourage over-servicing).

The process of identifying 'efficient prices' for public hospital episodes is already driving efficiency gains, building on those from the earlier introduction of case-mix financing. The 2014 Budget measure to return to Commonwealth block-funding for State public hospitals may have reduced the Commonwealth's Forward Estimates but only by shifting the costs to the States. In jeopardising the development of efficient pricing across our public hospitals it could also undermine moves to improve efficiency (and cost savings) in the system as a whole.

These three within-program supply-side strategies – cost effectiveness processes under the MBS and PBS, possible moves away from fee-for-service under the MBS, and the application of efficient prices to hospital services - have the potential to achieve far greater efficiency gains – and cost savings – than the crude GP co-payment proposal.

Thirdly, however, we need to do more to address allocative efficiency, not just efficiency within each of our major programs. A surprising weakness in our national health insurance system has been the failure to act as an insurer – to link existing data across the system and to analyse it to identify financial and health risks, and to identify the additional data we need to identify both health needs and health outcomes, and to track people over time. Such data would not only help the managers of our insurance system but also provide valuable feedback to clinicians and data for researchers. Some progress is now being made but we have a long way to go. The emerging regional health system arrangements also offer the potential to support better allocation of resources. The Primary Health Networks may have small budgets, but they have the flexibility to ensure they are used to fill gaps and to improve important connections that could reduce hospitalisations and ensure more cost-effective care. Linking data could also allow each region to identify the costs of healthcare services to its population, allowing comparisons to be made against benchmark costs given the known health risks, and against clinically ideal patterns of service utilisation. This could guide not only the regional primary health and hospital networks but also officials at the State and Commonwealth level in considering allocations of funds between regions.

Returning to my overall theme of the health system's federal arrangements, there is little evidence to suggest that returning more responsibility to the States would promote greater efficiency. There is a strong case for a more integrated approach and continuing to move towards the Commonwealth being the national insurer, so long as the Commonwealth does more to act as an insurer and to pursue supply-side cost effectiveness measures and establish a more coherent system of demand-side controls. There is also a strong case for regional flexibility and capacity to influence the allocation of funds.

Conclusion

Australia's approach to federalism has been described as 'pragmatic'. [19] While that is not entirely a positive description, encompassing as it does occasional 'opportunist' political game-playing, it is preferable to ideologically or theoretically driven approaches. The reform process that began in 2014 could be given a more positive, pragmatic flavour, focusing on tangible improvements in public services and increased efficiency, rather than ideological considerations. There were signs last year of a greater focus on particular areas of public services – health, education and housing – and on how changes in federal arrangements might improve their effectiveness and efficiency.

While health reform in Australia has been marked by piecemeal, incremental changes, the overall trend to increasing Commonwealth involvement I would argue has not been accidental or driven by power-hungry centralists: it has been shaped by broader national and international developments including technological change and the maturing of our nation and its place internationally, and by a widespread desire for a national universal health insurance system.

In many respects the Australian health system performs well, but the emerging challenges demand a more integrated, patient-oriented system. This is likely to require a further shift towards the Commonwealth in terms of financial responsibility, as the national insurer. But it also requires close cooperation with the States, who could play a firmer role in service delivery and in supporting regional planning and coordination. A clearer distinction between roles (for example, funder versus provider), seems a more sensible basis for reform discussion than an attempt to fully separate responsibilities within the health system.

The likelihood of sharing overall responsibility for the health system also suggests there is a need to involve the States more fully in processes for setting national policies. A good start to this might be made if the Turnbull Government suggested to COAG some core Medicare principles that might guide future reforms and avoid the misleading political rhetoric that undermined constructive debate in the 2016 election.

Competing interests

The author declares he has no competing interests.

References

1. Hollander R. John Howard, Economic Liberalism, Social Conservatism, and Australian Federalism. Australian Journal of Politics and History. 2008;53(1):85-103.
2. National Commission of Audit. Towards Responsible Government, The Report of the National Commission of Audit, Canberra: Australian Government; 2014.
3. Commonwealth Department of Prime Minister and Cabinet, 2014b. Roles and Responsibilities in Health. Issues Paper 3, Reform of the Federation White Paper. Canberra.
4. Australian Politics. COAG Discussions focus on Terrorism, Federation and Taxation [accessed 3 Nov 2016]. Available from: www.australianpolitics.com/2014/10/10/coag-meeting-communique-press-conference.html
5. Joint Parliamentary Committee on Social Security. Sixth Interim Report: A comprehensive health scheme. Canberra; 1943.

6. Joint Parliamentary Committee on Social Security. Seventh Interim Report: Commonwealth hospital scheme, hospitalisation, consolidation of social legislation Canberra; 1944.
7. Joint Parliamentary Committee on Social Security. Eighth Interim Report: A comprehensive health scheme. Canberra; 1945.
8. Herscovitch A, Stanton D. History of Social Security in Australia. Family Matters. 2008;80:51-60.
9. Australian Institute of Health and Welfare. General Record of the Incidence of Mortality Workbooks 2016a, [accessed 15 August 2016]. Available from: www.aihw.gov.au
10. Australian Institute of Health and Welfare. Australia's health 2016. Canberra: AIHW; 2016b.
11. Commonwealth Department of Health. Medicare Benefits Schedule Review Taskforce, Interim Report to the Minister for Health. Canberra; DoH; 2016.
12. Commonwealth Department of Health. Better Outcomes for People with Chronic and Complex Conditions, Report of the Primary Health Care Taskforce. Canberra: DoH; 2015b.
13. Commonwealth Department of Health and Aged Care. The Australian Coordinated Care Trials: final technical national evaluation report on the first round of trials. Canberra: AGPS; 2001.
14. National Health and Hospitals Reform Commission. A healthier future for all Australians, Final Report. Canberra.
15. Commonwealth Department of Prime Minister and Cabinet. A Federation for the Future, Issues Paper 1, Reform of the Federation White Paper. Canberra; 2014a.
16. Commonwealth Department of Health. Private Health Insurance Consultations 2015-16, [accessed 3 Nov 2016]. Available from: www.health.gov.au
17. Grattan Institute. Premium Policy? Getting better value from the PBS [accessed 3 Nov 2016]. Melbourne; 2015a. Available from: www.grattan.edu.au
18. Grattan Institute. Questionable care: avoiding ineffective treatment [accessed 3 Nov 2016]. Melbourne; 2015b. Available from: www.grattan.edu.au
19. Hollander R, Patapan H. Pragmatic Federalism: Australian Federalism from Hawke to Howard, Australian Journal of Public Administration. 2007;66(3):280-297.

The Language of Health Reform and Health Management: critical issues in the management of health systems

DS Briggs and G Isouard

Abstract

Health reform has been a constant feature of most health systems for a number of decades and has often focused on structural change. The lexicon of health reform and health management has also become intertwined with managers reporting that reform has become a constant and that rather than influencing that change they are in fact influenced by it and by its impact on their role, professional development and career.

There is a challenge for health service managers to return to a leadership role in enabling health reform. In doing so will this challenge us to think differently about management?

This article addresses the significant body of research into health reform and health management through the lens of language used in reporting the context and the significant impact that it has had on the management role. It describes what directions that role might take, the qualities required in selecting capable managers and questions the current status quo in the education, training and development of this significant sector of the health system workforce.

It concludes by proposing a way forward that acknowledges that contemporary health reform is shifting the paradigm of healthcare delivery in a way that requires the dominant view of health management to be challenged. This might be achieved by the use of a critical lens on the language of management, a focus on a grounded approach about what managers need to do and an acceptance of variability in that role in adaptive complex contexts.

Abbreviations: **DNOP – Distributed Networks of Practice; MDG – Millennium Development Goals; PHC – Primary Healthcare; PHN – Primary Health Network; SDG – Sustainable Development Goals; SEDOH – Social Economic Determinants of Health; SHAPE – Society for Health Administration Programs in Education.**

Key words: **health reform; health management role; lens; language; critical inquiry.**

David Briggs
Professor Health Systems Management
Naresuan University Thailand

Adjunct Associate Professor
University of New England
New South Wales, Australia

Godfrey Isouard
Associate Professor
University of New England
New South Wales, Australia

Correspondence:
dsbriggs007@gmail.com

Introduction

Critical management inquiry questions the 'alignment of knowledge, truth, and efficiency' within 'notions of power, control, and inequality'. [1] These critical perspectives contrast with the normative, rational view of management and are important in seeking to present the personal perspective of managers about their role, possibly in contrast to that normally presented in the literature.

Health reform has been a constant feature of most health systems for a number of decades and has often focused on structural change. The lexicon of health reform and health management has also become intertwined with managers reporting that reform has become a constant and that rather than influencing that change they are in fact influenced by

it and by its impact on their role, professional development and career. [2] Managers are said to be 'equipped with a range of languages that describe their context and their challenges'. [2, p.642] These languages represent theory, but do not completely describe the context or role and it has been said that 'They are partial stories… overlapping unknowably and are said to be incommensurable'. [3, p.12] Hence this article responds to the challenge by Professor Judith Dwyer in her 'Chris Selby Oration' at the 2016 SHAPE Symposium, Melbourne for health managers to take the leadership role in national health reform. This response takes the form of examining the lexicon of health reform and health management language described in contemporary research and that is illustrated within the articles in this special edition.

Reform

Although evidence shows that health reform fails to realise its intended efficiencies, governments hold high expectations of it. [2,4] The agenda is often driven by strong language that results in better outcomes in healthcare. In Australia, the Commonwealth and States have historically been deficient in the required capacity and capability to fulfil the rhetoric to drive and lead the major process of reform. However, such deficiency of skill and capacity is not just isolated to the domains of government, but clearly found at the coalface amongst health managers who are positioned to provide leadership within the reformed organisational environment. [5,6] There is an underlying lexicon that is often spruiked that restructuring is the precursor to systems improvement which then leads to better health. However, research has shown that 'big bang' changes, often supplemented with raised expenditure, are used by governments to send a strong message that the community will gain though improved health status. Boxall and Buckmaster reported that the likelihood of success in implementing such 'big bang' reform is small. [7] Experience has shown that success is more likely to be achieved through a much smaller scale incremental strategic approach.

The move to the aggregation of health services into health systems reflects the effect of political and economic change, a move from centrally planned economies to that of markets with reduced state intervention and control and greater decentralisation and the increased adoption of commercial business practices focused on process. [8] This suggests that the emphasis and, therefore the practice of health management will mostly be about managing systems of healthcare and models of healthcare delivery that will span organisational boundaries. So this change, well in transition in some nation states and lagging in others, suggests perhaps different skills and roles for health managers. A seminal influence on how the policy of health reform is currently enacted and how healthcare is delivered and practised are the similar concepts of the 'principle of subsidiarity' and that of 'localism'. The principle of subsidiarity, also mentioned by Podger in this issue suggests that 'government should only fulfil a subsidiary function for those tasks that cannot adequately be dealt with by lower tiers'. [10, p.11] Subsidiarity context is meant to lift the burden of bureaucracy, empower communities, increase local financial control, diversify the supply of public services, create greater public transparency of government and, strengthen accountability to local people. [11, pp.1-7; 12, pp1-2]

Localism is said to be based on two uncontroversial facts 'that services are often provided in quantities and ways that do not reflect or involve the local communities' and that they are essentially sickness services without much emphasis on reducing illness and improving health and wellbeing'. [12, p.12] Subsidiarity and localism immediately bring to mind the concept of community engagement, a concept that all health systems pay at least 'lip service' to but to which many have substantial commitment to achieving. In fact, in the Australian context during the recent establishment of Primary Health Networks (PHNs) to provide a commissioning and development focus to primary healthcare (PHC), community engagement is a prescribed function to be achieved alongside clinical engagement. So the emphasis on 'community engagement' is being elevated in importance and escalated in many health systems in its implementation and, it has enormous potential to contribute to healthcare. Are you adept, skilled and informed in all things that community engagement suggests and promises? Is it well entrenched in your health management lexicon?

The second assertion in the two uncontroversial facts mentioned above is that we deliver health services that are focussed on 'sickness' without the obvious need to both reduce illness and improve health and wellbeing. [12] This is not an unreasonable statement given demonstrated variability in utilisation and outcomes, the massive scale of the acute care sector and our want to provide both equity and access to all to services. However, that position ignores an important element of our health language that is reduced to, the socio-economic determinants of health (SEDOH) and that, in many developed nations states, there are obvious geographic areas, population groups and communities who have poor health status and outcomes demonstrated by assessment against those determinants. The data about

both the status and the outcomes is unequivocal. These determinants are more obviously seen in addressing the health needs of developing countries but remain relatively invisible in developed countries approaches. Developing countries with the impact of the United Nations and the World Health Organisation have made significant progress through the application of Millennium Development Goals (MDGs) and, more recently in the progress to Sustainable Development Goals (SDGs). [13] Tejativaddhana and colleagues and Short and colleagues in this journal issue, both raise the critical importance of SDGs and, given they translate into measures of health outcomes, they are a critical factor mentioned by most authors in this journal issue. They also remind us that healthcare is just not about acute care and the process of care but includes both public health, preventative health and population health, societal factors and the outcomes of healthcare within our lexicon. Addressing SEDOH is not easy and progress may well be generational but it remains a central challenge and a significant contributor to the utilisation and costs of our sickness system and warrants greater prominence in our health management language and practice. It seems that moving the language of SEDOH, MDGs and SDG to a more central repository in the health management lexicon should be seen as a priority if health managers are to respond to the challenge of leadership in health reform.

A further consequence of the changing, shifting and transitioning of health reform and health management is the increasing alignment but not necessarily integration of the boundaries across traditional healthcare silos. Again, utilising the Australian example of establishing PHNs we see an alignment with the local health districts, focused on acute care services both in terms of geography and populations. Alignment of boundaries is public policy speak for collaboration at and across the boundaries, providing seamless care, integration where appropriate, clinical connectedness and clinical pathways and best practice. So in the health management language about roles this brings to the fore the concept of managers and leaders as boundary riders working at the edge of organisations and collaborating across boundaries. Equally, ideas and language can act as boundaries to our role and action. [14] The crossing of organisational boundaries suggests a shift away from hierarchies to the greater consideration of 'quasi markets' and network based approaches and an increased role of non-profit organisations. 'New Localism' has been described as 'a reaction against the target led and top down nature of…the NHS'. [15, p.39] This also brings into potential the value of the distributed networks of practice (DNoP) [16] in healthcare. Health professionals are familiar with community and/or networks of practice. DNoP provides the concept of collaboration to extend beyond single organisations, to those that can engage colleagues across organisations and geographic and national boundaries to improve care, provide education and undertake research in innovative contexts. These approaches can sit alongside existing organisational structures but do not respond effectively to prescriptive management. Gasson [17] and Wegner [18] talk in terms of 'brokering' as 'the transfer of an element from one community to another [17, p.3] So this brings our emphasis on the language into the brokering perspectives of 'translation, coordination and alignment of perspectives' into a network that furthers the alignment of interests' and to integrate knowledge. [17, p.3] Working across boundaries, in networks and brokering represents a challenge for traditional managers and organisations to live alongside and foster without damaging the potential of innovation by too much prescription. [19] These concepts suggest sensemaking as an important element of what managers do around 'linkages, structures, openness, capacity, reward, proximity and synergy'. [20, p.30]

Health management workforce

Short in this issue identifies the health workforce as both global and as a critical health management issue in the move towards achievement of sustainable health goals SDGs. In the national context, Martins and Isouard reported the first comprehensive study of health managers in Australia and their characteristics as at 2006 and 2011. [21-25] That study determined the number and characteristics of health managers and those employed in aged care residential services, to inform policy and decision-making in various planning, workforce and strategic exercises to address future requirements. The voice of ongoing reform places the health management workforce under the strain of never ending change. It is common knowledge that health managers express widespread cynicism towards reform. The lexicon of mistrust and scepticism has built up over time when reform is talked up by governments and health departments yet rarely delivers the intended healthcare outcomes. In Australia the health workforce is seen as complex with overlapping clinical and other professional functions. [21,26] In particular, there is no universally recognised definition for a health manager, with no defined competency standards and qualifications recognised. This lack of established identity by health managers as a profession is seen as a likely contributor to issues arising

in the attraction and retention of the health management workforce.

Although Martins and Isouard had identified that health managers have higher education qualifications than managers on average in all industries in Australia, [23] questions still remained as to whether their training and qualifications prepared them for the challenges posed by the constant systemic and other reform activities occurring. To investigate the latter, the authors developed an evidence-based model on competencies and skills for managers. [25] Their study undertook a strategic approach to identifying the competencies and skills required by health managers to handle systemic changes. The framework provided an evidence-based approach to identifying management competencies and skills based on real-world health management issues.

The health management role

Health professionals often undervalue the important role that health management plays within an organisation. Similarly, there is often little regard for the roles that health managers play in the introduction of reforms. Although it appears obvious that the possession of the required senior management skills seems vital to the success of the reforms, it hardly raises a mention in the language describing the proposals. The precise nature of the management role remains uncertain [27, p.123] but in healthcare it is described as unique, [28] while others have suggested that it is contested terrain, requiring critical examination. [29] Unlike the traditional approaches prescribed as 'capability frameworks', 'competencies' and 'skills' others describe the health management role as one that is seen as 'active participants, constructors, organisers and persuaders, emphasising the negotiation of meaning as being central to the role' . [2, p.643;7] Health reform 'challenges the dominant ways we think about management'. [31, p.186] The health management role is 'situated in complex changing health systems' and is multi-dimensional. [2, p.644] Increasingly, as Weik suggested some time ago, management is increasingly focused on information gathering to seek certainty and to better construct the environment within a complex but adaptive system. [2]

This is in contrast to much of the current practice and curriculum where management continues to be practised in the normal rational and prescriptive fashion of traditional bureaucratic organisational structures. So this leads the authors to the hypothesis that health systems continue to manage in contexts and approaches that do not adequately enable successful implementation of health reform but facilitate the status quo. This suggests a need for further qualitative research to 'allow greater insight from their interpretation of their role'. [2] Mark 'argues for a more inclusive approach that provides the opportunity' [2] 'for the transfer of theory across sectors and cultures'. [32, p.863]

The language being presented to us from the research literature and from the authors in this issue suggest that existing hierarchical approaches dominated by 'managing upwards' will not facilitate health reform nor will it deliver capable health managers to lead that reform and mange in the new complex and adaptive systems that we are moving towards. In recognition of this the leading health management academics and researchers in Australia came together in 2008 to establish the SHAPE Declaration to 'promote public debate on the reform of the organisation and management of Health Services.' [33, p.11] At the time the Australasian College of Health Service Management also endorsed the Declaration.

The principles about health reform are encapsulated in the SHAPE Declaration, which states that:

1. Public policy should focus on improving health outcomes and not be prescriptive but provide frameworks of responsibility and cooperation at the program delivery level.
2. Reform should focus on the needs of communities and populations and structural arrangements should be determined in the light of that focus.
3. If government and public policy focus on principles and guidance, [34] then providers should be structured to meet the diversity of need and demonstrate good governance and management through proper engagement of structural interests.
4. Effective models of community engagement need to be incorporated into public policy and the governance of health services.
5. Health managers should be appropriately qualified, skilled and adept in managing complex health service organisations. [33, p. 11]

In moving forward, the Declaration suggests transitional reform, intersectoral arrangements and, the engagement of 'well qualified and competent management, engaged at all levels of reform and healthcare delivery'. [33, p.11] The centrality of health service management to health reform suggests:

1. Being trained and experienced to lead and manage in a

range of differing health system and organisational arrangements.

2. Possessing a deep contextual understanding of health systems, public policy, professional cultures and politics.
3. Having competency in organisational sensemaking as negotiators of meaning, active participants, constructors, organisers and persuaders within health systems. [30]
4. Being drawn from a range of backgrounds including those with clinical and non-clinical experience and qualifications who can demonstrate broad contextual health knowledge that demonstrates more than one logic. [35]
5. Understanding how clinical work should be structured and managed and work actively with clinicians and others to deliver coherent, well-managed health services. [36]

Subsequently at the 1st International Conference on Health Service Delivery Management the first opportunity was provided for South East Asia and Pacific Regions to consider management and leadership contexts. Some 450 delegates from 17 countries and from 14 distinct health and education organisations met to consider revitalised primary healthcare systems and the requirement for well-trained professional health managers. The participants at that conference and those who organised it concluded the conference by declaring that:

1. Priority in resourcing and policy implementation should be given to developing leadership, management and governance as the means to strengthen health systems development.
2. Successful management of health services requires leadership and teamwork from managers who have positive personal and professional values and self perceptions and are empowered to engage with individuals and communities and to respond to the needs of the poor and marginalised groups.
3. Leadership for health systems, public health and PHC requires that managers have access to high quality education, training and experiential health context and knowledge that equips them to operate effectively in health systems.
4. A research culture is required that networks and engages in collaborative research to develop health management capacity and evidence as a basis for decisions, to guide policy development and that both challenges and aligns researchers and operational health systems professionals, citizens and communities. [37, p.29]

Discussion

There is no 'widespread agreement as to a definitive way to describe, let alone define the health manager's role and required capabilities'. [2; 38, p.71; 39] There is general consensus that it is unique given that it is exercised in complex adaptive systems that are politically dominated but most importantly are professionally dominated. [28] Health managers themselves agree with those descriptors but continue to describe the system as illness-based and a system of non-coordinated or not integrated entities. [2,39] The multiplicity of professions contributing to success in the delivery and management of healthcare is important but is also recognised as contested territory between them in the management role and between health professionals and colleagues where they manage and also undertake a clinical role. [40,41]

The research described in this article suggests that health reform is starting to move beyond a focus on structure and restructure to giving licence or permission to implement reform that allows integration, connectedness and collaboration across boundaries. Those same boundaries that currently define healthcare are also blurring and widening in scope based on what civil society and community consider appropriate. Increasingly, the policies suggest that approaches involving commissioning and networking and the patient or care recipient as fund holder are seen as achievable. Many national policies and health systems are also suggesting engagement in reform with the civil society, social movements and approaches to address poor outcomes from the data on socio-economic determinants.

In these contexts, it is obvious that health systems and health management will not be advanced by continuing to do what has been done in the past and what is done currently. Therefore, it is important that health reform continues. It also means that health management needs to recognise the changing paradigm and begin to adapt the learning and approach needed to respond effectively. Management is and will remain variable and 'cannot be easily described or codified'. [38, p.72] We need to avoid circumstances where the role is described in prescriptive terms and is simplified. We should avoid the status quo, using a critical lens to challenge the dominant view of management. This may help us to make more sense of that variability and how roles are occupied and health management is practised in a more grounded way. [38]

This grounding in research of the health management role is necessary if we are to consider that role in informing

and influencing health reform is often delivered in diffuse and contradictory terms. [38] Sensemaking is becoming central to the health management role in constituting self and the organisation. [42] This accentuates our proposition that it is most likely the language of health systems, health management and health reform that will inform our understanding of the new paradigm of delivering healthcare and the role we need to play in developing the capability of health managers and health leaders for that purpose.

Plesk, [38] Fraser and Greenhalgh [44] 'suggest that learning takes place in the zone of complexity and that building capability occurs' [28] when 'individuals engage in uncertain and unfamiliar contexts in a meaningful way'. [38, p.800] The authors and colleagues in the Society for Health Administration Programs in Education are collectively interested in advancing knowledge around the health management role and how we might go about that so that we might take up the challenge to demonstrate leadership in health reform. We welcome feedback, participation and additional contributions if you are also interested in joining us on our proposed journey.

Competing interests

The authors declare that they have no competing interests.

References

1. Fournier V, Grey C. At the critical moment: conditions and prospects forcritical management studies. Human Relations. 2000; 53:7-32.
2. Briggs DS, Cruickshank M, Paliadelis P. Health managers and health reform. Journal of Management and Organisations. 2012;18(5): 641-658.
3. Legge D, Stanton P, Smyth A. Learning management (and managing your learning). In M.G.Harris & Associates, editors. Managing health services: concepts and practices. 2nd ed. Sydney: Mosby Elsevier; 2006.
4. Degeling P, Carr A. Leadership for the systemization of healthcare: the unaddressed issues in healthcare reform. J Health Organ Manag. 2004;8(6):399-414.
5. Isouard G. National health reform success: it's all about leadership and management. Aust Q. 2010; 82(3):21-24.
6. Isouard G. Leading and managing the implementation process: the key to successful national health reform. Asia Pac J Health Manag. 2010;5(1):11-16.
7. Boxall A, Buckmaster L. Background note: options for reforming Australia's health system [accessed 3 Nov, 2016]. Parliament of Australia. Available from: http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/BN/0809/HealthReform
8. World Health Report. 2000:231
9. Hartwich O. A global perspective on localism. Occasional Paper. Wellington: The New Zealand Initiative and Local Government New Zealand; 2013. Available from: http://nzinitiative.org.nz/site/nzinitiative/files/publications/Global%20Perspective%20on%20Localism.pdf.
10. Raine J, Staite C. The world will be your oyster? Reflections on the Localism Act of 2011. Edgbaston: Institute of Local Government Studies, School of Government and Society, University of Birmingham; 2012.
11. HM Government. Decentralisation and the Localism Bill: an essential guide. London: Department for Communities and Local Government; 2010.
12. Greer SL. Four way bet: how devolution has led to four different models for the NHS. London: The Constitution Unit, The School of Public Policy, UCL; 2004. Available from: http://www.ucl.ac.uk/constitution-unit/
13. WHO. From MDGs to SDGs: A new era for global public health 2016-2030. World Health Organisation; 2015. Available from: http://www.who.int/about/finances-accountability/funding/financing-dialogue/MDGstoSDGs_Summary.pdf?ua=1
14. Mitchell R, Nicholas S. Knowledge creation through boundary – spanning. Knowledge Management Research and Practice. 2006; 4:310-318.
15. Ferlie W. Systems and organisations. Public management 'reform' initiatives and the changing organisation of primary care. London Journal of Primary Care. 2010;3:76-80.
16. Briggs DS. So they want us to collaborate and innovate: how do we manage that? Asia Pac J Health Manag. 2013;8:1.
17. Gasson S. Boundary-spanning knowledgesharing in e-collaboration. Proceedings of the 38th Hawaii International Conference on Systems Sciences; [0-7695-2268-8].
18. Wenger E. Communities of practice – learning, meaning and identity. Cambridge UK: Cambridge University Press; 1998.
19. Ziam S, Landry R, Amara N. Knowledge brokers: a winning strategy for improving knowledge transfer and use in the field of health. International Review of Business Research Papers. 2009;5(4):491-505.
20. Estabrooks CA. Translating research into practice: Implications for organizations and administrators. Canadian Journal of Nursing Research. 2003;35(3):53–68.
21. Martins JM, Isouard G. Health Service Managers in Australia, Part 1: service, geographical and category distribution. A Pac J Health Manag. 2012a;7(2):16-28.
22. Martins JM, Isouard G. Health Service Managers in Australia, Part 2: age and sex characteristics. A Pac J Health Manag. 2012b; 7(2):29-42.
23. Martins JM, Isouard G. Health Service Managers in Australia, Part 3: field of study, level of education and income. A Pac J Health Manag. 2012c;7(2): 43-58.
24. Martins JM, Isouard G. Health Service Managers in Australia, Part 4: hours worked, marital status, country of birth and Indigenous status. A Pac J Health Manag. 2012c;7(2): 59-70.
25. Martins JM, Isouard G. Health Service Managers in Australia, progression and evolution. A Pac J Health Manag. 2014; 9(2):35-52.
26. Health Workforce Australia. National Health Workforce Innovation and Reform Strategic Framework for Action 2011–2015 [accessed 10 Nov 2016]. Adelaide: HWA; 2011. ISBN: 978-0-9871920-0-4, http://www.qrtn.com.au/images/pdf/Resources/hwa-wir-strategicframework-for-action-201110.pdf
27. Hewison A. Qualitative management research in the NHS: a classic case of counting to one? J Health Organ Manag. 2003; 17(2):122-137.
28. Mintzberg H. Towards healthier hospitals. Healthcare Manag Rev. 1997; 22(4):9-18.
29. Cunliffe A, Forray JM, Knights D. Considering management education: Insights from critical management studies. Journal of Management Education. 2002;26(5):489-495.

30. Elliott C, Reynolds M. Manager-educator relations from a critical perspective. Journal of Management Education. 2002; 26(5);512-526.
31. Learmonth M. Guest Editorial; Tales of the unexpected? Stirring things up in healthcare management. J Health Organ Manag. 2005;19(3);181-188.
32. Mark A. Notes from a small Island: researching organisational behaviour in healthcare from a UK perspective. Journal of Organisational Behaviour. 2006;27:851-867.
33. Briggs DS. Shape Declaration on the Organisation and Management of Health Services: a call for informed public debate. 2008.
34. Kernick D. Vision in practice revisited: holding the NHS at the edge of chaos. Exeter: St Thomas Health Centre; 2003.
35. Ford JD, Ford LW. Logics of identity, contradiction, and attraction in change. Acad Management Rev. 1994;19(4):756-85.
36. Sorenson R, Iedema R. Managing clinical processes in health services. Sydney: Elsevier; 2008.
37. Briggs DS, Tejativaddhana P, Kitreerawuttiwong N. Health declarations. Asia Pac J Health Manaag. 2010;5(1):25-30.
38. Briggs DS, Smyth A, Anderson JA. In search of capable health managers: what is distinctive about health management and why does it matter? Asia Pac J Health Manag. 2012; 7(7): 1-78.
39. Briggs DS. The lived experience of health service managers. [Dissertation]. Armidale: University of New England. 2008.
40. Briggs DS. Networks, democracy, innovation, pumpkins and pimples. Asia Pac J Health Manage. 2012;7(1):4-5.
41. Fitzgerald A, Teal G. Health reform, professional identity and subcultures: the changing interprofessional relations between doctors. Contemp Nurse. 2003;6(1-2):9-19.
42. Uhl-Bien M, Marion R, McKelvey B. Complexity leadership theory: shifting leadership from the industrial age to the knowledge era. Leadership Quarterly. 2007;8:4;298-318.
43. Plesk P, Greenhalgh T. The challenge of complexity in healthcare. BMJ. 2001;323;625-8.
44. Fraser SW, Greenhalg T. Coping with complexity: educating for capability. 2001. BMJ. 323:799-803.

Health Systems in Australia and Four Other Countries: choices and challenges

J M Martins

Abstract

The purpose of health systems is the pursuit of healthy lives. The performance of the Australian health system over the last decade is compared with the United Kingdom and its three other offshoots: the United States, Canada and New Zealand. In the first instance, system performance is assessed in terms of threats to healthy lives from risk factors and changes that have taken place during the decade. In view of the emphasis of the five systems on the return to health after trauma and illness, and the human-resource intensity of health services, an appraisal is made of changes in the number of the major health professionals in relation to the growing populations. Then related changes in hospital, medical practitioner and dentist services are assessed. Changes in pharmaceutical drug prescriptions in Australian are also examined. The levels of national expenditures arising from the provision health services are then considered in the context of the costs of administration of the varied organisational modes, use of expensive medical technologies, pharmaceutical drug consumption and remuneration of health professionals. Finally, health outcomes in Australia and the other four countries are assessed in accordance with their human development level, life expectancy, potential years of life lost from different causes, as well as healthy life expectancies. Further, gaps in health and life expectancy of Indigenous people in the United States, Canada, New Zealand and Australia are reviewed, as well as health and survival inequalities among people in different social strata in each country.

Abbreviations: **GDP – Gross Domestic Product; HDI – Human Development Index.**

Key words: **health systems; health resources and services; health outcomes.**

Jo M Martins
Centre for Health Policy and Management
and Macquarie University
Sydney, New South Wales, Australia

Correspondence:
jmartins@tpg.com.au

Means to an end

Health systems are about choices and challenges in the pursuit of healthy lives. In the last decade, changes have taken place in the Australia's health system [1] which reflect opportunities gained and lost and choices made. This had an impact on the effectiveness and efficiency of the system, and also on equity in outcomes. As contrasts can make system features more apparent, the Australian experience will be examined in comparison with those of the United Kingdom and its other 'offshoots': United States, Canada and New Zealand. This approach requires a reasonable degree of consistency in definitions across countries and measurement over time. To this end, the following analysis will rely, as much as possible, on data kept by international organisations that attempt to reconcile the various definitions adopted by different countries.

Health promotion and threats

An important purpose of health systems is to manage behaviours and conditions that affect health. A number of relevant factors have been identified and there is data to assess trends and their relative importance. Nevertheless, according to Shaw . . . *Whether we refer to mortality, morbidity or self-reported health, and whichever indicator of socio-economic position we employ – income, class housing tenure, deprivation or education – we find that those who are worse off socio-economically have worse health.* [2]

Table 1: Income per head of population in Australia, New Zealand, Canada, United States and United Kingdom, 2001 and 2011

COUNTRY	GDP PER CAPITA PPP $			INEQUALITY HIGHEST TO LOWEST INCOME QUINTILE
	2001	2011	2001-2011 GROWTH %	
Australia	35,443	41,763	17.8	5
New Zealand	29,020	32,737	12.8	NA
Canada	37,712	41,565	10.2	5
United States	45,978	49,782	8.3	8
United Kingdom	33,676	36,590	8.7	6

Note: GDP per capita is the average gross domestic product per head of population expressed in purchasing power parities in constant 2011 international dollars. Inequality highest and lowest income quintiles is the times that the top 20% of the population earn more than the lowest 20%.

Sources: WB [3] OECD. [4] Computations made by the author.

Income is important to get food, shelter and other necessities for a healthy life to a point, beyond which it has a lower impact on health. Income inequalities represent not only differences of income but are surrogates for social groups that experience differences in health and survival. [2] Australia and the other four countries are among the higher income countries in the world. Australian gains in income per capita were greater than those in the other countries during the decade 2001-2011. The United States and the United Kingdom had the lowest rates of income growth. However, at the end of the decade, New Zealand had an income per capita of only 66% that of the United States. Australia and Canada had about the same income level, but lower than the United States, while the United Kingdom income per capita was only just above that of New Zealand. In view of the relatively high average income of these countries, a feature of relevance is the inequality between the highest and lowest income quintiles that is about five times in Australia and Canada, but six and eight in the United Kingdom and United States respectively (Table 1). This points to constraints of those in the lowest income quintiles to access basic living needs and possible impact on their health status and survival.

Table 2: Employment and hours at work in Australia, New Zealand, Canada, United States and United Kingdom, circa 2013

COUNTRY	EMPLOYMENT %	HOUR WORK	LONG HOURS OF WORK
Australia	73	1,693	14
New Zealand	73	1,762	13
Canada	72	1,702	4
United States	67	1,776	11
United Kingdom	70	1,625	12
OECD Average	66	1,776	9

Note: Employment is the percentage of people aged 15-64 years of age with paid jobs. Hours of work are the number of hours worked per year. Long hours of work are the percentage of employees who work very long hours.

Source: OECD. [4]

Employment fulfils a number of functions concerned with economic security of relevance to a healthy life. It also entails occupational involvement and a degree of social interaction. Nevertheless, it has health risks that affect the balance between work and other interests such as the time dedicated to family, housework and recreation. Consistent data for the decade under review and across countries is scarce. Available information indicates that Australians spent about the same working hours as Canadians, more than people in the United Kingdom, but less than those in New Zealand and the United Sates. However, the proportion who spent very long hours at work in Australia was the highest but about the same as in New Zealand. Canadian workers had the lowest level of very long hours worked (Table 2). Although on average, the number of hours worked in Australia is not as high as that in the United States, a higher proportion spent very long hours at work and risked an imbalance between work and family, and had less time for exercise and social interaction outside the work place.

As occupations require lesser physical exertion and leisure time is of a more sedentary nature, physical exercise is a health concern. The World Health Organization estimated that in 2010 a quarter (23.8%) of adults in Australia did insufficient physical activity to be healthy. This was about the same level as that of Canada and much less than the level in the United States, United Kingdom and New Zealand (Table 5). Further, surveys of sport and physical recreation in Australia show that participation declined between 2005-06 and 2009-10 among people 15 years of age and over. [7] The level of obesity in Australia of about one quarter (26.8%) of the adult population was similar to that of Canada, New Zealand and the United Kingdom, but lower than that in the United States (Table 5). The degree of obesity and overweight in Australia has risen substantially since 1995. [8]

Table 3: Physical activity (2010) and obesity (2008), Australia, New Zealand, Canada, United States and United Kingdom

COUNTRY	COUNTRY INSUFFICIENT PHYSICAL ACTIVITY	OBESITY
Australia	23.8	26.8
New Zealand	39.8	28.5
Canada	23.2	26.2
United States	32.4	33.0
United Kingdom	37.3	26.9

Note: Insufficient physical activity is the percentage age-standardised prevalence in adults 18 years and over in 2010. Obesity is the percentage of adults 18 years of age and over who were obese in 2008.

Sources: WHO. [5,6]

Table 4: Unemployment and divorce in Australia, New Zealand, Canada, United States and United Kingdom, 2001 and 2011

	UNEMPLOYMENT RATE %		CRUDE DIVORCE RATE	
COUNTRY	2000-2002	2009-2011	2001	2011
Australia	6.5	5.3	2.8	2.2
New Zealand	5.6	6.4	2.5	1.9
Canada	7.2	7.9	2.1	2.1
United States	4.8	9.3	4.0	3.6
United Kingdom	5.2	7.8	2.7	2.1

Note: Unemployment rate is the percentage of people in the labour force who are seeking employment. Crude divorce rate is the number of divorces per thousand people.

Source: OECD. [9]

The review period includes the Global Financial Crisis that led to substantial rises in unemployment in most countries with associated insecurity and other emotional impact. Australia fared better than the other countries. Unemployment in Australia declined in the period under review while that of the other four countries rose. Divorce is a source of insecurity and emotional distress. Its incidence declined in Australia and most other countries. The lowest levels prevailed in Canada and New Zealand, while the United States had the highest divorce rate (Table 4). However, this indicator has become of a lesser significance because of the increasing proportion of unions that do not involve 'marriage' in its full legal sense.

The use of alcohol and tobacco affects health. Substantial progress was made in Australia and the other four countries in reducing tobacco use, especially in New Zealand and the United Kingdom. However, alcohol use in 2011 remained at about the 2001 level (Table 5). The fall in tobacco use has a beneficial impact on the incidence of respiratory and heart disease and related mortality, as well as physical conditioning, while high levels of alcohol intake continue to be sources of social stress and threats to health.

Examination of available evidence suggests that Australia did better at containing its consumption of sugar, that is much lower than that of the United Sates, than of fat consumption that rose substantially in the 10-year period 2001-2011, to bring it close to the level in Canada, and well above New Zealand and the United Kingdom. The trend was for greater consumption of fats with the exception of the United Kingdom. Australia also did not do well in its consumption of either vegetables or fruit both below average. With the exception of the United Kingdom, with a low level of vegetable consumption, there was a tendency towards lower consumption of vegetables in the decade under review (Table 6), This analysis indicates the challenges to the health system of how to promote more balanced nutrition and so avoid obesity and other deleterious health conditions.

Table 5: Alcohol and tobacco use in, Australia, New Zealand, Canada, United States and United Kingdom, 2001 and 2011

	ALCOHOL		TOBACCO	
COUNTRY	2001	2011	2001	2011
Australia	10	10	1,308	1,009
New Zealand	9	10	1,126	771
Canada	8	8	1,429	1,020
United States	8	9	1,212	955
United Kingdom	11	10	1,779	1,113

Note: Alcohol in litres per capita people 15 years of age and over. Tobacco in grams per capita, people 15 years of age and over.
Source: OECD. [9]

Table 6. Nutrition in Australia, New Zealand, Canada, United States and United Kingdom, 2001 and 2011

	FAT		SUGAR		VEGETABLES		FRUIT	
COUNTRY	2001	2011	2001	2011	2001	2011	2001	2011
Australia	138	153	46	47	105	96	97	94
New Zealand	112	125	60	55	142	113	116	94
Canada	147	150	53	49	121	114	124	129
United States	155	162	68	61	124	113	113	97
United Kingdom	142	138	40	40	91	94	92	126

Note: Fat in grams per capita per day. Sugar in kilograms per capita per year. Vegetables in kilograms per capita per year. Fruit in kilograms per capita per year.
Source: OECD. [9]

With the exception of the use of tobacco where substantial lessening of use was achieved, the evidence is that the health system is not coping well with risk factors that have a cumulative effect over the life cycle and which will have an impact on the prevalence of noncommunicable disease, related disability and possible premature mortality. This also implies a greater demand for health service resources to deal with the aftermath of these conditions as current cohorts age.

Essential human resources

Health systems are essentially about the people who work to keep or return other people to health. The tendency is for the health system to focus on health services that manage trauma, illness and restoration of health. This is where most human resources in the system are employed. Most nurses work in hospitals while medical practitioners, pharmacists and dentists work in hospitals but tend to practise mostly in the community, in the private sector, in the five countries.

Most health professionals are nurses. Over the 10-year period 2001-2011, the number of nurses in Australia kept pace with population growth at about 10 per thousand people. This was the highest ratio in the five countries. The number of nurses in New Zealand grew faster to catch up with the level in Australia by the end of the period. In Canada and the United States, the number of nurses also rose per head of population, but at a lower level, but the ratio declined in the United Kingdom (Table 7).

The number of doctors rose substantially in Australia from 2.6 per thousand people in 2001 to 3.3 in 2011. This was and continued to be the highest level in the five countries, in spite of increments in the number of doctors in relation to the population in the other four countries, especially in the United Kingdom during the period (Table 7).

The number of pharmacists in Australia per head of population showed a slight increase to 0.9 per thousand people, but remained close to that in Canada and United Sates and above the level in New Zealand. Similarly, the number of dentists just stayed ahead of population growth at 0.6 per thousand people but at a steady low rate (Table 7).

Table 7: Nurses, medical practitioners, pharmacists and dentist in Australia, New Zealand, Canada, United States and United Kingdom, 2001 and 2011

COUNTRY	NUMBER PER 1,000 PEOPLE			
	NURSES	MEDICAL	PHARMACISTS	DENTISTS
	2001			
Australia	10.0	2.6	0.7	0.5
New Zealand	9.0	2.2	0.6	0.4
Canada	7.5	2.1	0.8	0.5
United States	7.8	2.4	0.8	0.6
United Kingdom	9.3	2.0	NA	0.5
	2011			
Australia	10.1	3.3	0.9	0.6
New Zealand	10.1	2.7	0.7	0.5
Canada	9.3	2.5	0.9	0.6
United States	8.6	2.5	0.9	0.6
United Kingdom	8.6	2.7	NA	0.5

Note: The figures are for the years or the closest dates available from OECD to enhance comparability, but the figures for nurses in the United Sates are not available from that source and were estimates from data from the US Department of Health and Human Services.

Sources: OECD [9] and DHHS. [10]

Over the period, with the exception of nurses in the United Kingdom, there was a rising ratio of health professionals servicing growing populations, especially in Australia but also in the other United Kingdom offshoots. A remarkable change was the large increase in doctors in most of the five countries. The substantial increment in Australia was accompanied by a growing proportion of female medical practitioners during the period, who tend to work shorter hours than males, [11] possibly to keep a balance between work and family life.

Major services provided

Australia and New Zealand had the largest utilisation of inpatient care per head of population among the five countries, respectively 158 and 160 inpatient admissions per thousand people in 2011. This was supported by their larger ratio of nurses to population. Nevertheless, Canada also with a high ratio of nurses had the lowest number of admissions per head of population (84/1,000) of all the five countries. The United Sates had the second lowest rate of admissions (119/1,000) in 2011. The utilisation of inpatient services per capita, that declined during the period 2001-2011 in New Zealand, Canada and United States, and stayed at about the same level in Australia and the United Kingdom (Table 8) was associated with a rising and additional same-day admissions that were more than the inpatient admissions in Australia – many in stand-alone private surgeries – and New Zealand. [16-19]

Doctor visits per head of population in Australia more than kept pace with population growth at 6.7 visits per capita in 2011. This was higher than the use of doctor services per capita in the United Kingdom, United States and New Zealand, but lower than in Canada (7.8 visits) (Table 8) with a substantially lower number of doctors per head of population.

Visits to dentists varied substantially in the five countries with Australia having a slightly higher number per head of population (1.5) than Canada (1.3) in 2011. This was about the level of 2001. The number of visits stayed at a lower level in both the United Sates and the United Kingdom (Table 8).

Information on the volume of pharmaceutical prescriptions in the other four countries to compare with that in Australia is not available in a consistent manner. The number of prescriptions in Australia rose from 7.6 per head of population in 2001 to 8.4 in 2011. [20]

Table 8: Doctor and dentist visits, hospital admissions in Australia, New Zealand, Canada, United States and United Kingdom, 2001 and 2011

COUNTRY	DOCTOR VISITS PER CAPITA	HOSPITAL ADMISSIONS PER 1,000 PEOPLE	DENTISTS VISITS PER CAPITA
	2001		
Australia	6.4	155	1.4
New Zealand	4.0	206	NA
Canada	7.5	91	1.3
United States	4.1	124	1.1
United Kingdom	5.1	133	0.7
	2011		
Australia	6.7	158	1.5
New Zealand	3.7	160	NA
Canada	7.8	84	1.3
United States	4.0	119	0.9
United Kingdom	5.9	134	0.8

Note: The data is mostly from OECD collections but also from country sources when OECD data was not available for some years. (NA.) means not available.

Sources: OECD; [12-14] DHHS; [10] MOHNZ; [15-16] AIHW; [18-19]

In this comparison of service use, the Australian health system provided a higher level of services per head of population that more than kept pace with its large population growth. A major contrast is the utilisation of hospital and doctor visits, in two similar systems in Australia and Canada. The lowest level of hospital admissions in Canada compares with the highest level of admissions in Australia (and New Zealand), while the highest level of doctor visits in Canada compares with a lower level in Australia, and the lowest level in New Zealand. A major difference between the Australian and Canadian systems is the growing role of private hospitals in Australia and the static number of them in Canada. A factor in the lower use of doctor visits in Australia than in Canada could be the large out-of-pocket copayments in Australia. [13]

Health expenditure

Health expenditure levels in Australia and the other four countries are influenced by a number of factors, including the human and other resources available, the way in which these resources are organised and used, as well as the relative prices paid for them. Thus, a higher level of expenditure is not necessarily translated into a higher level of access and use of health services. The five countries experiences are a good illustration of this.

Health expenditure as a proportion of gross domestic product (GDP) rose during the period in all five countries. Australia experienced the lowest increment to 8.9% of GDP in 2011. This was about half (45.7%) that of the United States at 17.7% of GDP in that year, and below that of Canada (11.2%), New Zealand (10.3%) and slightly lower than the United Kingdom (9.4%). Among the five, the United States was the country without universal coverage of core health services mandated by the government and relied on a mixture of schemes for the poor and old people funded by the public sector and private health insurance. Australia and Canada had similar coverage schemes, even if highly fragmented in the case of Australia, that covered core services such as medical practitioner and hospitals services. The United Kingdom and New Zealand have national health schemes that also cover core services. [13] Although some form of private health insurance prevails in the five countries, it is more prevalent in the United States. Accordingly, the United States spent about 7% of its health expenditure on administration (mostly of private health insurance) considerably more than Australia's 2%, Canada 3% and New Zealand 3%. [10,21-23] This indicates that greater coverage of core health services and greater proportion of public funding did not lead to a higher level

Table 9: Health expenditure as a proportion of gross domestic product and public funding in Australia, New Zealand, Canada, United States and United Kingdom, 2001 and 2011

COUNTRY	HEALTH EXPENDITURE % GDP	PUBLIC EXPENDITURE % OF CURRENT EXPENDITURE
	2001	
Australia	8.1	69
New Zealand	7.6	77
Canada	9.1	71
United States	13.8	44
United Kingdom	6.9	82
	2011	
Australia	8.9	67
New Zealand	10.3	80
Canada	11.2	71
United States	17.7	49
United Kingdom	9.4	80

Note: Health expenditure includes capital expenditure, and is expressed as a percentage of gross domestic product. Public expenditure is the percentage of current (excludes capital) expenditure funded by the public sector.

Sources: OECD. [9,13] Computations made by the author.

of expenditures or higher costs in administration. The evidence is also that in spite of its fragmentation of funding mechanisms, including private health insurance, Australia had a low level of administrative costs.

Expenditure on some modes of medical technology is another area where Australia differed considerably from the United States and to a lesser extent with Canada with an impact on the level of health expenditure. The use of expensive magnetic resonance tomography (MRI) was about four times higher in the United States than Australia and that of computed tomography (CT) about three times higher in 2011. However, the use of these two medical technologies in Australia was much greater than the use in New Zealand which had the lowest rate of use of these technologies among the five countries. Australian use was also lower than the levels in Canada (Table 10).

The prescription of pharmaceutical drugs is an important element in the management of health conditions and makes a significant contribution to health expenditure in each country. In addition to the volume, prices tend to vary substantially among countries thus making a difference to levels of expenditure. The United Sates known for its high price of drugs spent about twice as much on drugs as a proportion of GDP (2.1%) than New Zealand (1.0%) in 2011. Australia spent about 1.4% while Canada (1.9%) was close to the United States (Table 11). No comparable information is available for the United Kingdom. Although the level of spending as a proportion of GDP was unequal in Australia, Canada and the United Sates in 2001, the level of expenditure in all countries increased by about 0.4% of GDP in the 10 year period. [12-13] This meant that in proportional terms the increment was higher in Australia than the other two countries.

Table 10: Use of some medical technologies Australia, New Zealand, Canada, United States and United Kingdom, 2011

COUNTRY	MRI	CT
	EXAMS PER 1,000 PEOPLE – AUSTRALIA = 1.00	
Australia	1.00	1.00
New Zealand	0.17	0.26
Canada	2.08	1.40
United States	4.29	3.01
United Kingdom	1.70	0.86

Note: MRI is exams of magnetic resonance imaging per thousand people. CT is exams of computed tomography. Both are expressed as a ratio to the exams in Australia, and exams in Australia equal 1.00 (Australia: MRI exams = 24 exams and CT exams = 91).

Source: OECD. [13] Computations made by the author.

Table 11: Expenditure on pharmaceutical drugs in Australia, New Zealand, Canada and United States, 2011

COUNTRY	PHARMACEUTICAL EXPENDITURE PER CAPITA – AUTRALIA = 1.00	PHARMACEUTICAL EXPENDITURE % GDP
Australia	1.00	1.4
New Zealand	0.48	1.0
Canada	1.19	1.9
United States	1.68	2.1

Note: Pharmaceutical expenditure is the average per head of population in purchasing power parities 2011 international dollars, when Australia ($587) equals 1.00; and pharmaceutical expenditure is expressed as a percentage of gross domestic product.

Source: OECD. [13] Computations made by the author.

Table 12: Remuneration of hospital nurses in Australia, New Zealand, Canada, United States and United Kingdom, 2011

COUNTRY	HOSPITAL NURSE REMUNERATION – AUSTRALIA = 1.00
Australia	1.00
New Zealand	0.88
Canada	0.91
United States	1.25
United Kingdom	0.79

Note: Hospital nurse yearly remuneration is the yearly average in purchasing power parities 2011 international dollars, when Australia ($80,000) equals 1.00.

Source: OECD. [13] Computations made by the author.

Hospital nurses are the largest single resource in the health system of the five countries. Health expenditure is not only impacted by the relative number employed but also by their remuneration levels. In 2011, the average remuneration of hospital nurses in the United Kingdom was about two thirds (63%) that earned in the United States. Smaller but still substantial differences applied in Australia (80%), Canada (73%) and New Zealand (70%). [13]

Another major factor in the different levels of health expenditure is the rate of remuneration of medical practitioners. A study carried out for the OECD showed that the remuneration of medical general practitioners in Canada was 73% that in the United States, and that in the United Kingdom 82%. The difference was higher in the case of specialist remuneration that was about 64% in the United Kingdom and 67% in Canada. The number of hours worked was similar in the United States and Canada so did not explain differences in earnings. [24] Other information indicates that medical specialists in Australia earn about the same as those in Canada and that general practitioners earn possibly less. [25] This implies that the relatively larger number of medical practitioners in Australia than in the United States led of a lower level of expenditure because of their substantially lower level of remuneration; and that the larger number of doctor visits per capita were attained at a relatively low cost level.

Evidence available suggests that the level of health expenditure was not a good indicator of the volume of services provided per head of population. Health expenditures were a result of differences not only in the number of people employed but also their rate of remuneration. They also reflected, to some extent, the use of expensive technologies, the relative price paid for pharmaceuticals, as well as disparities in the costs of administration of the different modes of organisation in each country, and by implication the relative efficiency of each system in the pursuit of healthy lives.

Health outcomes

The United Nations Development Programme compiles a Human Development Index (HDI) that takes into consideration three factors of relevance to wellbeing: life expectancy, education and income.

Table 13: Human development index Australia, New Zealand, Canada, United States and United Kingdom, 2000 and 2011

COUNTRY	HUMAN DEVELOPMENT INDEX		
	2000	2011	INCREMENT 2000-2011
Australia	0.898	0.930	0.032
New Zealand	0.874	0.907	0.033
Canada	0,867	0.909	0.042
United States	0.883	0.911	0.028
United Kingdom	0.863	0.901	0.038

Note: The Human Development Index was adjusted for the 2015 edition of the Human Development Report and the data available was for 2000 and not 2001.

Source: UNDP. [26] Computations made by the author.

The five countries made advances in the HDI in the period 2000-2011. Australia had the highest index value of 0.930 in 2011, among the five countries. This was only second to Norway in world ranking. It was the result of the longest life expectancy among the five countries, but also its level of education, and high income per capita that was second to the United States and close to that of Canada. The United Sates had the second highest value over the period that relied on the considerably higher income per capita, as life expectancy was below the other countries, and education was about the level of Canada and United Kingdom, but below that of New Zealand. Canada had the highest HDI advancement mostly due to a rise in life expectancy during the period. The United Kingdom had the second highest HDI advancement again due to a substantial improvement in life expectancy. The United States with the highest income also had the lowest life expectancy and the lowest gain in both the HDI and in life expectancy of the five countries (Tables 13 and 14). [26]

Longer lengths of life present risks of disability that tend to rise with age. Although, the estimation of disability years carries with it a number of assumptions, WHO estimates show that Australians continued to have the longest healthy life, free of disability, among the five countries of 73 years in 2012 and that the United States had the lowest at 70 years. The order of healthy life years was similar to that of life expectancy (Table 14).

The epidemiological transition has diminished premature deaths from communicable diseases and favoured non-communicable diseases as the major cause of premature death in all five countries. The potential years of life lost due to premature death in Australia were the lowest among the five countries in 2012, with the lowest proportion of premature death due to infectious diseases. The United States by comparison had the highest level of premature

Table 14: Human development index, Australia, New Zealand, Canada, United States and United Kingdom, 2001 and 2011

	LE YEARS			
COUNTRY	2001	2011	INCREMENT 2000-2011	HLE YEARS 2012
Australia	79.7	82.0	2.3	73
New Zealand	78.7	81.0	2.3	72
Canada	78.3	81.5	3.2	72
United States	76.8	78.7	1.9	70
United Kingdom	78.2	81.0	2.8	71

Note: Le is the life expectancy at birth in years. HLE is the healthy life expectancy at birth in years taking into consideration years of disability.º
Source: OECD, [9] WHO. [27] Computations made by the author.

Table 15: Potential years of life lost and causes in Australia, New Zealand, Canada, United States and United Kingdom, 2012

	YLL PER 1,000 PEOPLE			
		CAUSE AS % OF TOTAL		
COUNTRY	ALL CAUSES	COMMUNICABLE	NON-COMMUNICABLE	INJURIES
Australia	119	5.0	83.9	11.1
New Zealand	126	5.9	81.5	12.6
Canada	138	6.8	82.5	10.7
United States	178	7.5	80.3	12.2
United Kingdom	161	7.4	86.3	6.3

Note: YLL are the potential years of life lost at the age they occur due to premature death from the standard life expectancy, per thousand people. Communicable causes of death include infectious or contagious diseases, maternal causes, conditions arising during the neonatal period and nutritional deficiencies.

Source: WHO. [27] Computations made by the author.Source: OECD, [9] WHO. [27] Computations made by the author.

deaths, as might be expected from its shorter life expectancy at birth, with also the highest level of premature deaths from communicable diseases and second highest level from injuries. New Zealand with a low level of premature deaths had the highest proportion of premature deaths due to injury, while the United Kingdom with a high level of premature deaths had the lowest proportion of deaths from injury (Table 15). These trends in injury as the cause of premature death point to social conditions as causes of premature death among young people, which was also part of experience in the United Sates.

However, the analysis of the potential years of life lost does not capture the years of disability implicit in the measurement of the years of healthy life (Table 14). WHO estimates of the four major causes of years of healthy life lost for the five countries were: neuro-psychiatric conditions, cancers, cardiovascular diseases and diabetes. This points to the importance of mental health to a healthy life that is not so apparent from the estimation of years of life lost due to premature death. Accordingly, the years of healthy life lost due to disability was highest in relation to neuro-psychiatric conditions. [28]

The health outcomes indicators in the analysis are averages for populations that gloss over differences among socioeconomic groups within the five countries. In the first instance, there are differences in health and life expectancy between first settlers and the people who came afterwards in Australia, New Zealand, Canada and the United States. [29] The gap of 4 years in life expectancy between American Indians and Alaska Natives and that of all races in the United States, in 2007-2009, was the shortest in the four countries. [30] The gap in Canada was in the range of 6 to 14 years, in 2001, depending on the particular indigenous group, being largest in the case of the Inui people. [31] The difference in New Zealand between the Maori and non-Maori population was 7 years in 2010-12 [32]. Australian Indigenous people had the largest gap of 11 years in 2010-12. [33]

There is also evidence of significant inequalities in health and life expectancy between socioeconomic groups. The information available follows various approaches in the classification of these groups in different countries and is expressed in different ways. In the United Kingdom (England and Wales), studies of life expectancy of five social classes showed that there was a gap of seven years in life expectancy between the top and the lowest social class in 2002-2005, for both males and females. This gap was only slightly smaller than that observed in 1997-2001. [34] In Australia, according to an Index of Relative Socio- Economic Disadvantage based on income, education, employment and occupation, mortality in the lowest quintile was 29% higher than in the highest quintile in 2009-2001; and potential life lost due to premature death was 1.8 times higher in the lowest than the highest socioeconomic group. [35] In Canada, a study of inequality in health and mortality found that, in 2011, people in the lowest income quintile suffered from higher rates of illness, and especially mental illness which was twice as high in the lowest than in the highest income quintile. Infant mortality rates were also about 1.6 higher in the lowest than the highest income quintile. [36] In the United States, estimates of life expectancy according to race showed that Black/African American people had a life expectancy about four years lower than White people in 2011. [10] Limitations in usual activities due to chronic conditions affected 21% of people whose family income was less than $35,000 but only 9% of people in families with incomes of $35,000 or more in 2011. [37]

Thus, in spite of some progress made in health outcomes made in each country, there continue to be substantial inequalities associated not only with Indigenous and non-Indigenous people but also with people in different socioeconomic strata.

Choices and challenges

Australia and the other four countries exercised choices that focused on health services mostly concerned with the return to health after illness or trauma. With the possible exception of the lower use of tobacco, which has and no doubt will have an impact on healthier lives, health systems have not succeeded as well in reducing risk factors that have a cumulative, deleterious effect on healthy life. These are often associated with behaviours and social conditions that health systems give lower attention and priority to.

Given the focus on the management of illness and trauma, the five countries differed in how they organised and used their resources to produce effective health services with different efficiency and equity. Among the five countries, Australia employed the highest number of nurses and medical practitioners per head of population to generate the second highest number of hospital inpatient admissions and medical practitioner visits. This was associated with the lowest level of health expenditure as a proportion of GDP among the five countries. This implies a high level of efficiency in the production and access to health services and resulted in a low proportion of administrative costs. However, these results were achieved by lower use of some costly medical technologies and lower remuneration rates of medical practitioners.

Australia and Canada tend to use similar organisational set ups to provide core health services, with universal coverage, but differed substantially in the use of doctor and hospital services, with Canada making greater use of doctor visits per head of population while using less inpatient services. In this regard, one factor was the lower use of private hospitals in Canada than in Australia. Canada also spent more on pharmaceutical drugs and made more use of expensive technologies than Australia, and these had an influence on the higher level of health expenditure as a proportion of GDP in Canada. Health outcomes in Canada in terms of life expectancy made relatively more progress than in Australia. However, they still lagged slightly behind Australia in 2011, including a larger potential years of life lost due to premature death.

New Zealand and the United Kingdom provided core health services, with universal coverage, through national health organisations with relatively low administrative costs. They employed about the same lower number of doctors per head of population, lower than Australia, but differed considerably in the ratio of nurses employed. This was associated in New Zealand with the highest rate of hospital inpatient admissions but a considerably higher relative rate of doctor visits in the United Kingdom, with the same ratio of doctors per capita. New Zealand also made the lowest use of expensive medical technologies and spent less on pharmaceutical drugs as a proportion of GDP than the United Kingdom, and the other three countries. The United Kingdom life expectancy rose faster than other countries, not including Canada, to achieve the same level as New Zealand's in 2011.

The United States experience is unique among the five countries. It was the country without universal coverage of core health services and relied on a patchwork of public financed coverage for old people and the poor, and private funding of access to health services. The higher costs of administration of private health insurance led to the highest administrative costs among the five countries. Its access and use of hospital inpatient services was the lowest after Canada and doctor visits were also the lowest after New Zealand. However, it spent more on pharmaceutical drugs as a proportion of GDP than any other country, used more expensive technologies and paid more to its medical practitioners and nurses than the other countries. This resulted in the highest level of health expenditure as a proportion of GDP and was associated with the lowest life and healthy life expectancies among the five countries.

The analysis of health outcomes and factors associated with them in the five countries illustrates choices made and challenges to be faced. It is apparent that spending more did not necessarily lead to better outcomes or services rendered. The five countries experience point to the importance of the relative efficiency in the application of human resources in health care and their productivity, regardless of their level of remuneration. It shows the relative importance of public funding to achieve universal coverage of core health services, and that public funding did not result in higher administrative costs or higher levels of expenditure on health services as a proportion of GDP. An important challenge to be faced is bridging the gap in healthy lives between indigenous and other people in the United States, Canada, New Zealand but especially Australia. Further, it confirms the results of choices made in relation to the low attention given to behaviours and social conditions that impact on healthy lives and have kept some social groups at a disadvantage. This poses a challenge to the health system in the attainment of healthier lives.

Competing interests

The author declares that he has no competing interests.

References

1. Martins JM, Isouard G. An evidence-based framework: competencies and skills for managers in Australian health services. A Pac J Health Manag. 2015;10(2):8-23.
2. Shaw M, Dorling D, Smith D. Poverty, social exclusion, and minorities. In Social Determinants of Health. Marmot M, Wilkinson RG, editors. Oxford: Oxford University Press; 1999.
3. World Bank (WB). GDP per capita, PPP (constant 2011 international $) [cited 8 October 2016]. Washington DC; 2016. Available from: http://data.worldbank.org/indicator/NY.GDP.PCAP.PP.KD
4. Organisation of Economic Cooperation and Development (OECD). OECD Better Life Index 2103 [cited 8 October 2016]. Paris; 2013. Available from: www.oecd.org
5. World Health Organization (WHO). Noncommunicable Diseases – Country Profiles 2014. Geneva; WHO: 2014.
6. World Health Organization (WHO). Global status report on noncommunicable diseases 2014. Geneva; WHO: 2014.
7. Australian Bureau of Statistics (ABS). Participation in sport and physical recreation 2009-10. Canberra; ABS: 2010.
8. Australian Bureau of Statistics (ABS). Profiles of Health, Australia, 2011-13. Canberra; ABS: 2013.
9. Organisation of Economic Cooperation and Development (OECD) [cited 30 September 2016]. OECD.Stat. Paris; 2016. Available from: www.oecd.org
10. U. S. Department of Health and Human Services (DHHS). Health, United Sates, 2015. Washington DC; DHHS: 2016.
11. Australian Bureau of Statistics (ABS). Australian social trends, April 2013. Doctors and Nurses. Canberra; ABS: 2013.
12. Organisation of Economic Cooperation and Development (OECD). Health at a glance – OECD indicators 2003 [cited 30 September 2016]. Paris; 2003. Available from: www.oecd.org

13. Organisation of Economic Cooperation and Development (OECD). Health at a glance 2013 [accessed 30 September 2016]. Paris; 2013. Available from: www.oecd.org
14. Organisation of Economic Cooperation and Development (OECD). OECD. Health Data 2013 [cited 30 April 2014]. Paris; OECD: 2014. http://stats.oecd.org/Index.aspx? DataSetCode=HEALTH_PROC.
15. Ministry of Health, New Zealand (MOHNZ). Hospital Events 2007/08. Wellington; MOHNZ: 2011.
16. Ministry of Health, New Zealand (MOHNZ). Publicly funded hospital discharges – July 2010 to 30 June 2011. Wellington; MOHNZ: 2013.
17. Ministry of Health New Zealand (MOHNZ). Privately funded hospital discharges – July 2010 to June 2011. Wellington; MOHNZ: 2013.
18. Australian Institute of Health and Welfare (AIHW). Australian hospital statistics 2000-01. Canberra; AIHW: 2002.
19. Australian Institute of Health and Welfare (AIHW). Australian hospital statistics 2010-11. Canberra; AIHW: 2012.
20. Pharmaceutical Benefits Scheme (PBS). Expenditure and prescriptions. Canberra: Department of Health and Ageing; 2012.
21. Australian Institute of Health and Welfare (AIHW). Health expenditure Australian 2012-13. Canberra; AIHW: 2014.
22. Canadian Institute for health Information (CIHI). National health expenditure trends, 1975 to 2014. Ottawa; CIHI: 2014.
23. Ministry of Health (MOHNZ). Health expenditure trends in New Zealand 2000-2010. Wellington; MOHNZ: 2012.
24. Fujisawa R Lafortune G. The Remuneration of general practitioners and specialists in 14 OECD countries: what are the factors influencing variations across countries. Paris: OECD.
25. Organisation of Economic Cooperation and Development (OECD). Remuneration of doctors and nurses: progress and persisting issues. Joint session of health Data Correspondents and Health Accounts Experts, 17 October 2013. Paris.
26. United Nations Development Programme (UNDP). Human Development Report 2015. New York; UNDP: 2015.
27. World Health Organization (WHO). World health statistics 2014. Geneva; WHO: 2014.
28. World Health Organization (WHO). WHO country statistical profiles: Australia, Canada, New Zealand, United Kingdom and United States [cited 8 October 2016]. Geneva; WHO: 2016. Available from: www.who.int
29. Martins JM. Left behind: the survival of Australian Indigenous people. Sydney: Australian College of Health Service Executives; 2002.
30. US Department of Health and Human Services (DHHS). Life Expectancy – American Indians and Alaska Natives, Data years: 2007-2009. Rockville MD; DHHS: 2014.
31. Statistics Canada. Projections of the Aboriginal Populations, Canada, 2001 to 2017. Ottawa; Statistics Canada: 2005.
32. New Zealand Statistics. New Zealand Period Life tables 2010-12 [cited 15 October 2016]. Wellington; 2013. Available from: www.stats.govt.nz/browse_for_stats.aspx
33. Australian Institute of Health and Welfare (AIHW). The health and welfare of Australia's Aboriginal people and Torres Strait Islander peoples 2015. Canberra; AIHW: 2015.
34. Department of Health (DOH). Tackling Health Inequalities: 10 Years on. London; DOH: 2009.
35. Australian Institute of Health and Welfare (AIHW). Australia's health 2016. Canberra; AIHW: 2016.
36. Canadian Institute for Health Information (CIHI). Trends in Income-related Health Inequalities in Canada. Ottawa; CIHI: 2016.
37. US Department of Health and Human Services (DHHS). Summary Health Statistics for the U.S. Population: National Health Interview Survey, 2011. Hyattsville MD; DHHS: 2012.

RESEARCH ARTICLE

Health Workforce Migration in the Asia Pacific: implications for the achievement of sustainable development goals

SD Short, K Marcus and M Balasubramanian

Abstract

The maldistribution of health workers globally and within the Asia Pacific region remains problematic. While globalisation, and the increasing mobility of capital and labour, helps to reduce inequalities between countries, it increases inequality within countries. This study examines health workforce data and densities in the Asia Pacific region through a health workforce migration lens. The main implication relevant to achievement of sustainable development goals is the need for countries to work in a co-ordinated way in this region to increase substantially health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing states, most notably the Maldives, Timor-Leste, Kiribati, Samoa, Solomon Islands, Tuvalu and Vanuatu.

Abbreviations: **OECD – Organisation of Economic Co-operation and Development; SDG – Sustainable Development Goals; SIDS – Small Island Development States.**

Key words: **health workforce; Migration; Asia Pacific; Sustainable Development Goals.**

Stephanie Short
Deputy Director, Sydney Asia Pacific Migration Centre
Faculty of Health Sciences
The University of Sydney
Sydney, New South Wales, Australia.

Kanchan Marcus
Health Systems & Global Populations Faculty Research Group
Faculty of Health Sciences
The University of Sydney
Sydney, New South Wales, Australia.

Madhan Balasubramanian
Australian Research Centre for Population Oral Health,
School of Dentistry
Faculty of Health Sciences,
The University of Adelaide
Adelaide, South Autralia, Autralia.
Discipline of Behavioural and Social Sciences in Health,
Faculty of Health Sciences,
The University of Sydney
Sydney, New South Wales, Australia.

Correspondence:
Kanchan.marcus@sydney.edu.au

Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing states. SDG (Goal 3c)

Background

A shortage of health workers, particularly in rural areas within low and middle-income countries, constitutes a dire situation, where human resources for health are limited and large disparities in access to healthcare exist. The adaptability and resilience of global health systems was put to the test with the Ebola, MERS and Zika outbreaks. [1] Reports from the World Health Organization (WHO) estimate a global shortfall of 12.9 million healthcare workers by 2035; in 2016 the shortfall is 7.2 million. [2] The inequitable distribution of health workers within and between countries is expected to worsen in low-income countries at a time where treatable and preventable disease is of particular concern. [3] *The Lancet* [1] declares 'no health workforce, no global security', the health workforce is fundamental to health systems strengthening and essential in working to achieve the Sustainable Development Goals (SDGs).

The Asia-Pacific* boasts more than half the world's population with 3.7 billion people. [4] In 2010-2011, 25 million Asian migrants shifted to Organization of Economic Cooperation and Development (OECD) countries. [5] Approximately two million highly qualified migrants moved from the Asian and Pacific countries to OECD countries, which is more than any other region in the world. [5] Global mobility of health professionals from low-to middle-to high income countries poses particular ethical challenges. Source countries face 'brain drain' issues as highly qualified health personnel migrate, impacting negatively on the developing country's education and health sector capacity to provide training, education and health services to their populations.

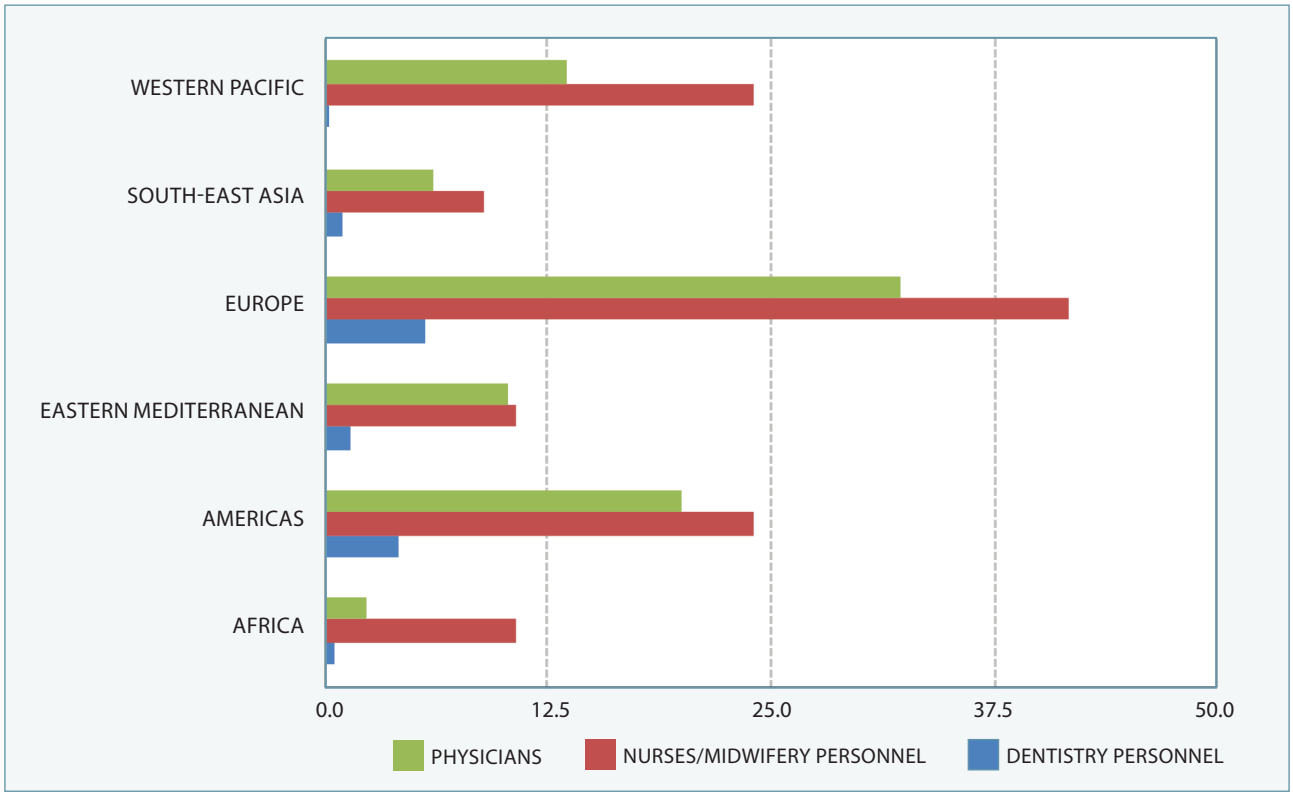
The United Nations has enshrined the 'right to migrate'. [6] Senior educators and health professionals have the right to migrate; yet this loss for low and middle-income countries, worsens gaps in training, and reduces health care access for communities. Migration movements also show no sign of abatement as bilateral and multilateral agreements ease the flow of cross-border mobility. [7] Health workers also move within their own countries from rural to urban areas, thereby diminishing healthcare access for regional and remote communities. An ageing population, particularly evident in many high-income countries, further leads to complex health presentations and a greater need for skilled health personnel.

Health personnel (especially doctors, nurses and dentists) are fundamental to strengthening a country's health system, [1,8] as they deliver primary care services on the ground for prevention, diagnosis and treatment. This is essential in reducing the spread of infectious diseases such as the Zika virus, which has been reported in the Asia Pacific region, and in reducing the global burden of non-communicable diseases. Health workforce remains a key SDG (Goal 3c);

> *Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing states.*

* Our description of the Asia-Pacific includes the WHO Western Pacific and South-East Asian Regions. These regions include 38 countries. This description is due to technical reasons, based on data availability and to offer comparable estimates based on global categories put forth by the WHO.

Figure 1: Median density of health workforce per 10,000 population by WHO Regions, 2000-2013



Source: Adapted from the World Health Organization. World Health Statistics 2016: Monitoring for the SDGs. Report

Notes: (a) Data points were not uniform for all countries, and ranged from 2000 to 2013. (b) In many countries the distinction between nursing and midwifery personnel was difficult to distinguish based on how the data was collected (b) Dentistry personnel includes both dentists and allied oral health workforce.

This paper provides a critical analysis of the maldistribution of health professionals in the Asia Pacific region within the context of SDGs through a health workforce migration lens. We focus in this paper on doctors, nurses and dentists, three highly mobile health care professions.

Health workforce challenges in the Asia Pacific Region

Globally it is estimated that there are about 43 million health workers, including 9.8 million physicians, 20.7 million nurses/midwifes and 13 million other health workers. [9] Figure 1 illustrates the median density of health workforce (physicians, nurses/midwifes and dentistry) personnel for the six WHO Regions. While the European and American Region reported some of the highest densities in all three professional groups, the South East Asian and African Regions reported the lowest. There were 24.1 nurses per 10,000 population in the Western Pacific Region (above the global average of 17.6); however, the Western Pacific Region reported the lowest density of dentistry personnel (0.2 dentistry personnel per 10,000 population). The South-East Asian Region reported the lowest nursing/midwifery personnel density (9.0 per 10,000 population), when compared to all other regions. Furthermore, physicians in the South East Asian Region were only 6.1 per 10,000 population while the global average was 12. 3 physicians per 10,000 population.

In order to better understand the health workforce situation in the Asia Pacific Region, we examine the health worker density for all the 38 countries in the WHO Western Pacific and South-East Asian Region (see Table 1). Fourteen countries in the Region have less than five physicians per 10,000 population; twelve countries have a density of less than one dentist per 10,000 population. While Australia, New Zealand and Japan reported the highest nursing/ midwifery personnel density, the densities were lowest in the Pacific Islands, the Indian subcontinent and the East Asian region. Figure 1 suggests South East Asia faces a more substantial health workforce challenge than the Western Pacific region. However, when we examine the data for each country within these two regions, we see a different story (Table 1). We see greater diversity within the Western Pacific, and in particular serious challenges with maldistribution in the following Pacific Islands: Fiji; the Marshall Islands; Niue; Papua New Guinea; Solomon Islands; and Vanuatu.

Within the Asia Pacific Region workforce shortages and maldistribution are most acute in Papua New Guinea, Timor-Leste and Myanmar. [10] Life expectancy statistics reveal a 20- year difference between high-income countries (80 years) and low-middle income countries (60 years). [10]

The International Organization for Migration Regional Strategy Report for Asia and the Pacific 2012-2015, [4] confirms that the Philippines remains the leading labour sending country in the Asia Pacific region; even though the report anticipates South Asia to have the largest workforce in the world by 2050. It is widely recognised that the Philippines purposely overproduces nurses [11,12] as a

Table 1: Health workforce density per 10,000 population in the Asia Pacific Region

WHO REGION/COUNTRY	YEAR	PHYSICIANS PERSONNEL	NURSES/MIDWIFERY PERSONNEL	DENTISTRY
South-East Asian Region				
Bangladesh (LDC)	2011	3.6	2.2	0.3
Bhutan (LDC)	2007	0.6	2.4	0.3
DPR Korea	2003	32.9	4.2	3.7
India	2011	7.4	17.1	1.0
Indonesia	2012	2.0	13.8	1.0
Maldives (SIDS) (LDC)	2010	14.2	50.4	0.9
Myanmar (LDC)	2012	6.1	10.0	0.7
Nepal (LDC)	2004	2.1	4.6	0.1
Sri Lanka	2010	6.8	16.4	0.5
Thailand	2010	3.9	20.8	2.6
Timor-Leste (SIDS) (LDC)	2011	0.7	11.1	0.4

Table 1: Health workforce density per 10,000 population in the Asia Pacific Region ***continued***

WHO REGION/COUNTRY	YEAR	PHYSICIANS PERSONNEL	NURSES/MIDWIFERY PERSONNEL	DENTISTRY
Western Pacific Region				
Australia	2011	32.7	106.5	5.4
Brunei Darussalam	2012	14.4	80.5	4.2
Cambodia (LDC)	2012	1.7	7.9	0.2
China	2001	10.6	10.8	1.1
Cook Islands (SIDS)	2009	13.3	64.4	10.6
Fiji (SIDS)	2009	4.3	22.4	2.0
Japan	2010	23.0	108.6	7.9
Kiribati (SIDS) (LDC)	2008	2.4	34.4	1.7
Lao PDR (LDC)	2012	1.8	8.8	0.4
Malaysia	2010	12.0	32.8	3.6
Marshall Islands (SIDS)	2008	4.6	26.0	1.6
Micronesia (Fed. States of) (SIDS)	2008	5.7	24.8	3.5
Mongolia	2011	28.4	36.2	2.3
Nauru (SIDS)	2008	7.1	49.3	0.7
New Zealand	2007	23.8	108.7	4.6
Palau (SIDS)	1998	14.4	62.8	13.3
Papua New Guinea (SIDS)	2008	0.5	4.6	0.1
Philippines	2004	11.5	60.0	5.6
Republic of Korea	2012	21.4	50.1	4.5
Samoa (SIDS) (LDC)	2008	4.5	18.5	3.4
Singapore (SIDS)	2013	19.5	57.6	4.1
Solomon Islands (SIDS) (LDC)	2005	1.9	14.5	1.1
Tonga (SIDS)	2009	6.0	36.7	3.6
Tuvalu (SIDS) (LDC)	2008	9.1	58.2	3.6
Vanuatu (SIDS) (LDC)	2008	.2	17.0	0.1
Vietnam	2013	11.9	12.4	NA

Source: The 2014 update, Global Health Workforce Statistics, World Health Organization, Geneva

Notes: (a) The Asia-Pacific Region includes the World Health Organization's South-East Asian and Western Pacific Regions. (b) Data points were not uniform for all countries, and ranged from 1998 to 2013. We have selected the latest available data point, where densities for all three professions were available. (c) In many countries the distinction between nursing and midwifery personnel was difficult to distinguish based on how the data was collected (d) Dentistry personnel includes both dentists and allied oral health workforce. (e) Niue (SIDS) has been removed from the table, as the population was too small to make the workforce density estimates meaningful. (f) LDC = least developed countries; SIDS = small island developing states.

matter of foreign policy in order to attract remittances from overseas nurses. These nurses emigrate in order to respond to nursing shortages in the Middle East, Britain, Canada and Australia. India and Indonesia also supply health workers to neighbouring countries, as well as urban cities within the region and/or other developed countries. This global chain of care links Asia to neighbouring countries; Fijians migrate to Palau, Indian nurses migrate to the Gulf, Indonesians migrate to Japan and so forth. [10]

Asian countries also serve as destination countries as migrant health workers move to Singapore, Thailand and Malaysia [7] while agreements such as the Association of Southeast Asian Nations encourage mobility within the region. [13] Health worker mobility is becoming increasingly circular and complex [14] as health migrants passage between several transit countries, possibly return home for a short period before migrating to other transit or destination countries. This may provide benefits of return migration where skills and expertise can be shared in the region, however the benefit is likely to be short lived, as most health workers re-apply for work in other countries.

The influential WHO 2006 World Health Report, [8] 'Working together for health' emphasised the significance of the link between health worker density and primary healthcare access – in other words, a greater number of health workers, results in better public health access and health outcomes for a county.

The reasons underpinning health worker migration are well documented [11,10,12,15–17] financial, lifestyle, security, better work conditions, training opportunities and so forth. Unfortunately, underinvestment in health by governments, and political unrest, may further contribute to the migration of health workers out of developing countries in the region. This was evident following the 1987 Asian financial crisis and the 2000 coup in Fiji, which saw health workers leave the country. [18] This uneven distribution of workers creates greater levels of disparity and inequalities, particularly for low-income countries in the region. Further skills recognition for Asia Pacific nurses, doctors and dentists could present deskilling problems, as Australia, United Kingdom, Canada and many developed countries require bridging or skills assessment, prior to gaining work in the transit or destination country. [19]

The Philippines

The Philippines is the key contributor in supplying nurses and midwives worldwide. Between 1993-2010, 29% of the total number of health professionals who worked overseas were nurses. [20] During the 1990s and early 2000s, the Philippines Government policy to export nurses in exchange for remittances, boosted the economic situation of the country. This led to an increased demand among nursing students and then an oversupply of nursing schools, which reduced the quality of nursing graduates. However, the final nursing license examination and action by governing bodies eventually closed poor performing nursing schools. Surprisingly, the country saw a reduction in medical school students, as doctors retrained as nurses in order to gain greater migration opportunities. Since most senior nurses migrate due to inevitable push factors, too often junior trainee nurses are left unsupervised, placing patients at risk. [12]

The Middle East remains a popular transit region for Filipino nurses. An estimated 90,382 Filipino nurses were employed in Saudi Arabia between 1993-2010. Permanent residency is not permissible in Middle East countries and nursing contracts are generally two-years in duration. Contracts are either renewed or otherwise the nurse returns to the Philippines – where they apply for work in another country. A substantial drop in United States migration occurred following 9/11 due to tightened security in the United States, while a drop in Filipino migration to the United Kingdom has resulted in neighbouring countries like Spain and Portugal seeing their nurses migrate to the United Kingdom. [21]

The Pacific Islands

Fiji has one of the largest healthcare systems in the Western Pacific region and has been most affected by emigration of health professionals. Fiji reported the loss of 160 qualified doctors between 2003-2007 and 40 doctors in 2004 alone. [23] Fiji also ranked worse on the human development index, a clear indication that a loss of health workers impacts negatively on the health and welfare of the country's citizens. [9] A number of small island developing states in the Pacific, failed to reach Millennium Development Goals due to small island developing states' unique vulnerabilities in size, economic standing and maldistribution of the workforce (see Table 1).

Skilled health workforce migration into Australia

Migrant health workers occupy a significant proportion of the Australian health workforce. According to a study by the Organization for Economic Cooperation and Development (OECD), Australia reports some of the highest percentages of foreign-born doctors, nurses and dentists. [22,24] Immigration policies are highly selective in choosing highly-skilled and well-educated health workers from other

countries. In the last decade, Australia's skilled migration policy has transformed health workforce planning whereby the temporary 457 visa has dramatically expanded and employers continue to recruit migrant workers without any cap. Permanent skilled migration no longer dominates but the study-migration pathway has rapidly strengthened. [19] A goal for domestic self-sufficiency by 2025 was set by Australian Health Ministers, yet a significant workforce gap of 85,000 nurses and 2,500 doctors is predicted by 2025. [25,26] By 2030, it is estimated that this shortfall will increase to 123,00 nurses and 5,000 doctors. [25,26]

In Australia the maldistribution of the health workforce is most pronounced in rural and remote areas, as few local graduates choose rural work or commit to less attractive areas of specialisation such as aged care. Excluding the medical sector, limited rural incentive programs exist in other health professions and thus migrant health workers can be recruited to these areas of shortage. According to Rural Health Workforce Australia, international migrant health professionals are central in redressing Australia's rural health inequality as they fundamentally contribute to achieving universal health coverage in Australian remote communities that would otherwise lack access to health resources or services. Despite an increase in domestic training of health graduates, according to the ABS (2014), 47% of Australians with medical degrees, 59% of dentists, and 29% of nurses were overseas born. Asian developing countries; India, the Philippines and China remain the dominant source countries for migrant health workers in Australia.

Sustainable Development Goals (SDGs) and Universal Health Coverage

The Sustainable Development Goals place particular focus on universal health coverage, in order to achieve equitable access to healthcare globally. In 2015, the United Nations established a Task Team who set a framework, which includes economic, social, health, environmental, and sustainability dimensions for the next 15 years. Seventeen SDGs were devised which address ongoing MDGs, including redressing equity and inequality within and among countries. Human resources for health is recognised as a key SDG to achieve universal health coverage, as all should be able to access healthcare without suffering financial hardship when paying for them. [27] Universal health coverage includes health promotion, prevention and treatment, rehabilitation and palliative care. [9]

Attention to monitoring performance and the ongoing maintenance of professional standards is required by all countries in the Region. The health workforce needs to be adequately supported, equitably distributed, highly trained, available in areas of need and empowered to deliver quality health services for SDGs to translate to practice. This requires health governance strategies relevant to health workforce planning, retention, distribution and sustainability at national, regional and global levels.

The WHO 69th World Health Assembly endorsed the Global Strategy on Human Resources for Health: Workforce 2030. [27] The purpose of the strategy is to improve population health outcomes, through socio-economic developments relating to the SDGs. Objective two encourages countries to invest in human resources and improve the distribution of health workers by reducing dependency on foreign trained health workers by 2030.

The SDGs provide a framework for countries to achieve population health outcomes, emphasising a focus on the world's poorest and marginalised countries (least developed countries), and small island developing states (SIDS) (see Table 1). Health professional migration within South East Asia and the Western Pacific region has become more circular and complex as traditional migration patterns have changed. Health inequity and access highlight the need for country's to reinvest in health workers in order to achieve the 'right' balance of skilled health workers, especially in rural areas. The Asia-Pacific region experiences vast differences in economic, social and financial standing, this paper contends that the sustainable development goals (SDGs) provide guidance for strengthening the health workforce, so that all countries, within the context of increasing interdependence in a globalising world, particularly least developed countries and small island states, can work towards achieving universal health coverage by 2030.

Competing interests

The authors declare that they have no competing interests.

References

1. Heymann D. No health workforce , no global health security. Lancet [Internet]. 2016;387(10033):2063. Available from: http://dx.doi.org/10.1016/S0140-6736(16)30598-0
2. Campbell J, Dussault G, Buchan J, Pozo-Martin F, Guerra Arias M, Leone C, et al. A universal truth: no health without a workforce. 2013;104.
3. Perry H, Zullinger R, Rogers M. Community health workers in Low-Middle- and High-income countries: an overview of their history, recent evolution and current effectiveness. Annu Rev Public Health. 2014;35:339–421.

4. International Organisation for Migration. Regional Strategy for Asia and the Pacific 2012-2015 [Internet]. 2015. Available from: https://www.iom.int/sites/default/files/country/docs/AUP00548-RO-Bangkok-Regional-Strategy.pdf
5. Asia-Pacific Thematic Working Group (APTWG) on International Migration. Asia-Pacific Migration Report 2015: Migrants' contributions to development [Internet]. 2015. Available from: http://www.unescap.org/sites/default/files/SDD AP Migration Report report v6-1-E.pdf
6. United Nations General Assembly. Universal declaration of human rights. UN Gen Assem Resolut 217 A 10 December 1948 [Internet]. 1948; Available from: http://www.refworld.org/docid/3ae6b3712c.html
7. Hugo G. International labour migration and migration policies in Southeast Asia. Asian J Soc Sci. 2012;40(4):392–418.
8. World Health Organization. Working Together for Health: The World Health Report. World Health Report. Geneva; 2006.
9. World Health Organisation. World Health Statistics 2016: Monitoring for the SDGs. 2016;1–79. Available from: http://www.who.int/gho/publications/world_health_statistics/EN_WHS08_Full.pdf
10. Connell J. Migration of health workers in the Asia-Pacific Region [Internet]. Sydney; 2010. Available from: https://sphcm.med.unsw.edu.au/sites/default/files/sphcm/Centres_and_Units/HWM_AsiaPacific_Report.pdf
11. International Labour Office. Migration of health workers: country case study Philippines. Geneva; 2006. Report No: Working Paper (WP.236).
12. Marcus K, Short S, Nardi B. 'Hardworkers': Filipino Nurses' professional practice in Queensland. Asia Pacific J Heal Manag. 2014;9(1):28–34.
13. Association of South East Asian Nations. ASEAN Economic Community [Internet]. 2015 [cited 2015 Jan 15]. Available from: http://www.asean.org/communities/aseaneconomic-community
14. Hawthorne L. Circular migration of health professionals: Policy Brief 1. 2014.
15. Bourgeault IL, Labonté R, Packer C, Runnels V, Tomblin Murphy G. Knowledge and potential impact of the WHO Global code of practice on the international recruitment of health personnel: Does it matter for source and destination country stakeholders? Hum Resour Health [Internet]. 2016;14(S1):25. Available from: http://humanresources-health.biomedcentral.com/articles/10.1186/s12960-016-0128-5
16. Marcus K, Quimson G, Short SD. Source country perceptions, experiences, and recommendations regarding health workforce migration: a case study from the Philippines. Hum Resour Health [Internet]. 2014 Dec 31;12(1):62. Available from:http://human-resources-health.biomedcentral.com/articles/10.1186/1478-4491-12-62
17. Balasubramanian M, Brennan DS, Spencer AJ, Short SD. The 'global interconnectedness' of dentist migration: a qualitative study of the life-stories of international dental graduates in Australia. Health Policy Plan [Internet]. 2015;30(4):432–41. Available from: http://heapol.oxfordjournals.org/content/early/2014/05/10/heapol.czu032.full
18. Oman K, Mounds R, Usher K. Specialist training in Fiji: Why do graduates migrate, and why do they remain? A qualitative study. Hum Resour Health. 2009;7(9).
19. Hawthorne L. WHO four-country study: Health workforce migration in Australia. In: Siyam A, Roberto Dal Poz M, editors. Migration of Health Workers: WHO Code of Practice and the Global Economic Crisis. 2014. p. 109–32.
20. Li X, Zhu K, Liu F, Li H. Assessment of quality of life in giant ameloblastoma adolescent patients who have had mandible defects reconstructed with a free fibula flap. World J Surg Oncol. 2014/07/10. 2014;12:201.
21. OECD. Workforce Policies in OECD Countries: Right jobs, right skills, right places. Paris: OECD Publishing Paris; 2016.
22. Balasubramanian M, Brennan DS, Spencer AJ, Short S. The international migration of dentists: directions for research and policy. Community Dent Oral Epidemiol [Internet]. 2016;44(4):301–12. Available from: http://onlinelibrary.wiley.com/doi/10.1111/cdoe.12223/full
23. Fiji Sun. Migration sapa Fiji doctor numbers. Newspaper in BBC Monitoring Asia Pacific. 2008;
24. OECD. Immigrant Health Workers in OECD Countries in the Broader Context of Highly Skilled Migration *. Dumont J-C, Zurn P, editors. 2007.
25. Health Workforce Australia. Australia's future health workforce – Nurses overview report. 2014.
26. Health Workforce Australia. Australia's Future Health Workforce - Doctors Report. 2014.
27. World Health Organization. Global Strategy on Human Resources for Health [Internet]. 2015. Available from: http://www.who.int/workforcealliance/media/news/2014/consultation_globstrat_hrh/en/

The Tyranny of Size†: challenges of health administration in Pacific Island States

R Taylor

Abstract

There is great diversity among Pacific Island states (n=22) in geography, history, population size, political status, endemic disease, resources, economic and social development and positions in the demographic and health transitions and their variants. Excluding Papua New Guinea, all Pacific states are less than one million, and half of them (11) are less than 100,000.

Smallness also means fewer resources available for health, even if percentage allocations are similar to larger countries, and a disproportionate amount may derive from international aid.

Specialisation is not cost-effective or even possible in clinical, administrative or public health domains in small populations, even if resources or personnel were available, since such staff would lose their skills. In instances where only one to two staff are required, retirement or migration means decimation of the workforce.

Training doctors within the Pacific Island region provides appropriately trained personnel who are more likely to remain, including those trained in the major specialities. Nursing training should be in-country, although in very small entities, training in neighbouring states is necessary.

Outmigration is a significant issue, however, opportunities in Pacific Rim countries for medical doctors are contracting, and there is now a more fluid workforce among Pacific health personnel, including those resident in Pacific Rim countries.

International and regional agencies have a disproportionate influence in small states which can mean that global policies intended for larger polities are often promulgated inappropriately in small Pacific states.

Smallness also leads to strong personal relationships between health staff, and contributes to teamwork, but can also create issues in supervision.

Small health services are not just scaled-down versions of large health services; they are qualitatively different. Smallness is usually intractable, and its effects require creative and particularistic solutions involving other more endowed Pacific states and Pacific Rim countries.

Abbreviations: **NCD – Non-Communicable Disease; NGOs – Non Government Organisations; ODA – Overseas Development Assistance; TFR – Total Fertility Rate.**

Key words: **health administration; Pacific Island States; specialisation; outmigration; small health services.**

Richard Taylor MBBS(Syd), DTMH(Lon), FRCP(UK), PhD(Syd), FAFPHM
Professor of Public and International Health
School of Public Health and Community Medicine
Faculty of Medicine,
University of New South Wales
Sydney, New South Wales, Australia

Correspondence:
r.taylor@unsw.edu.au

† Blainey G. *The Tyranny of Distance: How Distance Shaped Australia's History*. Macmillan, 2001 (Edition illustrated, revised). First published: 1966.

Context

The Pacific Island states of Melanesia, Micronesia and Polynesia encompass populations that vary greatly in size, from over eight million in Papua New Guinea (PNG), down to a few thousand in some small Polynesian entities. Since this article considers only small states, PNG will be excluded; all other Pacific countries and territories have populations <1 million. Excluding PNG, Fiji and Solomon Islands have populations over 0.5 million, three states are between a quarter and half a million, five states between 100,000 and a quarter million, and 11 states under 100,000, of which six are

<20,000. Fiji has a population of 850,000; Solomon Islands and Vanuatu 942,000; French territories 565,000; Samoa, Tonga and other Polynesian states 323,000; other Micronesia 304,000; and United States territories 220,000. [1]

While Solomon Islands, Vanuatu and Kiribati register population growth of ≥2% per annum, some states in Polynesia and Micronesia show population growth <1 % per annum, [1] despite substantial fertility, because of considerable out-migration, particularly to New Zealand and the United States. Pacific states manifest extensive variations in land mass and geography from substantial high islands with rich volcanic soil to tiny atolls consisting of little more than sand. While some populations are concentrated on main islands, others are scattered through rugged mountainous terrain or across far flung archipelagos. Many islands have plentiful water from rainfall, whereas those near the equator are severely drought-prone. The range of the malaria mosquito vector (Anopheles species), extends from Asia southwest to the Buxton line which encompasses PNG, the Solomon Islands and Vanuatu, but not beyond; all other Pacific Island states are malaria-free.

There are differences in language and culture within and between Pacific Island states. Melanesian society is traditionally led by men who have advanced through strategic alliances, and there are many local languages, although varieties of pidgin are widespread. Polynesian societies are hierarchical with hereditary nobility, and speak related (Austronesian) languages. Although Indigenous Fijians (i-Taukei) are racially considered Melanesian, their language and culture are more Polynesian in character. Immigrant Indians gained parity with Indigenous Fijians in 1946, and out-numbered i-Taukei from 1956 to 1986 (censuses). There were three` military coups in Fiji in 1987, 2000 and 2006. At the 1996 census i-Taukei constituted 51% of the population and Indians had declined to 44%, and at the 2007 census i-Taukei were 57%, and Indians declined further to 37% [2] - a consequence of out-migration and lowered fertility. There are also substantial communities derived from immigrants, or inter-mixed with them, in New Caledonia, Guam, and French Polynesia. Inter-communal conflicts in New Caledonia 1984-88 led to accords which have altered political, economic and social circumstances; at the 2014 census 40% declared Melanesian (Kanak), 27% European, then 'Caledonian', mixed race, Polynesian and Asian. [3] Although Christianity is widespread from European colonisation, there are still areas of animist belief in Melanesia, and Fijians of Indian descent are determinedly Hindu or Moslem.

As a consequence of the geographical and socio-cultural heterogeneity of Pacific Island populations, and different historical colonial experience, the demographic transition, and its variants, is not only evident over time in each population, but also currently observable in comparative cross-section. [2,4,5] The balanced high mortality and high fertility characteristic of the traditional demographic regime has been first affected by a decline in mortality (from reduction in undernutrition and infectious disease), which, in association with continued high fertility, produces population increase, especially seen in Solomon Islands, Vanuatu and Kiribati (Table 1). In other Pacific states, population increase has been moderated or rendered static, despite high fertility, by extensive outmigration, such as in Samoa, Tonga, and parts of Micronesia (Table 1). The demographic transition has progressed (and concluded) in some French and American territories, New Zealand associated states, and in Fiji, where the total fertility rate (TFR) has declined to <3 per woman, including some states where TFR is <2.1 per woman (replacement), and mortality and fertility have returned to balance, albeit at low levels (Table 1).

Likewise, the epidemiological transition is evident both from secular analyses and in crosssection. [4-5] Some Pacific states (such as PNG) still experience low life expectancy from infectious disease and perinatal, maternal, and nutritional conditions, characteristic of the traditional or pre-transitional pattern of causes of death (and morbidity), see Table 1. There are also populations, such as Guam (Table 1), with a modern or post-transitional pattern with relatively high life expectancy and death in the elderly from chronic non-communicable disease (NCD). During the epidemiological transition, between the traditional and modern patterns, there may be limitation of life expectancy from persistent premature mortality from traditional causes of death coupled with significant premature adult mortality from modern causes, producing the 'double burden of disease'. [5] In other instances, such as in Fiji, plateaux in life expectancy may occur from increases in premature adult mortality from cardiovascular disease, diabetes, certain cancers and chronic lung disease, while a simultaneous decline continues in infectious disease, and perinatal, maternal and nutritional conditions, especially in children. [6-8, 4-5] These transitional patterns occurred in North America and Australasia, and some countries of Europe, during twentieth century.

Availability of accurate demographic, health status and health service information is frequently deficient. In French and United States territories statistics are organised by the

Table 1: Population statistics, Pacific Island states (circa 2010-13)

PACIFIC ISLAND STATES	POPULATION '000	POPULATION GROWTH % PA	FERTILITY TFR	GDP PER CAPITA PPP US $'000	GDP PER CAPITA US $ 000	ODA % GNI	LE BIRTH MALE (GBD)	LE BIRTH FEMALE (GBD)	IMR/1000
Melanesia (excluding PNG)									
Fiji (Independent)	880.4	+0.5	2.6	4.7	3.5	3	65	69	14
Solomon Islands (Independent)	651.7	+2.7	4.7	2.7	1.2	61	61 (61)	70 (64)	18
Vanuatu (Independent)	289.7	+2.6	4.2	4.2	3.0	15	69 (62)	72 (67)	20
New Caledonia (French Territory)	277.0	+1.8	2.2				74	81	4
Polynesia									
French Polynesia (French Territory)	273.8	+0.6	2.1		25.0		73	78	5
Samoa (Independent)	194.0	+0.8	4.7	5.7	3.3	27	73 (68)	76 (73)	17
American Samoa (US Territory)	54.3		2.6		8.0		70	78	8
Tonga (Independent)	100.6	+0.2	4.1	7.8	3.5	19	66	70	13
Cook Islands (NZ associated)	15.2	+3.0	2.6		12.2		69	74	8
Wallis & Futuna (French Territory)	13.5	-1.9	1.8				74	78	4
Tuvalu (Independent)	10.1	+0.5	3.9	3.6	3.2	34	63	67	30
Niue (NZ associated)	1.6	-1.0	2.9				71	75	17
Tokelau (NZ associated)	1.4	-0.1					68	70	30
Pitcairn (UK Territory)	(n=49)								
Micronesia									
Guam (US Territory)	173.0		2.9		15.0		75	81	10
Kiribati (Independent)	115.3	+2.2	3.9	5.7	1.50	11	0	67	42
Federated States of Micronesia (US associated)	104.6	-0.4	3.6	2.3	2.70	41	69 (63)	72 (68)	30
Republic Marshall Isds (US associated)	55.0	+0.4	4.1	2.4	3.1	48	71 (62)	73 (66)	24
Palau (US associated)	17.8	+0.6	2.1	9.2	10.8	20	64	70	12
Nauru (Independent)	10.8	+1.8	4.5	5.6	6.2		56	59	44
C'wealth Nth Marianas (US Territory)	51.0		1.6				74	77	5

Data sources: Demographic: Linhart et al. 2014; SPC 2016; GBD: Global Burden of Disease. [11] + Connell 2013 [12]
ODA: Overseas Development Assistance. GBD estimates are given where they differ from official LE estimates. GNI Gross National Product.
GDP: Gross Domestic Product. PPP: Purchasing Power Parity: World Bank 2016. http://data.worldbank.org/indicator/SH.XPD.TOTL.ZS.
LE: Life expectancy at birth (years), IMR: Infant mortality rate per 1000 live births [14]

metropolitan country and generally reliable, although GDP is not produced by international agencies. In independent Pacific countries or Pacific states associated with New Zealand or the United States, data collection, analysis and dissemination usually falls to a hodgepodge of local ministries and statistical institutions, international and regional organisations, bi-lateral aid agencies, philanthropic institutions, and even non-government organisations, of variable competence. Thus the data in Table 1 are incomplete, and in some cases, suspect. For example, life expectancies from the Global Burden of disease are given in Table 1 where they vary significantly from official statistics.

Resources

Lack of readily available data is a considerable problem in assessment of small Island states, especially for territories where the economy is enmeshed with the metropolitan country (Table 2). The economy is very small in many Island countries and territories because of small populations, and in many cases scarcity of land which could be used for agriculture. Fishery is an important resource, but commercial fisheries are a capital-intensive and high technology enterprise, and many Pacific Islands lease their sea area to other nations who then fish it. Tourism is an important but precarious industry in Fiji, Guam, French Polynesia and New Caledonia, and also Cook Islands and Vanuatu; but distance and isolation make many Pacific destinations too difficult and expensive for the average tourist, and malarious destinations (Vanuatu) are less desirable.

Pacific Islands have important strategic value ('anchored aircraft carriers') because of their position and sea areas. Some have argued that the relatively high per capita aid flows received by these countries are a form of 'rent' in acknowledgement of their strategic value by donor countries. Such arrangements are formalised in the Compacts of Free Association entered into by the former US Trust Territories, obvious in Guam and French territories, and implicit in many relationships between Australia and New Zealand and certain Pacific Island nations.

Territories and states associated with metropolitan countries generally have higher GDP per capita than independent countries and overseas development assistance (ODA) contributes a significant proportion to gross national income in many Pacific Island states (Table 1).

The scarce resources allocated by government to the health sector in many Pacific Islands, is partly in the knowledge that there are considerable international resources available for work in this area. Many donor organisations and countries usually place a much greater emphasis on health than do developing country governments, because health is seen as 'humanitarian', which is popular with electorates in the industrialised donor nations.

In some Pacific states total health sector expenditure may be a relatively low proportion (<5%) of GDP, yet this may be appropriate since heath improvements at this level of development are importantly related to inputs from water supply and sanitation (Public Works), nutrition (Agriculture, Fisheries), primary and secondary education, electrification, and other development initiatives, rather from that designated specifically as within the health sector as defined by economists. On the other hand, some Pacific states show higher than anticipated (>10%) total health expenditure as a proportion of GDP, which may derive from external sources, especially in United States associated states. Most heath expenditure derives from public sources (Table 2).

There is often a profound lack of material resources in the less developed Pacific Island countries. This may include buildings (primary healthcare centres, hospitals etc.), but mostly supplies. Communication and basic equipment for primary healthcare and district hospital is unavailable or broken. Maintenance is a well-known problem in developing countries. In some cases large buildings or sophisticated equipment given by donors cannot be maintained or repaired, and may lie idle after a few years. Supplies of essential drugs or vaccines are often erratic at best, due to both procurement and distribution problems. Transport is frequently expensive and vehicles are usually poorly maintained and often subjected to extreme conditions. Communications are usually a problem both between the centre (national or provincial health department) and the periphery (health centres, hospitals, etc.), and between the health facilities and the sometimes scattered and isolated communities which they are supposed to serve.

The problems with communication and transport in some Pacific Island countries are often compounded by extreme climatic and geographical difficulties. Terrain is frequently impassable by land vehicles or impassable at certain times of the year. The Melanesian malarious countries and some of the Micronesian states have significant rural or outer island populations which are often scattered and isolated.

The lack of trained health personnel in many Pacific Island countries affects all levels of the healthcare system from top administrators to village level health workers, however, accurate data is often difficult to locate (Table 2). In some states medical doctors are supplemented by Medical

Table 2: Health resources, Pacific Island states, excluding Papua New Guinea (circa 2014)

PACIFIC ISLAND STATES	HEALTH EXPENDITURE PER CAPITA $US	HEALTH EXPENDITURE AS % GDP	PUBLIC AS % TOTAL HEALTH EXPENDITURE	MED DRS # (/10⁴)	MED ASSIST NURSE PRACT # (/10⁴)	NURSES MIDWIVES # (/10⁴)
Melanesia (excluding PNG)						
Fiji (Independent)	204	4.3	66			
Solomon Islands (Independent)	102	5.1	92	107 (1.6)		890 (13.7)
Vanuatu (Independent)	158	5.0	90	46 (1.6)	56 (1.9)	341 (11.8)
New Caledonia						
Polynesia						
French Polynesia						
Samoa (Independent)	301	7.2	91			
American Samoa						
Tonga (Independent)	213	5.2	82	55 (5.5)	51 (5.1)	280 (27.8)
Cook Islands						
Wallis & Futuna						
Tuvalu (Independent)	633	16.5	99			
Niue (NZ associated)						
Tokelau (NZ associated)				4 (28.6)		13 (92.9)
Pitcairn (UK Territory						
Micronesia						
Guam (US Territory)						
Kiribati (Independent)	154	10.2	81	22 (1.9)	46 (4.0)	301 (26.1)
Federated States of Micronesia (US associated)	415	13.7	91			
Republic Marshall Isds (US associated)	625	17.1	84	24 (4.4)	74 (13.5)	128 (23.3)
Palau (US associated)	1150	9.0	72			
Nauru (Independent)	516	3.3	86			
Commonwealth of Northern Marianas						

World Bank 2016 http://data.worldbank.org/indicator/SH.XPD.TOTL.ZS. [14]
$US: Current
WHO UNSW Human Resources for Health Pacific Country Reports 2014 [15-20]
Numbers. (/104) Rate per 10,000 population

Assistants or Nurse Practitioners, whereas in others it is Nurses who carry the load, especially at pimary care level, as is evident in Solomon Islands, Vanuatu and Kiribati (Table 2). On the other hand, relatively small numbers of staff translate into large population rations in small states such as Tokelau. In some middle level Pacific Island states there are a number of well-trained clinicians and health administrators at the national level, but severe deficiencies at middle and peripheral levels. There is often a tradition of moving the most competent administrators or people with quantitative/computer expertise from the health department to more 'important' sectors, such as economic statistics, etc., and moving experienced clinicians into health administration.

Specialisation

Smallness of population means that specialisation is not cost-effective or possible in clinical, administrative or public health domains. In the smallest Pacific states there may be no clinical specialisation at all. Medical doctors must handle adult and paediatric medicine and surgery, and abnormal obstetrics; obviously possible interventions are limited. This is not dissimilar to the situation in many rural and remote areas in developed countries up to the mid-twentieth century. In other instances, where there is sufficient population and medical staff, specialists may emerge in medicine, paediatrics, surgery, obstetrics-gynaecology and anaesthetics, and for which local training is currently offered by the Fiji School of Medicine. Although sub-speciality training may be acquired overseas, those who return can rarely practise only in their subspecialty. Surgeons are general surgeons first, and may also have special expertise in, for example, orthopaedics, or urology, etc. Physicians are general physicians first, but may also have special expertise in, for example, cardiology, gastro-enterology, etc. This situation was common in speciality practice and most provincial and district hospitals in developed countries well into the latter part of the 20th century. It is for these reasons that modern sub-specialists from developed countries often lack sufficient skills to function in a developing country environment at much lower levels of diagnostic and therapeutic technology, and where a wide range of clinical knowledge, skills and experience is required. Sub-specialisation is limited to those states with close links to metropolitan countries such as Guam or New Caledonia.

Specialisation in areas of health administration, and public health, is equally difficult as medical specialisation in small populations. Because of their population size, it is just not possible to have trained epidemiologists or demographers, or health economists or health administrators in many Pacific Island countries. And it would be an inappropriate use of resources to train such staff. Some Directors of Health in small Pacific states may spend mornings or afternoons in the operating theatre or general medical clinic, and may be on call at night and weekends for emergency cases, while also attending to the administration of the health service, compiling epidemiological and health service statistics, and interacting with international and aid agencies.

However, small island countries can often use the services of highly skilled specialists – whether it be cardiac surgery for rheumatic valvular disease, ocular surgery, diagnostic assessment for particular difficult problems, a detailed study of healthcare financing, in-depth epidemiological investigation of a disease outbreak or endemic disease, or a complex analysis of fertility and mortality from a population census. This can be supplied by creative arrangements with other Pacific states, Pacific Rim countries and or international or regional agencies.

Herein lies one of the most fundamental of development issues and central contradictions in small populations. In such polities, self-sufficiency in medical and health resources at a level to which many may aspire is not possible, even with high standards of living. Training highly specialised clinical, administrative, and public health personnel is not only an inappropriate use of resources in the less-developed Island countries with small populations, it is inappropriate no matter what the level of development. Paediatric surgeons cannot sit around waiting for the occasional case, otherwise they lose their skills. Epidemiologists cannot be expected to maintain their expertise by looking at the few health statistics which come their way. Furthermore, it is difficult to attract and retain qualified persons to such posts, and often not possible to localise such positions, or to episodically fill such positions by externally funded expatriate staff.

Solutions need to be found in creative connections, often mutually beneficial, between Pacific Island states and institutions in Pacific Rim countries, and assistance from international and regional agencies with sufficient competence. This can be achieved by off-island referral of selected cases for treatment to Pacific Rim countries, or even more distant South East or South Asian countries in order to contain costs. However, referral is always a limited option, difficult to ration fairly, and not appropriate for end-of-life situations. Other solutions involve intermittent short visits by teams of sub-specialists from neighbouring countries, especially suitable for elective surgery, which can be funded through non-government organisations and bilateral aid agencies at modest cost. Further, short and medium term

capacity supplementation of doctors, nurses and allied health workers can be provided for serious gaps caused by death, retirement, migration or well-deserved leave of absence for essential local health personnel if funded through bi-lateral aid agencies. This deficiency is being met to some extent from the reservoir of health personnel from Pacific states residing in New Zealand and Australia, and other countries of the Pacific Rim, or resident in larger Pacific states, such as Fiji, who often have linguistic ability competence in Austronesian Pacific languages, or Pidgin, and cultural familiarity. Such schemes are in operation, but require continued external funding.

Training

There are obvious issues concerning local training health personnel in states with very small populations. There are several nursing schools and health assistant courses in many Pacific Island countries and territories, but some Pacific states do not have nursing schools, and local nursing training is often not available in states with widely dispersed populations in Melanesia and Micronesia.

Training medical practitioners and paramedical workers poses greater difficulties. Medical training undertaken in metropolitan countries is expensive, requires many years, and equips medical doctors to practise in a high technology diagnostic and therapeutic environment, with ready access to specialist referral and availability of an extensive pharmaceutical armamentarium. This training is suitable and required in American and French territories, where there are also medical staff from the metropolitan countries; however, such training is not suitable for countries with lesser health service facilities. Furthermore, there is a considerable non-return rate of Pacific medical graduates who are trained in developed countries.

The two main institutions for training medical practitioners in Pacific Island countries are the Faculty of Medicine at the University of Papua New Guinea in Port Moresby, and the Fiji School of Medicine in Suva, which offer post-school six year MBBS programs. Many Pacific Islanders have difficulty in passing these regional medical courses, particularly the early basic science preclinical component. Failure is often due to inadequate secondary education and approaches to study, compiled with socio-cultural disorientation associated with the move to Suva or Port Moresby. The Pacific Basin Medical Officers Training Programme in Ponape, Federated States of Micronesia, which operated over 1987-97 was funded by the United States to ameliorate a shortfall in medical practitioners which had been filled by expatriate United States physicians on short-term contracts prior to the Compact of Free Association (1986). The program, which was partially influenced by the previous Diploma of Medicine and Surgery at the Fiji Medical School (changed to MBBS in 1982), graduated 70 Micronesian medical officers by 1998, most of who remained in FSM. Smaller medical schools have recently arisen in Fiji (Lautoka) and Samoa. Many Pacific Island medical doctors, even those with considerable clinical postgraduate qualifications and experience, become full-time medical administrators. This is, in many instances, is a significant waste of scarce clinical skills to the country. This problem could be ameliorated by parallel rather than sequential salary scales for clinical and administrative health personnel.

Perceived shortage of front line medical practitioners has led to some Pacific states accepting scholarships for medical training in distant countries outside of the Pacific Island region (such as Cuba or China) which have produced, in some instances, excessive number of graduates (beyond the capacity of countries to employ them), and who often require additional training to gain the clinical capabilities expected locally of Medical Officers.

Nurses are the backbone of health care systems in many Pacific Island countries, particularly the primary care level. Many Pacific Island countries have nursing schools, but some, partly as a consequence of small populations, do not, and those aspiring to this profession must travel to other countries (such as Fiji, Guam, etc.) for training.

Training of paramedical workers such as radiographers, physiotherapists, dieticians and laboratory technologists also poses difficulties. Relatively few of these personnel may be required, so that courses can only be run every few years, even at regional level. Some small countries may require only one or two of a certain type of personnel, but if one migrates or dies unexpectedly the workforce is decimated. A solution is to train nurses and doctors to perform some of these tasks when paramedical workers are not available. For example, in isolated locations, nurses should be able to give simply dietary advice and perform simple physiotherapy tasks, and doctors should be able to take X-rays and perform simple laboratory tests.

Health inspectors and sanitarians are trained at the Fiji Medical School and have made a very valuable contribution to health improvement in the Pacific Island region. Training in public health is usually easier if at postgraduate level (one to two years). Post-graduate training in the Pacific region is developing and locally recognisable Master degrees in

clinical specialities through Medical Schools in Fiji and Papua New Guinea (Medicine, Surgery, Paediatrics, Anaesthetics, Obstetrics and Gynaecology), supported by bilateral aid agencies, has been a beneficial trend in producing and registering appropriately trained local specialists, for Pacific states of sufficient size.

Out-migration of health personnel

Out-migration of skilled health workers poses significant problems for any developing country, but the impact is particularly great in small Island populations which may be left with a total deficiency of that category of professional if one or two people leave. For example, population size may dictate that only one pathologist or obstetrician/gynaecologist is required for the country, and more would be superfluous. If that person migrates then there is none. To retain scarce staff, as much local training as possible in the home country, or other Pacific Island countries, is one of the answers, and local Master degrees for specialist qualifications is one of the mechanisms. Furthermore, to minimise migration, systems need to evolve to relieve professional isolation, support continued professional education, and ensure adequate leave (with temporary replacements), supported by bi-lateral and international agencies. Experienced medical, nursing and other health personnel resident in Pacific rim countries may consider a return to their country of origin at later stages of their career, as part of a common pattern or 'circular migration' in the Pacific, and mechanisms could be developed to facilitate such movements.

The out-migration of locally trained Pacific Island medical doctors has been facilitated by the change of qualifications from Diploma to Bachelor degrees in Pacific medical schools. Replacements by international or aid agencies of foreign doctors with inadequate English, considerable cultural differences and often inadequate clinical training has not improved the situation. Migration is more likely if an individual had recognisable qualifications in the destination country, lived there for some period, and particularly if married to a national of that country - all are often a consequence of overseas professional training.

Increased production of medical doctors in English speaking developed countries over the last decade, especially in Australia and the United Kingdom, has considerably limited opportunities for medical migration, and is arguably the only real way to contain medical migration.

International agencies

The influence of multilateral, bilateral and non-government agencies is quite pervasive in many developing countries, which can be both beneficial and detrimental, and small Pacific states are impacted more than others since they have less expertise and less ability to resist offers of inappropriate largesse and development 'assistance'. American and French territories are least influenced by international agencies, while small Pacific states are the most influenced.

Health policy and planning in developing countries often takes place in two broad spheres. Firstly, in the international context, and secondly at the national and sub-national levels. Herein lies one of the most important differences between health policy and planning in developed and small less developed countries. In many Pacific Island states, the role of the international health-related agencies in policy and planning is the dominant or only influence. These agencies include: international agencies (World Health Organisation, UNICEF, ESCAP, FAO), regional agencies (Pacific Community), bilateral aid agencies (such as United States or Australian aid), and non-government organisations (NGOs).

One of the effects of smallness and lack of resources is that financial and personnel contributions of international and aid agencies may be relatively large in relation to the total health budget, and consequently these agencies may have a disproportionate amount of power and influence in small Pacific Island states as compared with their influence in larger developing countries.

It is important to recognise that small Pacific Island states are not just scaled-down versions of larger nations. They are of such a size, and isolated to such an extent, that their situation and difficulties are qualitatively, as well as quantitatively, different.

Many agencies involved in development have sets of policies which are designed for relatively large least-developed countries and may be framed in such general terms that they could apply to a considerable rage of diversity. Many of these policies are inappropriate for states with very small populations and for partially developed nations, and are often inappropriate for quasiindependent states with mutually beneficial arrangements with larger metropolitan nations. The highly centralised nature of some international agencies, and lack of delegation at the peripheral country level, may mean that policies and rules are applied inflexibly to both China (population 1.35 billion), and Cook Islands (population 20,000, plus another 62,000 in New Zealand).

Bilateral aid agencies profess a humanitarian rationale, but this is overlaid with significant strategic and commercial objectives. Although these donors usually try to encompass policies that are congruent with those of the major international agencies, they often emphasise aspects which are in their economic interest (such as food aid, supply of sophisticated equipment, etc), or strategic interest (training scholarships, supply of staff, fostering referral patterns, etc), which may not be particularly conducive to local health development.

A consequence of the geo-strategic significance of Pacific Islands, a significant proportion of the bilateral aid is destined to achieve foreign policy and defence objectives of donor countries. Following the end of the Cold War, global foreign aid flows decreased by two thirds during the 1990s, and only returned to previous levels after the events of 11 September 2001. Further, donor countries find it easier and less expensive to engineer votes for particular international policies or treaties in regional or global fora, or to support their nationals standing for key positions in international or regional agencies, from a myriad of small states, rather than from large populous countries with more experience and organisation.

Besides traditional bilateral donors, such as Australia, New Zealand, United States and France, during the last decade there has been a prominent increase in activity of China in Pacific Island states. This has been through business activities of its nationals, and through bi-lateral aid, mostly for infrastructure, including hospital and health department buildings, which also utilises Chinese companies, labour and materials. [10-11]

On the other hand, bilateral donors are very sensitive to what governments of developing countries say they need and want through official diplomatic channels (since this is a way to obtain maximum diplomatic return), and find it difficult to resist inappropriate proposals pushed by powerful individuals or elites.

The NGOs usually try to avoid working through government structures, and prefer to work through local counterpart organisations, or directly with those most in need. This can be both an advantage and a disadvantage; on one hand it avoids sometimes inept health departments and circumvents policies directed to hospital and curative services, but on the other hand these activities are often small isolated efforts, uncoordinated with mainstream health programmes. Furthermore, NGOs in small populations, far from being Indigenous, are often established, funded and run indirectly by foreign or international NGOs, with little local autonomy. Finally, the plethora of International and bilateral aid agencies, non-government and philanthropic organisations, and universities, research institutes and health departments in high income countries provide of wealth of opportunities for involvement in international projects and programs, conferences, and meetings, often at the headquarters of such institutions, requiring travel to the Pacific Rim, Asia, North America and Europe. In small heath systems there are few people in responsible positions, and it has not escaped notice that frequent 'off-Island' absences from a constant round of international visits is a major contributor to inadequate availability of senior health resources in small island states.

Advantages

Besides the disadvantages, there are also some advantages of small size. In small health services and health bureaucracies most staff know each other personally. Often they are related by family ties in some way. They live and work with each other for most of their lives. They know each other's strengths and weaknesses, and understand their position in the team. However, sometimes family ties are incongruent with administrative relationships, which can lead to issues concerning supervision and promotion.

Conclusions

Small health services are not just scaled-down versions of large health services; they are qualitatively different. Small population size is usually intractable. Populations in the medium size and smallest Pacific states are frequently static or decreasing from outmigration, despite high fertility. In any case, land is limited. Creative solutions are required involving co-operation with more well-endowed Pacific states, and with neighbouring countries of the Pacific Rim (including Pacific migrants resident there), based on a realistic appreciation of issues and their particularity over time and place.

Competing interests

The author declares that he has no competing interests.

References

1. SPC 2016. Pacific Community (SPC). National Minimum Development Indicators (NMDI) version 2.0. Noumea, New Caledonia. Available from: http://www.spc.int/nmdi/population
2. Fiji BoS 2007. Fiji Bureau of Statistics. Available from: http://www.statsfiji.gov.fj/statistics/population-censuses-and-surveys
3. INSEE 2016. Recensement de la population en Nouvelle-Calédonie en 2014. Institute national de la statistique et des etudes economiques (INSEE). Available from : http://www.insee.fr/en/themes/document.asp?ref_id=ip1572

4. Taylor R. History of Public Health in Pacific Island Countries. In: Public Health in Asia and the Pacific: Historical and Comparative Perspectives. Lewis MJ, MacPherson KL, editors. Advances in Asia-Pacific Studies. Routledge: London and New York; 2011, pp 276-307.
5. Taylor R. The Double Disease Burden in Pacific Island States (except Papua New Guinea). In: Health Transitions and the Double Disease Burden in Asia and the Pacific. Histories of Responses to non-communicable and communicable disease. Editors: Lewis MJ, MacPherson KL. Routledge Advances in Asia-Pacific Studies. Routledge: Oxford and New York; 2013, pp 279-301.
6. Taylor R, Lewis N, Levy S. Societies in transition: mortality patterns in Pacific Island populations. International Journal of Epidemiology. 1989;18(3):634-646..
7. Taylor R, Lewis N, Sladden T. Mortality in Pacific Island countries around 1980: geopolitical, socioeconomic, demographic, and health service factors. Aust J Public Health. 1991;15(3):207-221.
8. Taylor R, Bampton D, Lopez A. Contemporary patterns of Pacific Island mortality. International Journal of Epidemiology. 2005; 34:207-214..
9. Taylor R, Lopez A. Differential mortality among Pacific Island countries and territories. Asia-Pacific Population Journal. 2007; 22(3):45-58.
10. Hayward-Jones J. Big Enough for all of us: geo-strategic competition in the Pacific Islands. The Myer Foundation Melanesia Program. Lowy Institute for international Policy; 2013. Available from: http: //www. lowyinstitute.org/files/hayward_jones_big_enough_web.pdf
11. Crocombe R. Asia in the Pacific Islands: replacing the West. Suva: IPS Publications, University of the South Pacific; 2007.
12. Linhart C, Carter K, Taylor R, Rao C, Lopez A. Mortality trends in Pacific Island States. Sydney: School of Public Health and Community Medicine (SPHCM), University of NSW(UNSW); Noumea, New Caledonia: Secretariat for the Pacific Community (SPC); Brisbane: School of Population Health (SPH), University of Queensland (UQ); 2014.
13. Connell J. Islands at risk? Environments, economies and contemporary change. Northampton MA: Edward Elgar Publishing. 2013.
14. World Bank. Health Expenditure. 2016. Available from: http://data.worldbank.org/indicator/SH.XPD.TOTL.ZS
15. WHO UNSW. Human Resources for Health Country Profiles: Kiribati. Manila: World Health Organization, Human Resources for Health Knowledge Hub, School of Public Health and Community Medicine (SPHCM), University of New South Wales (UNSW); 2014.
16. WHO UNSW. Human Resources for Health Country Profiles: Solomon Islands. Manila: World Health Organization; Human Resources for Health Knowledge Hub, School of Public Health and Community Medicine (SPHCM), University of New South Wales; 2014.
17. WHO UNSW. Human Resources for Health Country Profiles: Tonga. Manila: World Health Organization. Human Resources for Health Knowledge Hub, School of Public Health and Community Medicine (SPHCM), University of New South Wales; 2014.
18. WHO UNSW. Human Resources for Health Country Profiles: Marshall Islands. Manila: World Health Organization. Human Resources for Health Knowledge Hub, School of Public Health and Community Medicine (SPHCM), University of New South Wales; 2014.
19. WHO UNSW. Human Resources for Health Country Profiles: Tokelau. Manila: World Health Organization; 2013.
20. WHO. Human Resources for Health Country Profiles: Republic of Vanuatu. Manila: World Health Organization; 2013.

RESEARCH ARTICLE

Healthcare System Restructuring in New Zealand: problems and proposed solutions

R Gauld

Abstract

New Zealand's healthcare system is, like most, in a continual process of restructuring and change. While the country has endured several major system-wide changes in recent decades, more recent change has been incremental and evolutionary. Current changes are in response to a set of challenges, which are not unique to New Zealand. This article overviews the New Zealand healthcare system. It then describes a series of problems facing the system and proposed solutions. These include the need for team care, providing services closer to patients' homes, focusing on a population of interest, connecting up the system, and engaging patients more closely in care design and delivery.

Abbreviations: **DHS – District Health Board; GP – General Practitioner; PHO – Primary Health Organisation.**

Key words: **healthcare system; restructuring; New Zealand; team care; population health; patient engagement.**

Robin Gauld
Department of Preventive and Social Medicine
University of Otago
Otago, New Zealand

Correspondence:
robin.gauld@otago.ac.nz

Introduction

In common with virtually all the world's high-income countries, New Zealand's public healthcare system is in an almost constant state of restructuring. The country had a reputation at one point, from the late 1980s to around 2000, of having the world's most restructured healthcare system. This was as successive governments of different political persuasions presided over wholesale changes to funding and planning mechanisms, creating much uncertainty and turmoil in the process, and divisions between policy makers, managers and health professionals. [1]

Since 2000, there has been relative calm, yet age old challenges with the system remain. These are the outcome of underlying institutional arrangements that have their origins in the *Social Security Act 1938*, which involved the world's first attempt to create a national health service along the lines of what the United Kingdom has today. [2] At the time, the New Zealand government sought a series of objectives. These included universal access to services, with a focus on primary care and population health; an integrated service, with all health professionals working for one service and on the government payroll; and no barriers to care, regardless of income or location. These were ambitious goals and, in many ways, match with what policy makers around the globe seek today. Ironically, this includes New Zealand's policy makers over 75 years after their predecessors' efforts.

The problem for New Zealand lies in a political compromise reached with the medical profession in order to progress implementation of the 1938 legislation. This meant that public hospitals would be free of patient charges, with all employees, including health professionals, salaried and paid by the state. Doctors would be permitted to retain their private business status and ability to generate their own income. Thus, around 40% of hospital specialists are today in parallel private practice. General practice sits largely separately from the public hospital system, although GPs do receive around half their income from the government with patients directly charged at point of service. As a consequence, the government's integration goals have never been met, while various studies show that around 20% of New Zealanders report avoiding visiting a doctor when they feel a need to due to the cost barrier. [3,4]

Restructuring in New Zealand today is evolutionary and incremental, focused on a series of concerns that hinge on the ability to traverse the historic institutional challenges and achieve the goals set down in 1938. This article describes a list of problems and proposed solutions. Some of these are encapsulated in current government policy; others, arguably, should be core policy concerns. The next section describes New Zealand's present healthcare system. This is followed by an account of the problems and solutions.

New Zealand's healthcare system

As noted elsewhere, New Zealand is often categorised along with other countries that have a 'national' health system. [5,6] That said, it is a very loose version of this albeit with some of the characteristics. Central government is the primary funder, distributing tax funds directly into the public institutions via a Ministry of Health. The Ministry, in turn, funds 20 District Health Boards (DHBs). These are geographically-based local systems with responsibility for planning and funding the full spectrum of service for their population. The DHBs are funded on the basis of population, via a population-based funding formula. This is weighted for each region according to population and geographic characteristics, such as deprivation, ethnicity and rurality, meaning that there is around a 25% variation between the level of funds going to different DHBs. In theory, the funding formula is a proxy for need. DHBs own and fund public hospitals in their regions, and fund primary health organisations (PHOs) which, in turn, subsidise GP services. DHBs also fund various community-based services such as public health, disability support and mental health services. The incentive for DHBs is to focus on health and wellbeing and treatment in the community, rather than inpatient care, although there has tended to be a historic emphasis on hospitals.

Around 80% of total health expenditure is public. The remaining 20% of private expenditure is through patient co-payments to GPs, co-payments for prescribed medicines (which are heavily subsidised by government via Pharmac, the public drug-buying agency), and for private hospital and outpatient specialist services. These receive no government subsidy. Around a third of New Zealanders subscribe to private health insurance. Notably, private hospitals and specialists provide only non-urgent services. All major trauma services are publicly provided. Finally, an Accident Compensation Commission, which collects funds through a mix of workplace and other levies, funds patients with accidents and other injuries.

New Zealand's health system produces comparatively good outcomes and quality of care, and is considered to be relatively efficient at reasonable expenditure levels. [4] GDP expenditure on health in 2016 was 9.4%, with per capita expenditure being USD3590 adjusted for purchasing power parity (compared to the OECD average of USD3740). [8] Yet government capacity to grow health expenditure remains restricted. Allocations to DHBs via the funding formula are routinely constrained. Indeed, annual funding increases tend to be at around the level of general inflation in the economy. DHBs, meanwhile, must live within their budgets, including accounting for cost increases. They have no other method for raising funding, other than income through treating patients from other regions (such as those who fall ill on holiday or with specific conditions requiring a transfer to a DHB with more specialised services). With the challenges of population change, ageing and multi-morbidity, ubiquitous to the world's health systems today, there is pressure to move the system in new directions, as described in the next section.

Problems and solutions

This section outlines five key problems and corresponding solutions.

Team care

In common with other countries across the Asia-Pacific and beyond, most health professionals in New Zealand work in a relatively traditional model and are trained, particularly in medicine, to work largely as sole practitioners. Team work tends to be within a profession, such as a medical specialty, and may only extend to collaborating around shift work and treatment of certain patients. Yet, in order to deliver high-quality and safe care, professionals need increasingly to work in teams. [9] Demand for this is also being driven by the patient of the future: older, with multi-morbidity.

Team work means that every professional is part of a coordinated group of professionals, with specific training in team work, who then naturally work together. This has various potential aims and related benefits. Inside the hospital, multi-professional teams provide the care for every patient to ensure that agreed, best practice is routinely applied. They oversee one another's work, signaling when there have been lapses in standards of care an individual team member may have provided, or faults in the system for managing patients. Each team member sees themselves as a part of a system, not independent of it. The focus is on continual improvement, including methods for planning and evaluating intended improvements. Patients and families should also be integral to the team.

The New Zealand official policy response, signalled in the *2016 New Zealand Health Strategy*, is that team care is central to the future of healthcare delivery, and other organisations in New Zealand's health systems have also supported this. [10] In practice, there is limited training in team care at present. The initial solutions appear to be in a highlevel policy intention, with limited if any present centrally-coordinated support for developing team-based approaches to services delivery or training. Health professional training programmes, for instance, still predominantly work independently of one another, although there are some inter-professional training programmes which have been reasonably successful in terms of strengthening the team focus. Clearly, there is a demand for the universities and other professional educators to work collaboratively and focus on team care from the first day of training onwards. There is a demand for this, also, from amongst professional colleges and other workforce licensing bodies.

Population focus

Treatment provided to individuals is a key function of any healthcare system. Focusing on the population which services are provided to is equally if not more important than treatment services. This is as a strong population health focus and associated strategies is well known for potential to reduce demand on individual treatment services. Indeed, even countries such as the United States, where the incentives within the health system are weighted towards treatment services as providers are predominantly paid on a fee for service basis, are emphasising population health. [11,12]

New Zealand has been at considerable advantage in terms of population health. Since at least the 1980s, its funding model has been oriented towards populations, rather than individual services and practitioners, although, in practice, there are various exceptions to this. As noted above, the 20 DHBs are funded per population characteristics. Despite this history, various challenges to being fully focused on population health persist. These largely relate to the historic separation of primary and hospital-based care and different ways these parts of the system are funded and function. Public hospitals have also tended to dominate many discussions and funding decisions taken by DHBs, and are considered to be particularly important to an often very vocal public. Perceived threats to hospital services posed by the prospect of orienting more funding outside of hospitals and into population health are often vociferously voiced, with politicians, concerned with political impact, taking note. As such, the population focus and public health strategies and services have taken a back seat to individualised services. There has been inadequate central coordination or policy focus leading some to suggest that this is posing serious risks, with considerable downstream treatment costs.

Providing services closer to home

Following predictions around demographic and disease state changes in New Zealand, the location of care is seen to pose a significant barrier to providing timely and effective treatment into the future. The present concerns are that public hospitals will be under increasing pressure to provide for a growing number of patients with complex conditions, many of whom could be cared for in the community. These are patients with heart disease, respiratory conditions, diabetes and other diseases of ageing and lifestyle.

The response is to gradually shift services into community settings. This has been happening incrementally, but not necessarily in a planned and staged manner. In the 2000s, the government stimulated development of Primary Health Organisations (PHOs) throughout the country. PHOs feature a network of general practitioners (GPs) and other primary care providers who work with enrolled populations. [13] They provide additional services for some patients with chronic conditions, as well as health promotion and other population-based services. PHOs have not necessarily been proactive in-terms of keeping patients in community care settings, owing to the traditional model of GP services delivery which is via the sole independent private practice (although the average for New Zealand is around three GPs per practice).

The present government (elected in 2008) has commissioned various pilots for better supporting and developing community care. This includes a small number of Integrated Family Health Centres which are larger general practice and primary care centres with enough practitioners and patients to sustain a 24 hour, seven day a week operation. These centres provide additional diagnostic and treatment services that normally require a patient referral to hospital. Investments have also been made into a series of 'better, sooner, more convenient' sites. These draw together a range of care providers across a region to focus on better integration of services with a particular emphasis on primary care.

Since 2013, an 'alliance' has been required between every PHO and its respective DHB. Alliances are a mechanism for governing the 'whole of system' and for integrating services. Health professionals from primary care, hospitals and other services in the local DHB region work collaboratively. The

aim is to work out which providers are best suited to care for specific patients, such as those with long-term chronic conditions, and to be proactive about this so that they do not require hospitalisation. The emphasis is naturally on primary care and development of coordinated and planned patient management, including the patient in such planning. Alliances have focused on a full spectrum of services that could be provided in primary care rather than hospital settings. Key to effective alliance working is strong clinical engagement and leadership. With this, it is possible to have conversations about the potential for different professionals to assume one another's work. This is particularly relevant in the case of hospital specialist services being shifted to GPs, for instance, or GP work being augmented by allied professionals and hospital specialist support. Alliance work is supported by government permission to shift funding from public hospitals into primary care settings, where clinically agreed. This may also mean that some specialist clinics might be run out of GP practices. [14]

Connecting up services

Related to the above, a considerable challenge in New Zealand, given the institutionalised and siloed nature of the healthcare system, is building a more connected health system. New Zealand has been at the forefront of information technology use in clinical care, with studies showing both early adoption of computers to support clinical practice as well as widespread utilitisation. [15,16] Yet systems have largely supported existing work patterns and, historically, not been built to connect with one another. [17] The DHBs and PHOs have developed their own systems for their own purposes. Thus, capacity for a connected health system has been limited, along with potential to involve patients as both owners and users of health data.

Despite longstanding recognition of the need for coordination of health IT, only more recently has the government developed a concerted strategy for this (see http://healthitboard.health.govt.nz/news-events/news/next-phase-health-it-programme-announced accessed October 13, 2016). To be fair, this is the latest in a line of government efforts over the years. As with prior strategies, the present requires working within the constraints of legacy IT systems and the institutional arrangements described in the introduction of this article. In practical terms, this has posed significant barriers to sharing of patient and other clinical and management information. It has also meant professionals often work with very limited information, routinely relying on patients to inform them of medications they have been prescribed and their health history. This not only endangers patients and undermines efforts to improve care quality and health care systems; it is also inefficient.

The current strategy has goals of creating separate information repositories in the North and South Islands of New Zealand, which the constituent DHBs, PHOs and other providers can utilise. In theory, services providers will share common information which will be updated in real time with each healthcare encounter. All New Zealanders have a unique National Health Index identification number, which facilitates this process. A separate goal is for all patients to have access to basic information in their electronic patient record, including capacity to see test results, appointments, prescriptions and so forth.

In practice, there is some way to go to achieve these goals. The South Island has managed to roll out an agreed data repository and IT system, developed by the five DHBs themselves, which links up various legacy systems. The North Island has, to date, been unable to traverse debates around system ownership or who the vendors should be. At the patient record level, general practices are gradually rolling out patient access as software and practice capacity permits. While incremental progress is being made, the outcome of fully connected services remains aspirational.

Engaging patients

The final challenge is around actively engaging patients in the care delivery process. Again, this is partly in response to the increasing prevalence of multi-morbidity as well as patients whose healthcare needs could benefit from more pro-active self-management. Of particular concern in the New Zealand context is patients of Maori and Pacific ethnicity, and lower socio-economic status, who tend to have higher healthcare needs, unequal access to services, and poorer health outcomes than the rest of the population. [18,19]

The official policy response, encapsulated in the New Zealand Health Strategy, is to build a health system, which is 'people powered'. In other words, a system in which patients are actively engaged at all levels of the system, from decision-making around services design and care delivery processes through to partnering with professionals around care plans so that there is clear and joint agreement on the responsibilities of both professionals and patients in care management. This, of course, hinges on investing in health literacy: improving patient capacity to comprehend health information, including how to access and use information both to improve their personal health and change lifestyle and other behaviours, and to comply with professional instructions. [20] An effective literacy strategy also requires

standard clinical information agreed to by professionals and delivered in a written format that is easily digestable by patients. As yet, New Zealand is some way from this, while, as noted above, health IT has yet to deliver in a way that empowers patients and puts them in control of managing their personal health.

In a complex organisational context such as healthcare, to which New Zealand is not immune, navigating the system can be perplexing even for the most educated patients and their families. This is particularly so for those with multi-morbidity, demanding the services of multiple different providers. This is where the services of health navigators can be useful, as demonstrated in some New Zealand sites and elsewhere. [21] To date, however, there has been limited official support for health navigators.

Conclusion

This brief article has described current challenges facing New Zealand's health system. The list of issues covered is not exhaustive. Indeed, other issues such as how to deal with workforce shortages in various areas, such as rural general practice and some hospital specialist services, are ongoing. [22] The interface between the public and private sectors in New Zealand also continues to raise questions, particularly around conflicts of interest between those working in both sectors and the fact that public hospitals treat patients with complications following private treatment.

The New Zealand government and publicly-funded providers such as the DHBs are pursuing solutions to each of the key problems identified in this article. As implied, there is a very high-level strategy providing the response for the decade from 2016. [10] However, as with all policy, there is a serious need for a detailed and concerted implementation plan. There is also a need for national coordination of the various developments across the 20 DHBs and 30 PHOs. Without this, it will be difficult for successful innovations and service changes in one district to be translated into another for the simple reason that there is, otherwise, no mechanism for facilitating cross-sector learning. There is also, arguably, a need for specific support to nurture developments. This could be done in the way that the English NHS has commissioned 'vanguard' sites, providing seed funding with an intent to reorientate care in the various ways described in this article. [23] There is, of course, potential for comparing progress with the NHS vanguards, with their additional developmental support, with New Zealand developments, which are mostly occurring within existing resources. Perhaps this could be the topic of a future update on health system restructuring in New Zealand.

Competing interests

The author declares that he has no competing interests.

References

1. Gauld R. Revolving doors: New Zealand's health reforms – the saga continues. Wellington: Institute of Policy Studies and Health Services Research Centre; 2009.
2. Gauld R. Questions about New Zealand's health system in 2013, its 75th anniversary year. N Z Med J. 2013;126(1380):1-7.
3. Jatrana S, Crampton P. Primary health care in New Zealand: who has access? Health Policy. 2009;93(1):1-10.
4. Schoen C, Osborn R, Squires D, Doty M. Access, affordability, and insurance complexity are often worse in the United States compared to ten other countries. Health Aff. 2013;32(12):1-11.
5. Kuhlmann E, Blank RH, Bourgeault I, Wendt C, editors. The Palgrave International Handbook of Healthcare Policy and Governance. Basingstoke: Palgrave; 2015.
6. Blank RH, Burau V. Comparative health policy. 3rd ed. Houndmills: Palgrave Macmillan; 2010.
7. Penno E, Gauld R. How are New Zealand's District Health Boards funded and does it matter if we can't tell? N Z Med J. 2013; 126(1376):1-14.
8. OECD. OECD Health Data. Paris: OECD; 2016.
9. Friedman A, Hahn KA, Etz R, Rehwinkel-Morfe AM, Miller WL, Nutting PA, et al. A typology of primary care workforce innovations in the United States since 2000. Med Care. 2014; 52(2):101-11.
10. Minister of Health. New Zealand Health Strategy: Future Direction. Wellington: Ministry of Health; 2016.
11. Berwick DM, Nolan TW, Whittington J. The triple aim: care, health, and cost. Health Aff (Millwood). 2008;27(3):759-69.
12. Whittington JW, Nolan K, Lewis N, Torres T. Pursuing the triple aim: the first 7 years. Milbank Q. 2015;93(2):263-300.
13. Gauld R, Blank RH, Burgers J, Cohen AB, Dobrow M, Ikegami N, et al. The World Health Report 2008 - Primary Healthcare: How wide is the gap between its agenda and implementation in 12 high-income health systems? Healthc Policy. 2012;7(3):38-58.
14. Gauld R. What should governance for integrated care look like? New Zealand's alliances provide some pointers. Med J Aust. 2014; 201(3):s267-s8.
15. Jha AK, Doolan D, Grandt D, Scott T, Bates DW. The use of health information technology in seven nations. Inter J Med Inform. 2008;77:848-54.
16. Schoen C, Osborn R, Squires D, Doty M, Rasmussen P, Pierson R, et al. A survey of primary care doctors in ten countries shows progress in use of health information technology, less in other areas. Health Aff. 2012;31(12):2805-16.
17. Gauld R. One step forward, one step back? Restructuring, evolving policy and information technology and management in the New Zealand health sector. Government Information Quarterly. 2004; 21(2):125-42.
18. Gunasekara FI, Carter K, McKenzie S. Income-related health inequalities in working age men and women in Australia and New Zealand. Aust N Z J Public Health. 2013;37(3): 211-7.
19. Baker MG, Barnard LT, Kvalsvig A, Verrall A, Zhang J, Keall M, et al. Increasing incidence of serious infectious diseases and inequalities in New Zealand: a national epidemiological study. The Lancet. 2012;379(9821):1112-9.
20. Sørensen K, Van den Broucke S, Fullam J, Doyle G, Pelikan J, Slonska Z, et al. Health literacy and public health: a systematic review and integration of definitions and models. BMC Public Health. 2012;12(1):1.

21. Doolan-Noble F, Smith D, Gauld R, Waters DL, Cooke A, Reriti H. Evolution of a health navigator model of care within a primary care setting: a case study. Aust Health Rev. 2013;37(4):523-8.

22. Health Workforce New Zealand. The health of the health workforce. Wellington: Health Workforce New Zealand; 2014.

23. NHS England. New Care Models: Vanguards – Developing a Blueprint for the Future of NHS and Care Services. London: NHS England; 2015.

From Global to Local: strengthening district health systems management as entry point to achieve health-related sustainable development goals

P Tejativaddhana, DS Briggs, R Thonglor

Abstract

Thailand has performed admirably in its health reform over the last few decades. Healthcare is provided at a relatively low cost and healthcare needs have transitioned to begin to address diseases and mortality of developed countries. The challenges now faced by Thailand are similar to most developed countries reflecting adult mortality and risk factors of an upper-middle income population and the need to modify institutional structures to reflect these changing circumstances.

The approach to these challenges has focused on the 'implementation of knowledge based health development' and critically identifies 'the triangle that moves the mountain' (health reform) as a movement that mobilises; the creation of relevant knowledge, social movement and political involvement' to address 'inter-connected, complex and extremely difficult to solve' problems. The move to District Health Systems as the access point to healthcare and the service delivery structure demands competent qualified leadership and management. It requires an understanding of the differences in managing professionally dominated complex adaptive systems compared to traditional approaches of managing within bureaucratic structures.

This can be best described as managing connected, integrated care focused both on individuals as patients and communities with a strong emphasis on primary healthcare, prevention and evidence-based practice. It also requires an understanding of how distributed networks of practice (DNOP) provide the potential for researchers, practitioners and other agencies and communities to collaborate, learn and improve healthcare across geographic, jurisdictional and organisational boundaries.

This approach provides recognition of the need to build the capacity and capability of health professionals in the management and leadership of health systems and Thailand is moving towards this goal in implementing specific health systems management curriculum which focuses on action-based research and learning together at the District health level augurs well for continued ability to address current health challenges and to achieve SDGs.

Abbreviations: DHS – District Health System; DNOP – Distributed Networks of Practice; HSRI – Health Systems Research Institute; MoPH – Ministry of Public Health; NHSO – National Health Security Office; SDG – Strategic Development Goal; UHC – Universal Health Coverage.

Key words: health systems management; action-based research; action-based learning; district health systems; distributed networks of practice.

Phudit Tejativaddhana
College of Health Systems Management (NUCHSM)
Naresuan University, Phitsanulok, Thailand.

David S Briggs
College of Health Systems Management (NUCHSM)
Naresuan University, Phitsanulok, Thailand.

Romnalin Tonglor
Faculty of Public Health
Naresuan University, Phitsanulok, Thailand.

Correspondence:
phuteja@gmail.com <phuteja@gmail.com>

Introduction

Thailand has performed admirably in its health reform over the last few decades and is performing better than many low to middle income countries. [1] Healthcare is provided at a relatively low cost and healthcare needs have transitioned to begin to address diseases and mortality of developed countries, including that of an ageing population. Traditionally, Thailand is portrayed as having a majority rural demography but urban-based populations now equal that of the rural population. Thailand has been proactive in the transitioning of the delivery and quality of healthcare, engaging citizens at the village level as the first line of care, as health volunteers and promoting primary healthcare as the entry point to health services, with a focus on health promotion and prevention while also implementing universal healthcare, at a time of low fiscal growth. [1-4] Further detail about Thailand is described in Figure 1 below.

Figure 1: Thailand at a glance 2014

- **Population: 67.7 millio**
- **GNI per capita US: $5,410 (UMC)**
- **Health Status:**
  - Life Expectancy 77 (Female / 71 (Male)
  - USMR 12.6/1000LB
  - MMR 24/100,000LB
- **Skilled birth attendance 99.6% (2012)**
- **VHC achieved by 2999 with comprehensive package, almost zero co-payment**
- **Health Expenditure:**
  - THE 4.5% GDP, US$264 per capita
  - Public source
    - 56% THE, 3.3% GDP(2001) prior UHC
    - 30% THE, 4.6% GDP (2014) post **UHC**
- **GGHE 17% of GGE**
- **Out of pocket 11.3% of THE**

Source: World Development Indicators, World Bank

Source: Tangcharoensathien (2016) [5]
Note: UHC = Universal Health Coverage; THE = Total Health Expenditure; GGHE = Government General Health Expenditure; GGE = Government General Expenditure.

The challenges now faced by Thailand are similar to most developed countries; an ageing and increasingly urban population reflecting adult mortality and risk factors of an uppermiddle income population and modifying institutional structures to reflect these changing circumstances. [1-4] Much has been done at the Macro level to restructure institutional arrangements through the changing role of the Ministry of Public Health (MoPH). While the Ministry remains the national health authority it is now supported and capacity strengthened by other autonomous health agencies such as the Thai Health Promotion Foundation, the National Health Commission tasked with participatory engagement of all actors in the development of public policy and the Emergency Medical Institute of Thailand. [2]

Of particular note in these structural changes, the National Health Security Office (NHSO) was mandated to manage Universal Health Coverage (UHC), strategic purchasing, payment mechanisms and has been credited with 'strong institutional capacity in improving health systems efficiency and equitable access'. [2, p.5] Likewise the Health Systems Research Institute (HSRI) has responsibility to build capacity in health systems research and it is credited as being successful in the health reform process 'by generating knowledge and increasing policy makers demand for high quality evidence to guide decision making'. [2, p.5] Wasi describes the 'implementation of knowledge based health development' as critical and identifies 'the triangle that moves the mountain' (health reform) as a movement that mobilises; the creation of relevant knowledge, social movement and political involvement' to address 'inter-connected, complex and extremely difficult to solve' problems. [6, pp 2-3]

Beneath this overarching institutional arrangement Thailand settled in 2012 on the concept of the structure of the district health system (DHS) that extends beyond health services to other social services and community actions. The DHS is the entity that provides access and delivers health services to local communities, in order to improve health and quality of life. [7] In its extensive networks of Provinces there are hospitals and health structures of a relatively good standard within some 700 districts that have responded well in reducing the prevalence of communicable diseases. However, the Thai health system has been described as being 'in crisis' because of the exponential increase in health expenditure over income and, the need to restructure the system to address the increasing burden of chronic diseases in an increasingly urbanised context. [6, p.6] This means moving towards a 'good health orientated system,' which 'guarantees access to adequate quality healthcare for all'. [6, p.6]

This DHS policy direction has been formulated from best practices observed from several pilot projects on community health development in districts during the past decade. [8,9] This approach is claimed as one of the successful exemplars of 'bottom-up movement' for healthcare reform in Thailand. [8] The main concept of this policy is relevant to the concept and principle of the WHO's DHS development based on primary healthcare as specified in the Harare Declaration signed in 1987. [10] The purposes of this policy are to

improve quality of life of people and to encourage people to have better self-care and to look after each other in their own communities. The policy aims to improve people's health status through better management of their own health and for people to have better capacity to deal with changing health challenges, and to reduce the cost of medical care. [11]

The policy aims to have stronger collaborative health networks to build a healthy district and to better respond to new health challenges while improving quality health services at a standard level and, improved patient's satisfaction and health professionals' happiness in their daily work. Finally, this policy focuses on strengthening primary care with better quality. [11]

The DHS is a collaborative working system for health by every sector, not just the health sector in the district. Its management style is specific to the context of each district and there should be sharing of resources within the districts. The way of working together should be through appreciation and using knowledge management. This approach should support people and communities in the district to be self-reliant and help each other as 'no one will be left behind'. The districts should have a common goal 'for the health of the people'. [12, p.10]

The district level of administration is regarded as the most appropriate level for improving health of people and communities for the following reasons:

1) It is an appropriate level to bridge between health policy and implementation.
2) It is so close to people and community that it can understand local health needs and can make local health policies and development plans to fit with the needs of local people;
3) It is an appropriate level to have effective cooperation and distribution of health resources such as health personnel, budget, medical supplies and materials, academic support, and use of health information by all stakeholders in the district.
4) It can use these resources with coverage and equity as well as modifying to meet relevant local needs;
5) It can encourage intersectoral actions and participation of all sectors including the people sector in health and social development systematically. Also, these sectors can both be involved in governance and management of health systems and health services. [11,12]

The move from managing hospitals, health centres, and a focus on public health approaches is a significant challenge for all health systems wanting to shift the focus from illness and the dominant role of the acute care sector. Managing health systems requires different understanding and skills from that previously required and can be described as managing connected, integrated care focused both on individuals as patients and communities with a strong emphasis on primary healthcare, prevention and evidence-based practice. [13]

This approach suggests at the service delivery level, a move from centralised bureaucratic governance and management, typical of most health systems to professional dominated bureaucracies and then to managing professionally dominated, complex adaptive systems, [14,15] that can be described as distributed networks of practice (DNOP). [16-18] The move from centralised bureaucracies to decentralised forms dominated by multiple professions also takes into account a growing recognition of the need for effective local engagement in healthcare delivery (localism) and the importance of the principle of subsidiarity in the public sector that suggests that 'government should only fulfil a subsidiary function for those tasks that cannot adequately be dealt with by lower tiers'. [19, p.11] This approach therefore requires that health managers need to be located at the point where services they are accountable for are delivered. [20]

There has been considerable research about the skills and capabilities required of health managers to respond to this transition in their roles. [21,22] Traditional bureaucratic approaches to management and organisational approaches focused on clearly defined organisational roles and structures, being knowledgeable, making decisions and controlling the staff and organisations. Subsequent to health systems experiencing constant change and becoming responsive to continuous health reform the focus has moved to engagement and relationship building ahead of concerns about structure and control, towards accepting that context is complicated and that health systems are complex, but also adaptive, and that in managing health systems we must concentrate on making sense of diverse competing interests, learn from the experiences, improvise, reflect and think about the future. [22]

This requires a change in management capability and skills towards greater emphasis on leadership, managing and making sense of change, managing self as well as people, communicating, motivating, engaging and, in making decisions and having a greater focus on strategic thinking, clinical governance and the quality of care and service. [22] Therefore, the change to DHS as the basis for service

delivery is not just about changing structure but extending the boundaries to include the social sector. It is also about changing the way health professionals think, manage, lead and engage in effective delivery of service within a DHS structure. The policy of moving towards DHS as the entry point to access service delivery has been well developed and documented by the MoPH in recent times [11,12,23] and the inherent challenges of establishing DHS structures have been evident for some decades [10] but researched more recently in the Thai context by Tejativaddhana and colleagues. [24]

The need to develop the capability and capacity of health professionals to effectively manage district health systems has been recognised by the MoPH and training opportunities for this purpose have been ongoing. Naresuan University, to its credit has for some time been perceptive about the need to shift the focus of those who manage and lead health systems towards managing health systems with curriculum content consistent with that available in most developed countries where health management is recognised as a profession and tertiary programs are available based on specific health management curriculum.

In 2006 the Thai-Australian Alliance, a collaboration between Naresuan University and the University of New England and the Ministry of Public Health Thailand[1] was asked by the MOPH and the NHSO to 'identify competencies and skills for a health management curriculum for health professionals working in primary healthcare in rural Thailand'. [25] This Alliance also consolidated five years of health management collaboration by conducting the First International Conference of Health Service Delivery Management in Phitsanulok, Thailand in October 2009. This conference conducted over four days with 450 delegates from 17 countries and 14 organisations with the organisers intending that an outcome of the conference would be 'a heightened awareness in the Asia Pacific of the importance of health management…as a profession in its own right.' [26, p.26] This outcome was achieved by all those present through the 'Phitsanulok Declaration' endorsed at that conference. [26, p.29]

This significant contribution in recognising the importance of well-trained health managers in managing complex health systems and delivering quality healthcare is being further enhanced by the leadership of Naresuan University together with the MoPH with the current establishment of The College of Health Systems Management (NUCHSM) at Naresuan University. This College, supported by an International Advisory Faculty of Health Management expertise and Thai experts are about to commence post graduate health systems management courses by coursework and by research. [27] This program will attract health professionals having a leadership and management role in the DHSs, policy analysts and researchers in Thailand and from the sub-region.

The emphasis of the learning approach will be action-based participatory research addressing the real challenges of ever changing health systems and their continuous evolution. Contiguous with this initiative the MoPH has announced funding aimed at improving local district health systems and the health and quality of life of Thai people. The first initiative, involving the central agencies described earlier will focus on improving the DHS capability to govern through District Health Boards and to organise services more effectively. [28] The second initiative is to establish and strengthen the concept of primary care clusters within smaller identifiable populations to provide comprehensive multidisciplinary teams services 30,000 populations with the inclusion of a family doctor per 10,000 people. [29]

In concert with these initiatives the Thai Health Promotion Foundation has funded a two-year project aligning five DHS with an academic research/consultancy team to form a learning network focused on improving the DHS to achieved the Sustainable Development Goals (SDGs) with an emphasis on SDG 3 – 'Ensure healthy lives and promote wellbeing for all ages'. [30, p.2] This project of which NUCHSM and selected Districts are active participants will see health professionals working together to strategically plan the achievement of SDG 3 and to determine how to expand the knowledge and learning gained from the project to other districts, building capacity and capability. The emphasis will be on shared learning ensuring training and the translation of knowledge across geographic areas utilising technology and the notion of distributed networks of practice. The expected results of the project are innovations in managing district health systems to improve healthcare which will focus more on health promotion and well-being of the target populations which are relevant to the SDG 3. [31]

[1] This Alliance included through memorandums of understanding the Australasian College of Health Services Management (ACHSM) and the Society of Health Administration Programs in Education (SHAPE). ACHSM is the professional College of health managers and SHAPE represents tertiary health management providers, mostly located in Australian universities.

Conclusion

Thailand has demonstrated a unique understanding of the challenges the Thai health system has faced and continues to face. It has been innovative in its engagement of its people and their communities. It has shaped changes at the national level on the basis of quality research that has led to good public policy. It has provided solid commitment to UHC as the main principle of that research and policy. It is clearly committed to the concept of DHS as the entry point and service delivery level for health services to social services and greater focus on SDGs. It now sees the current challenges as the urbanisation of population, the ageing of the population and the imperative of restraining health expenditure mainly through improved use of resources, using evidenced based practice to improve the effectiveness of care through a focus on achieving SDG 3.

Importantly it recognises that effective capability in managing health systems extending the concept of DNOPs as an approach building capacity through research and action, learning together, and to underpin a complex adaptive systems ability to respond to and address the critical management issues of the Thai health system.

Competing interests

The authors declare that they have no competing interests.

References

1. Balabanova D, McKee M, Mills A, editors. Good health at low costs' 25 years on. What makes a successful health system? London School of Hygiene and Tropical Medicine; 2011.
2. Tangcharoensathien V, Pitayarangsarit W, Patcharanarumol. Achievements and challenges. Policy Note -Thailand Health System in Transition. Asia Pacific Observatory on Health Systems and Policies. Health Systems Review: World Health Organisation; 2016.
3. Prakongsai P, Limwattananon S, Tangcharoensathien V. The equity impact of the universal coverage policy: Lessons from Thailand. In: Chernichovsky D, Hanson K, editors. Innovations in health system finance in developing and transitional economies. London: Emerald Group Publishing; 2009, pp 57-81.
4. Tangcharoensathien V, Pitayarangsarit W, Patcharanarumol W, et al. Promoting universal financial protection: how the Thai universal coverage scheme was designed to ensure equity. Health Res Policy Syst. 2013;11(25):1-9. DOI: 10.1186/1478-4505-11-25.
5. Tangcharoensathien V. Thailand UC Scheme: achievement and challenges [accessed 8 Oct 2016]. Presentation at Health Systems Management: Health Security and Financing Management for Better Health Equity Seminar. National Health Commission Office. Bangkok. Thailand. 26th August 2016. Available from http://chsm.nu.ac.th/en/2016/?p=454
6. Wasi P. Triangle that moves the mountain and health systems reform movement In Thailand. Nonthaburi Thailand: Health Systems Research Institute; 2000.
7. Boonyapaisalcharoen T. Preface. In: Saelee D, Rojanawipat K, Hungsapuek S, Tiptaengtae Sh, Tonsuthepweerawong C, Yana T, editors. Primary care value added with DHS (in Thai). 1st ed. Bangkok: National Health Security Office. 2014.
8. Archananuparp S. Preface. In: Saelee D, Tiptaengtae Sh, Tonsuthepweerawong C, Yana T, (eds). Karn Kub Kluen Rabob Sookkapab Amphur Chabub Prated Thai (The Movement of District Health System, Thailand version) (in Thai). 1st revised ed. Nondhaburi: Ministry of Public Health; 2014.
9. Tejativaddhana, P. Capacity building for District Health Systems Management Network to achieve health promoting districts [accessed 8 Oct 2016]. Presentation at ACHSM Annual Congress 2014. Adelaide, Australia. 2014. Available from: http://chsm.nu.ac.th/en/2016/?p=363
10. WHO. The challenge of implementing district health systems for primary healthcare [accessed 8 Oct 2016]. WHO/SHS/DHS. Geneva. 1988. Available from: http://www.ais.up.ac.za/med/pcm870/challenge.PDF
11. Why district health systems should be strengthened. In: Saelee D, Namtadsanee S, Tiptaengtae Sh, Sumamal T, Tonsuthepweerawong C, Yana T, editors. Karn Kub Kluen Rabob Sookkapab Amphur Chabub Prated Thai (The Movement of District Health System, Thailand version) (in Thai). 1st ed. Nondhaburi: Ministry of Public Health; 2014. p. 4.
12. Saelee D, Tiptaengtae Sh, Tonsuthepweerawong C, Yana T, editors. Karn Kub Kluen Rabob Sookkapab Amphur Chabub Prated Thai (The Movement of District Health System, Thailand version) (in Thai). 1st revised ed. Nondhaburi: Ministry of Public Health; 2014. p. 4.
13. Ferlie W. Systems and organisations. Public management 'reform' initiatives and the changing organisation of primary care. London J Prim Care. 2010; 3:76-80.
14. Anderson R, Issel L, McDaniel R. Nursing homes as complex adaptive systems: relationships between management practice and resident outcomes. Nurs Res. 2003;52(1):12-21.
15. Anderson RA, McDaniel RR. Managing healthcare organisations: where professionalism meets complexity science. Health Care Manage Rev. 2000; 25(1):83-92.
16. Jeffares S, Skelcher C. Democratic subjectivities in network governance: a Q methodology study of English and Dutch public managers. Public Administration. 2011. 89(4):1253-1273 (/doi/10.1111/padm.2011.89.issue-4/issuetoc). Available from: http://onlinelibrary.wiley.com.ezproxy.une.edu.au/doi/10.1111/j.1467.
17. Van den Hooff B, van Weenen F, Soekijad FM, Huysman M. The value of online networks of practice: the role of embeddedness and media use. Journal of Information Technology. 2010; 25(2):205-215.
18. Hustad E A. Conceptual Framework for Knowledge Integration in Distributed Networks of Practice [accessed 8 Oct 2016]. Proceedings of the 40th Hawaii International Conference on Systems Sciences-IEEE Computer Society 2007. Available from: http://www.computer.org/portal/web/csdl/doi/10.1109/HICSS. 2007.10
19. Hartwich O. A global perspective on localism [accessed 8 Oct 2016]. Occasional Paper. Wellington: The New Zealand Initiative and Local Government New Zealand; 2013. Available from: http://nzinitiative.org.nz/site/nzinitiative/files/publications/Global%20Perspective%20on%20Localism.pdf
20. Briggs D.S. SHAPE Declaration on the Organisation and Management of Health Services: a call for informed public debate. Asia Pac J Health Manag. 2008;3(2)0.
21. Taytiwat, P, Briggs D, Fraser J, Minichiello V, Cruickshank M. Lessons from understanding the role of community hospital director in Thailand: clinician versus manager. The Int J of Health Plann Mgmt. 2010. DOI: 10.1002/hpm.1040.

22. Briggs DS, Smyth A, Anderson JA. In search of capable health managers: what is distinctive about health management and why does it matter? Asia Pac J Health Manag. 2012:7(2).
23. Wiriyapongsukit S, Mungchit P, Namtatsanee S, editors. District Health System: Thailand movement version (in Thai). 2nd ed. Nondhaburi: Ministry of Public Health; 2013.
24. Tejativaddhana P, Briggs DS, Fraser J, Minichiello V, Cruickshank M. Identifying challenges and barriers in the delivery of primary healthcare at the district level: a study in one Thai province. The Int J of Health Plann Mgmt. 2012.DOI: 10.1002/hpm.2118.
25. Yanggratoke S, Briggs DS, Alexander C, Taytiwat P, Cruickshank M, Fraser J, Ditton M, Gaul M. The Thai- Australian Alliance: Developing a Rural Health Management Curriculum by Participatory Action Research. World Health Popul. 2010;11(3).Vol 11(3).
26. Briggs DS, Tejativaddhana P, Kitreerawutiwong N. Health Declarations. Asia Pac J Health Manag.2010:5(1).
27. Tejativaddhana P, Briggs DS. The establishment of College of Health Systems Management, at Naresuan University, Thailand [accessed 8 Oct 2016]. 2016. Available from http://chsm.nu.ac.th/en/2016/?p=367
28. Bureau of Information, Ministry of Public Health. Four organizations hand in hand to improve quality of life of people by using area-based and participation of all sectors approach (in Thai) [accessed 8 Oct 2016]. 30 March 2016. Ministry of Public Health. 2016. Available from: http://pr.moph.go.th/iprg/include/admin_hotnew/show_hotnew.php?idHot_new=81337
29. Ministry of Public Health. Guideline on the Operation of Primary Care Cluster for Health Providers (in Thai) [accessed 8 Oct 2016]. Nondhaburi, Ministry of Public Health. 2016. Available from: http://bps.moph.go.th/new_bps/sites/default/files/Guidelines%20PCC.pdf 30. WHO. 2016. From MDGs to SDGs. A new era for global public health 2016-2030 [accessed 8 Oct 2016]. Available from: http://www.who.int/about/financesaccountability/funding/financing-dialogue/MDGstoSDGs_Summary.pdf?ua=1
31. Tejativaddhana P. The research proposal on development of prototype districts to pass on the effective district health systems management to other districts towards the achievement of SDGs (in Thai) [accessed 8 Oct 2016]. College of Health Systems Management, Naresuan University; 2016. Available from: http://chsm.nu.ac.th/en/2016/?p=451

RESEARCH ARTICLE

Launching Hong Kong's Healthcare Financing Reform: why continued inaction?

G Lieu

Abstract

Hong Kong has sought without progress in the past 25 years to introduce reform proposals to enhance the long-term financial sustainability of its healthcare system. Through a systematic review of the consultation documents released over the years, this paper examines what might have been done right or wrong and pinpoints lessons learned for healthcare leaders, executives and reformers facing looming opportunities for reform. The findings suggest that the phased-approach of introducing reform options, involving step-by-step public consultations, to engaging the community to give their views on the healthcare financing reform options has not been effective. Other factors, including changes in the stewardship of the reform initiatives and the top-down elitist-led preparations of pre-launch work, added to the resultant inaction of not taking any of the reform proposals forward for launch and to produce reform. The study proposes that a broadly participatory approach, involving a wider base of members of the community in an inclusive guiding coalition charged to drive the reform from prelaunch to implementation, be undertaken. This coalition should start afresh and, based on renewed evidence-based assessments of the need and urgency of reform, proceed accordingly to formulate, if indicated, an overarching healthcare financing reform agenda that motivates people with conflicting interests to take mutually beneficial actions or that gives stakeholders the right incentives to work effectively together.

Key words: **healthcare financing reform; reform strategy and approach; launchreadiness; inclusive coalition.**

Geoffrey Lieu
Founder and Chairman Emeritus
The Insititute for Health Policy and Systems Research
Hong Kong

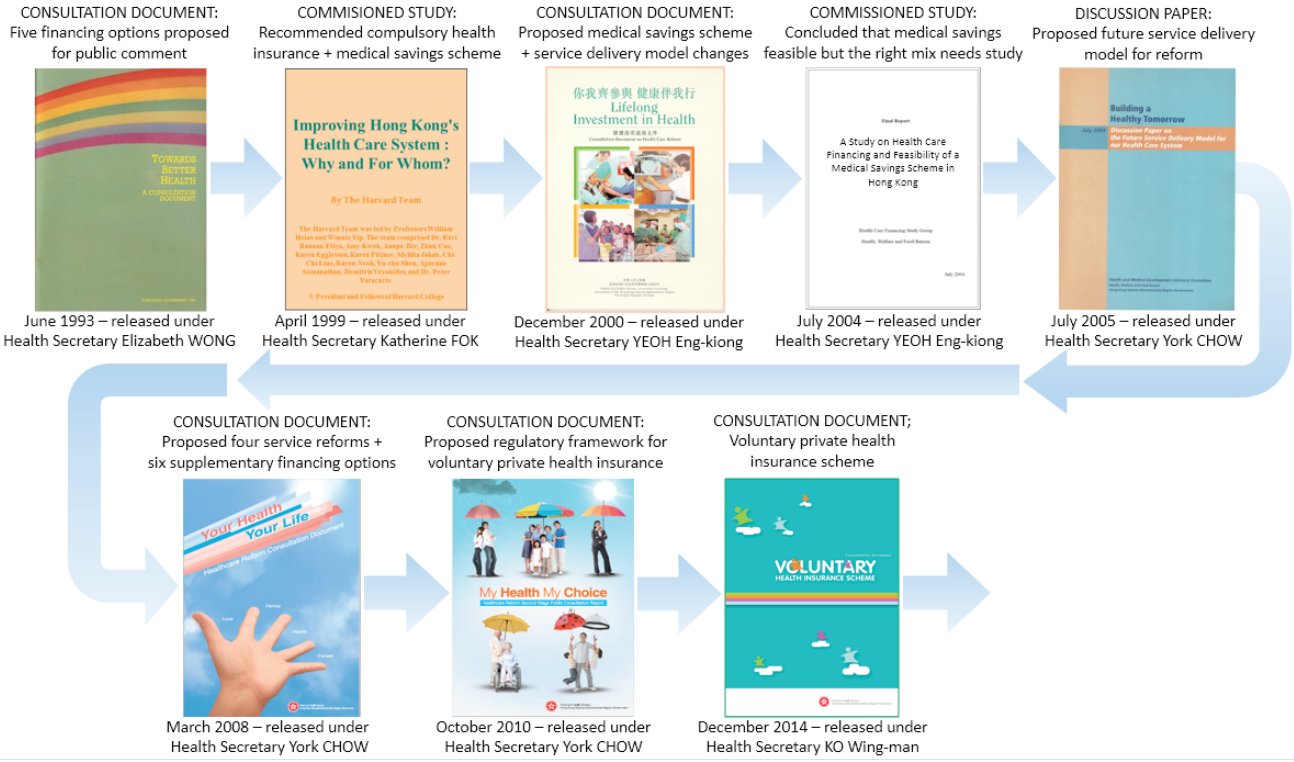
Correspondence:
geoffrey_lieu@yahoo.com

In his 1995 article 'Leading Change: Why Transformation Efforts Fail', Kotter observed that, of the more than 100 companies that try to remake themselves or to make fundamental changes, 'A few of these corporate change efforts have been very successful. A few have been utter failures. Most fall somewhere in between, with a distinct tilt toward the lower end of the scale.' [1, p.59] Such observations do not seem to be available in healthcare, especially on reforms at the systems level. But it should be safe to assume that such reforms in healthcare, often equally if not much more complex and larger in scale than organisational changes, probably fared no better.

The price of failure can be expensive. It can also have long-term undesirable consequences. The 1986 United States Space Shuttle Challenger disaster and the resultant damage done to NASA and the space shuttle program are vivid examples. This unfortunate incident points to the need to ensure that the right things are done and done right during pre-launch. If not, disastrous results can occur during launch or take-off such that the reform may never be able to reach the planned trajectory. This should be the same in designing and preparing for the launch of healthcare reform initiatives: careful pre-launch planning and preparations are fundamental and deterministic of what follows.

Many reform failures arise from faulty implementation and politics. [2] There is no dearth of analyses on why reforms or transformation efforts fail and how to get them right. [3,4,5] But reports of analyses of reform failures in healthcare appear to be rare. Even fewer seem to have focused on what must need to be done during pre-launch, the preparatory phase, to ensure that the proposed reform is the right thing to do and that a failed or aborted launch will not happen.

Figure 1: Hong Kong's consultation documents, discussion paper and commissioned studies released since 1991



Introduction

In the past 25 years, since the establishment of the Hospital Authority at the end of 1990 (which represents the only large scale reform that has been implemented in recent decades), the Hong Kong Government has released for public consultation several proposals to reform the healthcare financing system. During this period, which covers 1997, the year when the sovereignty of Hong Kong was returned to China, the healthcare system has come under the oversight of five health secretaries (see Figure 1) serving in four different administrations.

The first consultation was released in 1993, [6] under the British colonial government. But the initiative was not taken forward at the end of the consultation because none or a combination of the options had the general support of the community. [7] After six years of inaction and since 1999, seven more reform proposals, [8-14] in the form of consultation documents or study reports (hereafter, collectively referred to as consultation documents), have been introduced for public consultation. None of them has been taken forward, including the latest one that was released at the end of 2014 and the public consultation of which has already expired 18 months ago.

This pattern of Hong Kong's inaction offers an opportunity to learn about what should or should not be done during the preparatory phase of formulation of the healthcare policy reform agenda. Factors contributing to not taking a reform proposal forward after public consultation should be a meaningful reference to healthcare leaders, reformers and policymakers facing looming opportunities for reform. In addition, the findings could also shed considerable light on the role of Government, the steward of the healthcare system, and on what technical components of reform policy formulation should need to be done or put in place before launch.

Study scope and approach

Study questions

There could be a number of plausible explanations for Hong Kong's inertia or failure to launch the healthcare reform proposals after public consultation. The views of social and political scientists as well as economists are available in the literature [2,15,16] and will be set aside in this paper. Instead, the focus will be on finding answers to the following questions through a systematic review and analysis of all consultation documents released on healthcare financing reform in the past 25 years:

- What approach has been adopted in formulating the healthcare financing reform proposals? Are the leaders and drivers of the process an inclusive or a selected group?
- To what extent has the formulation of reform options or proposals, as maybe discernable in the consultation document, shown use of evidence and involve the

inclusive participation or input of the community?

- Has the content of the consultation document, when released, provided adequate information and relevant details to denote that the proposals are ready to proceed to launch or launch-ready?

Scope of study

The review and analysis will be focused on the healthcare financing reform proposals. Those that do not relate to healthcare financing, such as service reforms, are excluded. As the review is on reforms only and to avoid confusion, terms such as change, reform and transformation that are often used interchangeably are clarified as follows:

- **Change** – The purpose of change is to make something different so as to be different or become something else. This type of change does not require enactment of law or regulatory approval to proceed and can be done well within the ambit of designated or delegated administrative authorities.
- **Reform** – The purpose of reform is to tackle or improve something by removing or correcting system-wide faults, problems, issues or defects. It usually comes in the form of large scale change in that healthcare providers, users and potential users of healthcare as well as other sectors of society are affected in very substantial ways such that the proposed reform initiatives need to be enacted into law or subject to some form of regulatory approval before proceeding to launch.
- **Transformation** – Transformation is to change something completely, usually through a composite or a series of changes or reforms. In other words, changes and reforms can lead to transformation, but many do not.
  And, changes or reforms do not need to result in a transformation to do good or benefit society or their targeted groups.

Hence, reforms are about policy changes or formulating and implementing proposals to tackle a problem or a group of problems, backed by ordinance enacted or amended. In this regard, a proposal that does not require a policy change or change in ordinance or enactment of subsidiary legislation for implementation will not be defined as reform and will be excluded for review and analysis.

Study approach

Based on a subject-specific literature review and the underlying thinking and advocacy in the *Health-Reform Cycle* [5] the *Policy Cycle* [17] the *Operational Framework for Health Policy Analysis* [18] and the *8-step Change Process* [1,19,20] it is proposed that the following are requisite tasks that should be carried out, using evidence, engaging key stakeholders and involving inclusive community participation, during pre-launch in order to achieve a successful launch and to produce reform:

1. **Problem and Issue Identification**
   Reforms are about making improvements or about being better prepared to face future challenges by either correcting current problems or putting in place more effective replacements. Being able to accurately pinpoint critical problems and future issues with evidence, applying lessons learned elsewhere and augmenting them with triangulation of data, methodology or theory are vital. Therefore, the following questions are used to guide the document review:
   - Was performance of the current healthcare system assessed and discussed?
   - Are critical issues identified and explained?
   - Are lessons learned from other healthcare financing systems studied and applied?
   - Is the need and urgency of reform explained?
2. **Reform goals and objectives**
   After problem and issue identification, the proposal should delineate the policy or guiding principles of reform, the goals, objectives and targets, including resource requirements such as manpower and service capacities, and institutional arrangements to drive or facilitate reform implementation. To the extent that the proposal is about healthcare financing reform, how resources will be allocated or how providers will be paid or incentivised to perform needs to be described. Thus, the following questions are raised in analysing each document's content:
   - Are the policy or guiding principles of reform explained?
   - Are reform goals, objectives, or targets explained?
   - Are resource allocation and provider payment methods outlined?
   - Are institutional arrangements augmenting reform implementation outlined?
3. **Analysis of policy options and selection**
   For any given problem, there could be a number of solutions. Key stakeholders and people affected by the proposed reform will inevitably need to be convinced that the preferred option is the optimal solution Therefore, the following questions need to be fully addressed:
   - Are the pros and cons or impact of each reform option explained?

- Are preferred reform options or design explained?
- Are the rationale or criterial of selecting the proposed options explained?
- Is the feasibility or the resource requirements of achieving the reform goals and objectives discussed?

4. **Advocacy and public engagement**

Hong Kong has adopted the tradition of public consultations in proposing policy changes since the 1980s. If the process is made inclusive and a meaningful dialogue, it can enrich the information needed to enhance decision-making and to build trust and support for the reform proposal. Hence, engaging key stakeholders and members of the community early in the process and in meaningful forms of participation are essential. The document review will focus on the following questions:

- Are groups or committees involving key stakeholders appointed to give input and advice in the formulation of the reform proposal?
- Are wider community expectations addressed or support mobilised?
- Is a reform engine – a guiding coalition involving informed experts and broad-based community leaders – set up to drive proposal formulation and reform implementation?

Based on the foregoing, an analytical framework (see Figure 2) that outlines the essential work domains, each comprising requisite tasks that should be done, is used to systematically review and analyse the content of the consultation documents. The analysis is about task completion and what was done, not about the effectiveness of how each task was carried out. Tasks unrelated to healthcare financing are not reviewed.

An indicative score of 0, 1, 2 or 3 is assigned to each task to show the extent to which work was done or the subject matter was addressed. If the document or report shows evidence that a specific task was performed or additional aspects pursued, indicative scores will be given accordingly as shown in the analytical framework. If no description of the task or subject matter is found, then it will be given an indicative score of zero. In this framework, each task can score only up to a maximum of three points. This is regarded as the theoretical maximum indicative score and implies that the task was completed fully and should contribute maximally to the readiness for launch. Those with a lower score, completing less of what should be done, will contribute less.

Figure 2: Analytical framework and scoring system for assessing the readiness to launch healthcare financil reform proposal

WORK DOMAIN	1 Problem and Issue Identification	2 Reform goals and objectives	3 Option analysis and selection	4 Advocacy and public engagement
	☐ Was performance of the current healthcare system assessed and discussed?	☐ Are policy or guiding principles of reform explained?	☐ Are the pros and cons or impact of each reform option explained?	☐ Are groups or committees involving key stakeholders appointed to give input and advice in the formulation of the reform proposal?
	☐ Are critical issues identified and explained?	☐ Are reform goals, objectives, or targets explained?	☐ Are preferred reform options or design explained?	☐ Are wider community expectations addressed or support mobilized?
	☐ Are lessons learned from other healthcare financing systems studied and applied?	☐ Are resource allocation or provider payment methods outlined?	☐ Are the rationale or criterial of selecting the proposed options explained?	☐ Is a reform engine – a guiding coalition involving informed experts and community leaders – set up to drive implementation?
	☐ Is the need and urgency of reform explained?	☐ Are institutional arrangements augmenting reform implementation outlined?	☐ Is the feasibility or the resource requirements of achieving the reform goals and objectives discussed?	
INDICATIVE SCORE SYSTEM	**For Work Domians 1, 2 and 3 -** If the subject matter is not addressed = 0 point If the subject matter is addressed = 1 point If the subject matter is addressed with data or evidence = 2 points If the subject matter is addressed with data or evidence and critically analyzed with triangulation of data, methodology or theory = 3 points			
	For Work Domain 4 - If action regarding the indicated group, process or approach is not taken = 0 point If action regarding the indicated group, process or approach is taken = 1 point If action regarding the indicated group, process or approach is taken involving key stakeholder = 2 points If action regarding the indicated group, process or approach is taken involving key stakeholders and members of the community = 3 points			

The indicative scores are aggregated and calculated as a proportion of the theoretical maximum indicative scores to produce an index score (maximum = 1.00) to show the launch-readiness of each work domain and the reform proposals as described in the consultation document. An overall index score is calculated for all consultation documents for overview and comparison purposes. While this scoring system is rather crude, it has the advantage of being coded on the basis of clear and simple criteria. It should shed some light and help to explain the extent to which the consultation documents themselves might have contributed or affected the public's views and responses.

Findings

The consultation documents contain useful information to analyse the strategy adopted to formulate the reform agenda, the principles and objectives of the reform proposals as well as the launch-readiness of the reform proposals. The review presents an opportunity to understand what might have worked and not worked well in Hong Kong's pursuit of seeking to enhance the long-term financial sustainability of its healthcare system and how best to move forward to make better things happen.

Proposal formulation approach

The first Hong Kong healthcare financing reform proposal in recent history, the Rainbow Document, [6] was released for public consultation in 1993, during the pre-1997 colonial government days. It adopted the new public management approach, made well known by British Prime Minister Margaret Thatcher in the 1970s [21] that sees public involvement as an effective way to engage the community in formulating and implementing reform initiatives. The document put forward a set of reform proposals for public consultation but did not have the general support of the community to move forward. Status quo was preserved. [22]

Seven years later and since then, a phased-approach or step-by-step strategy, still involving public consultation to engage the community, was adopted. The approach was first suggested in the Harvard Report [8] and later reiterated in the consultancy document released in 2008. [12] The phased approach intends that, rather than taking the very expensive and time consuming approach of developing each option in detail, the first phase focuses on developing and presenting the principles, basic concepts, key operational details of various options, including pros and cons, in sufficient detail for public consultation. Based on the views received during the first phase consultation, the second phase, mutatis mutandis, involves putting forward detailed proposals, including implementation requirements, for further public consultation. The strategy involves a process of elimination that takes into consideration people's views to identify a most viable option or combination of options from among those developed by the government and a selected few including civic leaders and health professionals. It is top-down and elitist-led, although the community is consulted on bounded options and rationality.

There were two series of the phased-approach. The first series started with the Harvard Report in 1999, [8] followed by a consultation document that presented proposals on service delivery re-organisation and options for financing the healthcare system [9] and ended with without a clear way forward except wide support to the Government's suggestion to conduct further studies on the feasibility of a mandatory medical saving scheme for Hong Kong. [22] A study [10] was completed and report released for consultation near the end of the tenure of the then Health and Welfare Secretary YEOH Eng-kiong. (see again Figure 1).

The second series started in slightly less than one year later in 2005 with the release of a discussion paper [11] that redefined the target populations of public healthcare services and continued until 2010 with yet another document [13] presenting supplementary financing options for public consultation under the stewardship of the immediate past Food and Health Secretary York CHOW. The proposed reform options were directed at enhancing people's financial capacities to seek more private healthcare services and thus allow public hospitals to channel the resources to the disadvantaged and low-income families. [23] There were divergent views on the proposals and none commanded majority support. The government, nevertheless, formulated a voluntary private health insurance scheme, [13] the option with the least public resistence, that was released for public consultation near the end of CHOW's tenure.

In 2014, two years after being appointed to office, the current Food and Health Secretary KO Wing-man released a consultation document [14] that takes forward the private insurance scheme proposed in 2010 with further operational and implementation details. Although it has been nearly 18 months since the end of the public consultation, there is no clear indication yet from the Government about implementation of the latest healthcare financing reform proposal.

In retrospect, the phased approach has not seemed to work out. It has yet to produce a proposal that has broad based community support. There seems to be continuing divergent

views in the community to whatever was proposed for reform and no majority support is given to any of the financing proposals, notwithstanding the government's persistent message that the long-term sustainability of Hong Kong's healthcare financing system is highly questionable.

Objectives and reform focus of consultation documents

In line with the phased-approach strategy, the consultation documents, including the reports of the commissioned studies, served primarily as a vehicle to seek public views on the reform principle and a set of proposed options (see Figure 3). Except for the latest document released at the end of 2014, the preceding ones, as intended, were open-ended and not self-contained full reform proposals. The lapse in time between the release of the consultation documents, especially those in the early years, could lead the public to forming a lax impression of the need and urgency of reform. Moreover, not all documents released for public consultation dealt with healthcare financing reform.

Building a Healthy Tomorrow, [11] released in 2005, dealt only with service reforms (see again Figure 3), although the aim was to also strengthen the system's long-term financial sustainability. Three other documents, while focusing on financing reforms, dealt also with service reforms. The rest dealt primarily with healthcare financing reforms and related institutional arrangements, paying little or no attention to service reforms.

It should also be worth noting that the earlier consultation documents focused mainly on the demand-side financing reforms of the public sector while the later ones switched to the private sector. This switch occurred between two health secretaries, denoting perhaps differences in views of where financing reforms could generate the most impact and the public-private adjustment needed to enhance the future financing sustainability of the public system. Whatever the reason, the long lapse in time and the apparent inconsistency in reform focus could distract the public's views of the need and sense of urgency for reform.

Each of the consultation documents identifies a set of system weaknesses or problems to form the basis for proposing the reform options (see Appendix 1). The premise of the need and urgency of reform, as identified in all consultation documents, is based on three main arguments that suggest that the long-term sustainability of the Hong Kong healthcare system is highly questionable:

- Hong Kong's aging population will bring unprecedented pressure both financially and organisationally on the public healthcare system

Figure 3: Healthcare reform objectives and focus of consultation documents

YEAR RELEASED	TITLE	OBJECTIVES	FINANCING REFORM FOCUS		SERVICE REFORM FOCUS	
			Public Sector	Private sector	Public Sector	Private Sector
1993	*Towards Better Health: A Consultation Document (The Rainbow Document)*	To seek public views on five financing options. The underlying premise is that the financing of the heavily subsidized public healthcare is unsustainable.	√			
1999	*Improving Hong Kong's Health Care System: Why and For Whom? (The Harvard Report)* *1st Stage Consultation*	The consultancy study deals with the financing and organization of health care in Hong Kong. It proposes five services improvement options and recommends social health insurance and a medical savings scheme	√		√	
2000	*Lifelong Investment in Health: A Consultation Document on Health Care Reform* *2nd Stage*	To seek public views on a package of reform proposals on service delivery, quality assurance and a mandatory medical savings scheme. The document represents the 2nd stage consultation where the	√		√	
2004	*A Study on Health Care Financing and Feasibility of a Medical Savings Scheme in Hong Kong*	To examine the merits or otherwise of a mandatory medical savings scheme, based on international examples and lessons, and its feasibility for application in Hong Kong.	√			
2005	*Building a Healthy Tomorrow: Discussion Paper on the Future Service Delivery Model for our Health Care System*	To seek public support on instituting a new service delivery model for achieving a sustainable healthcare system. The document is about service delivery reform, NOT financing reform.	n.a.	n.a.	√	√
2008	*Your Health Your Life: Healthcare Reform Consultation Document* *1st Stage Consultation*	To consult the public, as the first of a two-stage process, on the key principles and concepts of service reforms and the pros and cons of six supplementary financing options.		√	√	
2010	*My Health My Choice: Healthcare Reform Second Stage Consultation Document* *2nd Stage Consultation*	To consult, as second stage consultation, the public on the features and requirements of the proposed voluntary supplementary healthcare financing scheme, a standardized and regulated framework for private		√		
2014	*Voluntary Health Insurance Scheme: Consultation Document*	To take forward the voluntary supplementary healthcare scheme, as outlined in the consultation document *My Health My Choice* , under the new name of Voluntary Health Insurance Scheme (VHIS).		√		

- The current public healthcare system is overloaded and over-stretched
- Rising public expectation of healthcare services and increasing medical costs.

Yet, the proposed reform options put forward in each consultation document to address these issues varied: from social health insurance to voluntary private health insurance, from mandatory medical savings to personal health reserve, and from capping government budget to raising user fees. This could be confusing to the public and thus lead to none of them commanding a majority consensus in the community.

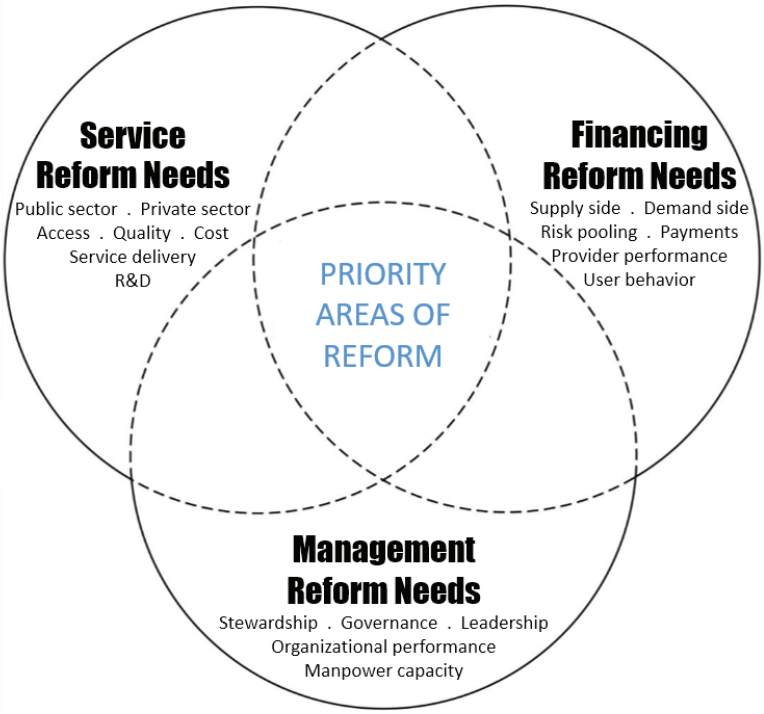
Additionally, the financing reforms proposed thus far are focused mainly on the demand side. Very little seems to have been considered or proposed on the supply side. How to pay providers can be incentives or disincentives affecting provider behavior. It is a fundamental and complex issue in healthcare. Not addressing upfront the supply side of the financing equation fully and concurrently in healthcare financing reform proposal could create uncertainties and doubts in both the minds of providers and users that may not be warranted.

This raises a point that, while formulating the healthcare reform agenda, one should consider broadly from a system-wide perspective and understand deeply the needs for service, financing and management reforms and plan strategically for a reform agenda that clearly delineates launch priority (see Figure 4). As no part of the system is unlinked, implementing reform in one area without a conjoint plan of action in the others will unlikely yield the best results or achieve the most benefits. Knowing the control knobs of the system and having a clear sense of how they interact and function can guide the setting of focus and priorities in the reform agenda. Once the focus and priorities of reform are confirmed, concentrated efforts could then be directed at identifying the right timing to launch and thrust the reform into orbit.

The constraints affecting Hong Kong's heathcare financing reform should be madeexplicit. Unique to Hong Kong, there are three factors, not always made known in the consultation documents, that can affect the range of options that may be considered for reform:

- The Basic Law specifies a principle for government budget in that the expenditure and the revenue should be balanced, budget deficit is to be avoided, and the budget should be kept commensurate with the growth rate of Hong Kong's gross domestic product. [24]
- The government currently limits the estimated recurrent expenditure on health to not exceed 17 percent of the government's total annual recurrent expenditure. In 2016-17, the share is 16.5 percent. [25]

Figure 4: Identifying priority areas for a conjoint reform agenda



- There are ongoing high expectations on the demand side and the government has repeatedly reiterated that it will continue to adhere to the long-held principle that 'no person should be prevented, through lack of means, from obtaining adequate medical treatment' [26] and to uphold the public healthcare system as the safety net for the whole population. [13]

These three factors should be made explicit as they can impose enormous pressure and constrains on the system. But the challenge and reward of course is how to turn them into opportunities.

The launch readiness of the reform proposals

As a group, the past consultation documents have an overall launch-readiness index of only 0.46 out of the maximum of 1.00 (see Figure 5). With exception of the Harvard Report [8] that has an acceptable rating, all consultation documents have only marginal or unimpressive launch-readiness index scores. This suggests that the consultation documents might not have provided adequate information to the extent that justify taking them forward to launch. In other words, if a consultation document with a marginal or low index score is released for public consultation, the likelihood of it commanding a majority support should be low. Indeed, none or a combination of the proposals in the consultation documents commanded a majority support and was not taken forward.

The study results show that the consultation documents did a marginal job in *Problem and Issue Identification* and in *Analysis of Policy Options and Selection* but poorly in Reform Goals and Objectives and in *Advocacy and Public Engagement* (see again Figure 5). Two questions should need to be raised: (1) what contributed to the poor index scores, and (2) why even a high index score did not have support of the community.

The low index score in *Reform Goals and Objectives* was due primarily to the absence or inadequate description of how resources will be allocated or how providers will be paid under the reformed healthcare financing system (see

Figure 5: Launch-readiness index of reform options or proposals as presented in the consultation documents (full readiness = 1.00)

YEAR RELEASED	DOCUMENT OR STUDY TITLE	WORK DOMAIN: 1. PROBLEM AND ISSUE IDENTIFICATION			2. REFORM GOALS AND OBJECTIVES			3. ANALYSIS OF POLICY OPTIONS & SELECTION			4. ADVOCACY AND PUBLIC ENGAGEMENT			ALL DOMAINS		
		Indicative Score (a)	Maximum Indicative Score (b)	**Launch-readiness index = (a)/(b)**	Indicative Score (a)	Maximum Indicative Score (b)	**Launch-readiness index = (a)/(b)**	Indicative Score (a)	Maximum Indicative Score (b)	**Launch-readiness index = (a)/(b)**	Indicative Score (a)	Maximum Indicative Score (b)	**Launch-readiness index = (a)/(b)**	Indicative Score (a)	Maximum Indicative Score (b)	**Launch-readiness index = (a)/(b)**
1993	*Towards Better Health: A Consultation Document (The Rainbow Document)*	6	12	**0.50**	3	12	**0.25**	5	12	**0.42**	2	9	**0.22**	16	45	**0.36**
1999	*Improving Hong Kong's Health Care System: Why and For Whom? (The Harvard Report)* *1st Stage Consultation*	10	12	**0.83**	6	12	**0.50**	11	12	**0.92**	5	9	**0.56**	32	45	**0.71**
2000	*Lifelong Investment in Health: A Consultation Document on Health Care Reform* *2nd Stage Consultation*	4	12	**0.33**	3	12	**0.25**	3	12	**0.25**	2	9	**0.22**	12	45	**0.27**
2004	*A Study on Health Care Financing and Feasibility of a Medical Savings Scheme in Hong Kong*	8	12	**0.67**	4	12	**0.33**	8	12	**0.67**	4	9	**0.44**	24	45	**0.53**
2005	*Building a Healthy Tomorrow: Discussion Paper on the Future Service Delivery Model for our Health Care System*	The study is about service delivery reform, NOT healthcare financing reform.														
2008	*Your Health Your Life: Healthcare Reform Consultation Document* *1st Stage Consultation*	8	12	**0.67**	3	12	**0.25**	6	12	**0.50**	2	9	**0.22**	19	45	**0.42**
2010	*My Health My Choice: Healthcare Reform Second Stage Consultation Document* *2nd Stage Consultation*	8	12	**0.67**	4	12	**0.33**	6	12	**0.50**	2	9	**0.22**	20	45	**0.44**
2014	*Voluntary Health Insurance Scheme: Consultation Document*	8	12	**0.67**	7	12	**0.58**	6	12	**0.50**	2	9	**0.22**	23	45	**0.51**
	ALL DOCUMENTS	52	84	**0.62**	30	84	**0.36**	45	84	**0.54**	19	63	**0.30**	146	315	**0.46**

Appendix 3). This is a critical issue that both providers and users of healthcare are concerned about. It is probably also the most important consideration in any healthcare financing system or reform. How funds and financial resources are pooled and how providers are paid will affect how providers and users of healthcare services will behave. Unfortunately, this is an item that the reform options or proposals seem to have ignored or not given the needed attention deserved. Another contributing factor is the lack of adequate description about the institution arrangements that will be put in place to augment reform implementation. People should want to know how they will be affected under the proposed healthcare financing system. And, the roles and responsibilities of these institutional arrangements and how they will function could affect people's confidence as well.

Advocacy and Public Engagement has the lowest index score among all four work dimensions. The low index score was mainly due to two factors: (1) wider community expectations of the reform were either not well addressed or community support not mobilised; and (2) a reform engine, such as a guiding coalition, to drive implementation was not set up with inclusive participation (see Appendix 5). This suggest that wider community expectations, not just those of key stakeholders, must be well understood and their support mobilised while formulating the reform options or proposals. In this regard, involvement of trusted and respected individuals from among key stakeholders and members of the community, in addition to government officials and individuals appointed to government task forces or committees should be important.

The Harvard Report [8] received the highest index score relative to all other consultation documents but the proposals were not taken forward. Two factors possibly contributed to this outcome: (1) the mechanism and effects of resource allocation and provider payment methods were not detailed; and (2) wider community expectations were not adequately addressed or support of the proposed options not mobilised (see Appendixes 3 and 5). The report, however, was not well received by the public. [22] This points to the importance and need for reform proposals to be aligned or not depart from society's values and norms. The Harvard Report [8] seems to have ignored these elements and proposes a social insurance system plus a mandatory savings scheme that represent a complete paradigm shift from Hong Kong's long-held tax-funded financing system. The proposals build not on the strengths of the Hong Kong system but on concepts that seem to work elsewhere and are not tested locally. The proposals represent so drastic a transformation that key stakeholders and people are unwilling to undertake and, thus, the rejection. This is one of the most important lessons that should be learned about formulating healthcare financing reform proposals or options.

In sum, the low index scores suggest that the consultation documents have not provided total information or convincing evidence and have not fully addressed the critical issues of concern to the extent of commanding a majority support of key stakeholders and the community. And, with the successive inaction following public consultation, available options for reform are becoming limited. It also makes reformulation of previously introduced proposals nearly impossible, at least politically. This raises a question about the appropriateness of the phasedapproach and what reform approach should be put in its place in future.

Based on the Hong Kong experience, it should be unwise to release any reform option or proposal for public consultation unless all available evidence have been put to use, people's issues and concerns are well understood and addressed, viable options or proposals are field tested and reformulated if indicated. Furthermore, given that the purpose of the consultation document is a policy advocacy and public communication medium, the content must address the concerns of key stakeholders and the reform proposals should be formulated based on acceptable values and norms of society as well as strengths of the current system.

Conclusion

Hong Kong's 25-year long journey in pursuit of a healthcare financing reform option does not seem to have been productive: the past consultation documents are mostly not launch-ready and there is still no majority support for a reform proposal to tackle the inevitable financing problems that the system seems to be facing. Valuable time has been lost and must be prevented from happening again in future.

The phased-approach seems to have been more of an inhibitor rather than a facilitator because people are asked step-by-step to give input on the reform options or proposls or show their preferences based on limited choices and details that may be inadequate to make informed choices. The phased-approach could be disruptive and show disconnect between health secretaries who are stewards of the reform initiatives. The reform focus had actually shifted when a new health secretary comes on board. The delays in between proposals could have created an impression in the

minds of the public that the sense of urgency is not real. Over the years there have been many consultation documents and as each of them proposes different options to address essentially similar problems, the public must be bewildered.

People need to be convinced that Hong Kong's healthcare financing system needs urgent reform. Past reform proposals often lack contestable evidence to take on key stakeholder challenges. The consultation document is an important medium not only of communication but also a presentation of the roadmap of how the new system will function, how providers and users will be affected and what gains or benefits will be achieved individually and for society. The consultation documents in the past have largely not addressed these questions adequately. The future consultation document, when released, must need to convince the public that the proposals have community support and the reform will be driven by people whom the community trusts and respects and are ready for launch.

The consultation documents have largely been developed under the health secretary's leadership and driven by government appointed individuals or Hong Kong's elites. Except for consultants conducting surveys in the community or focus groups of key stakeholders for some of the consultation documents, involvement of users of healthcare and members of the community is infrequent if at all. To get the job done better, a broadly participatory approach should be adopted. It should involve members of the broader community in an inclusive guiding coalition charged to drive the healthcare financing reform from pre-launch to implementation. This coalition should start afresh and, based on renewed evidence-based assessments of the need and urgency of reform, proceed accordingly to formulate an overarching reform proposal that motivates people with conflicting interests to take mutually beneficial actions or that gives stakeholders the right incentives to work effectively together.

Moreover, the study findings of Hong Kong's healthcare financing reform journey denote something more worrisome. Seventeen years ago the Harvard Report pointed out that 'the Hong Kong government lacks sufficient capacity, competency, and information to set sound health policy and monitor its execution'. [8, p.8] These observations and unwelcomingly critical comments, unfortunately, seem to remain valid even today.

Hong Kong needs to overhaul its approach in healthcare systems and financing reform. To get things right and to make things happen, Hong Kong needs a strong inclusive guiding coalition to take things forward. It needs a well coordinated inclusive and participatory approach. It needs to involve more knowledgeable experts with information and institutional capacity to conduct objective and rational analysis and to monitor the system's performance. It needs to involve the community and key stakeholders early on as partners in search of solutions and in building up broad-based support for the subsequent reform launch and to produce reform. It needs more competent and highly motivated leaders and healthcare executives who have deep understanding of the community, the meaning of health to individuals and society and the nature of the business of healthcare to take things forward. They need to have the initiative, sincerity, not rhetorical commitment, and capacity to lead, impact and do good for people and the system. The Hong Kong healthcare system needs to quickly catch up with steadfast vigor.

Competing interests

The author declares that he has no competing interests.

References

1. Kotter J. Leading change: why transformation efforts fail. Harvard Business Review. 1995; March-April.
2. Schuck P. Why government fails so often: and how it can do better. Princeton: Princeton University Press; 2015.
3. Kotter P. Leading change: why transformation efforts fail. Harvard Business Review. 2007; Jan.
4. Isern J, Pung C. Driving radical change. McKinsey Quarterly. 2007;(4). Available from: http://www.mckinsey.com/business-functions/organization/ourinsights/driving-radical-change .
5. Roberts M. et al. Getting health reform right: a guide to improving performance and equity. Oxford: Oxford University Press; 2008.
6. Health and Welfare Bureau. Towards Better Health. Hong Kong: Hong Kong Government Printing Office; 1993.
7. Panel on Health Services. Health Care Reform. LC Paper No. CB(2)2252/04-05(01). Hong Kong: Legislative Council, Hong Kong Special Administrative Region Government; 13 July 2005.
8. The Harvard Team. Improving Hong Kong's health care system: why and for whom? Boston: President and Fellows of Harvard College; 1999.
9. Health and Welfare Bureau. Lifelong investment in health. Hong Kong: Hong Kong Special Administrative Region Government; 2000.
10. Health, Welfare and Food Bureau. A study on health care financing and feasibility of a medical savings scheme in Hong Kong. Hong Kong: Hong Kong Special Administrative Region Government; July 2004.
11. Health, Welfare and Food Bureau. Building a Healthy Tomorrow: Discussion Paper on the Future Service Delivery Model for our Health Care System. Hong Kong: Hong Kong Special Administrative Region Government; July 2005.
12. Food and Health Bureau. Your Health Your Life: Report on First Stage Public Consultation on Healthcare Reform. Hong Kong: Hong Kong Special Administrative Region Government; December 2008.

13. Food and Health Bureau. My Health My Choice: Healthcare Reform Second Stage Public Consultation Document. Hong Kong: Hong Kong Special Administrative Region Government; October 2010.
14. Food and Health Bureau. Voluntary Health Insurance Scheme Consultation Document. Hong Kong: HKSAR;. December 2014.
15. Hay J. Health care in Hong Kong: an economic policy assessment. Hong Kong: The Chinese University Press; 1992.
16. Tompson W. The political economy of reform: lessons from pensions, product markets and labour markets in Ten OECD countries. OECD; 2009. Available from: http://www.oecd.org/site/sgemrh/46190166.pdf
17. Benoit F, Jacques M. Public policy models and their usefulness in public health: the stages model. Québec: National Collaboration Centre for Healthy Public Policy; 2013. Available from: http://www.ncchpp.ca/docs/ModeleEtapesPolPubliquesEN.pdf
18. de Araújo Jr, José L, Romolu M. Developing an operational framework for healthy policy analysis. Revista Brasileira de Saúde Materno Infantil, Recife. (The Brazilian Journal of Mother and Child Health). 2001;1(3):203-221, set.-dez., 2001. Available from: http://www.scielo.br/pdf/rbsmi/v1n3/v1n3a02.pdf
19. Kotter J. Accelerate: building strategic agility for a fast moving world. Harvard Business Review Press. 2014.
20. Kajimbwa M. New public management: a tribute to Margaret Thatcher. Public Policy and Administration Research. 2013;3(5): 64-69, Available from: http://www.iiste.org/Journals/index.php/PPAR/article/viewFile/5554/5667
21. LegCo Panel on Health Services. Studies on Health Care Financing and Feasibility of a Medical Savings Scheme in Hong Kong. Paper No. CB(2)2692/03-04(03). Hong Kong: Legislative Council, Hong Kong Special Administrative Region Government; 14 June 2004. Available from: http://www.legco.gov.hk/yr03-04/ english/panels/hs/papers/hs0614cb2-2692-3e.pdf
22. Food and Health Bureau. My Health My Choice: Healthcare Reform Second Stage Public Consultation Report. Hong Kong: Hong Kong Special Administrative Region Government; July 2011.
23. Basic Law of the Hong Kong Special Administrative Region of the People's Republic of China, Article 107. 1 July 1997. Available from: http://www.basiclaw.gov.hk/en/ basiclawtext/index.html
24. Finance Secretary. The 2016-17 Budget. Hong Kong:Hong Kong Special Administrative Region Government; 2016.
25. Hospital Authority Ordinance, Cap 113, s 4 (d). 30 June 1997 (Enacted 1990).

Appendix 1: System weaknesses and reform options proposed for consultation

YEAR RELEASED	TITLE	SYSTEM WEAKNESSES OR PROBLEMS	REFORM OPTIONS OR PROPOSALS
1993	Towards Better Health: A Consultation Document (The Rainbow Document)	• Overloading" • Manpower constraints • Inequitable fee structure • Lack of choice • Lack of interface	*The existing policy that no one should be denied adequate medical treatment through lack of means will remain paramount."* PLUS The following proposals for consultation: • Percentage subsidy approach • Target group approach • Co-ordinated voluntary insurance • Compulsory comprehensive insurance • Prioritization of treatment approach
1999	Improving Hong Kong's Health Care System: Why and For Whom? (The Harvard Report) *1st Stage Consultation* •	A policy of benign neglect has left Hong Kong without a coherent overall policy for financing and organizing health care that: • The healthcare system is highly compartmentalized The quality of care is highly variable, particularly in the private sector • The financial and organizational sustainability are highly questionable	*"Every resident should have access to reasonable quality and affordable health care. The government assures this access through a system of shared responsibility between the government and residents where those who can afford to pay for health care should pay." PLUS* The following proposals for consultation: • Status quo • Cap government budget on health • Raise user fees with exemptions • Health Security Plan (social health insurance) and MEDISAGE (mandatory medical savings) • Competitive Integrated Health Care
2000	Lifelong Investment in Health: A Consultation Document on Health Care Reform *2nd Stage Consultation*	The following main pillars are unable to meet the needs and aspirations of Hong Kong's future generations: • Organization and provision of health services • Healthcare quality assurance mechanisms • Funding and financing for healthcare services	*"We must continue to uphold our long-held policy of ensuring that no one is denied adequate medical care because of insufficient means." PLUS* The following proposals for consultation: • Reduce costs • Revamp fee structure • Establish Health Protection Accounts (mandatory medical savings)
2004	A Study on Health Care Financing and Feasibility of a Medical Savings Scheme in Hong Kong	• Need to address post retirement health care expenditure • Need rigorous cost-containment measures in the public system • Need to ensure resources can be targeted to patients and services of the greatest needs	The study demonstrated that it is feasible to introduce a medical savings scheme in Hong Kong. But the Government noted that it will need to examine carefully the role of a medical savings scheme and how it will complement other measures as well as the detailed features of such a scheme in addition to taking into account the feedback and comments from key stakeholders and the community. The Government reiterated in the study report that "we will maintain our long-established principle that no one will be denied appropriate medical care due to lack of means."
2005	Building a Healthy Tomorrow: Discussion Paper on the Future Service Delivery Model for our Health Care System	• Over-reliance on the heavily subsidized public healthcare system • An aging population • Tendency of early occurrence of chronic illnesses in the population resulting in prolonged reliance on the public system • Advancement in medical technology leading to increasing number of treatable medical conditions at high costs • Over-stretched hospital services	Future service delivery model outlined (not intended to be a healthcare financing reform proposal)
2008	Your Health Your Life: Healthcare Reform Consultation Document 1st Stage Consultation	• Public hospital services at risk, arising from the elderly population and increasing occurrence of lifestyle-related diseases • Health expenditure rising at a much faster pace than the economy • Limited alternative choice to public hospital services • Patient safety net not wide enough • Insufficient emphasis on holistic primary care • Limited continuity and integration of care	*"We will continue to uphold the treasured principle of our healthcare policy that no one should be denied adequate healthcare through lack of means"* PLUS The following proposals for consultation: • Social health insurance • Out of pocket payments (user fees) • Medical savings accounts • Voluntary private health insurance • Mandatory private health insurance • Personal health reserve

Appendix 1: System weaknesses and reform options proposed for consultation *continued*

YEAR RELEASED	TITLE	SYSTEM WEAKNESSES OR PROBLEMS	REFORM OPTIONS OR PROPOSALS
2010	My Health My Choice: Healthcare Reform Second Stage Consultation Document 2nd Stage Consultation	• The public system and hence the system as a whole are unsustainable • Need to enhance the sustainable development of the private healthcare sector	*"We will continue to uphold the public healthcare system as the safety net for the whole population."* PLUS The following proposals for consultation: • Voluntary private health insurance (Health Protection Scheme, a standardized and regulated framework for health insurance) as supplementary financing • The Government pledges to draw HK$50 billion from the fiscal reserve to support reform.
2014	Voluntary Health Insurance Scheme: Consultation Document	• Faces challenges of an aging population, rising public expectation of healthcare services and increasing medical costs • Need to identify suitable measures to improve quality of healthcare services • Need to readjust the public-private balance so as to maintain the system's long-term sustainability	*"The Government will continue to uphold the dual track healthcare "The Government will continue to uphold the dual track healthcare system and strengthen its commitment to the sustainable development of public system as the safety net for all."* With reference to the deliberation by the Working Group and the Consultant's recommendations, this Document sets forth the detailed proposals for implementing the Voluntary Health Insurance Scheme, a regulated individual indemnity hospital insurance, for public consultation.

Appendix 2: Indicative and index scores of tasks performance under work domain – problem

		1. PROBLEM AND ISSUE IDENTIFICATION						
YEAR RELEASED	TITLE	PERFORMANCE OF CURRENT SYSTEM ASSESSED AND DISMISSED	CRITICAL ISSUES IDENTIFIED AND EXPLAINED	LESSONS FROM OTHER HEALTHCARE SYSTEMS STUDIED AND APPLIED	NEED AND URGENCY OF REFORM EXPLAINED	INDICATIVE SCORES	MAXIMUM INDICATIVE SCORES	LAUNCH READINESS INDEX
1993	Towards Better Health: A Consultation Document (The Rainbow Document)	2	2	1	1	6	12	0.50
1999	Improving Hong Kong's Health Care System: Why and For Whom? (The Harvard Report) *1st Stage Consultation*	3	2	3	2	10	12	0.83
2000	Lifelong Investment in Health: A Consultation Document on Health Care Reform *2nd Stage Consultation*	1	2	0	1	4	12	0.33
2004	A Study on Health Care Financing and Feasibility of a Medical Savings Scheme in Hong Kong	2	1	3	2	8	12	0.67
2005	Building a Healthy Tomorrow: Discussion Paper on the Future Service Delivery Model for our Health Care System	The document is not analyzed because it is about service delivery reform, NOT healthcare financing reform.						
2008	Your Health Your Life: Healthcare Reform Consultation Document *1st Stage Consultation*	2	2	2	2	8	12	0.67
2010	My Health My Choice: Healthcare Reform Second Stage Consultation Document *2nd Stage Consultation*	2	2	2	2	8	12	0.67
2014	Voluntary Health Insurance Scheme: Consultation Document	2	2	2	2	8	12	0.67
	INDICATIVE SCORES	14	13	13	12	52	84	0.62
	MAXIMUM INDICATIVE SCHOOLS	21	21	21	21	84		
	LAUNCH-READINESS INDEX	0.67	0.62	0.62	0.57	0.62		

Appendix 3: Indicative and index scores of tasks performance under work domain – reform goals and objectives, by consultation document

		2. REFORM GOALS AND OBJECTIVES						
YEAR RELEASED	DOCUMENT OR STUDY TITLE	POLICY OR GUIDING OF REFORM EXPLAINED	REFORM GOALS OBJECTIVES OR TARGETS EXPLAINED	RESOURCE ALLOCATION OR PROVIDER PAYMENT METHODS OUTLINED	INSTITUTIONAL ARRANGEMENTS TO AUGMENT IMPLEMENTATION OUTLINED	INDICATIVE SCORES	MAXIMUM INDICATIVE SCORES	LAUNCH READINESS INDEX
1993	Towards Better Health: A Consultation Document (The Rainbow Document)	1	1	0	1	3	12	0.25
1999	Improving Hong Kong's Health Care System: Why and For Whom? (The Harvard Report) *1st Stage Consultation*	2	2	1	2	7	12	0.58
2000	Lifelong Investment in Health: A Consultation Document on Health Care Reform *2nd Stage Consultation*	1	1	0	1	3	12	0.25
2004	A Study on Health Care Financing and Feasibility of a Medical Savings Scheme in Hong Kong	2	1	0	1	4	12	0.33
2005	Building a Healthy Tomorrow: Discussion Paper on the Future Service Delivery Model for our Health Care System	The document is not analyzed because it is about service delivery reform, NOT healthcare financing reform.						
2008	Your Health Your Life: Healthcare Reform Consultation Document *1st Stage Consultation*	1	1	0	1	3	12	0.25
2010	My Health My Choice: Healthcare Reform Second Stage Consultation Document *2nd Stage Consultation*	1	1	1	1	4	12	0.33
2014	Voluntary Health Insurance Scheme: Consultation Document	2	2	2	1	7	12	0.58
	INDICATIVE SCORES	10	9	4	8	31	84	0.37
	MAXIMUM INDICATIVE SCHOOLS	21	21	21	21	84		
	LAUNCH-READINESS INDEX	0.48	0.43	0.19	0.38	0.37		

Appendix 4: Indicative and index scores of tasks performance under work domain – anaysis of policy options and selection, by consultation document

		3. ANALYSIS OF POLICY OPTIONS & SELECTION						
YEAR RELEASED	DOCUMENT OR STUDY TITLE	PROS AND CONS OR IMPACT OF REFORM OPTIONS EXPLAINED	PREFERRED OPTION(S) OR DESIGN EXPLAINED	RATIONALE OR CRITERIA OF SELECTING PROPOSED OPTION(S) EXPLAINED	FEASIBILITY OR RESOURCES REQUIRED TO ACHIEVE GOALS AND OBJECTIVES DISCUSSED	INDICATIVE SCORES	MAXIMUM INDICATIVE SCORES	LAUNCH READINESS INDEX
1993	Towards Better Health: A Consultation Document (The Rainbow Document)	2	1	1	1	5	12	0.42
1999	Improving Hong Kong's Health Care System: Why and For Whom? (The Harvard Report) *1st Stage Consultation*	3	3	3	2	11	12	0.92
2000	Lifelong Investment in Health: A Consultation Document on Health Care Reform *2nd Stage Consultation*	1	1	1	0	3	12	0.25
2004	A Study on Health Care Financing and Feasibility of a Medical Savings Scheme in Hong Kong	2	2	2	2	8	12	0.67
2005	Building a Healthy Tomorrow: Discussion Paper on the Future Service Delivery Model for our Health Care System	The document is not analyzed because it is about service delivery reform, NOT healthcare financing reform.						
2008	Your Health Your Life: Healthcare Reform Consultation Document *1st Stage Consultation*	2	1	2	1	6	12	0.50
2010	My Health My Choice: Healthcare Reform Second Stage Consultation Document *2nd Stage Consultation*	2	2	1	1	6	12	0.50
2014	Voluntary Health Insurance Scheme: Consultation Document	2	2	2	0	6	12	0.50
	INDICATIVE SCORES	14	12	2	7	45	84	0.54
	MAXIMUM INDICATIVE SCHOOLS	21	21	21	21	84		
	LAUNCH-READINESS INDEX	0.67	0.57	0.57	0.33	0.54		

Appendix 5: Indicative and index scores of tasks performance under work domain – advocay and public engagement, by consultation documents

		4. ADVOCACY AND PUBLIC ENGAGEMENT					
YEAR RELEASED	DOCUMENT OR STUDY TITLE	GROUP(S) OR COMMITTEE(S) APPOINTED TO GIVE INPUT OR ADVICE	WIDER COMMUNITY EXPECTATIONS ADDRESSED OR SUPPORT MOBILISED	REFORM ENGINE SET UP TO DRIVE IMPLEMENTATION	INDICATIVE SCORES	MAXIMUM INDICATIVE SCORES	LAUNCH READINESS INDEX
1993	Towards Better Health: A Consultation Document (The Rainbow Document)	2	0	0	2	9	0.22
1999	Improving Hong Kong's Health Care System: Why and For Whom? (The Harvard Report) *1st Stage Consultation*	2	1	2	5	9	0.56
2000	Lifelong Investment in Health: A Consultation Document on Health Care Reform *2nd Stage Consultation*	1	0	1	2	9	0.22
2004	A Study on Health Care Financing and Feasibility of a Medical Savings Scheme in Hong Kong	3	1	0	4	9	0.44
2005	Building a Healthy Tomorrow: Discussion Paper on the Future Service Delivery Model for our Health Care System	The document is not analyzed because it is about service delivery reform, NOT healthcare financing reform.					
2008	Your Health Your Life: Healthcare Reform Consultation Document *1st Stage Consultation*	2	0	0	2	9	0.22
2010	My Health My Choice: Healthcare Reform Second Stage Consultation Document *2nd Stage Consultation*	2	0	0	2	9	0.22
2014	Voluntary Health Insurance Scheme: Consultation Document	2	0	0	2	9	0.22
	INDICATIVE SCORES	14	2	3	19	63	0.30
	MAXIMUM INDICATIVE SCHOOLS	21	21	21	63		
	LAUNCH-READINESS INDEX	0.67	0.10	0.14	0.30		

LIBRARY BULLETIN

Borrow books

Books are available for a loan period of two weeks and can be delivered to Members by post. Please contact David Burt, ACHSM Librarian on 02 8753 5122 or email library@achsm.org.au to borrow a book.

Document delivery

To request articles not available as links please contact the ACHSM Librarian on 02 8753 5122 or email library@achsm.org.au

ABORIGINAL HEALTH SERVICE

Indigenous health: a worldwide focus.
Lancet (London, England) 2016; 388(10040):104.

Push to improve safety of remote area health workforce.
Australian nursing & midwifery journal 2016; 23(10):4.

Primary Health Networks and Aboriginal and Torres Strait Islander health.
Couzos, S., Delaney-Thiele, D., Page, P.
The Medical journal of Australia 2016; 204(6):234-237.

Health assessments for Indigenous Australians at Orange Aboriginal Medical Service: health problems identified and subsequent follow up.
Dutton, T., Stevens, W., Newman, J.
Australian journal of primary health 2016; 22(3):233-238.

The effectiveness of implementation in Indigenous Australian healthcare: an overview of literature reviews.
McCalman, J., Bainbridge, R., Percival, N., Tsey, K.
International journal for equity in health 2016; 15:47.

Working towards 'closing the gap' at central australia health service.
McPherson, C.
Australian nursing & midwifery journal 2016; 23(8):39.

'There's only one enabler; come up, help us': staff perspectives of barriers and enablers to continuous quality improvement in Aboriginal primary health-care settings in South Australia.
Newham, J., Schierhout, G., Bailie, R., Ward, P. R.
Australian journal of primary health 2016; 22(3):244-254.

Strategies to improve maternal health for indigenous women and children.
Smith, S.
Australian nursing & midwifery journal 2016; 23(8):43.

The Global and the Local: Health in Latin American Indigenous Women.
Valeggia, C.
Health care for women international 2016; 37(4):463-477.

An Aboriginal perspective on 'Closing the Gap' from the rural front line.
Wilson, R. L.
Rural and remote health 2016; 16(1):3693.

eHEALTH

Telemedicine empowers patients, but challenges physicians.
Fanburg, J. D., Hilzenrath, E. V.
Medical economics 2016; 93(7):40-41.

Legal Status of Telemedicine in the Internal Market.
Glanowski, G.
European journal of health law 2016; 23(3):231-247.

Utilization of Telemedicine Among Rural Medicare Beneficiaries.
Mehrotra, A., Jena, A. B., Busch, A. B., Souza, J., Uscher-Pines, L., Landon, B. E.
Jama 2016; 315(18):2015-2016.

Telemedicine Start-ups Promise To Transform Health Care.
Morrow, T.
Managed care (Langhorne, Pa) 2016; 25(6):36-37.

EMERGENCY MEDICINE

The impact of short prehospital times on trauma center performance benchmarking: An ecologic study.
Byrne, J. P., Mann, N. C., Hoeft, C. J., Buick, J., Karanicolas, P., Rizoli, S., et al.
The journal of trauma and acute care surgery 2016; 80(4):586-594; discussion 594-586.

Higher mortality rates amongst emergency patients admitted to hospital at weekends reflect a lower probability of admission.
Meacock, R., Anselmi, L., Kristensen, S.R., Doran, T., Sutton, M.
Journal of health services research & policy 2016.

Health Information Exchange in Emergency Medicine.
Shapiro, J. S., Crowley, D., Hoxhaj, S., Langabeer, J., 2nd, Panik, B., Taylor, T.B., et al.
Annals of emergency medicine 2016; 67(2):216-226.

The Effect of Emergency Medicine Residents on Clinical Efficiency and Staffing Requirements.
Clinkscales, J. D., Fesmire, F. M., Hennings, J. R., Severance, H. W., Seaberg, D. C., Patil, N.
Academic emergency medicine : official journal of the Society for Academic Emergency Medicine 2016; 23(1):78-82

Emergency medicine and global health policy: history and next steps.
Morris, S. C.
Journal of global health 2016; 6(2): 020304.

HEALTH FACILITIES & DESIGN

Biggest healthcare M&A deals of Q1 2016. Ranked by deal value.
Modern healthcare 2016; 46(17):34.

Healthcare M&A: critical issues in today's fast-paced market.
Ralph, R.
Healthcare financial management : journal of the Healthcare Financial Management Association 2015; 69(9):44-47.

Hand in hand: Value analysis and risk management.
Russell, J.
Nursing Management 2016; 47(5):51-54.
http://search.ebscohost.com/login.aspx?direct=true&db=heh&AN=115260098&site=ehostlive&scope=site&authtype=uid&user=s5511570main&password=main

What every healthcare facility should do now to reduce the potential for workplace violence.
Smith, T. A.
Journal of healthcare protection management : publication of the International Association for Hospital Security 2016; 32(1):41-47.

The office experiment: Can science build the perfect workspace?
Anthes, E.
Nature 2016; 537(7620):294-296.

Hospital reduces noise and patient complaints after sound study.
Ferenc, J.
Hospitals & health networks / AHA 2016; 90(7):26.

Surveillance Monitoring Management for General Care Units: Strategy, Design, and Implementation.
McGrath, S. P., Taenzer, A. H., Karon, N., Blike, G.
Joint Commission journal on quality and patient safety / Joint Commission Resources 2016; 42(7):293-302.

Choosing Wisely: Trends and Strategies for Capital Planning and Procurement.
Vockley, M.
Biomedical instrumentation & technology / Association for the Advancement of Medical Instrumentation 2016; 50(4):230-241.

Rethinking the role and impact of health information technology: informatics as an interventional discipline.
Payne, P. R., Lussier, Y., Foraker, R. E., Embi, P. J.
BMC medical informatics and decision making 2016; 16:40.

HEALTHCARE – AUSTRALIA

Creating health care value together: a means to an important end.
Jackson, C. L., Janamian, T., Booth, M., Watson, D.
The Medical journal of Australia 2016; 204(7 Suppl):S3-4.

Is there value in the Relative Value Study? Caution before Australian Medicare reform.
Wright, M.
The Medical journal of Australia 2015; 203(8):331-333.

Health-related quality of life measured using the EQ-5D-5L: South Australian population norms.
McCaffrey, N., Kaambwa, B., Currow, D. C., Ratcliffe, J.
Health & Quality of Life Outcomes 2016; 14:1-12.
http://search.ebscohost.com/login.aspx?direct=true&db=her&AN=118408984&site=ehostlive&scope=site&authtype=uid&user=s5511570main&password=main

Counting the costs of accreditation in acute care: an activity-based costing approach.
Mumford, V., Greenfield, D., Hogden, A.,Forde, K., Westbrook, J., Braithwaite, J.
BMJ open 2015; 5(9):e008850.

HEALTHCARE – OVERSEAS

Being Fair in Universal Health Coverage: Prioritize Public Health Services for Low- and Middle-Income Countries.
George, M.
American Journal of Public Health 2016;106(5):830-831.
http://search.ebscohost.com/login.aspx?direct=true&db=heh&AN=114349501&site=ehostlive&scope=site&authtype=uid&user=s5511570main&password=main

Why health care corruption needs a new approach.
Radin, D.
Journal of health services research & policy 2016; 21(3):212-214.

Improving Health Care Coverage, Equity, And Financial Protection Through A Hybrid System: Malaysia's Experience.
Rannan-Eliya, R. P., Anuranga, C., Manual, A., Sararaks, S., Jailani, A. S., Hamid, A. J., et al.
Health Affairs 2016; 35(5):838-846.
http://search.ebscohost.com/login.aspx?direct=true&db=her&AN=115170632&site=ehostlive&scope=site&authtype=uid&user=s5511570main&password=main

Model of care for a changing healthcare system: are there foundational pillars for design?
Booker, C., Turbutt, A., Fox, R.
Australian health review : a publication of the Australian Hospital Association 2016; 40(2):136-140.

Rethinking health care commercialization: evidence from Malaysia.
Nwagbara, V. C., Rasiah, R.
Globalization and health 2015; 11:44.

The Future of US Health Care Policy.
Bauchner, H., Fontanarosa, P. B.
Jama 2016; 315(13):1339-1340.

HEALTHCARE QUALITY

Accreditation and improvement in process quality of care: a nationwide study: Hearing before the International journal for quality in health care
Journal of the International Society for Quality in Health Care ISQua, 2015/08/05 Sess. (Oct, 2015).

Incorporating a New Technology While Doing No Harm, Virtually.
DeJong, C., Lucey, C. R., Dudley, R. A.
Jama 2015; 314(22):2351-2352.

Costs and Quality at the Hospital Level in the Nordic Countries.
Kittelsen, S. A., Anthun, K. S., Goude, F., Huitfeldt, I. M., Hakkinen, U., Kruse, M., et al.
Health economics 2015; 24 Suppl 2:140-163.

Validation of Complications Selected by Consensus to Evaluate the Acute Phase of Adult Trauma Care: A Multicenter Cohort Study.
Moore, L., Lauzier, F., Stelfox, H. T., Kortbeek, J., Simons, R., Bourgeois, G., et al.
Annals of surgery 2015; 262(6): 1123-1129.

Implementing an institution-wide quality improvement policy to ensure appropriate use of continuous cardiac monitoring: a mixed-methods retrospective data analysis and direct observation study.
Rayo, M. F., Mansfield, J., Eiferman, D., Mignery, T., White, S., Moffatt-Bruce, S.D.
BMJ quality & safety 2016; 25(10): 796-802.

Preventive Care Quality of Medicare Accountable Care Organizations: Associations of Organizational Characteristics With Performance.
Albright, B. B., Lewis, V. A., Ross, J. S., Colla, C. H.
Medical care 2016; 54(3):326-335.

Quality of care and its determinants in longer term mental health facilities across Europe; a cross-sectional analysis.
Killaspy, H., Cardoso, G., White, S., Wright, C., Caldas de Almeida, J. M., Turton, P., et al.
BMC psychiatry 2016; 16:31.

The problem with incident reporting.
Macrae, C.
BMJ quality & safety 2016; 25(2):71-75.

Quality of Health Management Information System for Maternal & Child Health Care in Haryana State, India.
Sharma, A., Rana, S. K., Prinja, S., Kumar, R.
PloS one 2016; 11(2):e0148449.

Risk Taking: A Required Competency for Merger, Acquisitions, and Partnerships.
Trepanier, S., Crenshaw, J. T., Yoder- Wise, P. S.
Nursing administration quarterly 2016; 40(4):307-311.

Safety climate strength: a promising construct for safety research and practice.
Vogus, T. J.
BMJ quality & safety 2016; 25(9):649-652.

Reviewing deaths in British and US hospitals: a study of two scales for assessing preventability.
Manaseki-Holland, S., Lilford, R. J., Bishop, J. R., Girling, A. J., Chen, Y. F., Chilton, P. J., et al.
BMJ quality & safety 2016.

Measuring and Improving Quality.
Baker, D. W., Chassin, M. R.
Jama 2016; 315(24):2733.

HOSPITAL ADMINISTRATION

The Importance of the Premedical Experience in Diversifying the Health Care Workforce.
Morgan, H. K., Haggins, A., Lypson, M. L., Ross, P.
*Academic medicine : journal of the Association of American Medical Colleges 2016***;** 91(11):1488-1491.

Health professionals' perceptions of inappropriate use of A&E services.
Chapman, B., Turnbull, T.
British journal of nursing (Mark Allen Publishing) 2016; 25(9):476-483.

The Hospital Readmissions Reduction Program.
Gonzalez, A. A.
The New England journal of medicine 2016; 375(5):493-494.

Adding A Measure Of Patient Self-Management Capability To Risk Assessment Can Improve Prediction Of High Costs.
Hibbard, J. H., Greene, J., Sacks, R., Overton, V., Parrotta, C. D.
Health Affairs 2016; 35(3):489-494.
http://search.ebscohost.com/login.aspx?direct=true&db=her&AN=113642945&site=ehostlive&scope=site&authtype=uid&user=s5511570main&password=main

Clinical Integration Managing across the care continuum.
Karash, J. A., Larson, L.
Hospitals & health networks / AHA 2016; 90(6):26-31, 21.

Hospitals Need to Help Industry Keep Improving Healthcare Technology: Response to Pritchett.
Ruppel, H.
Biomedical instrumentation & technology/ Association for the Advancement of Medical Instrumentation 2016; 50(4):219.

Readmissions, Observation, and the Hospital Readmissions Reduction Program.
Zuckerman, R. B., Sheingold, S. H., Orav, E. J., Ruhter, J., Epstein, A. M.
The New England journal of medicine 2016; 374(16):1543-1551.

The influence of organizational factors on patient safety: Examining successful handoffs in health care.
Richter, J. P., McAlearney, A. S., Pennell, M. L.
Health care management review 2016; 41(1):32-41.

INNOVATION

Payment reform, social services funding boost essential to improving community health.
Davis, K.
Modern healthcare 2016; 46(25):25.

Lean economies and innovation in mental health systems.
Evans-Lacko, S., Ribeiro, W., Brietzke, E., Knapp, M., Mari, J., McDaid, D., et al.
Lancet (London, England) 2016; 387(10026):1356-1358.

Promoting development and uptake of health innovations: The Nose to Tail Tool.
Gupta, A., Thorpe, C., Bhattacharyya, O., Zwarenstein, M.
F1000Research 2016; 5:361.

Health Care Delivery Innovations That Integrate Care? Yes!: But Integrating What?
Herzlinger, R. E., Schleicher, S. M., Mullangi, S.
Jama 2016; 315(11):1109-1110.

The Coming Battle over Shared Savings – Primary Care Physicians versus Specialists.
Kocher, R., Chigurupati, A.
The New England journal of medicine 2016; 375(2):104-106.

US Health Care Reform: Cost Containment and Improvement in Quality.
Orszag, P. R.
Jama 2016; 316(5):493-495.

Health care reform--12 steps to recovery.
Pai, R. K., Kennedy, M. P., Hahn, P. Y.
Physician leadership journal 2016; 3(3):52-54.

Measuring Value in Health Care: The Times, They Are A Changin'.
Wegner, S. E.
North Carolina medical journal 2016; 77(4):276-278.

Dealing with the complexity of evaluating knowledge transfer strategies: Guiding principles for developing valid instruments.
Gervais, M.-J., Marion, C., Dagenais, C., Chiocchio, F., Houlfort, N.
Research Evaluation 2016; 25(1):62-69. http://search.ebscohost.com/login.aspx?direct=true&db=her&AN=112407299&site=ehostlive&scope=site&authtype=uid&user=s5511570main&password=main

Management practices and performance of mergers and acquisitions in Pakistan: mediating role of psychological mediating role of psychological contract.
Bari, M. W., Fanchen, M., Baloch, M. A.
SpringerPlus 2016; 5(1):1527.

Value in the middle: cultivating middle managers in healthcare organizations.
Belasen, A., Belasen, A. R.
Journal of Management Development 2016; 35(9):1149-1162. http://search.ebscohost.com/login.aspx?direct=true&db=heh&AN=118451249&site=ehostlive&scope=site&authtype=uid&user=s5511570main&password=main

An evaluation tool for assessing performance in priority setting and resource allocation: multi-site application to identify strengths and weaknesses.
Hall, W., Smith, N., Mitton, C., Gibson, J., Bryan, S.
Journal of health services research & policy 2016; 21(1):15-23.

SAFETY

A behaviourally anchored rating scalefor evaluating the use of the WHO surgical safety checklist: development and initial evaluation of the WHOBARS.
Devcich, D. A., Weller, J., Mitchell, S. J., McLaughlin, S., Barker, L., Rudolph, J. W., et al.
BMJ quality & safety 2016; 25(10): 778-786.

Developing a primary care patient measure of safety (PC PMOS): a modified Delphi process and face validity testing.
Hernan, A. L., Giles, S. J., O'Hara, J. K., Fuller, J., Johnson, J. K., Dunbar, J. A.
BMJ quality & safety 2016; 25(4):273-280.

A mixed-methods investigation of health professionals' perceptions of a physiological track and trigger system.
Lydon, S., Byrne, D., Offiah, G., Gleeson, L., O'Connor, P.
BMJ quality & safety 2016; 25(9):688-695.

Measurement, Standards, and Peer Benchmarking: One Hospital's Journey.
Martin, B. S.
Pediatric clinics of North America 2016; 63(2):239-249.

The global burden of diagnostic errors in primary care.
Singh, H., Schiff, G. D., Graber, M. L., Onakpoya, I., Thompson, M. J.
BMJ quality & safety 2016.

Safety Standards: Implementing Fall Prevention Interventions and Sustaining Lower Fall Rates by Promoting the Culture of Safety on an Inpatient Rehabilitation Unit.
Leone, R. M., Adams, R. J.
Rehabilitation nursing: the official journal of the Association of Rehabilitation Nurses 2016; 41(1):26-32.

PATIENT CENTERED CARE

Patient-Centered Care: Just Ask a Thoughtful Question and Listen.
Buist, M.
Joint Commission journal on quality and patient safety / Joint Commission Resources 2016; 42(6):286-287.

When patient-centred care is worth doing well: informed consent or shared decision-making.
Kunneman, M., Montori, V. M.
BMJ quality & safety 2016.

Counting Better--The Limits and Future of Quality-Based Compensation.
Dale, C. R., Myint, M., Compton-Phillips, A. L.
The New England journal of medicine 2016; 375(7):609-611.

The Patient and Patient-Centered Medical Homes.
Felzien, M., Zittleman, L., Westfall, J. M.
Journal of general internal medicine 2016; 31(4):363.

Patient-Centered Medical Homes: A Pathway to Accountable Care.
Fields, R. W.
North Carolina medical journal 2016; 77(4):280.

The Patient-Centered Medical Home and Associations With Health Care Quality and Utilization: A 5-Year Cohort Study.
Kern, L. M., Edwards, A., Kaushal, R.
Annals of internal medicine 2016; 164(6):395-405.

Advance care planning plays essential role in a truly patient-centered healthcare system.
Lopez, R.
Modern healthcare 2016; 46(18):25.

A qualitative analysis of interprofessional healthcare team members' perceptions of patient barriers to healthcare engagement.
Powell, R. E., Doty, A., Casten, R. J., Rovner, B. W., Rising, K. L.
BMC Health Services Research 2016; 16:1-10.
http://search.ebscohost.com/login.aspx?direct=true&db=her&AN=118260556&site=ehostlive&scope=site&authtype=uid&user=s5511570main&password=main

Health System Performance for the High-Need Patient: A Look at Access to Care and Patient Care Experiences.
Salzberg, C. A., Hayes, S. L., McCarthy, D., Radley, D. C., Abrams, M. K., Shah, T., et al.
Issue brief (Commonwealth Fund) 2016; 27:1-12.

Giving Voice to Patient-Centered Care.
Sklar, D. P.
Academic medicine: journal of the Association of American Medical Colleges 2016; 91(3):285-287.

The New Era of Informed Consent: Getting to a Reasonable-Patient Standard Through Shared Decision Making.
Spatz, E. S., Krumholz, H. M., Moulton, B. W.
Jama 2016; 315(19):2063-2064.

Patient-Centered Medical Homes in 2016.
Tayloe, D. T., Jr.
North Carolina medical journal 2016; 77(4):279-282.

Primary care physicians' willingness to disclose oncology errors involving multiple providers to patients.
Mazor, K., Roblin, D. W., Greene, S. M., Fouayzi, H., Gallagher, T. H.
BMJ quality & safety 2016; 25(10):787-795.

POLICY MAKING

How Health Care Can Lead The Way on Renewable Energy.
Cohen, G.
Health progress (Saint Louis, Mo) 2016; 97(3):20-24.

How evidence-based workforce planning in Australia is informing policy development in the retention and distribution of the health workforce.
Crettenden, I. F., McCarty, M. V., Fenech, B. J., Heywood, T., Taitz, M. C., Tudman, S.
Human resources for health 2014; 12:7.

Building Learning Health Systems to Accelerate Research and Improve Outcomes of Clinical Care in Low- and Middle-Income Countries.
English, M., Irimu, G., Agweyu, A., Gathara, D., Oliwa, J., Ayieko, P., et al.
PLoS medicine 2016; 13(4):e1001991.

Policy: Social-progress panel seeks public comment.
Fleurbaey, M., Bouin, O., Djelic, M. L., Kanbur, R., Laborde, C., Nowotny, H., et al.
Nature 2016; 534(7609):616-617.

Managing the Risks of Concurrent Surgeries.
Mello, M. M., Livingston, E. H.
Jama 2016; 315(15):1563-1564.

Policy: Map the interactions between Sustainable Development Goals.
Nilsson, M., Griggs, D., Visbeck, M.
Nature 2016; 534(7607):320-322.

The future of the affordable care act.
Rosenfeld, J.
Medical economics 2016; 93(11):54-55, 57.

Scientific Panel for Health: better research for better health.
Sipido, K., Degos, L., Frackowiak, R., Ganten, D., Hofstraat, H., Horvath, I., et al.
Lancet (London, England) 2016; 388(10047):865-866.

QUALITY IMPROVEMENT

Interventions to improve hospital patient satisfaction with healthcare providers and systems: a systematic review.
Davidson, K. W., Shaffer, J., Ye, S., Falzon, L., Emeruwa, I. O., Sundquist, K., et al.
BMJ quality & safety 2016.

Balancing stakeholder needs in the evaluation of healthcare quality improvement.
Leviton, L. C., Melichar, L.
BMJ quality & safety 2016; 25(10):803-807.

Results from the National Perinatal Patient Safety Program in Sweden: the challenge of evaluation.
Millde Luthander, C., Kallen, K., Nystrom, M. E., Hogberg, U., Hakansson, S., Harenstam, K. P., et al.
Acta obstetricia et gynecologica Scandinavica 2016; 95(5):596-603.

Surgical site infection: comparing surgeon versus patient self-report.
Pham, J. C., Ashton, M. J., Kimata, C., Lin, D. M., Nakamoto, B. K.
The Journal of surgical research 2016; 202(1):95-102.

Perceived Factors Associated with Sustained Improvement Following Participation in a Multicenter QualityImprovement Collaborative.
Stone, S., Lee, H. C., Sharek, P. J.
Joint Commission journal on quality and patient safety / Joint Commission Resources 2016; 42(7):309-315.

Implementation and deimplementation: two sides of the same coin?
van Bodegom-Vos, L., Davidoff, F., Marang-van de Mheen, P. J.
BMJ quality & safety 2016.

A National Organizational Assessment (NOA) to Build Sustainable Quality Management Programs in Low- and Middle- Income Countries.
Bardfield, J., Palumbo, M., Geis, M., Jasmin, M., Agins, B. D.
Joint Commission journal on quality and patient safety / Joint Commission Resources 2016; 42(7):325-330.

RISK MANAGEMENT

Adverse event reporting and patient safety at a University Hospital: Mapping, correlating and associating events for a data-based patient risk management.
Buja, A., Saieva, A. M., Vinelli, A., Cacco, R. M., Ottolitri, K., De Battisti, E., et al.
International Journal of Risk & Safety in Medicine 2016; 28(3):163-170. http://search.ebscohost.com/login.aspx?direct=true&db=heh&AN=118251130&site=ehostlive&scope=site&authtype=uid&user=s5511570main&password=main

How safe is primary care? A systematic review.
Panesar, S. S., deSilva, D., Carson-Stevens, A., Cresswell, K. M., Salvilla, S. A., Slight, S. P., et al.
BMJ quality & safety 2016; 25(7):544-553.

Crisis and Emergency Risk Messaging in Mass Media News Stories: Is the Public Getting the Information They Need to Protect Their Health?
Parme, J., Baur, C., Eroglu, D., Lubell, K., Prue, C., Reynolds, B., et al.
Health Communication 2016; 31(10):1215-1222. http://search.ebscohost.com/login.aspx?direct=true&db=her&AN=118056034&site=ehostlive&scope=site&authtype=uid&user=s5511570main&password=main

Shipping: Proactive Risk Management.
Shanley, A.
Pharmaceutical Technology 2016; 40(4):70-72. http://search.ebscohost.com/login.aspx?direct=true&db=heh&AN=114475374&site=ehostlive&scope=site&authtype=uid&user=s5511570main&password=main

DATA PRIVACY CHECKUP: 6 Strategies for Minimizing Risk When Sharing Health Information.
Wehbe, S. A. M.
Risk Management (00355593) 2016; 63(5):22-24. http://search.ebscohost.com/login.aspx?direct=true&db=heh&AN=115821864&site=ehostlive&scope=site&authtype=uid&user=s5511570main&password=main

The great risk shift: a strategic road map for providers.
Ringwood, W., Bosko, T.
hfm (Healthcare Financial Management) 2016; 70(4):66-73. http://search.ebscohost.com/login.aspx?direct=true&db=heh&AN=114349023&site=ehostlive&scope=site&authtype=uid&user=s5511570main&password=main

Managing risk in today's healthcare M&A transaction.
Zall, R. J.
hfm (Healthcare Financial Management) 2016; 70(4):56-64. http://search.ebscohost.com/login.aspx?direct=true&db=heh&AN=114348982&site=ehostlive&scope=site&authtype=uid&user=s5511570main&password=main

RURAL HEALTH SERVICES

Academic Health Center-Rural Community Collaborations: 'Healthy Linkages' to Improve the Health of Rural Populations.
Beech, B. M., Bruce, M. A., Gamble, A., Brunson, C., Jones, M. L.
Journal of the Mississippi State Medical Association 2016; 57(4):118-122.

Translating a health service intervention into a rural setting: lessons learned.
Dent, E., Hoon, E., Kitson, A., Karnon, J., Newbury, J., Harvey, G., et al.
BMC Health Serv Res 2016; 16:62.

Meeting Rural Health Needs: Interprofessional Practice or Public Health?
Gunn, J. L.
Nursing history review : official journal of the American Association for the History of Nursing 2016; 24:90-97.

Development and psychometric evaluation of the Primary Health Care Engagement (PHCE) Scale: a pilot survey of rural and remote nurses.
Kosteniuk, J. G., Wilson, E. C., Penz, K. L., MacLeod, M. L., Stewart, N. J., Kulig, J. C., et al.
Primary health care research & development 2016; 17(1):72-86.

Rural Practices: Founded in Family and Community.
Palczewski, K.
Michigan medicine 2016; 115(2):18-23.

Rural health care in New Zealand: the case of Coast to Coast Health Centre, Wellsford, an early Integrated Family Health Centre.
Raymont, A., Boyd, M. A., Malloy, T., Malloy, N.
Journal of primary health care 2015; 7(4):309-315.

A new perspective on universal preconception care in China.
Zhou, Q., Acharya, G., Zhang, S., Wang, Q., Shen, H., Li, X.
Acta obstetricia et gynecologica Scandinavica 2016; 95(4): 377-381.

SAFETY MANAGEMENT

Safety culture in long-term care: a cross-sectional analysis of the Safety Attitudes Questionnaire in nursing and residential homes in the Netherlands.
Buljac-Samardzic, M., van Wijngaarden, J. D., Dekker-van Doorn, C. M.
BMJ quality & safety 2016; 25(6):424-431.

Contractor Safety Management: Aligning Strategy and Culture.
Galloway, S. M.
Occupational health & safety (Waco, Tex) 2016; 85(2):53

How to improve the quality of evidence when new treatments are funded conditional on collecting evidence of effectiveness and safety.
Glynn, D., Campbell, B., Marlow, M., Patrick, H.
Journal of health services research & policy 2016; 21(2):71-72.

Implementation of an Evidence-Based Patient Safety Team to Prevent Falls in Inpatient Medical Units.
Godlock, G., Christiansen, M., Feider, L.
Medsurg nursing : official journal of the Academy of Medical-Surgical Nurses 2016; 25(1):17-23.

Incident reporting: rare incidents may benefit from national problem solving.
Howell, A. M., Burns, E. M., Hull, L., Mayer, E., Sevdalis, N., Darzi, A.
BMJ quality & safety 2016.

Patient safety initiatives are everybody's business.
Hrickiewicz, M.
Health facilities management 2016; 29(4):12-13.

Managing Safety in a Hostile Environment.
Hughes, D.
Professional Safety 2016; 61(6):48-50.
http://search.ebscohost.com/login.aspx?direct=true&db=heh&AN=116035692&site=ehostlive&scope=site&authtype=uid&user=s5511570main&password=main

Major accident prevention through applying safety knowledge management approach.
Kalatpour, O.
Journal of emergency management (Weston, Mass) 2016; 14(2):153-160.

Shared governance team develops standard onboarding process.
Sarnese, P. M.
Journal of healthcare protection management : publication of the International Association for Hospital Security 2016; 32(1):22-26.

Knowledge, attitudes, beliefs, values, preferences, and feasibility in relation to the use of injection safety devices in healthcare settings: a systematic review.
Tarabay, R., El Rassi, R., Dakik, A., Harb, A., Ballout, R. A., Diab, B., et al.
Health & Quality of Life Outcomes 2016; 14:1-10.
http://search.ebscohost.com/login.aspx?direct=true&db=her&AN=116832974&site=ehostlive&scope=site&authtype=uid&user=s5511570main&password=main

Implementing national patient safety alerts.
Moore, S., Taylor, N., Lawton, R., Slater, B.
Nursing times 2016; 112(11):12-15.

Patient Safety and Quality Metrics in Pediatric Hospital Medicine.
Kumar, B.
Pediatric clinics of North America 2016; 63(2):283-291.

The prevalence of medical error related to end-of-life communication in Canadian hospitals: results of a multicentre observational study.
Heyland, D. K., Ilan, R., Jiang, X., You, J. J., Dodek, P.
BMJ quality & safety 2016; 25(9):671-679.

Reducing the risk, managing safety.
Aldridge, P.
Health estate 2016; 70(2):37-41.

Monitoring adverse events in Norwegian hospitals from 2010 to 2013.
Deilkas, E. T., Bukholm, G., Lindstrom, J. C., Haugen, M.
BMJ open 2015; 5(12):e008576.

Reducing Medication Administration Errors in Acute and Critical Care: Multifaceted Pilot Program Targeting RN Awareness and Behaviors.
Durham, M. L., Suhayda, R., Normand, P., Jankiewicz, A., Fogg, L.
The Journal of nursing administration 2016; 46(2):75-81.

A Culture of Safety and the Role of the Medical-Surgical Nurse.
Arzouman, J.
Medsurg nursing : official journal of the Academy of Medical-Surgical Nurses 2016; 25(2):75-76.

Creating a Safer Facility.
Burmahl, B.
Trustee : the journal for hospital governing boards 2016; 69(3):20-22, 21.

Total quality leadership tactics for healthcare security teams.
Losefsky, W., Mulcahy, K.
Journal of healthcare protection management : publication of the International Association for Hospital Security 2016; 32(1):14-21.

Creating a Culture of Safety Through Integration of an Early Warning System.
Hanley, D., Abele, D., Alley, A. J., Smith, K., Gaden, N. W., Phoenix Bittner, N.
The Journal of nursing administration 2016; 46(2):63-68.

Safety Culture and Senior Leadership Behavior: Using Negative Safety Ratings to Align Clinical Staff and Senior Leadership.
O'Connor, S., Carlson, E.
The Journal of nursing administration 2016; 46(4):215-220.

Patient safety: the next 15 years.
Tingle, J.
British journal of nursing (Mark Allen Publishing) 2016; 25(9):518-519.

Risk analysis for confined space entries: Critical analysis of four tools applied to three risk scenarios.
Burlet-Vienney, D., Chinniah, Y., Bahloul, A., Roberge, B.
Journal of occupational and environmental hygiene 2016; 13(6):D99-108.

Safety Communications for Today's Workforce.
Chang, S.
Occupational health & safety (Waco, Tex) 2016; 85(4):35-36..

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.

Covering Letter and Declarations

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

Covering letter

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

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

Declarations

1. Authorship responsibility statement

Authors are asked to sign an 'Authorship responsibility statement'. This document will be forwarded to the corresponding author by 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.

References

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

Other references consulted in preparing these Guidelines

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

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

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

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

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

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.

Australasian College of Health Service Management
PO BOX 671, GLADESVILLE NSW 1675
Telephone: 61 2 8753 5100 Facimile 61 2 9816 2255
Email: journal@achsm.org.au Web: achsm.org.au