# GLOBAL EDUCATION OF HEALTH MANAGEMENT

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# GLOBAL EDUCATION OF HEALTH MANAGEMENT

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EDITORIAL
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# Editorial: Global Education of Health Management

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**Keywords: education of healthcare executives, health management education, health administration education, health management & policy, global health systems**

## Editorial on the Research Topic

## Global Education of Health Management

The purpose of this special issue is to provide insights about how healthcare executives and managers are educated around the world. As globalization becomes the standard for all industries, healthcare executives must be able to manage effectively with populations, financial arrangements, and technologies that cross geographic boundaries. Education of upcoming students and continuing education of working executives must be broad and encompass a global perspective. Students are increasingly eager to study abroad; our educational programs must include opportunities for students to study in other countries and to have the information in advance that is necessary to make the experience meaningful.

Throughout the world, health systems are grappling with the need to deliver high value healthcare and high quality services despite rapidly increasing costs. The need for effective management to achieve these ends is well-documented. However, healthcare management education is nascent or non-existent in many countries, especially low and middle-income countries that could benefit most from educating healthcare managers in the art and science of management and leadership. This special issue strives to provide insights that might guide universities in developing healthcare management programs in their respective countries.

Hahn and Lapetra present an overview of the Global Competency Directory framework that has five main spheres in which healthcare executives should be competent. This framework was developed by the International Hospital Federation's Global Consortium for Healthcare Management (1). Members included associations representing practice, such as the American College of Healthcare Executives. Hahn and Lapetra offer examples of how the framework can be used in various countries, recognizing diversity among nations while creating a basis for shared content and techniques.

West et al. discuss the role of accrediting organizations in promoting competency-based standards for education. Accrediting bodies such as the Association for the Advancement of Collegiate Schools of Business, the Council on Education for Public Health, and the Commission on Accreditation of Healthcare Management Education are engaged in globalizing accreditation standards. Striving to meet the accrediting standards is an effective strategy in developing healthcare management educational programs.

Glandon reports on how an association that represents graduate and undergraduate healthcare management training programs can promote sharing across disciplines, geographies, and careers. Regional and local healthcare management associations such as the Association of University Programs in Health Administration (AUPHA), the European Health Management Association (EHMA), and SHAPE (representing Australia and New Zealand) provide forums for universities and faculty to learn from others in developing curricula to provide effective healthcare management education.

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Drilling down from the role of overarching organizations, two articles explain how healthcare management education has evolved within a single country. Tiwari et al. discuss the evolution of healthcare management education in India. Establishing healthcare management education has been a daunting task in a country so large and diverse. Kalang and Thakur describe the current array of educational institutions and programs educating future healthcare executives and speak to the importance of creating curricula that reflect the evolution of the healthcare system. Both articles challenge the match between the health workforce needs of the nation and the workforce that university programs are producing and articulate considerations for adaptions in healthcare management education.

One of the effective approaches to maximize educational resources across countries is to develop university-to-university partnerships. Two articles provide insights into the details of such partnerships and the benefits provided to each of the partners. Leggat et al. describe a long-standing partnership between universities in China and Australia to train healthcare executives. They emphasize similarities in education despite major differences in the healthcare systems of the two countries.

Different types of schools such as public health, public administration and health/medical schools as well as business schools, can provide healthcare management education. Sammut and Ngoye discuss a collaborative educational program between the University of Pennsylvania Wharton School in the USA and the Strathmore University School of Business in Kenya. The focus of the partnership has been on the establishment of healthcare management as a concentration in the Master of Business Administration program at Strathmore.

Counte et al. advocate for health management education to change as health systems evolve. Specifically, they analyze the trends in healthcare financing. Many countries are exploring value-based payment systems designed to increase quality, reduce costs, and improve population health. The authors describe the implications for curriculum revision that recognize the pervasive impact of these new financing mechanisms.

The majority of articles describe healthcare management programs aimed at graduate students. However, healthcare executive education can start with undergraduate programs and must continue as a life-long commitment. Parviainen et al. report on a national mandate to train mid-career clinicians for management and leadership positions in Finland. Two universities describe their different approaches to fulfilling the mandate. Education of healthcare executives is not only for early careerists, but reaches seasoned managers who seek additional knowledge and clinicians who are tapped to assume management roles. Content, skills, and teaching techniques must be adapted for the experienced student who is being groomed for senior leadership positions.

Sikipa et al. champion the education not only of healthcare executives but of governing board members. Among the advantages they delineate of having a well-trained governing body are better evaluations of the performance of healthcare executives and more astute fiscal responsibility. The content useful to train governing board leaders is also relevant to those doing direct management, varying more in degree of detail than essential topics.

Collectively, these articles show the breadth and diversity of healthcare management education. The challenge to the field is to celebrate the breadth but bring cohesion to content that appropriately spans healthcare systems, cultures, health needs, educational systems, and geographies. Understanding the basic landscape of healthcare management education is a place to start international discussion about how to manage ourselves to achieve consistency of high quality, timely education. Worldwide public health depends on the availability of high quality, accessible, affordable, innovative health services, including primary care, hospitals, and health systems. Effective healthcare management education will improve the likelihood of delivering services designed to provide high quality services, reduce costs, and improve the population's health.

## AUTHOR CONTRIBUTIONS

Both authors conceived the content of the editorial together. CE wrote the first draft. WA edited and added to the draft. Both agreed on the final version.

## REFERENCES

1. International Hospital Federation. *Leadership Competencies for Healthcare Services Managers*. International Hospital Federation (IHF) (2015). Available online at: https:https://www.ihf-fih.org/download_doc_file.php?doc=dfff684f5fd4854ad43566085950b8a8

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PERSPECTIVE
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# Development and Use of the Leadership Competencies for Healthcare Services Managers Assessment

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Healthcare management as a profession continues to evolve as the field of healthcare delivery becomes more complex. In some countries, formal degree programs in healthcare management and related professional associations have helped to establish the field as a distinct profession with a defined body of knowledge. In other countries, the professionalization of healthcare management has not developed, or is in the early stages of development. Many of these Low and Middle Income Countries (LMIC) have no formal training programs or professional associations to help set and define minimum standards and competencies for the profession. In many countries, national associations have been created by healthcare managers for sharing knowledge, information, and expertise. While major differences exist in the contexts where healthcare managers operate around the world, all have a common responsibility to enhance the leadership and managerial capacity and capability of their membership as well as promote the profession they represent. In spite of these efforts by national professional organizations and various ministries of health, healthcare management has not been universally recognized around the world as a profession. The *Leadership Competencies for Healthcare Services Managers* (Global Competency Directory) framework developed by the International Hospital Federation's global consortium for healthcare management serves as a catalyst and resource for defining the skills, knowledge, and abilities needed for the healthcare management profession. This article documents the purpose, development, validation, and use of the framework.

**Keywords: healthcare management, leadership, global health, competency directory, self-assessment**

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## BACKGROUND

Healthcare management as a profession continues to evolve as the field of healthcare delivery becomes more complex. In some countries, formal degree programs in healthcare management and related professional associations have helped to establish the field as a distinct profession with a defined body of knowledge. In other countries, the professionalization of healthcare management has not developed, or is in the early stages of development. Many of these Low and Middle Income Countries (LMIC) have no formal training programs or professional associations to help set and define minimum standards and competencies for the profession.

In many countries, national associations have been created by healthcare managers for sharing knowledge, information, and expertise. In some countries, associations have a formal mandate to represent the profession, while in other countries they exist as *ad hoc* groups without regulatory or legal authority. While major differences exist in the contexts where healthcare managers operate around the world, all have a common responsibility to enhance the leadership and managerial capacity and capability of their membership as well as promote the profession they represent (1). In spite of these efforts by national professional organizations and various ministries of health, healthcare management has not been universally recognized around the world as a profession. The Global Competency Directory framework developed by the International Hospital Federation's Global Consortium for Healthcare Management, serves as a catalyst and resource for defining the skills, knowledge, and abilities needed for the healthcare management profession. This article documents the purpose, development, validation, and use of the framework.

## Global Consortium for Healthcare Management Professionalization

In 2013, the leaders of organizations[1] representing government, the private sector, healthcare associations, and academic institutions met to respond to the challenge of raising the recognition of and promoting the professionalization of healthcare management globally by developing a Global Competency Directory. Completed in 2015, the Directory represents core competencies required of healthcare managers regardless of position, setting, or country (2).

The shared value of all participants is professionalizing leadership and management of health systems globally. To further promote these shared values and enhance the leadership and management practices in healthcare, the Global Consortium for Healthcare Management Professionalization was created and is recognized and supported by the International Hospital Federation (2).

## Creating a Charter to Guide the Mission

To guide the strategy, a Charter was developed for the professionalism of healthcare management and from there to develop an international agreement on core competencies for healthcare managers who lead healthcare organizations.

The Goals of the Charter included:

- To professionalize the Healthcare Management discipline
- To build global capacity in the leadership and management of health systems for healthy communities

Objectives:

- To develop an internationally agreed upon set of core competencies for healthcare managers to possess
- To use the core competencies framework as a fundamental tool to strengthen the training, employment and promotion of healthcare managers
- To encourage healthcare planners and human resource managers to develop long-term career pathways for healthcare managers and leaders in the health sector
- To promote the formalization and acceptance of healthcare management associations within countries and regions, thus allowing for peer control and development


**FIGURE 1 |** Global competency model domains.

## DEVELOPING THE GLOBAL COMPETENCY DIRECTORY

The directory development process used available documentation, subject matter expert (SME) workshops, and a survey of international healthcare management experts to describe the requirements of healthcare managers among different countries including Low and Middle Income Countries (LMIC) and healthcare delivery settings. The work of the Global Consortium for Healthcare Management Professionalization began in 2012. An initial group of 12 subject matter experts from international organizations[2] met for a 2-day workshop and completed a cross-walk of current competency management frameworks around the world. These

[1] International Hospital Federation, Pan American Health Organization, American College of Healthcare Executives, Australasian College of Health Service Management, Canadian College of Health Leaders, Taiwan College of Healthcare Managers, Health Management Institute of Ireland, European Association of Hospital Managers, Jamaican Association of Health Services, Management Sciences for Health, International Health Services Group, THET Partnership for Global Health, Sociedad Chilena de Administradores en Atención Medica y Hospitalaria,Federación Andina y Amazónica de Hospitales, Federacion Latinoamericana de Hospitales, University of the West Indies, Federacao Brasileirade Administradores Hospitalares, Hong Kong College of Healthcare Executives (2).

[2] This group is a subset of experts from the organizations listed in footnote 1.

included the United States' Healthcare Leadership Alliance Competency Model (3, 4), Canada's Canadian College of Health Leaders LEADS model (5), Australia's competency model developed by Health Workforce and supported by the Australasian College of Health Service Management (6), the United Kingdom's competency model developed by the NHS Leadership Academy (7), the Pan American Health Organization's (PAHO) Core Competencies for Public Health framework (8), and the emerging country's competency model developed by Management Sciences for Health for the United States Agency for International Development (9–11).

After reviewing the various competency models, the SMEs agreed to develop a global competency framework patterned on the United States' Healthcare Leadership Alliance (HLA)[3] competency directory. The HLA competencies were developed from job analysis surveys conducted to determine the relevant tasks performed by healthcare managers regardless of work setting or years of experience, and are clustered around five major domains (see **Figure 1**).

A sample of competency statements from the Leadership domain are presented in **Figure 2** below.

In January 2013, the group of SMEs met to achieve agreement on the fundamental competencies needed for health managers, the target audience for the framework, the appropriate range of competencies, and the target audience for the directory. To develop the list of competencies in the model, the group first reviewed the competencies in the HLA model and selected those that are universal regardless or country or work setting. From this preliminary list,they drafted a list of knowledges, skills, and abilities (KSAs) to reflect competencies needed globally. In early 2013, the KSA lists were reviewed and revised by several SMEs via web conference calls. These lists were again reviewed and finalized by a group of SMEs during a face-to-face workshop. The second half of 2013 was spent reviewing and formatting the initial competency directory.

## VALIDATING THE DIRECTORY

After the group reached consensus on the competencies, the initial directory was comprised of over 300 competency statements, organized around five domains (Leadership, Communication and Relationship Management, Professional and Social Responsibility, Health and Healthcare Environment, and Business). It was sent in survey format in November and December 2013 to experts from a variety of healthcare management settings and locations throughout the world, including those in government, associations, academia, and healthcare management (see **Table 1**). The experts reviewed the directory, gave feedback, and ranked the competencies according to importance for the healthcare management settings in their countries.

**TABLE 1** | Demographics of survey respondents.

| Country/ Region | *N* | (%) |
|---|---|---|
| Australia | 3 | 3.1 |
| Africa | 3 | 3.1 |
| Asia | 3 | 3.1 |
| Austria | 2 | 2.0 |
| Belgium | 5 | 5.0 |
| European Union | 44 | 45 |
| Hungary | 2 | 2.0 |
| Latin America | 7 | 7.2 |
| Norway | 3 | 3.1 |
| Singapore | 2 | 2.0 |
| Slovakia | 1 | 1.0 |
| Switzerland | 4 | 4.1 |
| United Kingdom | 1 | 1.0 |
| United States | 16 | 16 |
| **SETTING** | | |
| Hospital | 34 | 35.4 |
| Hospitai/Healthcare Association | 20 | 20.8 |
| Ministry of Health/Government | 3 | 3.1 |
| Other | 31 | 32 |
| University | 8 | 8.0 |
| **TITLE** | | |
| President/CEO | 30 | 31 |
| Director | 25 | 26 |
| Manager | 9 | 9.3 |
| Professor | 4 | 4.1 |
| Consultant | 1 | 1.0 |
| Other | 27 | 28 |

In January 2014, the group expanded to 22 SMEs representing 15 different countries. The group reviewed survey responses and used the rankings to identify KSAs required of competent managers at any level in their career and regardless of delivery setting or country.

Using the feedback and rankings from the survey respondents, a small working group continued consolidating the number of competencies down to a core group of KSAs. The final version of the directory consists of 80 core healthcare management competencies grouped into the five major domains represented in **Figure 1**.

In January 2015, the full group of 22 SMEs met in-person for the third time to review the updated Competency Directory, move forward with a call to action, and develop a communications plan.

## CALL TO ACTION

A *Call to Action,* made at the June 2015 International Hospital Federation Meeting in Chicago, called for governments and the international health community to advocate for the worldwide utilization of the core competencies framework in

[3]In addition to the American College of Healthcare Executives, other members of the Healthcare Leadership Alliance (HLA) are American Association for Physician Leadership, American Organizations of Nurse Executives, Healthcare Financial Management Association, Healthcare Information and Management Systems Society and the Medical Group Management Association.

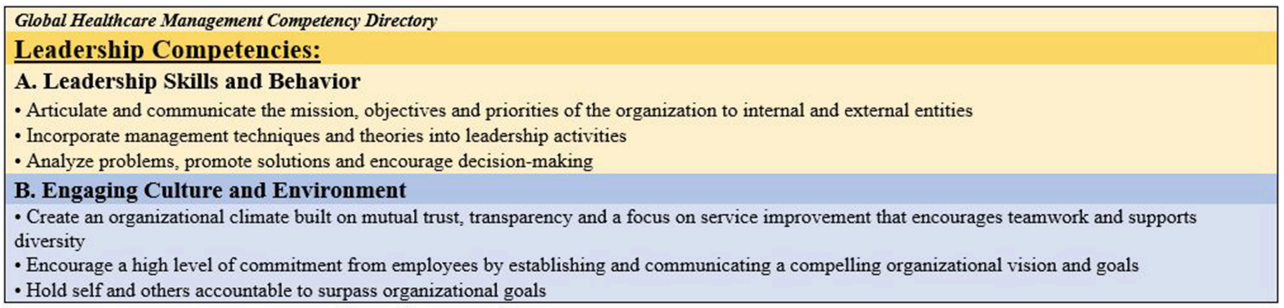


**FIGURE 2 |** Sample competency statements from the leadership domain.

the training, employment, and evaluation of healthcare managers and leaders (2).

The Consortium calls for the adoption of the Global Competency Directory as the initial basis for healthcare management development frameworks and programs, for use by academic institutions and relevant licensing, and accrediting bodies.

The Consortium recognizes that the competency framework must remain flexible and needs to allow adaptation for specific circumstances of each country. Accordingly, the competencies identified in the directory may be adapted to ensure their relevance in the local environment.

Recognizing the need for greater progress in the ongoing effort to build professional healthcare management capacity, the members of the Consortium agree that the following measures should be implemented according to national circumstances and needs (2):

- Adoption of the Global Competency Directory to inform and align healthcare management development programs at all levels of undergraduate, postgraduate, and ongoing education and professional development
- Customization and incorporation of each of the competency requirements into formal credentialing systems, which should be based on independent evaluation and evidence of demonstrated competencies
- Formal recognition at the national level of healthcare management as a profession
- Implementation of merit-based career advancement along with a career path for healthcare managers and leaders
- Recognition of healthcare managers' professional associations as key stakeholders for policy dialogue related to leadership and management and for the advancement of the profession

The need for urgency is based on the realization that advances in healthcare depend on the professional management of healthcare organizations and continuous improvement of competencies for healthcare managers.

# IMPLEMENTATION

## The Global Competency Directory

The International Hospital Federation, together with the Consortium, undertook and led considerable efforts to enhance the professionalization of healthcare management. Adopting this comprehensive list of core competencies is critical to enhance leadership and managerial capacities of healthcare managers. The Consortium formed the Healthcare Management Special Interest Group (HM SIG), which has since adopted action plans to effectively implement the acceptance and appropriation of the core competencies by professional associations worldwide. Promoting the systematic use of the Global Competency Directory is acknowledged as key to improving healthcare management. The Healthcare Management Special Interest Group SIG has been promoting the Directory among healthcare management professional associations along with online the self-assessment instrument.

## The Development of the Competency-Assessment Platform

The Healthcare Management and Leadership Competency Assessment Platform was created based on the hard copy Global Competency Directory. It is an online assessment instrument available free of charge to any healthcare professional in a management position. The platform is available in Chinese, English, Farsi, French, Spanish, and Portuguese. The Competency Assessment instrument was designed to promote the Global Competency Directory and thereby enhance leadership for managers, by measuring potential improvements. This online instrument acts as a guide for healthcare managers in planning, developing, and implementing concrete steps along their professional career, through continuous professional development. For instance, the tool may be used to identify an individual's strengths and/or weaknesses from the set of core competencies encouraging the individual to reflect on their competencies and create a future plan for professional development.

Participants' confidentiality, security, and protection of information are assured by Swiss regulations and laws. The tool consists of a two-step survey of 80 multiple-choice questions, one per competency.

Structurally, the survey is designed as a dual exercise. First, to rate the relevance of each of the competencies as assigned by the user, and second, to allow the user to self-rate his or her skills with respect to the same competencies. The tool was developed to ensure randomization of questions to avoid self-gaming as much as possible. To that end, while the content

of each section was kept together, the order of questions was randomized. Keeping the exercise self-directed was the primary objective. Dividing the survey into two sub-surveys provides additional benefit to the user for added insight and reflection of an individual's competency level. In return, users receive a double set of results showing margin for improvement and personal gaps compared to average values collected from peers worldwide.

Two different five-point scales are used to collect user responses in each sub-survey. However, it was necessary to keep the same format while using a different nomenclature. Both are standard five-point scales. The relevance scale goes from *1 = not relevant for my current position in my current organization* to *5 = very relevant to my current position in my current organization*. The individual competency scale uses the Dreyfus model going from 1 = Novice; 2 = Advanced beginner; 3 = Competent; 4 = Proficient; and 5 = Expert (12). It was widely agreed that each of the 80 competencies was important to a healthcare manager's skill; therefore, the survey does not leave the "not applicable" option in either scale. The exercise was conceived as a comprehensive evaluation of an individual's skill level over the 80 competencies within the Global Competency Directory.

The competency assessment is a thorough exercise in self-introspection and as such the platform was designed to be as user-friendly as possible. For instance, it is easy to log in and out of the assessment tool as many times as wished. A memory-based algorithm is embedded in the tool, which saves a user's answers. Users are advised to take their time when answering the questions and to try not to remember responses provided in the first part. The goal of the exercise is for users to compare the relevance attributed to each competency and the level of self-reported proficiency, thereby determining the potential competency gap(s) for improvement. At the end of the two-step survey, the user receives a report summarizing the outcomes of the test, and identifying gaps between attributed relevancy and score for each question. Through the two scores used to qualify each competency, the final report offers an at-a-glance visualization for every competency's gap. For example, if the end-user considered "*Human Resource Management" as* "**very relevant"** for his or her current position, but admitted being only "**competent**" the report would display a need for improvement in this competency.

On a second level, by consolidating results from other end-users, and taking into account the central limit theorem (CLT)[4] to account for confidentiality, the platform delivers a real-time and objective comparative report. End-users can thus look at peers (by function, by position, by professional experience, or by location) and compare responses for each competency. This may encourage self-reflection, such as *"What can I learn from this result?"* The platform provides an anonymous comparison between individuals, based on the individual profile information that was required to open a user account.

[4]In statistics, the theorem stating that if a series of data sets is drawn from any probability distribution, the distribution of the means of those data sets will follow a normal distribution (13).

Future versions of the platform will recommend online resources for end-users to utilize as they plan their career progression. Being open resourced, the IHF Healthcare Management SIG encourages other professional associations worldwide to participate in the initiative by contributing their country-specific material to the directory. The platform builds on an online repertoire of multicultural/multi-language educational resources open to anyone willing to undergo the survey. In this way the platform would not only supply resources to support continuous professional development but, warrant and assure an exchange of valuable resources regularly updated. Resources are curated and validated by the IHF Healthcare Management SIG prior to their publication.

Finally, by agreeing to contribute on an organizational level, the platform becomes a unique reference tool assisting healthcare management associations, as well as governments and organizations in identifying gaps in management and leadership skills of healthcare management professionals. In the future, the IHF Healthcare Management SIG endeavors to analyze and correlate leadership and management skills to hospital performance outcomes.

# HOW IT IS BEING USED

## Individual Use

Individually, end-users are only requested to open an account and fill out a set of questions regarding their professional status, such as positions, education, and experience. Personal information, which is never disclosed, pertains to age, country of origin, and gender. These basic demographic data are necessary to qualify groups of peers and perform adequate comparisons. The survey was taken anonymously by over six hundred healthcare managers in the first few months following its activation, regardless of their professional link to the IHF or any national healthcare organization.

The IHF Healthcare Management SIG has prompted an intensive use of the tool among regional groups. Neighboring countries sharing common concerns realized that they could use the tool to jointly explore trends. As was mentioned earlier, the Consortium recognizes that the competency framework must remain flexible and needs to be adaptable for the specific circumstances of each country to ensure its relevance in the local environment. Discussions with these regional groups of countries confirmed their interest in examining consolidated outcomes to evaluate regional patterns of competencies. Below are a few questions to be assessed by regional groups:

- Do the same management competencies apply?
- Are different competencies needed in these countries?
- Do competencies improve performance in non-similar settings?
- What is the most effective way to teach and train competent managers in these countries?

And some other questions were brought up around the future development of competencies:

- Are formal healthcare management training (degree programs) needed to develop management competencies?
- Are degree programs effective for developing competent managers?
- At what levels should intervention/training occur to best develop management competencies?

Currently, these questions have propelled an intense debate among the Mediterranean countries including Spain, Italy, Portugal, and Greece. Future plans for other regional groupings include:

- Latin-American countries: Colombia, Argentina, and Brazil
- East-African countries: Kenya, Uganda, Ethiopia, Tanzania
- East-European countries: Poland, Hungary, Moldova, Romania, and Ukraine

Future developments will focus on Low and Middle Income Countries (LMIC) to determine what competencies are needed and how this differs from high-income countries through research and data analysis.

## Organizational and National Use

On an organizational and national level, the self-assessment of personal leadership, and management competencies in healthcare delivery organizations is viewed as a way to adapt and modify healthcare programs and to encourage continuous professional development across organizations. Regional and national groups add momentum to open up dialogue with policy- and decision-makers.

The Directory is being used by several countries as a basis for healthcare management educational content for training programs and graduate and postgraduate degree programs. For example, the Catalan College of Healthcare Management (Societat Catalana de Gestió Sanitària) is working to incorporate the Global Healthcare Management Competencies as a basis for healthcare management training for future healthcare managers (14). The Loma Linda University School of Public Health is also using the competencies to develop curriculum and training sessions for a leadership certificate designed for leaders in 14 Mexican and Central American hospitals. Additionally, the Australasian College of Health Service Management (ACHSM) used the Directory in revising their own competency framework and in accrediting university healthcare management programs. The Royal College of Surgeons in Ireland (RCSI) Institute for Leadership is using the Directory to develop educational offerings (15).

Future plans include specific analytic work and further academic development, including a dictionary of healthcare executive competencies. Currently, the IHF Healthcare Management SIG has created an open dialogue with healthcare program education and accreditation bodies to further the work already in place.

# FUTURE PLANS

The International Hospital Federation has offered related national healthcare associations the opportunity to work together by sharing and discussing results of survey data. The sharing of information and results will provide useful information both on an individual and organizational basis for different professional profiles, their expectations, and how these vary across positions and/or geographical regions. Ultimately, professional profiles could be mapped against a matrix of competencies and compared to outcome indicators on an operational perspective. On top of it all, the tool intends to facilitate a roadmap by establishing the evolution of skills, encouraging improvement in areas highlighted as weak, and providing adequate input or resources. The self-assessment tool implies self-awareness, provides comparison, evaluation, and suggests recommendations, both at an individual and at an organizational level.

The Global Competency Directory and the online Leadership Competency Assessment Platform are offered to the public and remain flexible and adaptable to the relevance of each country. The IHF is not prescriptive in how the competencies are used, but hope that the competencies will be the catalyst for the development of healthcare management frameworks in countries where they do not exist, and to promote the professionalization of healthcare management globally. In countries, institutions, educational settings, or accrediting agencies where competency frameworks already exist, the Global Competency Directory and Leadership Competency Assessment Platform are meant to stimulate discussion and fill gaps, similar to how the Australasian College of Health Services Management used the framework in revising its own model. Countries and organizations are free to adapt the framework to their individual needs without approval of the IHF, however IHF staff are available as a resource to answer questions and offer suggestions on the process. As more countries and organizations use the framework, the IHF will collect a repository of examples to serve as additional resources to those who wish to use it. The IHF will also collect articles and case studies on how the framework is being used in different settings, and will post these to the IHF website as they become available.

By providing a community-wide knowledge hub, the Healthcare Management and Leadership Competency Assessment Platform contributes to building a high-level ranking of factual needs in the professionalization of healthcare managers regardless of an individual's geographic location or responsibilities.

# AUTHOR'S NOTE

The title of the Global Healthcare Management Competency Directory document is *Leadership Competencies for Healthcare Services Managers,* for simplicity it is referred to as the Global Competency Directory in this article.

The Global Competency Directory was developed into an interactive online self-assessment platform called the Healthcare Management and Leadership Competency Platform. It is referred to as the online Competency Assessment Platform in this article.

# AUTHOR CONTRIBUTIONS

CH is a subject matter expert in the development of healthcare management competencies. She was a major contributor to

the development and production of the Global Competencies Directory, and authored sections Background, Developing the Global Competency Directory, Validating the Directory, and Call to Action of the article. MG is an expert in health economic policy evaluation and assessment. She worked on the development of the self-assessment instrument and with guiding countries on its use. She authored sections on Implementation, How it is Being Used, and Future Plans of the article.

## REFERENCES


1. International Hospital Federation. *Communication to the IHF Governing Council*. Bernex: International Hospital Federation (2013).
2. International Hospital Federation. *Leadership Competencies for Healthcare Services Managers*. International Hospital Federation (IHF) (2015). Available online at: https://www.ihf-fih.org/download_doc_file.php?doc=dfff684f5fd4854ad43566085950b8a8
3. American College of Healthcare Executives (ACHE). *ACHE Healthcare Executive 2018 Competencies Assessment Tool* (2018). Available online at: https://www.ache.org/-/media/ache/career-resource-center/competencies_booklet.pdf
4. Stefl ME. Common competencies for all healthcare managers: the Healthcare Leadership Alliance model. *J Healthc Manage.* (2008) 53, 360–73; discussion 374. doi: 10.1097/00115514-200811000-00004
5. LEADS Canada. *LEADS Leadership Capabilities Framework* (2016). Available online at: https://leadscanada.net/uploaded/web/Resources/LEADS_Corporate_Brochure_2016_final.pdf
6. Australasian College of Health Service Management (ACHSM). *Master Health Service Management Competency Framework* (2016). Available online at: https://achsm.org.au/Portals/15/documents/education/competency-framework/2016_competency_framework_A4_full_brochure.pdf
7. NHS Leadership Academy. *Leadership Framework: A Summary* (2011). Available online at: https://www.leadershipacademy.nhs.uk/wp-content/uploads/2012/11/NHSLeadership-Framework-LeadershipFramework-Summary.pdf
8. Pan American Health Organization (PAHO). *Regional Core Competency Framework for Public Health* (2012). Available online at: https://www.campusvirtualsp.org/sites/default/files/noticias/competencies-brochure-en.pdf
9. Management Sciences for Health (MSH). *Toolkit: Resources to Support Managers Who Lead* (2005). Available online at: https://www.msh.org/resources/health-systems-in-action-an-ehandbook-for-leaders-and-managers
10. Management Sciences for Health (MSH). *Health Systems in Action: An eHandbook for Leaders and Managers* (2010). Available online at: https://www.msh.org/resources/managers-who-lead-a-handbook-for-improving-health-services
11. Management Sciences for Health (MSH). *Management Sciences for Health. (MSH) (2010)* (2018). Available online at: https://www.msh.org/resources/leaders-who-govern
12. Dreyfus H, Dreyfus S. *Mind Over Machine: The Power of Human Intuition and Expertise in the Era of the Computer*. New York, NY: The Free Press (1986). p. 50.
13. Oxford Reference. (2018). Available online at: http://www.oxfordreference.com/view/10.1093/oi/authority.20110803095558643
14. Riera A. A Global Need for the Professionalization of Healthcare Management. *Presented at the IHF 40th World Hospital Congress*. Durban (2016). Available online at: https://www.ihf-fih.org/home?myhub&selected=1712
15. Hernandez S, O'Connor S, Meese K. Global efforts to professionalize the healthcare management workforce: the role of competencies. *J Health Admin. Educ.* (2018) 35:157–74.


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OPINION
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# Global Accreditation Strategies in Health Management Education

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## HISTORICAL BACKGROUND

The Association of University Programs in Health Administration (AUPHA) was founded with the support of the W.K. Kellogg Foundation (WKKF) in 1948 as a strategy to develop specific competencies and professional identity of hospital administrators to improve the performance of the rapidly growing and increasing complexity of hospitals throughout the United States and Canada (1).

Accreditation of graduate programs started in 1968 with the establishment of the Accrediting Commission on Graduate Education for Hospital Administration (ACGEHA), and in 1975 was changed to the Accrediting Commission on Education for Health Services Administration (ACEHSA). In 2004, the organization was renamed to the current Commission on Accreditation of Healthcare Management Education (CAHME) (2).

In the 1950s and 1960s the WKKF began the support of health (hospital) administration education in Latin America. In 1964 the AUPHA received a grant from the WKKF to further expand the international activities of the Association. By 1966 AUPHA conducted the first Latin American Conference in Hospital Administration Education in Bogota, Colombia with the participation of faculty and program directors from 10 countries (3). By the mid 1970's and early 1980's a network of centers of excellence had been developed in several countries of Latin America with more than 10 years committed support from the Kellogg Foundation (4). By the mid 1980's AUPHA and its members had developed a very significant network that extended with partnerships across the globe.

Between 1985 and the year 1997, AUPHA entered into a cooperative agreement with the United States Agency for International Development (USAID) aimed at strengthening health administration education in Latin America. From 1994 to the year 2000 AUPHA participated in a separate Cooperative agreements and grants with USAID and other donors to create and develop health management education partnerships and executive workshops in most countries of the Newly Independent States in the Former Soviet Union (5) and Eastern Europe (6–8). During this period, faculty interested in international healthcare and education started and developed a Global Healthcare Management Faculty Forum within the programmatic activities of AUPHA. This forum has been very active in mapping out and supporting global healthcare management education curriculum, competencies, training materials. It supports many workshops and partnerships that have contributed to the advancement of excellence and a global perspective in the member programs of AUPHA and abroad (9, 10).

Because of these activities and intensive partnership interaction the academic community and the field have been preparing the climate for more structured accreditation and/or certification initiatives (11).

## GLOBAL ACCREDITATION

The concept or idea of international/global accreditation has been a topic of discussion among accrediting agencies and organizations. The Council for Higher Education Accreditation (CHEA) has produced several policy papers extending quality review of higher education into a larger global context. A borderless world in higher education provides mobility of student and faculty to enhance scientific research and to redesign undergraduate, postgraduate, and doctoral education. Within this larger context of globalization, there is an opportunity for existing accrediting organizations to provide accreditation and certification activities that impact the current and future development of professional health care leaders and quality of care. The demand for effective and efficient leadership is a global matter that has drawn the attention of the International Hospital Federation (IHF) in the development of a competency directory (12). Countries in all regions of the world are concerned with leadership, governance, quality of care, the patient experience, and access to care.

In the European Union in 1999, the Bologna Declaration was passed with a purpose to adapt European Higher Education and Research to social changes and scientific advancements. The same is true of organizational changes in the Asia-Pacific region and Africa. Joint Commission International has developed a strong presence in many countries focusing on quality and improved health care services and systems. Increasing international collaboration has been noted in practices associated with the Association to Advance Collegiate Schools of Business (AACSB) and the European Foundation for Management Development (EFMD). Regional quality assurance associations and agencies have been developed such as the European Association for Quality Assurance in Higher Education (EAQA); Asia-Pacific Quality Network (APQN); Arab Network for Quality Assurance in Higher Education and the African Quality Assurance Network. There has been a corresponding growth since 2000 in the number of national accrediting agencies in higher education.

International or global accreditation has been a topic of discussion for both CAHME and AUPHA. The AUPHA Global Healthcare Management Faculty Forum has been instrumental in developing a body of knowledge, identifying competencies, and advancing global perspective on health management education (HME). Recent thinking around global accreditation occurred in March 2016 during the American College of Healthcare Executives (ACHE) Annual Congress when CAHME assembled leaders in healthcare and education to discuss the future of graduate HME. The White Paper created as a by-product of this meeting served as a resource in the development of a 3-year plan. One of the core initiatives included global accreditation. Efforts have been noted with other accrediting organizations in the United States that have taken on opportunities for international accreditation given the global perspective and relevance of most health-related professions (13). The Association to Advance Collegiate Schools of Business (AACSB) is now accrediting business administration programs and the Council on Education of Public Health (CEPH) has been offering global accreditation since 2006 (14). So, there is a precedence set for US accrediting agencies to offer accreditation opportunities globally. In addition to US accreditation, the Council for Business Schools and Programs (ACBSP) and the European Management Development Network (EMDN) out of Brussels, England is also providing accreditation in 80+ countries.

## APPLIED RESEARCH

The mission of CAHME is to advance the quality of graduate healthcare management education. CAHME currently accredits 102 programs in the United States and Canada. With funding through the ARAMARK Charitable Fund, two research studies (Phase I and Phase II) were authorized to gather specific information and answer important questions impacting graduate health management education in the United States. The studies also had a domestic and international component in the methodology and purpose. These two studies had some limitations such as the fact that the target respondents were program directors and number of respondents to the follow up telephone survey (65%) on the phase II. Also keeping up with the current and rapidly growing activities and dynamic progress and evolution of global healthcare management education activities. Also, the relative difficulty to keep up with the development of the field around the world, even with the rapid growth of communication technology.

Phases III and IV have not received financial support from a specific donor organization and have been the result of a collaborative interaction of several interested faculty and CAHME and AUPHA member programs that are very active in the global healthcare management education arena. Other health management practitioner organizations, such as IHF, ACHE, and several national similar organizations have joined this partnership effort in support of the professionalization of the healthcare management profession.

### Phase I Study

The Phase I study was conducted in 2011 and was structured to examine the supply and demand for professional trained health care administrators in 16 countries; provide a summary of health systems; assess the extent of international healthcare management education activities of CAHME accredited programs and describe involvement in international health administration education (15). The 16 countries included Austria, Brazil, Chile, France, India, Israel, Mexico, Philippines, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Turkey, and the United Kingdom. The Phase II study conducted in 2012 added 6 additional countries including Germany, Ireland, Czech Republic, South Korea, Netherlands, and Colombia bringing to a total 22 countries that were examined in terms of educational

and accreditation activities (16). The number of universities identified in the study were 208 that offered health management related programs at different academic levels (from doctoral to undergraduate, including specializations and certificate programs). There were 142 master's degree programs offered and 20 universities that had multiple master's degrees. There are many diverse names and school affiliations and similar to the US and Canada, there is no unified degree conferred for health administration.

The Phase I study revealed several key findings including the following:

- Approximately 30% of CAHME accredited programs have international involvement of some type;
- University-based partnership models have been identified as a venue for different types of educational endeavors from courses, workshops/seminars, short courses, certification courses, and lectures;
- Approximately 30% of program directors reported that their graduate programs provide study abroad, student exchanges, faculty exchanges, online graduate courses, and service learning opportunities abroad;
- CAHME programs are active in many countries but the focus seems to be on Asia, Middle Eastern, and Western European countries.

## Phase II Study

The Phase II survey focused on specific international management areas: global centers, research, courses, study abroad, and partnerships (16). The Phase II study also developed a strategy to implement international demonstration site visits using the 2013 CAHME accreditation criteria (17). The following are among key findings of the Phase II survey:

- 42% of surveyed programs offer study abroad;
- 69% of programs have faculty involved in some type international research;
- 38% of the graduate programs offer global health management courses;
- 46% of programs reported having international partnerships with universities in another country.

The two studies are nicely summarized in an article published by West et al. (16) in the International Hospital Federation journal of World Hospitals and Health Services. The article entitled "Leadership in Globalization: Research in Health Management Education" offers suggestions relative to graduate education and the impact of globalization. As noted by the authors

> "…. Globalization of health management education continues to mature in response to the need to ensure access to health care services in every country, addressing the demand for cost effective care and improving quality of care. The issues of costs, access, and quality are global and are driving the need for trained leaders and managers who can improve the performance of health systems and in particular effectively manage care across public and private sectors." (p. 16)

## Phase III Study

CAHME accreditation standards and criteria have been used with healthcare management programs at universities outside of the USA and Canada on an informed basis to provide a structure for process improvement. CAHME 2008 and 2013 standards and criteria were used and applied as a first demonstration site at St. Elizabeth University, Bratislava, Slovak Republic using an international site visit team from Italy, Austria, Hungry, and the USA. The majority of the 35 criteria were determined to be applicable and useful in university-wide accreditation. With this successful first experience St. Elizabeth University has been using successfully some of the CAHME criteria and process with educational projects that they conduct in several countries in Africa. A modified version of the 2008 CAHME criteria were used at the University of Georgia, Tbilisi, Republic of Georgia to help with the development of a graduate MHA curriculum. The authors have also applied CAHME 2013 criteria as a basis for educational efforts in Mexico to train trainers and healthcare managers for the accreditation efforts of health care organizations in that country. Finally, a survey team from Brazil and the USA used CAHME criterion 2013 at Javeriana University in Bogota, Columbia with success. The Phase III applications provided additional evidence for using international site visit teams and competency-based criterion with a quality improvement process. These demonstration projects supported the further development of global accreditation in HME by CAHME.

## Phase IV Study

Based on the success of the Phase III of the study, the authors worked with the CAHME leadership team to further develop a strategy for global accreditation that would incorporate the previous years' experience with the concurrent ideas in the field. The results of these efforts have facilitated the current efforts by CAHME at global accreditation that involves using a Candidacy Process and Mentorship Program to enable universities outside of the USA and Canada to apply for CAHME accreditation. The CAHME Board of Directors in November 2017 approved a Global Advisory Council (GAC) to work directly with the CAHME President and CEO to implement global accreditation in graduate health management education. As of July 2018, there are five universities expressing an interest in CAHME accreditation and with two of these programs completing an eligibility statement.

# CAHME FRAMEWORK

The CAHME mission is to "serve the public interest by advancing the quality of health care management education." The values that CAHME holds firmly includes integrity, excellence, transparency, fairness, and recognition. The CAHME corporate members in partnership with the academic community (accredited graduate programs) ensure that graduate healthcare management curricula reflect the needed industry competencies.

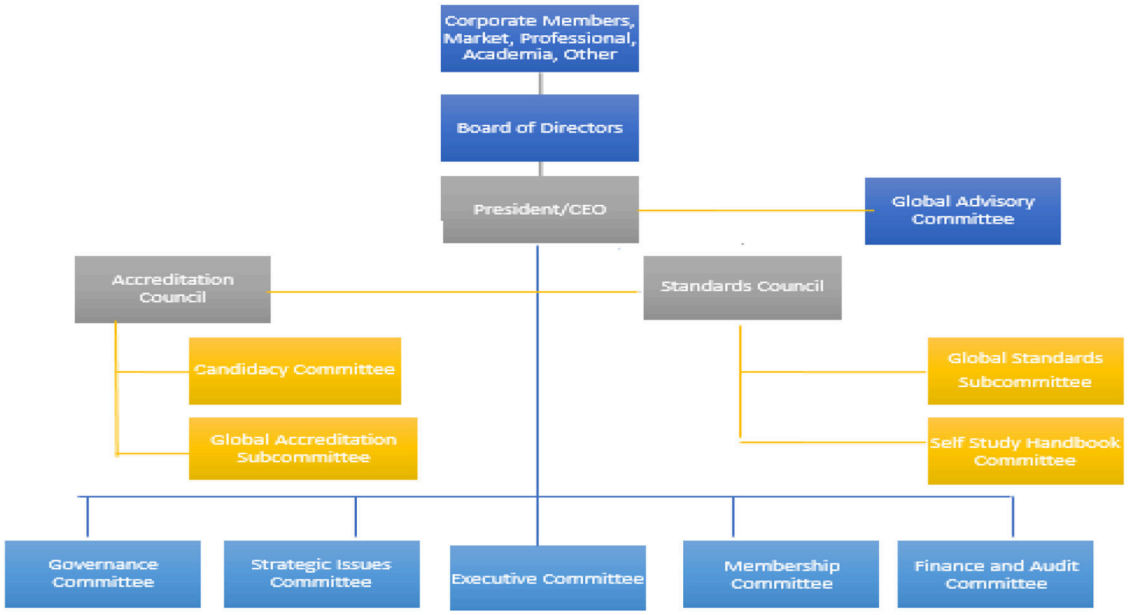


**FIGURE 1 |** Proposed structure to accommodate Global Accreditation. Source: Global Accreditation in Health Management Education: Concept Paper (21).

In order to advance the mission of CAHME on a global scale, the vision is to utilize the existing structure and accreditation criteria of CAHME to offer accreditation to universities with specific graduate programs in health management outside of the United States and Canada. The vision further encourages cooperation between CAHME and AUPHA in the area of globalization. Accredited programs are composed of faculty who have an interest and established relationships with universities outside of the United States. The vision is to utilize faculty who have established international partnerships as a way of beginning to engage global accreditation. Strong working relationships with existing national accrediting organizations and professional associations is appropriate. CAHME has leveraged global relationships with IHF. CAHME will work to develop collaborative relationships with SHAPE (18) (Society for Health Administration Programs in Education) (19, 20); ASPHER (Association of School of Public Health in European Region); and CLADEA (Latin American Council of Management Schools). The vision includes offering global accreditation that has cultural relevancy; advancing the CAHME brand and standards; advancing the CAHME mission; utilizing competencies that drive standards; and working with universities that have established relationships with other global regions. The CAHME Mentorship Circle enables and encourages accredited programs to help universities outside the USA and Canada to pursue CAHME accreditation.

## ORGANIZATIONAL STRUCTURES

Global accreditation will utilize the most recent (2017) CAHME Accreditation Standards and Criteria. A Global Advisory Council (GAC) has been established to work directly with the President and CEO. Global accreditation will necessitate that CAHME access and utilize faculty from CAHME accredited programs who have accreditation experience and partnerships with universities outside of the United States and Canada. CAHME needs faculty and professionals with global experiences to work with the CEO, Accreditation Council & Standards Council (**Figure 1**).

CAHME accreditation will have merit to select and engage universities who embrace program specific accreditation, an ongoing process of quality improvement guided by academic peers and practitioners, and who desire CAHME recognition (19). This is similar to AACSB, CEPH, and Joint Commission International (JCI). The Global Advisory Council can recommend appropriate modifications to accommodate global universities to the Accreditation Council and Standards Council. The existing Candidacy Committee will be used to work with programs seeking CAHME accreditation. The Global Advisory Council will seek members with international training and experiences to serve on site visit teams. As more programs are accredited globally, these programs will be recruited to serve on future accreditation site visits. In this way, global accreditation will grow slowly and expand as the demand increases.

CAHME will utilize a university-based partnership model where current CAHME accredited programs serve as an international university partner in the CAHME process. The CAHME model of a peer reviewed, voluntary, public process will be used. Academic freedom and shared governance remain essential eligibility criteria. The "CAHME Mentorship Circle" as previously described provides an excellent platform for building global partnerships and models of collaboration.

## STRATEGIC DESIGN CONSIDERATIONS

Moving forward with global accreditation will require certain innovations and adaptations by CAHME to ensure successful implementation. The following list of considerations will be used to implement the organization structure and strategic initiatives:

1. Use 2017 CAHME Eligibility Criteria and Accreditation Standards accounting for cultural and national variations.
2. Utilize existing university-based partnerships from CAHME accredited programs as a way of encouraging universities to pursue accreditation and advance candidacy.
3. Appoint established CAHME accredited program faculty and professionals with global knowledge and experience to the Global Advisory Council. This GAC will work with the Accreditation Council and the Standards Council to adjust/update standards.
4. Create a Global Health Fellows Program similar to the existing CAHME fellows but with a different focus: to assist the President & CEO with research and background, developing policy and procedures; and coordinating site visits.
5. Develop cooperation with national organizations to help support the concept of global accreditation (EHMA, SHAPE, ASPHER, & EURAM).
6. Utilize experiences of other accreditation agencies (e.g., CEPH, AACSB, ACBSP, etc.).
7. Utilize the resources and support of the IHF including but not limited to the IHF Competency Directory.
8. Use international faculty on site visit teams who have a global accreditation background and have specific knowledge of the culture of countries.
9. Align relevant activities with the AUPHA Global Leadership Committee and the Global Healthcare Management Faculty Forum.
10. Operationalize the Global Accreditation Subcommittee and the Global Standards Subcommittee of the GAC.
11. Use the existing CAHME fee structure, which includes the pass through of direct travel costs.
12. Participate with the Healthcare Management Strategic Interest Group (HM-SIG) of the IHF, the EURAM Healthcare Management Track of the Public and Nonprofit Management Special Interest Group (SIG), and other similar current or future identified groups. Also utilize the experience of US and Canadian universities and Faculty that actively participate in these groups.
13. Advance the CAHME Academic and Practitioner Model.
14. Utilize the CAHME Membership Circle strategy to help universities in the Candidacy Committee Process.

## CONCLUSION

The creation of global networks among universities is not new. The Magna Charta Universitatum is a document that was signed by 388 rectors (university presidents) from all over Europe and beyond on September 18, 1988, also known as the Bologna Accord. It contains principles of academic freedom and institutional autonomy as a guideline for good governance and self-understanding. Today there are 825 universities from 85 countries. The concept endorses the importance of collaboration in study, teaching and research. Other strategic initiatives include Faculty Fulbright Scholars, study abroad programs, language immersion programs, faculty directed research and public-private university-based partnerships.

There is increased interest among CAHME accredited program faculty for involvement with the international community. Other organizations such as the European Academy of Management (EURAM) could be important in this process. CAHME faculty are supported by the International Hospital Federation (IHF), especially the health management (HM) strategic interest group (SIG). The IHF has received significant support from ACHE and other international bodies in developing and advertising the IHF Competency Directory. The Global Consortium for Healthcare Management Professionalization has worked since January 2013 with "the shared aim of professionalizing the leadership and management of health systems to improve patient care globally" (12, p. 3). Several CAHME accredited performance come from universities that have a major effect on globalization of research and graduate education. There is reason to believe that many countries may support the idea of global accreditation.

## AUTHOR'S NOTE

This manuscript has not been submitted for publication with another journal. The ideas expressed in this manuscript have been implemented in various phases, and are original ideas developed and used by the authors related to CAHME and global accreditation.

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DW and VK: original research; BR: research in Mexico; GF: Aramark studies; AS: CAHME concept; OV, AM, and FY: site visit survey.

## REFERENCES


1. Filerman GL. Preface. In: Meacham M, editor. *Looking Back to Look Forward: AUPHA at 70.* Washington, DC (2018). p. ix–x. Available online at: http://www.aupha.org/home
2. Gelmon SB, Schulte MF, Cellucci LW. Improving Health Administration Education: The Evolution and Current Practice of Peer Evaluation and Standard Setting. In: Meacham M, editor. *Looking Back to Look Forward: AUPHA at 70.* Washington, DC (2018). p. 47–65. Available online at: http://www.aupha.org/home
3. Ramirez B, Aaronson WE, West DJ. Expanding Health Administration Globally: The Role of AUPHA. In: Meacham M, editor. *Looking Back to Look Forward: AUPHA at 70.* Washington, DC (2018). p. 93–122. Available online at: http://www.aupha.org/home
4. DeVries R, Kisil M, Ramirez B. Education for Health Administration in Latin America and the Caribbean. *J Health Admin Educ.* (1988) 6(Pt II):919–46.

5. Ramirez B, Perfiljeva G, Voronenko Y. *The AUPHA Management Training Workshop*. CommonHealth. AIHA (1994). Available online at: http://www.aupha.org/ and http://www.aiha.com/
6. Aaronson WE, West DJ. Health management education and development: partnerships in Central and Eastern Europe, Part I. *J Health Admin Educ.* (1997) 15:159–64.
7. Aaronson WE, West DJ. Health management education and development: partnerships in Central and Eastern Europe, Part II. *J Health Admin Educ.* (1998) 16:109–23.
8. AaronsonW, West D, Heshmat S, Ramirez B. The Pillars of health management education: lessons from the CEE experience. *J Health Admin Educ.* (1998) 16:125–44.
9. AaronsonW, Counte M, Ramirez B. A comparative perspective on contemporary trends in global healthcare management education. *J Health Admin Educ.* (2008) 25:175–90.
10. Counte M, Ramirez B, Aaronson W. Global health management education: essential competencies and major curricular challenges. *J Health Admin Educ.* (2011) 28:227–36.
11. Aaronson W, Counte M, Ramirez B, West D. Global health management education: challenges and opportunities for academic programs. *J Health Admin Educ.* (2010) 27:323–5.
12. International Hospital Federation. *Leadership Competencies for Healthcare Services Managers<underline>*(2015). Available online at: https://www.ihffih.org/resources/pdf/Leadership_Competencies_for_Healthcare_Services_Managers.pdf
13. White F. The imperative of public health education: a global perspective. *Med Principl Pract*. (2013) 22:515–29. doi: 10.1159/000354198
14. CEPH-Council on Education for Public Health. *Executive Director on Collaboration with International Partners*. (2018). Available online at: https://ceph.org/about/org-info/join-mailing-list/journal/ed-aspha-2018/
15. West D, Filerman G, Ramirez B, Steinkogler J. *CAHME International Healthcare Management Education*. Washington, DC. (2011). Available online at: http://cahme.org/files/CAHME-I-Final-Report-International.pdf
16. West D, Filerman G, Ramirez B, Steinkogler J. *CAHME Phase II: International Healthcare Management Education*. Washington, DC. (2012). Available online at: https://cahme.org/files/CAHME-II-Report_FINAL_7-5-12.pdf
17. CAHME-Commission on Accreditation of Healthcare Management Education. *Executive Summary ARAMMARK Charitable Fund Grant to CAHME*. (2011). Available online at: https://cahme.org/files/ARAMARK-International-Study-Executive-Summary.pdf
18. SHAPE-Secretariat for Health Administration Programs in Education. *About SHAPE, Australia* (2018). Available online at: http://www.shape.org.au/about-shape/
19. ACBSP-Council on Education of Public Health. *Accreditation Standards for All Degree Levels Worldwide Since 1988* (2018). Available online at: https://www.acbsp.org/page/accreditation
20. EHMA-European Health Management Association. *Information About EHMA*. (2018). Available online at: http://ehma.org/about/
21. WestD, Stanowski A. *Global Accreditation in Health Management Education: Concept Paper*. CAHME-Commission on Accreditation of Healthcare Management Education. (2017). Available online at: https://cahme.org/files/heath_care_organization_resources/Global_Accreditation_Concept_Paper_v2_2017_11_08.pdf


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# AUPHA and Globalization: A Perspective on the Future

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*AUPHA, Washington, DC, United States*

The Association of University Programs in Health Administration (AUPHA) celebrated its 70th year in 2018 with a publication of a book on its history (*Looking Back to Look Forward: AUPHA at 70*) (1). As part of that reflection, we engaged in a fundamental reconsideration of our current and future leadership role in supporting healthcare management education. The consideration gets to the core of why any association exists and how does an association best serve the needs of its constituencies. The purpose is to determine what lessons AUPHA's evolution has for healthcare management education associations globally. This perspective will address three questions: 1) What is AUPHA and what is its role in the US healthcare system? 2) What is the value proposition for AUPHA? 3) What lessons learned does AUPHA have to share about the contribution of an association to global health management education?

**Keywords: healthcare cost quality and access, global competencies, faculty development, networking activities, idea sharing**

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## WHAT IS AUPHA?

Association of University Programs in Health Administration's (AUPHA) is a free-standing association that represents graduate and undergraduate academic programs that train future healthcare executives. AUPHA has matured over 70 years from an idea originating with a handful of concerned and motivated healthcare leaders in the late 1940s to an organization that has an established reputation and a solid position in the healthcare landscape. It has evolved in terms of its roles and value as a national association of healthcare management experts united by a common mission. AUPHA has a structure of membership, finances and staff to support that mission. It seeks to discover and engage in activities that primarily benefit member programs in implementing education as it pertains to the United States of America (USA) and global settings.

AUPHA's contribution to global health management education is best understood within the context of health management education and practice in the USA. The healthcare system in the USA combines public and private enterprises. Healthcare executives are one of the few, if not the only, health professions not licensed at the federal or state (local) level. Moreover, the training of healthcare executives is neither regulated nor paid for by the government in the US. Formal training of healthcare executives occurs in a variety of educational programs, from undergraduate programs in health administration to graduate programs in many settings, to executive training for clinicians and others seeking leadership roles. Healthcare management students as well as the faculty and the practitioners who mentor them come from a wide range of academic disciplines, including clinical ones. AUPHA is the only nationwide organization that brings together all of those engaged in the education of healthcare executives.

AUPHA membership consists of individual academic programs and individual faculty (most of whom work in the member organizations). AUPHA encompasses over 240 member programs of various types and nearly 2,500 individual faculty. Heterogeneity of membership is one of AUPHA's strengths with programs in schools of health professions (47%), public health (17%), business (18%) and "other" (17.0%). The composition is about 43% female and 76% White. Further, faculty have a variety of degrees (mostly PhD but many MD, nursing, JD, DrPH, EdD, MBA/MHA, and other). Finally, regardless of degree, the faculty disciplines range from finance, accounting, economics, sociology, psychology to human resources, information technology, and supply chain management, to name a few.

## THE ROLE OF HEALTHCARE ASSOCIATIONS IN THE USA

The USA healthcare landscape is filled with associations. An association is defined in the federal tax code as an entity that exists to service a constituency rather than make a financial profit. Net revenues are reinvested in the activities of the association. AUPHA concentrates on activities that provide benefit to its members but are difficult for a member to accomplish alone and are not provided by other market participants. The theory suggests associations engage in collective or public goods that competing entities cannot accomplish. As a neutral central party, the association can pool resources and provide services that benefit everyone. Branding the field or lobbying are traditional examples. Although the country has many other health associations provide education to members, AUPHA is the only association that covers education of healthcare executives of all levels, all disciplines, and all specialties.

### Value Proposition for AUPHA

Any organization is defined through its Vision, Mission, and Values. AUPHA continues through its member organizations to develop leaders with the values and competencies necessary to drive improvement throughout the health system. These values and competencies reflect the realization that healthcare involves the public trust. Those responsible for healthcare organizations must lead an efficient organization and thus must have the competencies of any business leader. In addition, they must also have the values to attain and maintain public trust. AUPHA incorporates the *values of excellence, innovation, collaboration, diversity and learning* to build that trust in the educational endeavor (2).

AUPHA's staff and volunteers pursue its mission by generating value to members through a number of key activities: educational and networking events, scholarship, accreditation/certification, scholarships and recognition, creating leadership opportunities, advertising jobs, and special projects. These are highlighted as they pertain primarily within the USA, and the subsequent section discusses how these activities are extended globally.

### Networking

Members benefit from the enhanced ability to share information and learn from one another. This key function constitutes the principle membership benefit and occurs both "virtually" and in person. The Faculty Forums and Network provide a virtual space for faculty, program directors and others to engage in a variety of information sharing, fostering innovative teaching techniques, evolving content and professional contacts while in the comfort of their office or home. The Faculty Forums arose because many individual faculty members have few colleagues in their discipline, host programs, colleges, or universities. The geographic separation of programs and cost of travel to traditional meetings adds to Forum value. The Forum is topic or issue specific and is sanctioned for a specified duration to accomplish this objective. Membership in a Faculty Forum is based exclusively upon faculty electing to participate and the Forums are self-governing. There are currently 15 Faculty Forums.

1. Advancing Women Leaders in Healthcare
2. Cultural Perspectives
3. Ethics
4. Finance, Economics, and Insurance
5. Global Healthcare Management
6. Health Information Management
7. Health Policy
8. Innovative Teaching
9. Interprofessional Education
10. Management
11. Medical Group Practice/Ambulatory Care
12. Online Teaching and Technology
13. Post-acute Care
14. Public Health
15. Quality Improvement

In addition to these formally endorsed Faculty Forums, AUPHA supports an Open Forum for all AUPHA members, as well as communities and discussion groups that seek to establish sufficient faculty engagement for promotion to Faculty Forum status.

Hosting of professional meetings constitute the second major networking activity that AUPHA supports. AUPHA hosts three major events, the Annual Meeting, Graduate Program and Practitioner Workshop, and Undergraduate Workshop, designed for faculty to present teaching techniques, research and other education efforts. They also become intense networking opportunities. The Annual Meeting varies geographically so that all members can reasonably expect to attend a meeting close to home occasionally. Likewise, the Undergraduate Workshop moves to different locations. The Graduate Program and Practitioner Workshop traditionally occurs during the annual Congress on Healthcare Leadership sponsored by the American College of Healthcare Executives (ACHE) in March each year in Chicago.

### Scholarship

AUPHA uses a variety of publications to communicate and disseminate research and other vital health management information. Its primary mechanisms include the *Journal of Health Administration Education (JHAE)* and the *AUPHA Exchange*. Both have migrated from print to electronic editions.

*JHAE*, an on-line journal, is available to all program faculty and individual members as a part of their member benefits. It contains a variety of research and commentary on the state of the art in teaching healthcare management. It also regularly brings in content from the healthcare environment as a means of demonstrating how best to integrate these changes. Healthcare reform, innovation and technology are common topics.

The *AUPHA Exchange* provides a communication vehicle for membership about key issues relevant to the association. Features include program news, association news, and healthcare management employment opportunities. Each monthly edition of the *AUPHA Exchange* contains a blog from the sitting AUPHA Board Chair and the current AUPHA President, news on Board activities, information regarding upcoming AUPHA meetings, network information, a call for nominations if relevant, a new member welcome, and program news.

## Accreditation/Certification

AUPHA began the formal accreditation of graduate healthcare management programs in the 1960s. That function was spun off into a separate organization, Commission on Accreditation of Healthcare Management Education (CAHME). While independent with its own board, CAHME has continued strong ties to AUPHA. It receives substantial financial support from AUPHA each year, and AUPHA members constitute a major portion of its operating committees and board. Similarly, AUPHA has engaged in undergraduate certification since the 1990s, and the process has evolved to become an essential form of recognition. Accreditation and certification have the common goal of improving the quality of healthcare management education. They both assure all external stakeholders that an outside review determined that the program meets or exceeds a set of standards, which assess quality and relevancy. Accreditation and certification further attest that the program withstood the rigors of peer review in which experts critically examine curricula, faculty, and educational outcomes.

## Recognition

An often-overlooked feature of an association is the recognition and celebration of members. AUPHA offers a number of prizes and awards for students and faculty (see **Box 1**). They are all designed to draw attention to the field, attract potential faculty and potential students. Some of these have long histories while others are relatively recent (For more information and descriptions, see https://www.aupha.org/main/auphanetwork/faculty and https://www.aupha.org/resourcecenter/currentstudents/scholarships).

## Leadership

AUPHA might be characterized as a member-run organization. A series of standing and special committee empower members to take responsibility for specific tasks. In addition to a Governing Board, AUPHA has basic governance committees such as the Leadership Development, Finance, and a committee for most of its essential activities such as the JHAE Editorial Board. The committees provide opportunities for individual members to develop leadership skills and interact with faculty and practitioners from around the country. Many life-long friendships have been developed among those serving on a committee. Given a relatively small field, the committee structure and shared leadership have built a camaraderie that spans the nation.

**Box 1** | AUPHA supported prizes and awards for students and faculty.

William B. Graham Prize for Health Services Research
Andrew Pattullo Lecture
Gary L. Filerman Prize for Educational Leadership
John D. Thompson Prize for Young Investigators
Foster G. McGaw Scholarships
HCA (Hospital Corporation of America) Corris Boyd Scholars Award
Bachrach Family Scholarship for Excellence in Health Administration
David A. Winston Health Policy Scholarships
Upsilon Phi Delta (UPD) Honor Society

## Job Opportunities

AUPHA spreads the word about employment opportunities for faculty, as well as practitioners. Current openings are posted on the website and are noted in the AUPHA Exchange. Members are able to post job openings at their institutions as well as see openings elsewhere. AUPHA is the single best source for announcing and finding employment opportunities in educational institutions.

## Special Projects

Special projects are more targeted and/or more time-limited. This category includes the Body of Knowledge, benchmarking and HAMPCAS (the healthcare administration, management, and policy centralized application service). The application service provides a substantial expansion of the reach and access of students to programs throughout the world. Electronic applications that this system implements facilitate multiple applications by prospective students. Each of these ongoing activities provide direct or indirect support to member programs and faculty.

# AUPHA AND GLOBAL ASSOCIATIONS

Globalization is a priority for AUPHA, as per our most recent strategic plan (3). AUPHA has had a significant global presence for several decades. The founding CEO, Dr. Gary Filerman, was committed to the transfer of healthcare management education thus AUPHA had teams in Eastern Europe and in many of the "newly" independent states from the former Soviet Union. AUPHA also had extensive educational outreach in Latin and South America.

More recently, AUPHA has coalesced global interest by creating the Global Healthcare Management Faculty Forum (GHMFF), one of the 15 forums mentioned earlier. In any given year, AUPHA has an average of 60–70 faculty with experience in providing healthcare management education

and/or collaborative research efforts around the world. Each year prior to the AUPHA Annual Meeting, the GHMFF hosts a pre-conference Global Symposium. For a small supplemental fee, this is open to all members with an interest in international pursuits. The attendance at this meeting is small but it has had consistent representation from colleagues in Europe, Latin/South America, Asia and Australia.

In addition to the formal activities sponsored by AUPHA, individual members have come together to further global education. A new textbook, *Global Health Management Education*, will be forthcoming in late 2018, with chapters written by AUPHA members. The intent is to provide a current resource with which to teach healthcare management across national boundaries. This special issue of *Frontiers in Public Health Education and Promotion* on Global Health Management Education emanated from the AUPHA Global Symposium of June 2017, with the chairperson of the GHMFF as one of the co-editors.

Many AUPHA faculty who have worked internationally, have learned that the transfer of knowledge goes in both directions. Faculty return from other countries with ideas and concepts that greatly expand their thinking and influence their teaching. Similarly, the academic programs that offer student placements in other countries consistently find that their students return with sharpened insights into management, cultural sensitivity, collaboration, and governance, among other management subjects.

## AUPHA'S ROLE IN GLOBAL HEALTHCARE MANAGEMENT EDUCATION

The core of AUPHA has been to foster improvement in healthcare management education and thus improvements in healthcare. The strategies of networking, scholarship, accreditation/certification, recognition, leadership building, employment announcements, and special projects that AUPHA currently pursues apply to contexts beyond the USA. Exchanging our expertise with colleagues in other parts of the world is a natural extension of our current activities. Our activities of the past 70 years have resulted in Lessons Learned that we offer to those within the USA as well as colleagues around the world.

- For a profession that is not licensed, formal academic training with rigorous attention to the unique knowledge, skills, and attitudes of the graduates is essential to give the profession credibility. An association represents the profession and the educational institutions with more authority than any university alone. Naturally, the specific aspects of knowledge, skills, and attitudes will differ because of institutional and cultural differences globally.
- Self-governance of adherence to the academic standards set forth for the education becomes imperative when a profession is not licensed by government or other external authorities and can be taught in a variety of university programs by faculty from numerous disciplines. An association can assert "quality control" over education in a way that a single university cannot. Moreover, because licensing is linked to defined governments, the quality standards created by and championed by an association can have more authority on an international level than a license within a single country. AUPHA has gone so far with quality assurance in education to spawn CAHME, but CAHME depends on AUPHA not only for financial support but also for its members, who develop the accreditation criteria, act as site visitors, and keep standards moving as the field changes. In a country that does not follow our particular voluntary accreditation system, an association can still provide the mechanism to influence quality standards.
- In a relatively small field, sharing of information is critical. An association can provide the infrastructure for those in the field to communicate on an ongoing basis and exchange information on everything from model syllabi to recruiting criteria to faculty salaries. The infrastructure provided by AUPHA's Faculty Forums could easily be adapted to participation by faculty in other countries.
- In a profession where the members are often uncounted, an association can provide an institutional rallying point, drawing members who are committed to management practice rather than a particular clinical or academic discipline.
- Collaboration rather than Competition. Those who work in healthcare tend to be driven by values and a commitment to fellow man. Personalities and education tend to be different for those in healthcare than for those in commercial enterprises. Collaboration tends to override competition. An association can foster and reinforce collaboration as the social norm of the profession.

## CONCLUSIONS

By bringing together professionals from a variety of professional and academic settings and with a wide array of disciplines, our open framework empowers all participants to "assemble" and share their individual experiences. Meeting face-to-face and/or participating in the virtual network provides an opportunity for faculty from all countries to brainstorm about content, exchange syllabi, and struggle to define the competencies necessary for future healthcare leadership. AUPHA has a long history and a well-developed format for guiding healthcare management education in the USA.

Our educational model is hardly perfect, however. The challenges that the US healthcare system faces today resulted from or were enabled by leaders trained largely by our programs over the last 70 years. Many others share major portions of the responsibility for these challenges it should be added. More informed and more socially conscious leadership in past decades might have mitigated portions of the cost, quality and access problems we currently confront.

It is clear that managing the complex healthcare systems throughout the world presents different but strongly related challenges in every country. As such, healthcare leadership globally can benefit from the experiences of those leading our system. Similarly, our constantly improving healthcare management educational systems can serve as a model

for those training healthcare leadership in other countries. AUPHA and its members currently share their expertise worldwide and are eager to expand that sharing. All would benefit from commentary, sharing of content and camaraderie provided by connecting with healthcare management faculty and practitioners throughout the world. AUPHA faculty are keenly aware that the benefits are not in one direction. We, too, can learn, obtain innovative perspectives and become more effective by collaborating with educators around the world. Given healthcare outcomes reported from many sources, many countries provide better access to care, equal or better quality outcomes at much lower costs than the US. We are excited about identifying the best features of our very different systems to the benefit of the health of the world's population.

## AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor of this work and has approved it for publication.

## REFERENCES

1. Meacham, M. (ed.) *Looking Back to Look Forward: AUPHA at 70*. Washington, DC: Association of University Programs in Health Administration (2018).
2. AUPHA (nd). *AUPHA Vision, Mission, Values*. Available online at: https://www.aupha.org/about/visionmissionvalues
3. AUPHA (nd). *AUPHA Strategic Plan*: 2016-2019. Available online at: http://higherlogicdownload.s3.amazonaws.com/AUPHA/5c0a0c07-a7f7-413e-ad73-9b7133ca4c38/UploadedImages/Strategic_Plan_2016.pdf

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# Health Management Workforce for India in 2030

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**Introduction:** Since its launch in the year 2005, National Rural Health Mission (NHM) has exhibited a felt need for health management training in India against the background of a shortfall of trained public health managers in the country. In India's context, health (hospital) management professionals are those, who are working in the health sector, belonging to medical and non-medical backgrounds and are trained in health (hospital) management/administration programs or other public health programs (for e.g., Master of Public Health) wherein health (hospital) management/administration is significant part of the curriculum. The presence of trained management professionals in the health sector has grown over the years.

**Objectives:** To estimate the supply, need and requirement for health management professionals for India in the year 2030.

**Materials and methods:** The supply data for health management professionals was calculated based on the output from various academic programs related to health management/administration and other public health programs. Need was calculated using "service target approach" and benchmark analysis with 2.97 health managers per 100,000 population (NACCHO 2011). Supply-need gap was estimated using normative need as base number for projections whereas for rest of the years (2018–2030) projections were done at a constant growth rate as per India's population projections.

**Results:** The overall supply capacity of trained health management professionals was 3,463 for 2017. However, based upon a service target approach India requires 11,304 health management professionals in 2017. If India is to reach the normative standards of 2.97 health managers per 100,000 population, the country would need 39,774 health management professionals in 2017. This need would increase to approximately 44,936 health management professionals by the year 2030 to maintain the normative standard of 2.97 health managers per 100,000 population.

**Conclusions:** The supply side will match the requirement of HMPs earliest by the year 2026 in a high seat occupancy scenario.Moreover, there is a need to improve the quality of the output in terms of an explicitly stated and standardized competency framework that is tailored to the Indian context.

**Keywords: public health education, health management, health administration, hospital administration, public health professional, India**

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## INTRODUCTION

As per the World Health Organization (WHO), a lack of leadership and management capacity is a constraint on the efficient operation of public and private health sectors despite the time and money spent by governments to strengthen these capacities (1). Effective leadership and management in the health services is the key to using the available resources effectively and achieving measurable results. A study undertaken by European Health Management Association (EHMA) supports and re-emphasizes the importance and value of health management in order to effectively address the current health systems' challenges and suggests for its further development (2). Management is a very important skill in the health sector where health managers struggle for the utilization of scarce resources.

A health management professional (HMP) is expected to juggle a variety of responsibilities. The presence of trained management professionals in the health sector, to work for hospitals, pharmaceutical companies, health insurance and third-party administration, and other healthcare provider organizations—is a growing phenomenon (3). HMPs adopt strategic approaches, describe and understand the health experience of populations and analyze the factors affecting health (4). HMPs operate in a multi-professional, multi-agency environment to achieve multisectoral changes (4). As per Sharma et al. trained health management professionals are needed across the entire health system of the country (3).

Over the years, India has made strategic investment toward management of health system; the National Rural Health Mission (NRHM)—now the National Health Mission (NHM)—was launched in the year 2005 to ensure quality and affordable healthcare for all. The National Health Mission (NHM) has also exhibited a felt need for health management training (5). Effective health management systems are crucial to the successful coordination of multiple resources (financial and human resources), diverse communities and complex processes (6). Systems leading to better management allow for effective coordination of public and private sector efforts and ensure universal health coverage. Thus, systemic reforms are needed to ensure effective functioning and delivery of health care services, in both rural and urban areas (6). In the year 2007, the Task Force on Medical Education for the NRHM has also recommended reformative and remedial action in medical education and health manpower development (7). The Post Graduate Diploma in Public Health Management (PGDPHM) program is a Government of India supported program which was launched under the NRHM to address to the growing demand in the health management capacity of the public sector (3).

HMPs working in public sector are usually from a medical background, with limited training in terms of management and administration. Currently the supply of HMPs come from two distinct streams—(i) medical colleges and (ii) other institutes.

(i)Programs offered exclusively to medical graduates through medical colleges:

1. Health management/administration; Hospital management/ administration
2. Community medicine; preventive and social medicine; public health

(ii) Programs offered to medical and non-medical graduates through institutes other than medical colleges:

1. Health management/administration
2. Hospital management/administration
3. Health and hospital management/ administration
4. Master of Public Health (wherein health (hospital) management/administration is significant part of the curriculum).

At block, district, and state levels, medical doctors are given the responsibilities to cater to the administrative issues. The doctors, nurses, paramedics, and the entire hospital staff are expected to multitask, in addition to routine clinical duties. However, the current shortage of health workers is putting strain on public health facilities (8). The specialized requirement for health management/administration is important to strengthen the systemic efficiency within the health sector. It is suggested that certain administrative responsibilities can be off-loaded from health workers delivering healthcare (9). The recently released National Health Policy (NHP) 2017 has also echoed the requirement of specialized management skills and it has proposed the creation of a public health management cadre in all states, with a qualification in public health or related discipline as an entry criterion (10). The NHP 2017 also advocates an appropriate career structure and recruitment policy to attract young and talented multidisciplinary professionals for this cadre.

There is limited information regarding the supply of HMPs available currently in the country. During the last two decades, there has been an expansion and growth in institutions offering health management programs. Various universities/institutions in the country are offering these programs in health (hospital) management/administration but there is no single point source to provide information regarding such institutions and programs. Also in the absence of a public health council or a body that is governing public health education, we are witnessing variability in public health program design, curricular contents (11), competencies acquired (11) and ultimately job proficiencies (12, 13) This manuscript reports the results of an assessment of the supply side and the need for health management professionals in the country. We provide forecasts of the number of health management professionals in India until 2030. The operational definitions for the manuscript have been provided in **Box 1**.

**Box 1 | Operational Definitions for the manuscript.**

- **Supply:** Supply of trained health management professionals from Indian educational institutions.
- **Need:** The normative need for health management professionals as reported in literature.

## MATERIALS AND METHODS

For our current work in India, we included Medical Colleges and Institutions training HMPs in India in health (hospital) management/administration (as mentioned in **Box 2**). To estimate the supply of HMPs we have classified these programs into six categories.

### Supply Estimation

We estimated the annual supply of health management professionals (HMPs) graduating from the institutions using data from these six sources. We estimated the supply for (i) health (hospital) management/administration programs offered exclusively to medical graduates through medical colleges such as: MD—Community Health Administration (CHA), MD—Hospital Administration (HA), Diploma in Health Administration, and Diploma in Hospital Administration—from the data available on the website of Medical Council of India (MCI). Additionally, data for other courses offered by medical colleges such as: MD—Social and Preventive Medicine/Community Medicine, Diploma in Public Health (DPH) and Diploma in Community Medicine (DCM) was also obtained from the website of Medical Council of India (MCI).

For (ii) health (hospital) management/administration programs offered to medical and non-medical graduates through institutes (other than medical colleges), we identified the programs offering health management/administration, hospital management/administration, and health and hospital management/administration—as these programs impart training and offer jobs in health management. Similarly, we identified MPH programs being offered in the country, as health management is taught as a core module in these programs. Search for these institutions/programs was undertaken in Google search engine using keywords such as "health management programs," "health administration programs," "health management," "health and hospital administration," "MBA in health management," "hospital management and administration," "MPH" etc. However, we limited our search to programs offered in India and to collaborations between Indian and foreign institutions, if any. Additionally, the websites of the All India Council of Technical Education, University Grants Commission, and universities and institutions were also searched. In addition, education supplements of leading newspapers and education-based websites, including shiksha.com, targetstudy.com, getmyuni.com and career.webindia123.com, were searched. Related literature was reviewed through Google Scholar and PubMed and opinion from public health experts was taken in the field of health management education.

**Box 2 | Medical colleges and institutes training HMPs in India [includes health (hospital) management/administration programs]**

(i) Health (hospital) management / administration programs offered exclusively to medical graduates through medical colleges

1. Health management/ administration; Hospital management/ administration: MD - Community Health Administration (CHA), Diploma in Health Administration, MD - Hospital Administration (HA), Diploma in Hospital Administration,
2. Community medicine; preventive and social medicine; public health: MD - Social and Preventive Medicine / Community Medicine, Diploma in Public Health (DPH), Diploma in Community Medicine (DCM).

(ii) Health (hospital) management / administration programs offered to medical and non-medical graduates through institutes (other than medical colleges) in:

1. Health management/ administration: PhD, Master of Health Administration (MHA), MBA, BBA, PGDPHM, Diploma
2. Hospital management/ administration: MBA, Master of Hospital Administration (MHA), BBA, MHM, PGDHM
3. Health and hospital management/ administration: PhD, MPhil, MBA, BBA, PGDHHM, Diploma
4. Master of Public Health (MPH).

PhD, Doctor of Philosophy; MPhil, Master of Philosophy; MBA, Master of Business Administration; PGDPHM, Post Graduate Diploma in Public Health Management; PGDHM, Postgraduate Diploma in Hospital Management; PGDHHM, PG Diploma in Hospital and Health Management; MHA, Master of Hospital Administration; MHM, Master in Hospital Management; BBA, Bachelor of Business Administration.

#### Assumptions for Supply Estimation

Based on our review and estimation for 2017, HMPs enter the Indian health system from two streams (six categories). Based on the differential nature of these programs, we considered following seat occupancy and placement percentages for HMPs graduating every year from these sources.

Additionally, on each supply capacity we have applied a three per cent migration rate for HMPs as around five per cent medical professionals migrate to developed countries (14). We have assumed the death rate of 3.1 per cent for this group based on the data on death rate as per Census 2010 (15).

i. Medical colleges (programs in health management/ administration; hospital management/administration): It was assumed that seat occupancy would be 95 per cent for these programs. It was considered that 85 per cent graduates would work in health management/ administration services.
ii. Medical colleges (programs in community medicine; preventive and social medicine; public health): Like the former, we assumed that there would be 95 per cent seat occupancy and 20 per cent graduates would work in health management/administration services.
iii. Institutions offering programs in health management/ administration: We created three seat occupancy scenarios for the purpose of this work. We assumed a 70 per cent (low seat occupancy—best guess), 80 per cent (moderate seat occupancy—optimistic), and 90 per cent (high seat occupancy—aspirational)—scenario. Also, we assumed that 85 per cent graduates would work in health management/administration services.
iv. Institutions offering programs in hospital management/administration: Like the former, here also we assumed three scenarios: 70 per cent (low seat occupancy—best guess), 80 per cent (moderate seat occupancy—optimistic), and 90 per cent (high

seat occupancy—aspirational). Due to overlapping job roles of the health/hospital management/ administration graduates, it was assumed that 85 per cent of the hospital management/ administration graduates would work in health management/administration services.

v. Institutions offering programs in health and hospital management/administration: Here also we assumed three scenarios: 70 per cent (low seat occupancy—best guess), 80 per cent (moderate seat occupancy—optimistic), and 90 per cent (high seat occupancy—aspirational). It was assumed that 85 per cent of the health and hospital graduates would work in health management/administration services.

vi. Institutions offering Master of Public Health (MPH): Based on a recent study (16), we assumed a seat occupancy of 60 per cent (low seat occupancy—best guess), 68 per cent (moderate seat occupancy—optimistic), and 75 per cent (high seat occupancy—aspirational). It was assumed that only 30 per cent graduates would work in health management services post completion of MPH degree.

This helped us to enumerate the annual capacity for training HMPs in the year 2017. As stated by Sharma et al. that ∼2122 health management seats were offered in 2011 (51 institutions) (3) while this number increased by 54 per cent to 3291 seats (75 institutions) in 2017–2018. For subsequent years, we assumed that the growth in the supply side for health management programs would be 50 per cent over the next decade for institutions offering health management programs. The numbers for the rest of the years was imputed for each intervening year from 2018 to 2029–for all three scenarios.

## Need Estimation

The normative need for HMPs was calculated using "service target approach" for HMPs in the areas of practice, research and education. Need was accounted for trained health care managers/ administrators to work at block, district, and state level, national institutes (such as National Institute of Health and Family Welfare (NIHFW), National Health Systems Resource Centre (NHSRC), State Health Systems Resource Centers (SHSRCs) etc.), health based Non-Governmental Organizations (NGOs), academic/research organizations, corporate sector and international organizations. For calculating the normative need for these domains, the author replicated the methodology as used by authors in an earlier study (3) to calculate values for the year 2017.

Additionally, from the year 2017 to 2030, requirement for health management professionals was also calculated on the basis of benchmark analysis[1]. As per the "Potential Local Public Health Workforce Benchmarks" stated in National Association of County and City Health Officials (NACCHO) report there should be 2.97 health services managers per 100,000 population (17).

## Gap Estimation

The number of HMPs currently in the workforce was inputted as 85% of current estimated need for HMPs using the service target approach for the base year 2017. For subsequent years, we estimated net HMPs in health workforce as the sum of number of HMPs in health workforce and HMPs produced annually minus HMPs exiting workforce through death (3.1 per cent) and migration (3 per cent).

### Assumptions for Need for Public Health Cadre

Anticipating the setting up of Public Health Cadre in the country as outlined in the National Health Policy 2017, we assumed that-−1/3rd of the states will implement PH cadre by 2020, another 1/3rd by 2023 and all states by 2026. As per the Approach Paper on Public Health Cadre, we considered the following posts for health management professionals at different levels—one at state, two at district and one at each block level (18).

# RESULTS

## Supply Estimation

On the basis of information collected there are total 475 academic programs (offering health (hospital) management/administration) having enrolment capacity of 6963 seats collectively (2017). The details have been provided in **Table 1.**

Thus, considering the differential seat occupancy for the year 2017, 2024, and 2030 it was observed that following number of HMPs are produced annually in the three scenarios (**Figure 1**). In case, the growth in the programs offering health management would continue to grow by 50 per cent by 2030 then it would increase from 3463 (2017) to 5195 by 2030 (in moderate scenario).

Considering the differential seat occupancy for the year 2017, 2024, and 2030 it was observed that following number of HMPs are produced annually from these two streams (six categories; **Table 2**).

## Need Estimation Through Service Target Approach

Based on "service target approach" a normative need of around 11,304 HMPs was estimated for 2017, based on the number of positions available for HMPs in India. In the year 2010, as estimated by Sharma et al. there was an estimated requirement for 19,930 qualified health management professionals in the health sector (3). We updated the numbers for the year 2017, using similar methodology for our study. India with 36 states (29 states and 7 union territories), 640 districts and around 5,988 blocks will require a program manager at each level i.e., State Program Manager, District Program Manager and Block Program Manager respectively. Thus, ∼6,664 trained professionals would be needed to serve these positions in the public sector.

Around a thousand consultants would be required in institutes like NIHFW, NHSRC, SHSRCs, etc. to work in their projects/departments. About 200 consultants/specialists will be needed at each state level across the country. More than 400 trained professionals would be employed across 90 large NGOs (19) in the country. Around 500 professionals would be needed across international organizations, while 1500 professionals

[1]simple benchmark ratios of required health management professionals' numbers (based on a benchmark) to appropriate populations.

**TABLE 1 |** Supply of HMPs through medical colleges and institutes [offering health (hospital) management/administration].

| Sr. No. | Source | Education background as eligibility criteria | Name of program | Number of programs | Number of seats |
|---|---|---|---|---|---|
| **MEDICAL COLLEGES OFFERING PROGRAMS IN:** | | | | | |
| 1 | Health management/ administration.; Hospital management/ administration; | Medical | MD - Community Health Administration (CHA), Diploma in Health Administration, MD - Hospital Administration (HA), Diploma in Hospital Administration, | 11 | 53 |
| 2 | Community medicine; preventive and social medicine; public health | Medical | MD - Social and Preventive Medicine / Community Medicine, Diploma in Public Health (DPH), Diploma in Community Medicine (DCM) | 291 | 991 |
| **INSTITUTES (OTHER THAN MEDICAL COLLEGES) OFFERING PROGRAMS IN:** | | | | | |
| 3 | Health management/ administration | Medical and non-medical | PhD, Master of Health Administration (MHA), MBA, BBA, PGDPHM, Diploma | 45 | 2096 |
| 4 | Hospital management/ administration | Medical and non-medical | MBA, Master of Hospital Administration (MHA), BBA, MHM, PGDHM | 57 | 1454 |
| 5 | Health and hospital management/ administration | Medical and non-medical | PhD, MPhil, MBA, BBA, PGDHHM, Diploma | 27 | 1179 |
| 6 | Master of Public Health (MPH) | Medical and non-medical | MPH | 44 | 1190 |
| TOTAL | | | | 475 | 6963 |

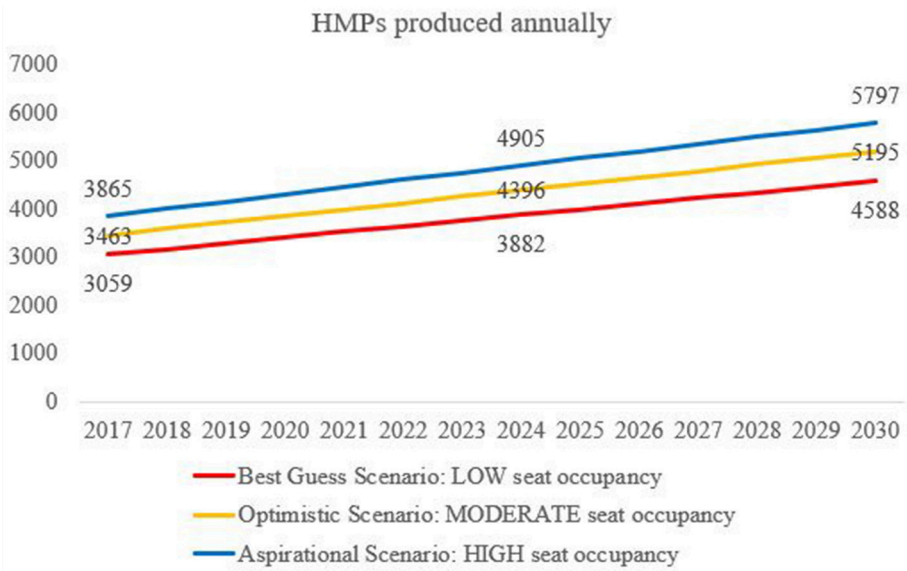


**FIGURE 1 |** Health Management Professionals HMPs produced annually in Best Guess, Optimistic and Aspirational scenarios in India (2017 to 2026).

would be necessary in academic/research organizations across the country. Similarly, around 1,000 professionals will be needed to work in Corporate Social Responsibility roles with corporate organizations. Thus, an estimated 11,304 HMPs are required to function in this capacity across the health sector

We assumed the following additional positions in health management with the setting up of the public health cadre—one at state, two at district and one at each block level.(18) At the country level we would need approximately 7,300 HMPs additionally in 2026 (i.e., 1 × 36 states + 2 × 640 districts + 1 × 5988 blocks). We assumed that - 1/3rd of the states will implement PH cadre by 2020, another 1/3rd by 2023 and all states by 2026. Thus, as per our estimates there will be a requirement of around 2435 HMPs by 2020, 5681 HMPs by 2024 and 7,304 HMPs by the year 2026.

## Need Estimation Through Benchmark Analysis

Assuming in India today, the number of HMPs in health workforce is around 9,608 (i.e., 85% of total 11,304 positions are occupied). Thus, if we calculate the number of health management professionals (HMPs) per one lakh population based on the current population of India i.e., 1.33 Billion (World Bank, Oct 2017) (20) then it comes out to be 0.72 HMP per 100,000 population. The normative need for HMPs was calculated on the basis of benchmark analysis in USA's scenarios

**TABLE 2 |** HMPs produced annually in best guess, optimistic and aspirational scenarios in India.

| Year | Scenarios—seat occupancy | Medical colleges | | Other institutions | | | | Total HMPs produced annually |
|---|---|---|---|---|---|---|---|---|
| | | Health management/ administration; Hospital management/ administration | Community medicine; preventive and social medicine; public health | Health management/ administration | Hospital management/ administration | Health and hospital management/ administration | Master of Public Health (MPH) | |
| 2017 | Best Guess—Low | 40 | 150 | 1193 | 829 | 673 | 174 | 3059 |
| | Optimistic—Moderate | 45 | 170 | 1351 | 939 | 762 | 197 | 3463 |
| | Aspirational—High | 50 | 189 | 1507 | 1047 | 850 | 220 | 3865 |
| 2024* | Best Guess—Low | 50 | 190 | 1514 | 1052 | 854 | 221 | 3882 |
| | Optimistic—Moderate | 57 | 215 | 1714 | 1191 | 967 | 251 | 4396 |
| | Aspirational—High | 64 | 240 | 1913 | 1329 | 1079 | 280 | 4905 |
| 2030* | Best Guess—Low | 60 | 225 | 1789 | 1243 | 1009 | 262 | 4588 |
| | Optimistic—Moderate | 68 | 255 | 2026 | 1408 | 1143 | 296 | 5195 |
| | Aspirational—High | 75 | 284 | 2261 | 1571 | 1275 | 330 | 5797 |

*Forecasted estimates.*

of HMPs: population ratio. On the basis of NACCHO's "Potential Local Public Health Workforce Benchmarks" for Health services managers employed by local government there should be 2.97 HMPs per 100,000 population (17). As per this benchmark analysis, currently in the year 2017 there is a need of 39,774 HMPs in India to reach USA's 2.97:100,000 ratio. This would further grow up to 44,936 by the year 2030.

## Gap Estimation

In the "moderate seat occupancy—optimistic scenario," in the year 2017 there is a gap of 27,288 HMPs which is met by the year 2029. However, if the Public Health Cadre is instituted assuming—1/3rd of the states will implement Public Health Cadre by 2020, another 1/3rd by 2023 and all states by 2026–then in the year 2030 around 7,304 HMPs; then this gap is not met by 2030.

Similarly, in the "low seat occupancy—best guess scenario" in the year 2017 there is a gap of 27,693 PHPs which will not be met by 2030. By the year 2030 there is a gap of 10,407 HMPs in case the Public Health Cadre is instituted—with the requirement of 7,304 HMPs additionally. In "high seat occupancy—aspirational scenario" the gap is met by the year 2027 and in case Public Health Cadre is instituted then it is not met even by the year 2030. **Figure 2** illustrates the three scenarios.

# DISCUSSION

Globally, there is a felt need to reboot the health management education and practices. Health management practices traditionally focus on data collection and its processing for vital statistics, disease registries, and other surveillance-based resources (e.g., natality, morbidity, mortality, and some measure of environmental influences) for planning and operations of services (21, 22). In public heath, traditional health management practices includes the use of budgeting systems, financial performance measures and reports, and cost-control techniques for decisions which are unlikely to be sufficient for assessing how different health care activities and processes support a variety of health care policies goals. Whereas, present-day health management practices may include benchmarking, team-based performance measures and balanced information; which may support multiple goals by providing comprehensive information. This information may provide better control to the effectiveness of various management practices in supporting health care priorities both financial and non-financial; with a greater degree of functional structure coordination that helps in effective public health decision making (23).

It is also important to see how health management education and the role of health managers are patterned and consistent with other country's healthcare system. In the United States, fee-for-service, entrepreneurial dominated approach has resulted in a huge demand for additional health management education programs and managers (24). Thus, universities are attracted to establish health services administration programs (a term used in North America) as they require limited capital, continue to attract enrollment, and contribute to the "social good." However, in the European countries, health systems in contrast provide universal access to care and strict, governmental fiscal control on healthcare expenditures (24).

Currently, there is a shortage of medical practitioners put strain on public health facilities in India (8). As per a India Brand Equity Foundation (IBEF) 2018 report, by 2030 India will need 2.07 million more doctors to achieve a 1:1000 doctor-to-population ratio (9). Thus, the answer perhaps lies in training of healthcare workers with non-medical background (creating HMPs) and relieving doctors of administrative and managerial responsibilities (9).

In India, health management programs are undersubscribed. These programs offered by medical colleges are regulated by Medical Council of India (MCI), whereas institutions training HMPs in India (includes Health, Hospital, Health, and Hospital

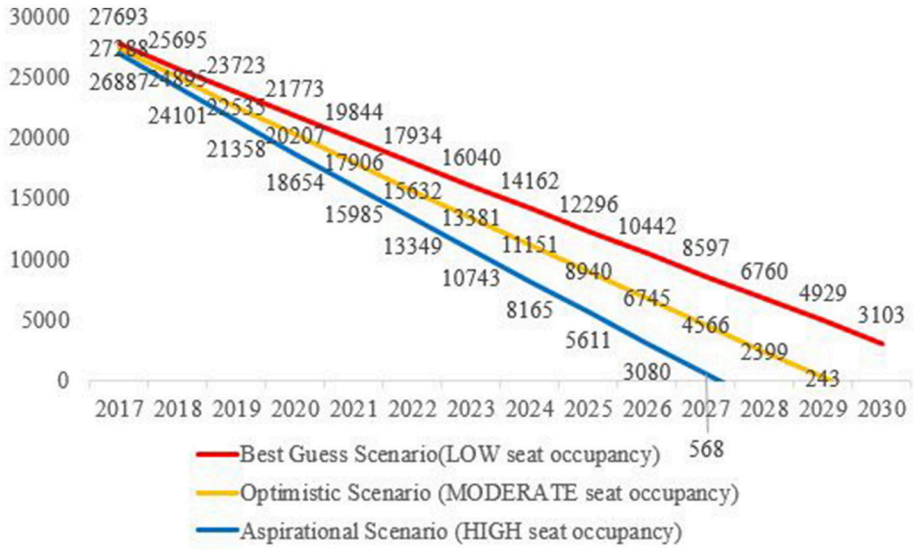


**FIGURE 2 |** Gap in the number of HMPs calculated against a normative need of 2.97 HMPs per 100,000 population.

Management and Administration programs)—are regulated by respective Universities and All India Council for Technical Education (AICTE). Similarly, MPH programs are regulated by their respective universities. It is pertinent to note that although there is an undersubscription in these programs, there was a period of rapid growth in the supply side in anticipation of a rise in the demand for health and hospital management expertise. The efforts of the NHM toward strengthening the management of public systems fueled this growth in the supply side. We anticipate that the creation of a public health cadre in the public system will continue to fuel this growth in the supply side in the coming decade. This optimism is also supported by the stated intent of the Government of India in the NHP 2017 document that prioritizes the set-up of a public health cadre in the country (10). The policy also advocates an appropriate career structure and recruitment policy to attract young and talented multidisciplinary professionals from—"sociology, economics, anthropology, nursing, hospital management, communications, etc. who have since undergone public health management training" (10). Thus, assuming a situation in which the Public Health Cadre is instituted in the country—with 1/3rd of the states implementing Public Health Cadre by 2020, another 1/3rd by 2023 and all states by 2026—then there will be a need of around 7,304 PHPs to work in Public Health Cadre by the year 2026.

As per WHO's Global Health Observatory, in the year 2011, China's health management and support workers density was 72 per 100 000 population (25). Currently in India, there are 0.72 HMPs per 100 000 population which is much lower than the stated benchmark of 2.97 HMPs per 100 000 population (17). However, in India we have not included support workers which includes "other categories of health systems personnel, which may include managers of health and personal-care services, health economists, health statisticians, health policy lawyers, medical records technicians, health information technicians, ambulance drivers, building maintenance staff, and other general management and support staff" —as per definition of WHO's Global Health Observatory (25).

As per a curricular review of MPH programs undertaken in the year 2015–health policy and management is covered in much greater depth in South Asian MPH programs (26). In a recent study undertaken by Pandav et al. health planning and management was described as a "core competency domain" for to be achieved by medical graduates (11). However, students enrolled in health management programs are not currently trained according to an explicitly stated, standardized competency framework that is tailored to the Indian context.

To meet the requirement of trained health professionals, globally, task-shifting as a practice is being used to help reduce the impact of insufficient health workers (27). It has been observed that non-physician clinicians, nurses can provide the same quality of primary care, for a set of common illnesses (28, 29). However, unlike medical skills, task shifting in public health management roles would be difficult. We do not advocate over-burdening of deficient clinical staff with additional management/administration responsibilities in the health sector. We believe that such skills are additionally required in the health system for efficient functioning. We are not advocating that such skills can be provided only by non-medical management professionals. We visualize an important role for medical professionals trained in health management/administration since they bring a blend of medical and management skills. However, the specific requirement of how many such professionals would be required will have to be evolved through a wider consultative process.

Partnerships between institutions offering health management education and business schools could be very valuable (30). Additionally, MBA (general) graduates can also contribute to the pool of health management professionals. However, 70 per

cent of the MBA (general) seats are vacant as the rush for these programs is now limited to premier institutes only (31). Those graduating MBA (general) programs in the country however, doesn't take up jobs in health sector as they don't find it lucrative enough for pursuing a career. Also, those hired in various national and international donor agencies, pharmaceutical sector, central, and state governments and the development partners—in the past have poor context of health.

The government would have to ensure and provide a conducive environment for sustaining a 50 per cent growth in the supply side of HMPs. Additionally, a growth in the demand side through setting up a public health cadre, additional job placements in the health and hospital management sector would also need to be created in the coming decade. Incase these changes are carried out in the future, we believe that this shortage for health management professionals will be met by 2,030.

## AUTHOR CONTRIBUTIONS

RT, HN, and SZ were involved in overall study design. RT conducted the literature review, collected the data. HN and RT analyzed the data. RT wrote the first draft of the manuscript which was reviewed and commented upon by HN and SZ who reviewed it critically for important intellectual content.

## REFERENCES


1. World Health Organization. *Towards Better Leadership and Management in Health: Report on an international concultation on strengthening leadership and management in low-income countries*. (2007).
2. European Health Management Association. *Health Management Capacity Building* (2012).
3. Sharma K, Zodpey S. Need and opportunities for health management education in India. *Indian J Public Health* (2010) 54:84–91. doi: 10.4103/0019-557X.73276
4. Hunter DJ, Berman PC. Public health management: time for a new start? *Eur J Public Health* (1997) 7:345–9.
5. Minsitry of Health & Family Welfare. *National Health Mission* (2017). Available online at: http://nhm.gov.in/
6. Planning Commission. *High Level Expert Group Report on Universal Health Coverage for India* (2011).
7. Task Force on Medical Education. *Report of the Task Force on Medical Education for the National Rural Health Mission* (2007).
8. Sharma NS. *India Will Need 2.07 Million More Doctors by 2030, Says Study*. Livemint. (2017).
9. India Brand Equity Foundation. *Healthcare New Delhi: Ministry of Commerce & Industry, Government of India; 2018 [updated January, cited 2018 24 May]* (2018). Available online at: https://www.ibef.org/download/Healthcare-January-2018.pdf.
10. Ministry of Health & Family Welfare. *National Health Policy*. New Delhi: Ministry of Health & Family Welfare (2017).
11. Pandav C, Zodpey S, Negandhi H, Yadav K, Salve H, Kumar R. Competency based public health training in undergraduate medical education–much needed paradigm shift in India. *South East As J Med Edu*. (2016) 10:4. Available online at: http://seajme.md.chula.ac.th/articleVol10No1/CP1_Pandav_Zodpey.pdf
12. Public Health Foundation of India. *Masters of Public Health Programs in India*. New Delhi (2011).
13. Zopdey S, Sharma K, Negandhi H. *Public Health Education Initiatives in India*. New Delhi (2011).
14. Sinha K. *1,333 Doctors Migrated Abroad Last Year*. New Delhi: The Times of India. (2012).
15. Office of the Registrar General & Census Commissioner I. *Estimates of Mortality Indicators*. New Delhi (2011).
16. Tiwari R, Negandhi H, Zodpey S. Current status of master of public health programmes in India: a scoping review. *WHO South East Asia J Public Health* (2018) 7:29–35. doi: 10.4103/2224-3151.228425
17. National Association of County and City Health Officials (NACCHO). *Local Public Health Workforce Benchmarks* (2011).
18. Task Force on Public Health Cadre. *Approach Paper on Public Health Cadre*. New Delhi (2012).
19. GiveIndia. *Certified Indian NGOs: Health 2017* (2018). Available online at: https://www.giveindia.org/certified-indian-ngos.aspx.
20. Population Estimates and Projections [Internet]. *The World Bank. [cited November 16, 2017]* (2017). Available from: https://data.worldbank.org/data-catalog/population-projection-tables.
21. Aqil A, Lippeveld T, Hozumi D. PRISM framework: a paradigm shift for designing, strengthening and evaluating routine health information systems. *Health Policy Plann*. (2009) 24:217–28. doi: 10.1093/heapol/czp010
22. Gostin LO, Lazzarini Z, Neslund VS, Osterholm MT. The public health information infrastructure: a national review of the law on health information privacy. *JAMA* (1996) 275: 1921–7.
23. Naranjo-Gil D, Sánchez-Expósito MJ, Gómez-Ruiz L. Traditional vs. Contemporary management control practices for developing public health policies. *Int J Environ Res Public Health*. (2016) 13:713. doi: 10.3390/ijerph13070713
24. Weil TP. Health management education in Europe and in the United States: a comparative review and analysis. *Health Serv Manage Res*. (2013) 26:76–85. doi: 10.1177/0951484813512288.
25. Global Health Observatory data repository [Internet]. *World Health Organization. [cited November 22, 2017]* (2017). Available online at: http://apps.who.int/gho/data/node.main.A1444
26. Negandhi H, Negandhi P, Tiwari R, Sharma A, Zodpey S, Kulatilaka H, et al. Developing core competencies for monitoring and evaluation tracks in South Asian MPH programs. *BMC Med Educ*. (2015) 15:126. doi: 10.1186/s12909-015-0403-5
27. Samal J. Scopes and opportunities of hospital and health management education-career choices for AYUSH graduates in India. *J Res Educ Indian Med*. (2014) 20:191–6. doi: 10.5455/JREIM.82-1434003718
28. Martínez-González NA, Tandjung R, Djalali S, Rosemann T. The impact of physician–nurse task shifting in primary care on the course of disease: a systematic review. *Human Res Health* (2015) 13:55. doi: 10.1186/s12960-015-0049-8
29. Villar Uribe M, Alonge OO, Bishai DM, Bennett S. Can task-shifting work at scale?: comparing clinical knowledge of non-physician clinicians to physicians in Nigeria. *BMC Health Services Research* (2018) 18:308. doi: 10.1186/s12913-018-3133-7
30. Pfeffermann G, Kurth A. Value of management education to enhance health systems. *Lancet Global Health* (2014) 2:e504. doi: 10.1016/S2214-109X(14)70272-4
31. TNN. *Nearly 70% of seats vacant in MBA and MCA courses. The Times of India*. (2016).


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# Status of Health Management Education in India: Past, Present, and Future

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This article provides a perspective on the evolution of health management education in India, its current state and the way forward. Health management originated in India in response to the administrative needs of the healthcare system, which is now moving toward institutional care, away from its earlier form of home healthcare. As this field evolved over time, new roles emerged for health management professionals. Several articles have been published in the past describing the state and growth in the field of health management education. This article emphasizes the need to rationalize the sector and shape its future to suit the needs of over a billion people, who use the services of multiple organizations, directly or indirectly in a highly dynamic healthcare environment. We have identified the various challenges that affect the sector today; filling vacant positions, matching jobs with training, and changes in curricula required to achieve good matches. Solutions to address these challenges have also been considered, which in our view could be a way forward in this sector.

**Keywords: health management, health administration, public health, India, hospital administration, management education**

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## INTRODUCTION

Health management in India originated in response to the administrative needs of healthcare providers. It has evolved into a complex specialty with application in many other areas of healthcare. This "hidden career" (1) (it is not an obvious career choice when people think of healthcare services) of health care managers, has different job titles across different organizations, such as health care executive, healthcare administrator, health manager, and public health manager.

The field of Healthcare Management was born as a result of advances in medical sciences, which led to a shift from home-based care to institutional care. The first hospital administration degree program in 1922 at the Marquette University, failed, due to a lack of registrations for the course. The actual process of formal education in hospital administration only started after the publication of Michael Davis's book "Hospital administration, a career" (1).

In India, the existence of hospitals can be traced back to the time of Buddha and Ashoka in the sixth century BC. The health care system has metamorphosed over the centuries, with the invasions by foreigners bringing in hakims and later the European missionaries, leading to the allopathic system of medicine (2). During the British rule in India, several hospitals, medical colleges and dispensaries were established. By the time of independence in 1947, there were 7,400 hospitals with a bed population ratio of 0.24 per 1,000 population (2). The British left a model framework that became the basis for the development of a healthcare structure for the country. However, taking into consideration factors, such as population growth, advent of new diseases and rapid advances in technology, the existing capacities of the system need to be revisited.

The Bhore committee report of 1946 recommended upgrading the health services at all levels and anticipated that the bed population ratio could rise to 1.3/1,000 population in 10 years and to 5.6 in 25 years (3). In order to achieve this, steps taken by the government became the reference points to the way healthcare administration progressed in the country (4). All of this led to the decentralization of health administration, resulting in health administration becoming primarily a responsibility of the state.

To manage the entire system, healthcare management became the bridge between clinical and support functions in the system. Though the original role of a healthcare manager was resource management, over time it was redefined to include other responsibilities. This necessitated the development of systems, practices, interdisciplinary skills, and the creation of capacities to suit the redefined roles (5). The need for an education system, which combined management, social, ethical and psychology related skills along with knowledge of the unique aspects of the healthcare industry, therefore became a necessity.

## HEALTHCARE MANAGEMENT EDUCATION IN INDIA—HISTORY AND OVERVIEW

A fast-growing economy facing the triple burden of disease, with a population as large as India's, requires a strong public health framework. This can only be made possible with well-qualified public health personnel. Healthcare management is essential in both the private as well as the public health systems, as it plays a crucial role in the successful coordination of multiple resources, diverse people, and complex processes, as well as negotiating with stakeholders to achieve the desired policy objectives and reforms (6).

The High Level Committee Report on Universal Health Coverage (6) in India, 2011, recommended "strengthening health sector management by supporting postgraduate courses in public health and hospital management for the health professionals and health program management for medical, dental, AYUSH (Ayurveda, Yoga, Unani, Sidda and Homeopathy), nursing, and allied health professionals" (6). The committee also recommended the immediate establishment of public health training institutions and to develop strong partnerships with public health management institutions. The report advocated the introduction of a specialized state level health systems management cadre and national level public health service cadres, in order to strengthen the management of the UHC (Universal Health Coverage) system and give greater attention to public health. Such a system would incentivize more people to choose public health management as a career (6).

Traditionally, health management education in India has been offered as part of medical education or as an adjunct to it and was therefore offered only to medical/para-medical professionals. It is a multidisciplinary field that includes aspects of management, medicine, statistics, social sciences, behavioral sciences, finance, operational management, fund raising, law, public policy, and analytics. A recent understanding and acceptance of the multidisciplinary nature of this field has led to the burgeoning of public health schools/institutions, separate from medical educational institutions, which also encourages the enrolment of non-medical graduates. Currently, there are several programs offering courses in different areas of healthcare management.

Hospital administration was the first formal course in the world in the field of healthcare management education. In India, the first masters' degree program in hospital administration was pioneered by AIIMS (All India Institute of Medical Sciences) in 1961 (7). Now there are over 120 colleges offering various diploma, graduate, postgraduate, and doctoral programs in hospital administration.

An example of one such initiative is the establishment of the Public Health Foundation of India in 2006, with a mandate to build public health human resources through the establishment of public health institutions. As a result of their efforts, there are currently five Indian Institutes of Public Health, offering various diploma, certificate, and postgraduate level courses in both general and specialized public health areas (8).

Among the various degree programs offered in public health, a few examples are a Master's in Public Health, MBA (Master's in Business Administration) in Healthcare Management, MD (Doctor of Medicine) in Community Health Administration, MD in Tropical Medicine, and Master's in Health Administration (3). In addition to these, several online/offline certification and postgraduate diploma courses offer specializations in the field. Doctoral programs are offered by institutions, such as the All India Institute of Hygiene and Public Health, the Tata Institute of Social Sciences, and the Indian Institute of Health Management Research.

Currently, 44 institutions offer an MPH (Master's in Public Health) course, of which 26 are privately owned and 18 are public institutions (9). There has been an increase of over 90% in the number of institutions offering an MPH and an increase of 107% in the number of seats available over the last few years **Table 1** (9). However, the enrollment rate for these courses, which was 75% in 2010, has fallen to 59% in 2016. Probable reasons for this drop, despite the perceived demand for public health professionals, could be because of the lack of awareness among undergraduates with respect to public health as a profession, limited job opportunities, and the lack of a defined career growth path for such professionals. The geographic distribution of these institutions in India provided in **Table 1**, also show a lack of connections with regard to the specific needs of the location (9). Only 16% of the institutions are located in the Empowered Action Group (EAG) states, which constitute almost 46% of the country's population and 61% of the poor (10). EAG states are the eight Indian states which are lowest in terms of health indicators and contribute the most to the disease burden of the country (11). It is necessary to reorganize and reinforce the public health system of these states, directly creating the need for public health management professionals.

## THE WAY FORWARD

The healthcare industry in India is rapidly expanding, with multi-million-dollar investments made by various national and international agencies, the pharmaceutical sector, central and state governments, and developmental partners. The health

**TABLE 1 |** Geographical distribution of public health management institutions in India.

| S. No. | State | Number of Institutions | EAG state |
|---|---|---|---|
| 1 | Karnataka | 8 | No |
| 2 | Delhi | 6 | No |
| 3 | Maharashtra | 5 | No |
| 4 | Uttar Pradesh | 4 | Yes |
| 5 | Tamil Nadu | 4 | No |
| 6 | Kerala | 3 | No |
| 7 | Chandigarh | 2 | No |
| 8 | Gujarat | 2 | No |
| 9 | Rajasthan | 2 | Yes |
| 10 | Telangana | 2 | No |
| 11 | West Bengal | 2 | No |
| 12 | Himachal Pradesh | 1 | No |
| 13 | Nagaland | 1 | No |
| 14 | Odisha | 1 | Yes |
| 15 | Puducherry | 1 | No |
| | Total | 44 | |

**TABLE 2 |** The way ahead for health management education in India.

| Area of concern | Need and recommendations |
|---|---|
| Quality of education | • Need a central regulating body for assessment of the quality of the programs, and monitoring of the institutions offering the programs<br>• An accrediting body would help guide the process of standardization of the programs. |
| Curriculum design | • Standardization of the curriculum<br>• Allied skill development<br>• Increased industry exposure as part of the curriculum<br>• Limited flexibility in curriculum design to allow local context |
| Faculty development | • Capacity building to meet the demand of faculty in terms of numbers and quality<br>• Need for a multi-disciplinary faculty<br>• To introduce more doctoral programs to build capacities |
| Assessment of demand and supply | • Need for a realistic assessment of the demand for the various specializations in the profession<br>• Need to assess the available pool of professionals and analyze the demand and supply rationally |
| Continuous education | • Courses to be made available for working professionals to update themselves in the latest developments in the industry and develop new skill sets wherever relevant |
| Creation of career paths | • Bridge the disconnect between demand and supply of professionals existing in this field<br>• Create clear career paths for the professional<br>• Create awareness regarding the various career opportunities available for professionals in the field. |

sector is projected to grow at the rate of 23% per annum to a record US$77 billion industry by 2022, according to Yes Bank and an industry body report published in November 2009 (12). In order to respond to this growth effectively, there is a need to create human resource capacities in the areas of public health management and hospital administration. Though the process of building human resource capacities in healthcare management has already started, there is still scope for a lot of learning and education, in order to achieve the objective of a strong healthcare management workforce. **Table 2** presents important tasks to be considered in shaping the future of healthcare management education.

## Quality of Education and Accreditation

The lack of standardized curricula in various institutions offering health management programs and the absence of adequate regulatory and quality control mechanisms, have led to a large variation in the quality of the outgoing product (13). In the USA, a separate body, the Association of University Programs for Hospital Administration (AUPHA) exists to represent the various educational programs in health administration. AUPHA also started the formal accreditation process for the various educational programs, which is currently being undertaken by a separate organization—the Commission on Accreditation of Healthcare Management Education (CAHME).

In India, accreditation of educational institutions is a relatively new concept. Currently, professional councils, such as the All India Council of Technical Education (AICTE), the University Grants Commission (UGC), and the Medical Council of India (MCI) are responsible for recognizing the various health management courses in the country. The National Board of Accreditation (NBA), which was established by AICTE, and the National Assessment and Accreditation Council (NAAC), established by the UGC, provide accreditation at the institution level and have currently constituted expert groups to develop a program level accreditation process in the country. The institutional level accreditation that is available currently may not be sufficient to satisfy the need for dynamic contextual validation of the courses required for industry specific programs like healthcare management.

## Curriculum Design

There is a need to revisit the curriculum and standardize it to ensure uniformity of the minimum core competencies among all the graduates. It must be in line with modern education systems, as well as the technological advances in the sector. In addition, the curriculum should allow for variations to accommodate the healthcare needs of a highly diverse population in different regions in the country.

For example, as seen from **Table 3**, the highest death rate from Ischemic Heart Disease among the states, is 12 times the lowest rate, while the death rate from Chronic Obstructive Pulmonary Disease is nine times the lowest rate across the states of India (11). Similarly, there is a large urban and rural divide in terms of health status, as well as health resource distribution in the country. For example, the infant mortality rate is 44/1,000 in rural areas as compared to 27/1,000 in urban areas while the mortality ratio at all ages is 7.6 in rural areas compared to 5.6 in urban areas (14). Seventy percent (70%) of the health infrastructure, medical

manpower and other resources are concentrated in urban areas, which account for <70% of the population (15). This kind of diversity requires a public health strategy and system to suit the local context; and thus, has an implication on the curriculum used to impart training to the public health experts managing the system. The capabilities and training needs of a public health management professional working in a natural disaster-prone area would be different to those of one working in a region more affected by lifestyle diseases. These differences could thereby determine the curricular design of the various specializations in the field.

**TABLE 3 |** Death rate per 100,000 due to individual causes in India.

| Cause of death | National average | Lowest | | Highest | |
|---|---|---|---|---|---|
| | | Rate | State | Rate | State |
| Ischemic heart disease | 132 | 27 | Mizoram | 261 | Punjab |
| COPD (Chronic Obstructive Pulmonary Disease) | 64 | 22 | Meghalaya, Delhi | 111 | Rajasthan |
| Diarrheal diseases | 59 | 11 | Delhi | 129 | Odisha |
| Tuberculosis | 33 | 8 | Kerala | 58 | Uttar Pradesh |

A joint working group of the United Kingdom (UK) and India was formed to create a model guideline for the MPH curriculum (16). This document defines the core and elective requirements of the course, taking into account the development of the skills, competencies, knowledge, and values required for a public health professional. This document, in addition to local and social considerations, can help serve as a useful guide for institutions to revisit their curricula, and to line them up with the needs of the country.

The teaching/learning methods used also need to be re-examined. In most institutions, the majority of learning is done through didactic lectures. There is a need for a more inquiry-driven form of learning, mixed with considerable exposure to the actual health scene in the country, including public health programs, public and private hospitals, rural health programs, health tourism, telemedicine, pharmaceuticals, hospital planning, healthcare consultancies, health technology assessment, and the medical devices industry. This will not only help students


**FIGURE 1 |** Demand and workforce assessment—a snapshot.

understand the various opportunities available but will also help them to form a point of view of the various stakeholders in the industry.

## Faculty Development

The Lancet Commission, "Health professionals for a new century: transforming education to strengthen health systems in an interdependent world," brought into light a perspective shared by leaders from the industry, as well as academics, to make public health education free from the silos of individual professions (17). It follows that a multidisciplinary approach should be used for teaching, to prepare students for the reality of practice. This kind of trans-disciplinary approach has also been advocated by two reports from the Institute of Medicine in 2002 (18) and 2003 (19).

Currently, faculty for public health management programs constitute members from multiple fields. However, courses offered as an adjunct to medical colleges are taught predominantly by medical faculty. There is a shortage of suitably trained/experienced faculty for these programs. Additional capacity in terms of the number and a better quality faculty can be created by introducing more doctoral level programs in this area (20).

## Assessment of Demand and Supply

Currently, no valid assessment is available of the number and types of healthcare professionals required to serve the industry. This is critical information, as it forms the basis for estimating the capacities required for the future; both in terms of quantity and the type of professionals required. As depicted in **Figure 1**, a demand analysis could be made based on a detailed work force assessment that takes into consideration the requirements of the following: the state and district level agencies in the public healthcare system, various governmental health schemes, requirements of private/public hospital sector/non-governmental organizations sector, allied areas of healthcare management, such as health insurance, health technology, governance, and pharmaceuticals.

## Continuing Education

The rapidly changing technologies used in the healthcare sector require managers to have the capacity to cope with the dynamic nature of the field. As Charles Darwin said, "It is not the strongest of the species that survive nor the most intelligent, but rather the one that is most responsive to change" (21). Continuous education is therefore essential to keep abreast with the changes in the field and which will enable professionals to make the necessary adjustments to cope with the changes in their respective work environments (21).

## Creation of Career Paths

There is a general agreement on the dearth of qualified healthcare management professionals in the industry, implying a demand for the same. However, data shows that there aren't enough enrollments for the seats available. This suggests that the focus should not be on increasing the capacity of the system, instead on streamlining it to attract more students to choose healthcare management as a career path (22). Clear career options and growth prospects along with commensurate compensation mechanisms for these professionals (23) are currently the most important need.

Overall, **Table 2** summarizes the way forward and can even be considered as a recommendation for the way forward.

# CONCLUSION

Several articles have been published in the past, describing the status and structure of the field of healthcare management education in India. The challenges lie not in the capacity of the education system but in the structure, content, quality, and the distribution of the programs offering training in healthcare management. There is a need for a certain level of consistency among the programs with respect to the structure and content of the curriculum, in order to ensure the inclusion of a base set of competencies for all graduates in this field. A comprehensive needs assessment of this sector is therefore required, not only to rationalize the development of specialty courses to suit the requirement of the sector, but also to adequately streamline the geographic distribution of the institutions as well as the structure of courses, to suit the context. A regulatory/accreditation agency, to guide and monitor the programs along similar lines of AUPHA, would go a long way toward quality control of these programs. It would also help build a network of professionals to exchange information and bridge the gap between academics and industry. It would also fill the gap of continuing education that is lacking in the current system. There is a need to focus on methods to increase enrolment to these courses, by increasing awareness and developing better career paths for these professionals. Revisiting the education system in this sector would help ensure that it is in line with the dynamic needs of a complex healthcare system, of a large country, with a population of more than a billion people. A higher degree of consistency across programs and defining the base set of competencies for all graduates in the field, would help them regardless of which management positions they assume.

# AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

# REFERENCES

1. Haddock C, Mclean R. *Careers in Healthcare Management: How to Find Your Path and Follow it*. Chicago, IL: Chicago Health Administration Press (2002).
2. Tabish S. Health planning: past, present & future. In: *Hospital & Health Services Administration: Principles & Practice*. New Delhi: Oxford University Press (2000).
3. Bangdiwala S, Tucker J, Zodpey S, Griffiths SM, Li L-M, Srinath Reddy K, et al. Public health education in India and China: history, opportunities,

and challenges. *Public Health Rev*. (2011) 33:204–24. doi: 10.1007/BF03391628
4. Negandhi H, Sharma K, Zodpey S. History and evolution of public health education in India. *Indian J Public Health*. (2012) 56:12–6. doi: 10.4103/0019-557X.96950
5. Khan N. Evolution of hospitals and its management. *Asian J Manage Sci*. (2013) 01:12–21. Available online at: http://www.literatipublishers.com/Journals/index.php?journal=AJMS
6. Bang A, Chatterjee M, Dasgupta J. *High Level Expert Group Report on Universal Health Coverage for India*. New Delhi: Planning Commission of India (2011).
7. Daga A. Hospital & healthcare administration/management education in India: rising horizons. In: *3rd IIMA International Conference on Advances in Healthcare Management Services* (Ahmedabad) (2017).
8. Sharma K, Zodpey S. Need and opportunities for health management education in India. *Indian J Public Health* (2010) 54:84–91. doi: 10.4103/0019-557X.73276
9. Tiwari R, Negandhi H, Zodpey S. Current status of master of public health programmes in India: a scoping review. *WHO South East Asia J Public Health* (2018) 7:29–35. doi: 10.4103/2224-3151.228425
10. Census. *Population Size and Growth Rate*. New Delhi: Primary Census Abstracts, Registrar General of India, Ministry of Home Affairs, Government of India (2011).
11. Indian Council of Medical Research, Public Health Foundation of India, and Institute for Health Metrics and Evaluation. *India: Health of the Nation's States–The India State-level Disease Burden Status*. New Delhi: ICMR, PHFI, IHME. (2017).
12. Yes Bank. *Health and Wellness–Indian Perspective*. Mumbai: Life Sciences & IT Knowledge Banking (LSIT) (2014).
13. Garg B. Accreditation of public health courses in India—the challenge ahead. *Indian J Community Med*. (2004) XXIX:52–5. Available online at: https://www.researchgate.net/publication/45261813
14. Nagaraja K, Veerabhadrappa B. Rural-urban health disparities in India. *Indian J Appl Res*. (2018) 8:31–3. doi: 10.15373/2249555x
15. Patil A, Somasundaram K, Goyal R. Current health scenario in rural India. *Aust J Rural Health* (2002) 10:129–35. doi: 10.1046/j.1440-1584.2002.00458.x
16. Ministry of Health & Family Welfare. *Model Curriculum Handbook–Masters in Public Health*. New Delhi: Government of India (2017).
17. Frenk J, Chen L, Bhutta ZA, Cohen J, Crisp N, Evans T, et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. *Lancet* (2010) 376:1923–58. doi: 10.1016/S0140-6736(10)61854-5
18. Institute of Medicine. *The Future of the Public's Health in the 21st Century*. Washington, DC: National Academy Press (2002).
19. Institute of Medicine. *Who Will Keep the Public Healthy: Educating Public Health Professionals for the 21st Century*. Washington, DC: National Academy Press (2003).
20. Zodpey SP, Negandhi H, Yeravdekar R. Future directions for public health education reforms in India. *Front Public Health* (2014) 2:68. doi: 10.3389/fpubh.2014.00068
21. Thakur HP, Pandit DD, Subramanian P. History of preventive and social medicine in India. *J Postgrad Med*. (2001) 47:3.
22. Sharma K, Zodpey S. Public health education in India: need and demand paradox. *Indian J Community Med*. (2011) 36:178–81. doi: 10.4103/0970-0218.86516
23. Sharma K, Zodpey S, Zahiruddin Q, Gaidhane A. Career opportunities for master of public health graduates in India. *Asia Pac J Health Manag*. (2013) 8:1–7. Available online at: https://www.researchgate.net/publication/257364624

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# Sino-Australian University Partnership in Health Management Education

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This paper outlines a successful partnership program between La Trobe University in Melbourne Australia, and Harbin Medical University in Harbin, China. These two universities have been collaborating for more than 15 years to provide a comprehensive Master of Health Administration program that adapts the Australian curriculum to meet the rapidly increasing need for qualified health services managers throughout China. This paper describes the mechanisms by which the joint programs were developed and how the two universities work together in partnership to continually improve the program components and outcomes, taking into account the significant differences in context and cultures. Since 2001, La Trobe University has enrolled about 1000 Chinese health services managers, with 721 completing a Master's degree, who are now having increasing influence on the reforms of the Chinese health care system. The partnership has enriched Australian knowledge of Chinese culture and values, as well as the Chinese health system and health policies, as evidenced by the large volume of joint publications. The profession of health management has been substantially strengthened in China, and working together, Chinese and Australian academics have had demonstrated impact on enhancing the reforms of the Chinese public health system. Further studies, with sufficient funds for data collection, are needed to evaluate the long-term impacts of transnational programs on academic and health system development in China.

**Keywords: health management, transnational education, academic partnership, health administration, management training, global health**

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## BACKGROUND AND RATIONALE

The La Trobe University China Health Program (CHP) courses were developed in response to rising concerns about both the quality of care and the efficiency of service delivery in Chinese hospitals in the 1990s (1, 2). The economic and social reforms following the Third Plenum of the 11th Central Committee of the Chinese Communist Party in December 1978 aimed to transform the economic system from a socialist planned economy to a socialist market economy. In public health care, these reforms had far-reaching effects, reducing the financial contribution of the government, with the expectation that public hospitals would raise a growing portion of their operating revenue through user charges (3).

In addition, Chinese hospital managers faced many of the same pressures as hospital managers in other countries, such as ensuring access and quality for an aging population with decreasing public sector resources; improving efficiency to stretch the limited resources; and selectively

implementing new, and often expensive, technologies. Despite these challenges, Chinese hospital management was seen as a part-time responsibility, not a vocation. Managers were appointed, principally from senior medical staff and generally on a part-time basis, as they retained their clinical involvement. Hospital managers were not provided with formal management training and were expected to learn on the job (4).

The lack of full-time professional hospital management was seen by many to contribute to the under-performance of Chinese hospitals (5, 6). In response, a study was conducted to identify the required competencies of Chinese hospital managers in three hospitals in a south-western province in China. Using both questionnaire survey and interviews, the researchers found that the managers felt they needed management training. The respondents specifically identified the need for skills in leadership (81%), communication (75%), financial management (62%), and the application of information technology to hospital services (34%) [(4), p. 21].

The study also confirmed that most senior public hospital managers in China saw their management involvement as part-time and short-term. The majority (69%) of the hospitals' chief executive officers (CEOs) had a medical background in the study sample, with the rest having a non-health professional background (e.g., retired military officer). They were appointed by the government for a fixed term. These medical practitioners expected to return to clinical practice after completing their period in management, suggesting that it was essential that they maintain their clinical skills through continuing clinical involvement throughout their managerial appointment (4). While this study identified shortfalls in the competence of the respondent managers, it was also concluded that this was not the sole contributor to the under-performance of the hospitals, as adverse health policy decisions were also found to have contributed to the performance of the study hospitals.

This need for formal management training provided the impetus for the development of a transnational (as defined by McBurnie and Ziguras) (7) La Trobe University China Health Program in 1996. Located in the Asia Pacific region, Australia was in a unique position to address the education needs of Chinese health managers. The University had a long running successful Master of Health Administration (MHA) program for Australian managers. The La Trobe MHA program was particularly attractive to the Chinese health managers for its practice orientated approach designed around a validated management competency framework [details about the competency framework have been published elsewhere, (8–10)]. La Trobe University (LTU) draws many Asian students. North Asia comprises mainland China, Hong Kong China, and Japan and 45% of LTU Asian students come from North Asia, with 90% of these from China.

## DEVELOPMENT AND PEDAGOGIES OF THE CHINA HEALTH PROGRAM

The La Trobe University CHP staff worked with a number of Chinese universities, aiming to adapt the highly successful MHA degree taught to Australian health managers to meet the needs of health managers in China. However, it was not until 2001 that the CHP program really took off, with the partnership with Harbin Medical University (HMU). Both universities enjoy a high profile in health management education and training in their respective country. La Trobe University, a comprehensive university with more than 30,000 annually enrolled students, is ranked among the top 500 universities in the world. Its MHA program is one of the biggest in Australia. In contrast, Harbin Medical University is a university specialized in medical sciences. It is relatively small with about 15,000 annually enrolled students. The Harbin training center for health services management was one of the first on-the-job training centers established by the Ministry of Health in China in the 1980s, which has now grown into a school delivering health management courses ranging from bachelor to masters and doctoral degrees.

Academic staff from both universities adapted existing MHA subjects to meet the needs of the Chinese health managers, with Faculty from both universities teaching into the program in English and Mandarin. Most subjects have flexibility about the context of written assignments, so that the academic skills each subject offers can immediately be translated to professional or personal interest areas. These subjects were designed for health managers or administrators working in hospitals, governmental bureau, and departments (health, civil affairs, social insurance, food, and drug administration, planning, financing, and other related fields), academic centers, and non-governmental organizations and consumer bodies. Students entering into the courses were required to have a tertiary undergraduate qualification equivalent to a baccalaureate and at least 3 years of working experience. There were no English language proficiency requirements because the courses were delivered in Mandarin (including interpretation from English to Chinese).

The intended learning outcomes of the MHA program are:

- to apply research principles and practices to critically appraise the health management body of knowledge and apply to managerial and leadership practice;
- to synthesize information on population needs, health care delivery systems, funding and financing arrangements, and government policy to create, revise, implement, and evaluate evidence-based strategies that enhance population health and maximize organizational potential;
- to apply project management tools and techniques underpinned by contemporary theoretical models to cultivate change;
- to evaluate and synthesize the impact of health system and health organization resource allocation decisions and apply to future resource allocation decisions;
- to identify and assemble relevant data to analyze performance to improve the operations of a health care system or organization to enhance patient care and population health outcomes;
- to develop and apply ethical evidence-based leadership skills directed to individuals and teams across diverse organizational environments;

- to effectively communicate ideas and information to different audiences and diverse settings; and
- to apply critical reflective practice that adapts responsively to the needs of different contexts and stakeholder groups.

The Chinese government, in a range of policy documents, recognized the importance of high-quality education and identified transnational partnerships as a method to rapidly boost the capabilities of Chinese universities (11). The 2003 Regulations of the People's Republic of China on Chinese-Foreign Cooperation for Running Schools outline basic requirements:

- Foreign institutions must partner with Chinese universities
- These partnerships must not seek profit as their objectives
- The basic language of instruction must be Chinese, and
- Tuition fees require government approval (12).

The CHP responded to all of these requirements, building the partnership with HMU.

The Program was designed with four educational components, comprising a Graduate Diploma, two Master degrees and health policy fora, which responded to the educational policies of the Chinese Ministry of Education. The first component (started in 2000), the Graduate Diploma in Health Services Management (GDHSM) was the first step for Chinese health managers. It was designed as an integral part of the MHA degree course. A stand-alone Graduate Diploma is not formally recognized by the Ministry of Education in China in its qualification framework. This enabled a range of students from throughout China to prove their abilities in Australian-style postgraduate study.

The next component, the Master of Health Administration (started in 2001), was approved by the Chinese Ministry of Education. The operational model of the Harbin-based MHA was adapted to meet the needs of the students. The students studied in intensive block modes (15–21 days of teaching per block), which minimized disruptions to their job functions. The block teaching was delivered face-to-face with workloads shared by academics from the two universities. All of the teaching and learning materials, including subject guidelines, lecture presentations, small exercises, recommended readings, and assessments and assignments were developed by La Trobe University with inputs from Harbin and several other Chinese universities in line with the requirements of the Australian Qualification Framework (AQF). Four La Trobe academic staff coordinated the subjects, with sessional inputs from others. They were paired with six Harbin academic staff. The Harbin teaching staff had to meet the AQF qualification requirements. They (except one) were also trained and appointed as adjunct staff of La Trobe University. The teaching and learning packages were distributed to enrolled students at the start of the courses. They were encouraged to preview the materials and do small exercises before attending face-to-face classes.

A variety of learning activities were involved in the block teaching (face-to-face), including academic and guest lectures, case studies, group discussions, policy debates, role play (for stakeholder analyses), facility (field or video) visits, and hands-on practices (e.g., Medical Director, a decision supporting software for general practice). During the teaching sessions and in assignments the students were encouraged to solve actual management problems in their workplace (for example, development of a local health network with an aim to improve vertical integration of services across several organizations or a pay for performance salary system within a hospital). The block teaching model allowed them to try new strategies and instruments in their organizations (for 3–4 months), and bring questions and feedback to the next block of training. This formed a learning-practice-reflection-change cycle (13). The Chinese health management students were keen to keep up with international trends in health system development and health services management. This course design expanded the vision of the students by exposing them to the experiences of various countries without necessarily traveling overseas.

In recognition of the demand for health management education, the initial quota of 50 MHA students was increased to accommodate 70 students. These 70 students were able to enrol at Harbin Medical University for the joint HMU/LTU MHA Program. However, more than 120 eligible applications were regularly received in Harbin every year. This limitation to 70 enrolled students meant that many applicants would not be offered a place to study the MHA in China.

The Graduate Diploma in Health Services Management (GDHSM) and the MHA form an integrated program, outlined in **Figure 1**. A full MHA includes 11 subjects (**Figure 1**), with a total of 180 credit points (10 subjects accrue 15 credit points, one subject accrues 30 points).

This led to the development of the third component, a 1-year full-time MHA (120 credit points) offered onshore (started in 2001) at La Trobe University in Melbourne, Australia. It was expected that this onshore MHA would accommodate students who had completed training in China equivalent to the Graduate Certificate (60 credit points equivalence) or the GDHSM, but who were not accepted to the highly competitive partnership MHA in Harbin. The onshore Australian operations also enabled an expansion of La Trobe MHA partnerships in China beyond Harbin Medical University.

In theory, this worked for a number of years, but La Trobe University eventually closed this onshore Program, as it was difficult to obtain sufficient numbers of Chinese students to study in Australia to be viable. There were a number of reasons for the difficulties in building the capacity of the onshore Program. The first was that most of the applicants were in health care management positions and it was difficult for them to leave their jobs, and the country for an extended period of time to study. Getting permission to leave China and obtaining an Australian visa was often difficult, as these applicants were not the typical undergraduate students looking for a study visa for Australia. Finally, various public health events, such as severe acute respiratory syndrome (SARS) and climate events, such as the earthquakes, resulted in even those students with approved study visas being recalled to their various roles in the public health system in China.

The Chinese governmental approved fee levels for the HMU/LTU MHA Program (increasing over the years), which enabled a financial balance through sharing costs (including both

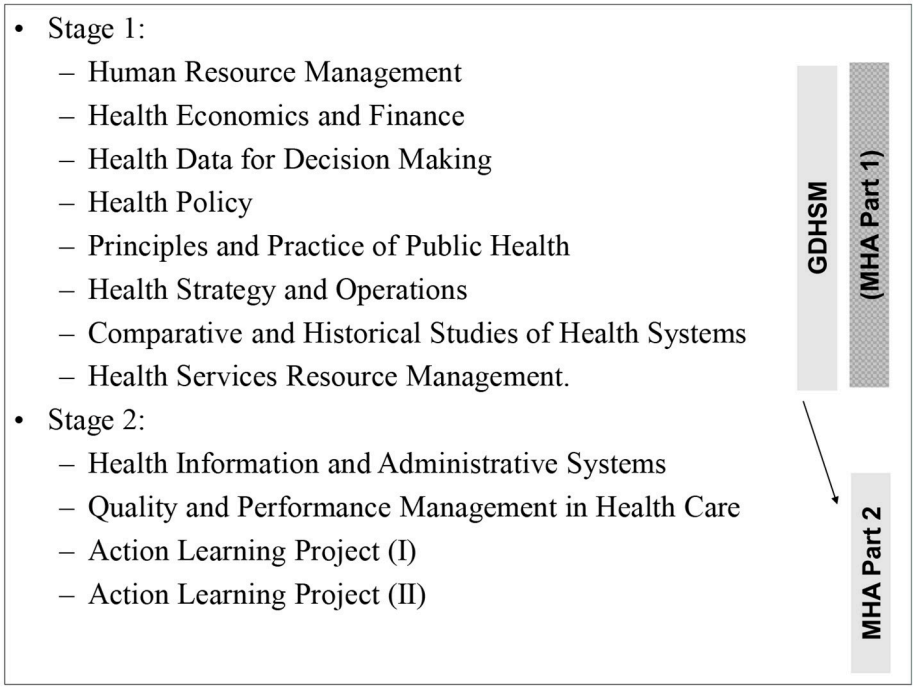


**FIGURE 1 |** Standard sequence of study and course enrolments offered as part of the CHP.

academic and administrative costs) and revenues between the two universities, but with limited profits. This lack of profit incentive was consistent with the 2003 Regulations of the People's Republic of China on Chinese-Foreign Cooperation for Running Schools. As such many of the impacts of the Program were in areas other than financial, for example, the fourth educational component of the CHP that aimed to influence health policy and health system development in China. The La Trobe CHP successfully organized several Sino-Australia Fora on Health System Reform in Beijing and Harbin, with funding support from the Australian China Council (ACC) and Chinese funding bodies. These fora attracted tremendous interest from both China and Australia (e.g., more than 500 participants in the 2010 forum in Beijing) (14). Participants included the La Trobe CHP alumni, hospital managers, community health managers, health officials, and health research academics from both countries, as well as representatives from international agencies connected with China, such as the World Health Organization, the Australian Embassy, AusAID, and its HIV/AIDS Facility (CHHAF), the World Bank, and the UK Department for International Development.

Through these fora, the La Trobe CHP also coordinated study tours for Australian health managers to China and for Chinese health managers to Australia. In a broad sense, Australia and China face similar health policy challenges despite the differences between the two countries. Both countries are working to reduce gaps in health services accessibility and in health outcomes between rich and poor, urban and rural, and indigenous and non-indigenous people. China can learn from Australia's experiences in the past decades, in particular, the development of a universally accessible Medicare system. Meanwhile, Australians can also benefit from the reframing which happens when they seek to make sense of a familiar policy questions in very different settings. These fora attracted interest from a wide range of public media, including Chinese Central Television, the New Peking Newspaper, the Morning Newspaper, the Health Newspaper, the Beijing Youth Newspaper, Xinhua Times, and Xinhua News Agency.

The CHP MHA is derived from and is consistent with the La Trobe University MHA degree. The MHA meets both the Australian Tertiary Education Quality and Standards Agency (TEQSA) requirements for a Master-level qualification (15) and the competency requirements for accreditation by the Australasian College of Health Service Management (16). The teaching program was both strengthened and supported by a comprehensive collaborative research program as well.

## THE CHINA HEALTH PROGRAM OUTCOMES

Given the tenure of the CHP, there has been substantial internal evaluation, as well as external recognition of the program. The CHP aims to support its students, graduates, and alumni to make a real difference to their management practice and the performance of their organizations and the Chinese health system. Overall, students expressed a higher level of satisfaction for the CHP courses compared to the average of health courses

at La Trobe University, according to a sampling survey in 2002 using a validated instrument developed by the University. The CHP students were more likely to believe that the courses were useful to help them achieve the relevant aim and objectives despite some concerns about the high study loads and fast pace of learning (**Figure 2**). The annual student feedback survey showed that CHP students consistently rated the MHA subjects high over the years, with an average score of over 4.5 out of a possible 5.

A questionnaire survey in 2005 collected qualitative data in relation to the achievements of 63 students who had completed the CHP MHA. The results indicated that the students were able to apply what they learned in the MHA to their workplaces (17). The respondents specifically identified that the MHA helped them develop the knowledge and skills to:

- improve the safety and quality of patient care,
- build a learning organization by taking advantage of modern information technology,
- balance the needs of various stakeholders for the sustainable development of their organizations,
- nurture a high-performance work system,
- improve operations management by learning from other industries (such as lean thinking and six sigma), and
- participate in policy dialogues and health system reform.

Adding even more value, about half of the respondents published peer-reviewed articles in policy or management journals, and 23% acknowledged the role of their learning achievements on career promotions and cited examples of grants, projects, awards, and publications as a result of the study (17).

There is evidence that the La Trobe China Health Program has started showing long-term effects on students' participation in the health system reform in China. For example, case mix or activity-based funding has been one of the areas with relevant application. The theory, concept and applications of Diagnostic Related Groups (DRGs) were introduced at the start of the MHA course in 2000/2001, which attracted immediate interest from the students (18). Later on, a group of MHA students established a Chinese version of DRGs (19) with technical input from La Trobe University academics based on a doctoral research project on casemix classifications in acute hospital settings in China (20). More recently, La Trobe CHP has been invited to participate in a national pilot project on casemix funding for hospitals (21). This project is led by a student who graduated from the first cohort of the Harbin joint MHA program. The CHP role includes a capacity assessment of the pilot cities, training of policy makers, and health services managers from the central government and the pilot cities, and consultation services to the project team. Broader evaluation of the health system impact of this transnational initiative would require a comprehensive assessment that was not possible within the budget of the CHP. Further research and evaluation is an essential next step.

The La Trobe CHP is able to make these documented achievements for several reasons. The first is that the students value the complementary nature of teaching delivered by the Chinese and Australian teachers. According to the cultural tradition, Chinese students respect and favor a teacher-led systematic approach in learning (22). This approach usually starts with an overarching theoretical logic explanation before details of various management strategies are discussed. While the presentations made by the Australian lecturers were often considered novel and innovative, the students found that compared to Chinese pedagogy, the Australian content was fragmented. The Chinese partner lecturers were well positioned to help the students comprehend what they were taught in a more culturally appropriate and less cognitively challenging way. A close working relationship was built between Australian and Chinese academics using a capacity building model to enhance teaching and learning skills.

Second, the bilingual teaching capacity played a critical role in bridging the gaps and potential mismatches between the western management theories and the Chinese context. The course adopted a co-teaching model involving monolingual teachers (English only or Chinese only) working closely with bilingual teachers (with Chinese as the native language). The bilingual teachers understood western management theory and practice, as well as the Chinese context. This enabled the bilingual interpreters to move well beyond translation, facilitating student learning of the content within the Chinese context, and providing real world examples. Over time the bilingual lecturers also developed an excellent understanding of the La Trobe University teaching pedagogy. Regular teaching and planning workshops enabled Australian and Chinese teachers to share perspectives on curriculum and pedagogy.

Third, the students requested a set of unified textbooks, which were deemed critical for a systematic and logic approach to learning. Although it is difficult to keep textbooks updated in a timely manner, the La Trobe CHP compiled several bilingual [e.g., Health Policy in and for China (23); Working with Information (24); Project Management in Health, and Community Services (25)] and monolingual textbooks [e.g., Health Care in Australia (Chinese) (26); Leading and Managing Health Services (in English) (27); Health Human Resource Management (in Chinese) (28)] while still maintaining an updated package of reading materials. The teaching and learning materials were packaged in electronic format and enrolled students could get access to these materials both online and offline (through CDs/USB sticks). The completion of the textbooks provided additional opportunities for collaboration and cooperation between the HMU and LTU academic staff. Both universities took great pride in these accomplishments, with a large scale celebratory book launch involving senior government officials from both Australia and China.

Fourth, similar to the domestic Australian version, the course recognized that the senior managers enrolled in the courses had a wealth of experience, judgement and knowledge that comprised a key resource in the courses. The mode of delivery ensured that students reflected on and learned from their own experience and from each other, through the sharing of experience, strategies, and collective reflection on practice.

Finally, the teaching was supported by relevant research. The LTU CHP staff engaged in research into the health care system in China in collaboration with academics from the Chinese universities and the CHP alumni. The research activities enabled

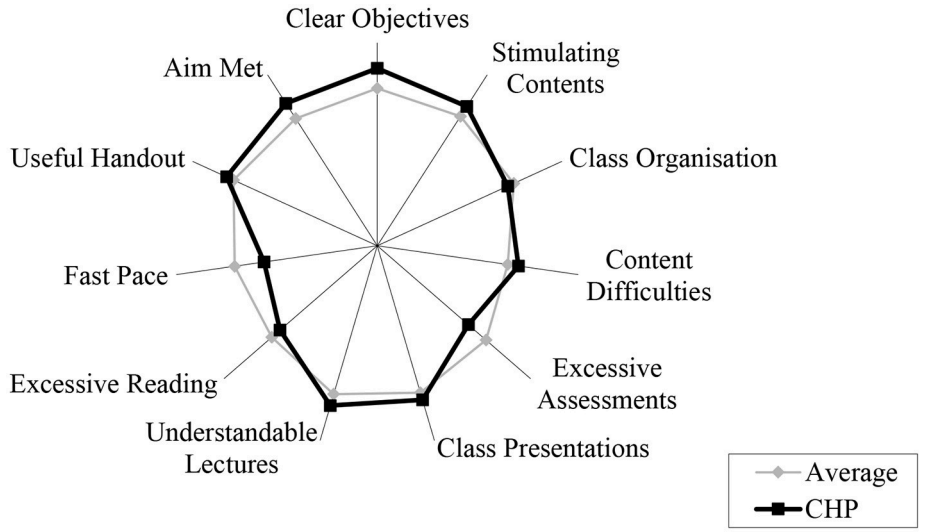


**FIGURE 2 |** Student feedback on health courses at La Trobe University (2002). Note: a higher score (longer distance from the center) indicates more positive feedback.

Australian staff to develop a better understanding of the Chinese health system and the challenges the students were confronting. This is evidenced by 11 monographs/textbooks and an impressive 173 peer-reviewed publications produced by the CHP staff about the Chinese health system and health reforms published in both English and the Chinese language. Topics have included patient satisfaction (29–31), medications policy and practice (32–40), patient safety and organizational safety culture (41, 42), health reform (35, 43–50), health insurance (50–52), emergency response (53–56), and human resource management (3).

The achievements of the CHP have been widely recognized in both China and Australia. For example, the CHP Master of Health Administration program (offshore in Harbin) was commended by the Australian University Quality Agency (AUQA) as a potential "Jewel in the Crown" of La Trobe's international activities and was chosen for inclusion in the AUQA Good Practice Database. Further, the CHP won an award in 2006 from the Ministry of Education of China for educational innovation and the inaugural Victorian International Education Award for *Excellence in Innovation in International Education* 2013 (https://www.latrobe.edu.au/news/articles/2013/release/recognition-for-international-education). This was a government award provided by the State of Victoria in Australia as part of its international strategy (http://www.invest.vic.gov.au/news-and-events/2013/oct/2013-10-28-victorias-new-international-education-strategy-for-the-asia-pacific-region).

## LESSONS LEARNED ALONG THE WAY

As a host University there is a temptation to assume the role of the "expert." However we learned early on that being the expert was not compatible with the public health approach to capacity building that recognizes the expertise, values and cultures of our partners. Australian and Chinese national cultures would fit at opposite ends of many cultural dimensions, such as individualism and collectivism (57), and specific vs. diffuse (58). The recognition of these differences with incorporation into the curriculum was even more important than addressing different characteristics of the health care systems. "A method born of one culture may be adapted to another only when relevant cultural differences are rigorously considered" [(59), p. 417].

For example, while many Australian universities, particularly in health education, have implemented problem-based or enquiry-based learning (60). Kee and Wong (22) found that Chinese students learned better when the information was given by the teacher and did less well when forced to discover the answers for themselves. The program was structured to ensure students were provided with the foundational information, and the application of this information in the development of management competencies were facilitated through a reflective learning approach (13).

With support from teachers, students were encouraged to enter into "deep learning." This usually started with an introduction of facts, practices, and their underlining principles by teachers, followed by student reflections on examples (either successful or failed examples) in China through group discussions. The students were then challenged to discuss why a particular theory or principle may or may not work within the Chinese context. A clear message was sent to students in many assignments: they were welcomed to challenge teachers, and teachers were more than happy to see arguments and thoughts that deviated from classroom teaching and textbooks. In the capstone action learning project, students had to discuss why their project activities achieved or failed to achieve intended goals. Recognizing and learning from failure comprised an important part of the reflective learning process.

As outlined by Phuong-Mai and colleagues (59), a joint curriculum spanning cultures should not take "an either-or"

approach, but should be a compromise that is superior to the initial product. Asian students want to be sure that what they are learning in a transnational education program is easily adapted to their local context and not generic education that is difficult to apply (61). As a result, the Australian academic staff learned as much about the Chinese health system, Chinese cultures and values as the Chinese students and staff learned about Australia and western management practices.

Developing a targeted culturally sensitive curriculum is made more difficult by the increasing economic pressures for the internationalization of Australian university programs. Schapper and Mayson (62) have commented on the very real tensions between the need for a tertiary education product that is acceptable to students around the world, while at the same time ensuring these programs can meet the diverse localized needs of specific student groups. They stress the need to recognize and support the "important link between academics' research activities and the contribution these activities make to the pedagogical soundness of the courses we offer students in an internationalized context" [(62), p. 202]. These authors suggest that there is an economic temptation to "water down" the curriculum to make it acceptable to a range of different contexts. Our experience suggests that the CHP would not have been as successful in equipping the graduates to make changes in their own health system without the partnership approach that was used.

Similarly, many of the teaching tools used in the Australian context were not able to be easily adapted to meet the needs of the Chinese students. Some of the Chinese restrictions on social media and the difficulties in scaling organizational intranet firewalls provided some limitations, which were overcome by working in partnership to ensure the final goals were achieved.

Our final learning was the need to plan for broad longitudinal evaluation when planning the programs. Rarely do teaching programs contain sufficient budget for the necessary comprehensive evaluation and this needs to be a focus of future transnational health management education programs.

## CONCLUSIONS

The La Trobe University and Harbin Medical University health administration teaching and research partnership has developed over decades for the benefit of both universities and faculty members in Australia and China. The partnership has enriched Australian knowledge of Chinese culture and values, as well as the Chinese health system and health policies. The profession of health management has been substantially strengthened in China, and working together, Chinese and Australian academics have had demonstrated impact on enhancing the reforms of the Chinese public health system.

Some key themes can be extracted from the successful operations of the Program: (1) mutual understanding: the Australian participants were as keen as the Chinese participants to learn from their counterparts; (2) evidence-based learning: research was essential in the curriculum development in order to meet the practical needs of students; (3) complementary skills and responsibilities: the two universities shared academic and administrative resources in a complementary way; (4) faculty development: the two universities shared a common goal in internationalization; (5) engagement and participation: academic staff supported students to participate in health reforms; and (6) good communication and coordination: bilingual academics played a critical role in the governance and operations management of the Program. While these are essential factors for future program development, the important message is that partnerships may evolve in different ways depending on the culture and values and needs of both partners. It is an evolving, learning experience for both partners.

## AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

## REFERENCES


1. Ma M, Fang H. A study on speeding up the turnover of hospital beds. *Chin J Hosp Adm.* (1994) 10:112–4.
2. Wang K, Han S. A current investigation on the average hospitalisation days in 10 big general hospitals. *Chin J Hosp Adm.* (1995) 10:65–8.
3. Liu C, Bartram T, Casimir G, Leggat SG. The link between participation in management decision-making and quality of patient care as perceived by Chinese doctors. *Public Manage Rev.* (2015) 17:1425–43. doi: 10.1080/14719037.2014.930507
4. Likun P, Legge D, Stanton P. The need for hospital management training in China. *Asia Pac J Hum Resour.* (2000) 38:12–28.
5. Fu R, Dong W. Management the key to developing health in minority areas (in Chinese). *Soft Sci Health* (1994) 11:40–1.
6. Han F, Guo Y. Going beyond the shadow: on health management training (in Chinese). *Health Policy China* (1992) 1:36–7.
7. McBurnie G, Ziguras C. *Transnational Education: Issues and Trends in Off-Shore Higher Education*. New York, NY:Routledge (2007).
8. Howard PF, Liang Z, Leggat SG, Karimi L. Validation of a management competency assessment tool for health service managers. *J Health Organ Manage.* (2018) 32:113–34. doi: 10.1108/JHOM-08-2017-0223
9. Liang Z, Howard PF, Leggat S, Bartram T. Development and validation of health service management competencies. *J Health Organ Manage.* (2018) 32:157–75. doi: 10.1108/JHOM-06-2017-0120
10. Liang Z, Howard P, Koh L. Hey Boss, are you sure they are the managers you are looking for? *GSTF J BioSci.* (2018) 2:86–91. doi: 10.5176/2251-3140_2.1.27
11. Yang R. Transnational higher education in China: contexts, characteristics and concerns. *Aust J Educ.* (2008) 52:272–86. doi: 10.1177/000494410805200305
12. Garrett R. Foreign higher education activity in China. *Int High Educ.* (2004) 34:21–3.
13. Ruth H. Learning through reflection: the critical role of reflection in work-based learning (WBL). *J Work Appl Manage.* (2015) 7:15–27. doi: 10.1108/JWAM-10-2015-003
14. ACC. *Annual Report 2009-2010 Canberra: Australian Government* (2010). Available online at: https://dfat.gov.au/people-to-people/foundations-councils-institutes/australia-china-council/Documents/acc_annual_report_09-10.pdf (Accessed 24 July 2018).

15. Australian Qualifications Framework Council. *Australian Qualifications Framework*. Adelaide, SA: Australian Qualifications Framework Council (2013).
16. Australasian College of Health Service Management. *Master Health Service Management Competency Framework*. Gladsville, NSW: Australasian College of Health Service Management (2016).
17. Pei L, Liu C, Yang H, Legge D. Evaluation of the La Trobe Master of Health Administration program in China. *Chin J Hosp Adm*. (2006) 8:555–7.
18. Wan C, Cai L, Xu C, Pei L, Legge D, Stanton P. Research into DRGs: challenges and strategies. *Chin J Health Stat*. (2001) 112–5.
19. Jian W, Hu M, Cui T, Wang H, Huang Y, Zhang X. Assessing performance of clinical services using DRGs. *Chin J Hosp Adm*. (2006) 11:736–9.
20. Gong Z, Duckett SJ, Legge DG, Pei L. Describing Chinese hospital activity with diagnosis related groups (DRGs). *Health Policy* (2014) 69:93–100. doi: 10.1016/j.healthpol.2003.12.004
21. Yu L, Lang J, Wang S, Zhou H, Chang H, Jiang Q. C-DRG grouper and its applications. *Chin Health Econ*. (2017) 15–7.
22. Kee J, Wong K. Are the learning styles of Asian international students culturally or contextually based? *Int Educ J*. (2004) 4:154–66
23. Lin V, Guo Y, Legge D, Wu Q. *Health Policy in and for China*. Beijing: Peking University, Medical Press (2010).
24. Liu C, Grain H. *Working With Information*. Beijing: People's Medical Publishing House (2009).
25. Dwyer J, Liang Z, Thiessen V, Martini A. *Project Management in Health and Community Services*. 2nd ed. Allen and Unwin, editors. (2013/2017).
26. Pei L, Liu C, Legge D. *Australian Health Care System: Universality Under Stress*. Beijing: People's Medical Publishing House (2009).
27. Day GE, and Leggat SG. *Leading and Managing Health Services*. Port Melbourne, VIC: Cambridge University Press (2015).
28. Mao J. *Health Human Resources Management*. Beijing: People's Medical Publishing House (2013).
29. Xiong C, Chen X, Zhao X, Liu C. Patient satisfaction and gender composition of physicians - a cross-sectional study of community health services in Hubei, China. *BMC Health Services Res.* (2018) 18:217. doi: 10.1186/s12913-018-3011-3
30. Ren J, Huang X, Zhang T, Zhou X, Liu C, Wang X. Patient satisfaction with prescribed medicines in community health services in China: a cross-sectional survey 6 years after the implementation of the national essential medicines policy. *Health Soc Care Commun.* (2018) 26:495–506. doi: 10.1111/hsc.12548
31. Shan L, Li Y, Ding D, Wu Q, Liu C, Jiao M, et al. Patient satisfaction with hospital inpatient care: effects of trust, medical insurance and perceived quality of care. *PLoS ONE* (2016) 11:e0164366. doi: 10.1371/journal.pone.0164366
32. Tang Y, Liu C, Zhang Z, Zhang X. Effects of prescription restrictive interventions on antibiotic procurement in primary care settings: a controlled interrupted time series study in China. *Cost Eff Resour Alloc*. (2018) 16:1. doi: 10.1186/s12962-018-0086-y
33. Tang Y, Liu C, Liu J, Zhang X, Zuo K. Effects of county public hospital reform on procurement costs and volume of antibiotics: a quasi-natural experiment in Hubei Province, China. *Pharmacoeconomics* (2018) 36:995–1004. doi: 10.1007/s40273-018-0654-1
34. Lei X, Jiang H, Liu C, Ferrier A, Mugavin J. Self-medication practice and associated factors among residents in Wuhan, China. *Int J Environ Res Public Health* (2018) 15:E68. doi: 10.3390/ijerph15010068
35. Zhang T, Liu C, Ren J, Wang S, Huang X, Guo Q. Perceived impacts of the national essential medicines system: a cross-sectional survey of health workers in urban community health services in China. *BMJ Open* (2017) 7:e014621. doi: 10.1136/bmjopen-2016-014621
36. Yang L, Huang C, Liu C. Distribution of essential medicines to primary care institutions in Hubei of China: effects of centralized procurement arrangements. *BMC Health Services Res.* (2017) 17:727. doi: 10.1186/s12913-017-2720-3
37. Tang Y, Liu C, Zhang X. Delivery of essential medicines to primary care institutions and its association with procurement volume and price: a case study in Hubei Province, China. *Appl Health Econ Health Policy* (2017) 15:57–64. doi: 10.1007/s40258-016-0276-8
38. Liu C, Zhang X, Liu C, Ewen M, Zhang Z, Liu G. Insulin prices, availability and affordability: a cross-sectional survey of pharmacies in Hubei Province, China. *BMC Health Services Res.* (2017) 17:597. doi: 10.1186/s12913-017-2553-0
39. Tang Y, Liu C, Zhang X. Public reporting as a prescriptions quality improvement measure in primary care settings in China: variations in effects associated with diagnoses. *Science* (2016) 6:39361. doi: 10.1038/srep39361
40. Ding D, Pan Q, Shan L, Liu C, Gao L, Hao Y, et al. Prescribing patterns in outpatient clinics of township hospitals in China: a comparative study before and after the 2009 health system reform. *Int J Environ Res Public Health* (2016) 13:679. doi: 10.3390/ijerph13070679
41. Wang Y, Liu W, Shi H, Liu C, Wang Y. Measuring patient safety culture in maternal and child health institutions in China: a qualitative study. *BMJ Open* (2017) 7:e015458. doi: 10.1136/bmjopen-2016-015458
42. Liu C, Liu W, Wang Y, Zhang Z, Wang P. Patient safety culture in China: a case study in an outpatient setting in Beijing. *BMJ Qual Saf*. (2014) 23:556–64. doi: 10.1136/bmjqs-2013-002172
43. Zhang T, Xu Y, Ren J, Sun L, Liu C. Inequality in the distribution of health resources and health services in China: hospitals versus primary care institutions. *Int J Equity Health* (2017) 16:42. doi: 10.1186/s12939-017-0543-9
44. Yin H, Wu Q, Cui Y, Hao Y, Liu C, Li Y, et al. Socioeconomic status and prevalence of chronic non-communicable diseases in Chinese women: a structural equation modelling approach. *BMJ Open* (2017) 7:e014402. doi: 10.1136/bmjopen-2016-014402
45. Liu X, Li N, Liu C, Ren X, Liu D, Gao B, et al. Urban-rural disparity in utilization of preventive care services in China. *Medicine* (2016) 95:e4783. doi: 10.1097/MD.0000000000004783
46. Yao Q, Liu C, Ferrier JA, Liu Z, Sun J. Urban-rural inequality regarding drug prescriptions in primary care facilities - a pre-post comparison of the National Essential Medicines Scheme of China. *Int J Equity Health* (2015) 14:58. doi: 10.1186/s12939-015-0186-7
47. Yang L, Liu C, Ferrier JA, Zhang X. Organizational barriers associated with the implementation of national essential medicines policy: a cross-sectional study of township hospitals in China. *Soc Sci Med*. (2015) 145:201–8. doi: 10.1016/j.socscimed.2015.08.044
48. Ren J, Liu C, Gao QS, Yang L, Huang X, Guo Q. Use of appropriate healthcare technologies: a cross-sectional study in rural Zhejiang of China. *BMC Health Services Res.* (2015) 15:295. doi: 10.1186/s12913-015-0947-4
49. Xie X, Wu Q, Hao Y, Yin H, Fu W, Ning N, et al. Identifying determinants of socioeconomic inequality in health service utilization among patients with chronic non-communicable diseases in China. *PLoS ONE* (2014) 9:e100231. doi: 10.1371/journal.pone.0100231
50. Li Y, Wu Q, Liu C, Kang Z, Xie X, Yin H, et al. Catastrophic health expenditure and rural household impoverishment in China: what role does the new cooperative health insurance scheme play? *PLoS ONE* (2014) 9:e93253. doi: 10.1371/journal.pone.0093253
51. Shan L, Wu Q, Liu C, Li Y, Cui Y, Liang Z, et al. Perceived challenges to achieving universal health coverage: a cross-sectional survey of social health insurance managers/administrators in China. *BMJ Open* (2017) 7:e014425. doi: 10.1136/bmjopen-2016-014425
52. Zhou X, Mao Z, Rechel B, Liu C, Jiang J, Zhang Y. Public vs. private administration of rural health insurance schemes: a comparative study in Zhejiang of China. *Health Econ Policy Law* (2013) 8:269–88. doi: 10.1017/S1744133112000163
53. Shi M, Xu W, Gao L, Kang Z, Ning N, Liu C, et al. Emergency volunteering willingness and participation: a cross-sectional survey of residents in northern China. *BMJ Open* (2018) 8:e020218. doi: 10.1136/bmjopen-2017-020218
54. Xu W, Hao Y, Wu Q, Ning N, You J, Liu C, et al. Community preparedness for emergency: a cross-sectional survey of residents in Heilongjiang of China. *BMJ Open* (2015) 5:e008479. doi: 10.1136/bmjopen-2015-008479
55. Liu C, Robinson P. Better organisation of volunteers in disaster settings is needed: lessons for all from China. *Aust N Z J Public Health* (2013) 37:595–6. doi: 10.1111/1753-6405.12139
56. Zhang WQ, Liu C, Sun TS, Zhao J, Han JQ, Yang YH, et al. Physical and mental health status of soldiers responding to the 2008 Wenchuan earthquake. *Aust N Z J Public Health* (2011) 35:207–11. doi: 10.1111/j.1753-6405.2011.00680.x
57. Hofstede G. *Cultures and Organizations—Software of the Mind*. London: Profile Books Ltd. (2003).

58. Trompenaars F, Hampden-Turner C. *Riding the Waves of Culture: Understanding Diversity in Global Business*. Boston, MA: Nicholas Brealey Publishing (2011).
59. Phuong-Mai N, Terlouw C, Pilot A. Cooperative learning vs. Confucian heritage culture's collectivism: confrontation to reveal some cultural conflicts and mismatch. *Asia Europe J*. (2005) 3:403–19. doi: 10.1007/s10308-005-0008-4
60. McAlpine I, Pannan L, Fitzmaurice K. Steps Towards Using an Enquiry-Based Blended Learning Design for Curriculum Change in Health Sciences. Hello! where are you in the Landscape of Educational Technology? in: *Proceedings ascilite melbourne 2008*. Melbourne, VIC (2008).
61. Dunn L, Wallace M. Australian academics teaching in Singapore: Striving for cultural empathy. *Innov Educ Teach Int*. (2004) 41:291–304. doi: 10.1080/1470329041000173328 5
62. Schapper JM, Mayson SE. Internationalisation of curricula: an alternative to the Taylorisation of academic work. *J High Educ Policy Manage*. (2004) 26:189–205. doi: 10.1080/1360080042000218258

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# Perspectives on Developing Healthcare Managers in Africa: The Strathmore Business School's Healthcare Management Programme

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A substantial shortage of qualified healthcare professionals in Africa continues, but it is now apparent that professionally trained healthcare managers are an equally important need. Health facilities in Africa typically promote physicians into the role of general manager, but physicians and their lay counterparts routinely admit to being ill-prepared for roles as leaders of health systems, healthcare facilities and other services. Few, if any, degree programmes for healthcare management—be they master's in hospital administration or specialized MBA programmes— are available in these regions. And while many master's in public health programmes exist, inclusion of healthcare management content is often an afterthought. This article presents a prototype programme that was designed to address this gap. This comprehensive healthcare management MBA programme that was established at the Business School of Strathmore University in Nairobi, Kenya in 2013 was built around the "Leadership Competencies for Health Care Managers" as promulgated by the International Hospital Federation. The article further presents the development, structure and innovations of the programme, thus providing a blueprint for the development of similar programmes throughout the continent, aimed at addressing the substantial shortage of professionally trained healthcare managers.

**Keywords: Healthcare in Africa, healthcare management programmes, healthcare management competencies, healthcare management curriculum, African Institute for Healthcare Management**

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## INTRODUCTION

To meet the health needs of a rapidly expanding population throughout Africa and the dual disease burden of communicable and non-communicable disease, there is an urgent need for further development of physicians, nurses and other healthcare professionals (1). Likewise, the development of professional healthcare managers is urgently needed at every link in the healthcare value chain, whether they be health facility managers, civic leaders of health ministries, or overseers of public or private payer and insurance systems. Many countries in the developing and developed world plug this gap by promoting health workers—typically doctors or nurses—into management

positions. Yet, in the clinical curriculum for physicians and nurses there is little room for exposure to a full range of managerial skill sets. Healthcare professionals seeking to plug this gap and develop or improve their managerial skills often find that the content of general executive education courses miss key elements that support managerial practice and decision-making in healthcare settings. Put differently, the disciplines of leadership and change management, accountancy, economics and finance, human-resource management, operations research and supply-chain management, marketing management, relevant legal and public policy development, and other skill sets are not adequately addressed– and yet they need to be framed in a specialized way for the healthcare environment (2).

Moreover, healthcare management competencies require special consideration when adapting a healthcare management curriculum for different healthcare systems operating in different national and cultural settings. Development of a healthcare management curriculum can be informed by "Leadership Competencies for Health Care Managers" as promulgated by the International Hospital Federation (3). The IHF competencies are derived from the Healthcare Leadership Alliance Competency Directory which in turn reflects work from the American College of Healthcare Executives, the American Association for Physician Leadership, American Organizations of Nurse Executives, Healthcare Financial Management Association, Healthcare Information and Management Systems Society and the Medical Group Management Association. Obviously, these principles have a US-centricity, but they are nevertheless a platform for international application when special circumstances and cultural norms are infused into specific course content.

This perspectives article describes Strathmore University's experience in designing an MBA programme aligned to the globally-relevant competencies, and with immediate relevance to the Kenyan and African healthcare environment.

## MANAGERIAL CHALLENGES IN THE AFRICAN HEALTHCARE SYSTEM

Africa bears a significant portion of the global burden of communicable and non-communicable disease. Addressing this dual burden requires strong health systems underpinned by strong leadership, management, and governance. These are however weak in Africa, Kenya included (4–7). Moreover, these weak health systems are further damaged by a critical shortage of health workers occasioned in part by poor retention (7, 8). Yet management capacity is a core component of health systems strengthening (9). And while significant attention has been paid to other elements of the health system such as infrastructure, not enough has been directed toward enhancing the management capacity of those entrusted with improving the functioning of healthcare systems in Africa (10). It is however not clear whether managerial challenges are the same across all countries in Africa.

## MANAGERIAL CHALLENGES IN THE KENYAN HEALTHCARE SYSTEM

Health services are provided by a mix of private (43%), public (41%), and non-Public non-Private (15%) sector investment (11). However, since 2010, there has been a rapid rise in the role of the private sector in healthcare. This trend was partially stimulated by the formation of several private equity firms focused on healthcare investing. One of these was sponsored by the International Finance Corporation of the World Bank Group and the Bill & Melinda Gates Foundation. The expectations of professional investment managers when staffing the hospitals and clinics in which they invested raised the stakes for the professionalization of healthcare managers.

There were, however, no or few managers with specialized training as healthcare managers. A majority of those managing healthcare institutions learnt on-the-job following their promotion or transfer from clinical practice. And many of these supplemented their learning with either a general master's in business administration, a master's in public health (sometimes with a management concentration), a masters in hospital administration or a combination of these.

Furthermore, Kenya's healthcare system underwent a major transformation starting from 2013 when the country initiated a programme of "devolution" or decentralization as specified in its Constitution of 2010 (7). The Strathmore programme's launch coincided with devolution. The curriculum and course content planning therefore had to anticipate the managerial implications of this change. In particular, devolution had the immediate effect of creating a dramatic need for skilled management for the 47 counties in the country that have essentially autonomous health systems.

## THE STRATHMORE BUSINESS SCHOOL AND HEALTHCARE OBJECTIVES

Strathmore University is a private institution in Nairobi founded in 1961, shortly before Kenyan independence. Among its Schools is the Strathmore Business School (SBS), founded in 2006. The healthcare management programme (HMP) at SBS was launched in August 2013. The SBS process of developing the curriculum exemplifies the challenges in deriving and customizing a programme to addresses regional needs within a milieu of scarce resources, unique population health needs and a rich cultural context. In the case of SBS, the HMP is structured as a focused MBA, and includes the courses customary to a general MBA, but with those core courses structured around content relating to healthcare. Specifically, the Strathmore HMP addresses: the management and leadership of priority health programmes, health organizations, and multisectoral partnerships; the management systems of health organizations in the public and private sectors, including NGOs and faith-based services; and, the governance and management of health organizations and multisectoral partnerships. The methodology for developing the SBS curriculum is described in the section below.

## METHODOLOGY FOR CREATING A COMPETENCY-BASED HEALTHCARE MANAGEMENT CURRICULUM IN A DEVELOPING COUNTRY

The IHF competencies are categorized into five critical domains: leadership, communication and relationship management, professional and social responsibility, health and healthcare environment, and business (3). The accepted definitions of each of these in the US setting can be applied but must be modified for any given emerging or frontier market setting. The development of the Strathmore curriculum and course content followed a six-step methodology undertaken from September 2011 through December 2012: 1. Needs analysis through interviews with health ministers, care providers, facility managers, prospective students, payers, and other stakeholders; 2. A search and modification of model curricula outside Africa (there were no healthcare management degree programmes operating in Africa at the time); 3. review and application of the IHF competencies; 4. a high level assessment of cultural issues that might inform content as suggested by Geert Hofstede's cultural dimensions theory as applied to East Africa (12); 5. drafting of a preliminary curriculum with descriptions of course content vetted through rigorous SBS faculty and administrative review together with discussions with external stakeholders, including two focus groups with members of the Health Ministry; and 6. finalization of the curriculum and course content for submission to the Education Ministry of Kenya whose approval for new degree programmes at private universities is mandatory before launch.

It is worth noting that the initial draft of the curriculum was designed around the conventional approach used in most MBA programmes, i.e., 11 or 12 offerings of the traditional disciplines of accounting, economics, finance, organizational behavior, decision analysis, entrepreneurship, marketing and communications, strategy, human resource management, and ethics and governance. Additionally, the healthcare management content was to be provided through six courses specifically on aspects of healthcare offered beyond the core. External vetting and the focus group process, however, exposed strong opposition to this conventional approach by health leaders and prospective students. The input from these stakeholders was that the managerial needs of Kenyan healthcare, and by extension Africa, were so acute that the patients would be best served if the entire curriculum, including the traditional disciplines, was built around healthcare content. Further interviews with the prospective students—working healthcare management professionals—disclosed that course content should be immediately relevant to their current responsibilities. And so, while the designers argued that the advantage of a general MBA curriculum is that it provides a broader theoretical and disciplinary basis to respond to changes in the business environment during the decades of one's career, their argument did not sway opinion.

Furthermore, while the needs analysis indicated that applications from many physicians in managerial roles would be submitted, the programme also had to anticipate that the prospective student body would draw individuals from across the management spectrum including clinical officers, nurses, health administration officers, heads of support units such as radiology, pathology and pharmacy, and information officers. It would also likely include participation from non-clinical managers of health facilities and of NGO operating in the health sector. This diversity of academic backgrounds and professional needs created additional demands that had to be met in the design of the programme.

Moreover, as a former British colony, Kenya's academic mindset from elementary through collegiate education bears major resemblance to the British tradition. There were, therefore, numerous other guidelines from the Education Ministry that informed the structure and design of the curriculum and course content. Among these are that evaluation and grading of students must derive from proctored in-class, closed-book examinations that comprise 80 percent of the final grade. Drafts of the exams are to be reviewed by an Examination Committee within SBS and are graded on a blind basis by both the instructor and an independent invigilator. These practices meant that there would be limited room for term projects and exercises as evidence of competency development. Faculty, therefore, had to design and build testable competencies into the course material and examinations. A second requirement is that graduate level courses are to be based on 45 in-class contact hours. While this requirement provided faculty with a broad canvas to offer comprehensive content, it also limited the number of time-structures available for programme design. An MBA programme in Kenya must also consist of at least 18 courses bringing total class room contact to over 800 h. This surpasses MBA standards in most other countries. Finally, all master's degree programmes require completion of an original research dissertation by each student who must defend the work before a committee. This requirement means that at least one course be dedicated to research skills and it also means that Strathmore needs to allow for sufficient faculty to supervise the dissertations.

The curriculum submitted to the Commission for University Education (CUE) took all these factors into account. And whereas the CUE review process usually takes a year, a provisional approval was issued in <3 months thus allowing Strathmore to recruit students and launch the programme in August 2013. The rapid approval of the proposed programme, however, created a challenge in recruitment of faculty. Strathmore had expected that 2013 would be available to assemble a slate of domestic and international faculty to teach the full array of courses. The challenges associated with such recruitment at short notice are further described in the section on the African Institute for Healthcare Management.

## BUILDING THE CURRICULUM AND COURSE CONTENT

Based on the above considerations, Strathmore developed a framework that was a hybrid of IHF competencies and conventional MBA content illustrated by healthcare examples. Infusing the course with content that exemplified the Kenyan or

East African environment, however, has proven to be a challenge. While the corpus of literature on African health seems infinite, there is a paucity of research on best management practices in the African context, as well as an absence of case studies suitable for teaching. One of the pedagogical objectives of the Strathmore programme has been to develop a body of such literature.

The pedagogical approach that is in place emphasizes the following five domains of competency: The first, leadership, is the "ability to inspire individual and organizational excellence, create a shared vision and successfully manage change to attain an organization's strategic ends and successful performance" (3). Given the subtle concepts surrounding leadership culture, SBS relied on its own Kenyan faculty to develop course material and exercises on leadership rather than risk having international guest faculty build content around Western cultural values.

The second domain of competency is communication and relationship management which are the "ability to communicate clearly and concisely with internal and external customers, establish and maintain relationships, and facilitate constructive interactions with individuals and groups" (3).

The third competency domain is building professional and social responsibility by shaping the "ability to align personal and organizational conduct with ethical and professional standards that include a responsibility to the patient and community, a service orientation, and a commitment to lifelong learning improvement (3).

The fourth competency domain addresses health and the healthcare environment which is the understanding of the healthcare system and the environment in which healthcare managers and providers function (3).

The fifth and final domain of competency is business or the ability to apply business principles, including systems thinking, to the healthcare environment (3).

In addition, the SBS programme imparts the full range of knowledge necessary to guide the ethical operation of healthcare organizations, including accounting, economics, finance, human-resource management, quality management, supply-chain management, organizational behavior, change management and medical sociology. For illustrative purposes, **Table 1** maps the various courses and provides an indication of the competency domains that they primarily address.

## STUDENT BACKGROUNDS AND RESEARCH REQUIREMENTS

Admission into the Strathmore programme has been competitive. As of the end of 2018, 225 students have been in the programme spread over six cohorts. Of these students 97.3% have been from Kenya, while just under 3% have been from other East African countries. The first four cohorts have graduated. Qualifications for entry are a combination of academic achievement and work experience. Applicants need a minimum of 5 years' managerial experience and must pass the Strathmore's aptitude test, the Graduate Entrance Exam (GEE) or submit recent GMAT results. In addition, candidates must be holders of First-Class or Upper second-class honors degrees in medicine, nursing or other fields related to healthcare or healthcare management from recognized universities. Nearly half of the students who have enrolled are physicians. There has been an equal mix of men and women in the programme. All the students work full-time in managerial roles and spend a total of ten 2-week modules on campus over the 2-year period of course work. The 10 modules are separated by 2-month intervals allowing the students to continue their professional responsibilities as well as to individually immerse themselves in the course content.

A unique feature of the programme is the requirement for an original dissertation. Students begin formulation of a research topic at the start of the programme and design and develop the study throughout the programme's 10 modules. The target date for completion is 6-months following completion of course work, thus meaning that the programme is 30 months in duration.

## FACULTY DEVELOPMENT AND THE AFRICAN INSTITUTE FOR HEALTHCARE MANAGEMENT (AIHM)

Among the obstacles to creating and offering full-scale curricula in healthcare management at institutions of higher learning in Africa is the relative lack of experienced specialty faculty to teach the wide range of subjects that encompass healthcare management. Consequently, faculty development was approached in two ways. First, representatives of SBS, the University of Cape Town (UCT) Business School in South Africa (SA) and the School of Public Health of the University of the Witwatersrand (Wits) in Johannesburg, SA, came together to form the African Institute for Healthcare Management (the "Institute" or "AIHM") to serve as a consortium of academic institutions and individuals focused on building a pool of world-class faculty, trainers and researchers that can be shared among programmes in healthcare management throughout Africa, whether MBA, MHA, MPA, executive or other programmes. Thus, AIHM seeks to assemble and compensate approximately 20 Fellows at the doctoral level representing the full range of relevant healthcare management disciplines. The Fellows will circulate among African institutions participating in AIHM, and one-third of their time will be protected for research and teaching material development. In this sense therefore, by being members of the Institute, academic institutions could "claim" faculty and benefit from their expertise, without meeting the full cost of having their own tenured or fully employed professors.

Second, and concurrent with the setup of AIHM, SBS has approached the challenge of faculty with a combination of local full-time faculty, practitioner faculty with appropriate academic credentials and international guest faculty drawn from the University of Pennsylvania Wharton School Department of Health Care Management, Bloomberg School of Public Health of Johns Hopkins University, the Harvard Chan School of Public Health, Boston University, the University of North Carolina Gilling's School of Public Health, the Anderson School of Management at the University of California, Los Angeles, the University of Leeds and other institutions. While this approach

**TABLE 1 |** Course titles and competency content.

| Knowledge domain | Course title | Competency domain addressed |
|---|---|---|
| Accounting, Economics & Finance | Financial and Managerial Accounting in Healthcare Organizations | (4) Understanding of healthcare systems<br>(5) Application of business principles |
| | Financial Management of Healthcare Organizations | (4) Understanding of healthcare systems<br>(5) Application of business principles |
| | Healthcare Financing and Health Equity | (3) Professional and social responsibility<br>(5) Application of business principles |
| | Managerial Health Economics | (4) Understanding of healthcare systems<br>(5) Application of business principles |
| Quantitative and Research methods | Quantitative Analysis and Statistics for Healthcare Management | (4) Understanding of healthcare systems<br>(5) Application of business principles |
| | Research Methods in Healthcare Management | |
| | Decision Analysis for Healthcare Managers | |
| Technology & Innovation management | Healthcare Entrepreneurship and New Venture Management | (1) Leadership<br>(4) Understanding of healthcare systems<br>(5) Application of business principles |
| | Healthcare Management Information Systems | (2) Communications |
| | Managing for Quality Patient Care and Efficient Operations | (4) Understanding of healthcare systems<br>(5) Application of business principles |
| Human & Organizational factors | Organizational Behavior and Change Management in Healthcare Organizations | (1)Leadership<br>(2) Communication/Relationship management (and to limited degree 3, 4, 5) |
| | Strategic Management in Healthcare Organizations | (1)Leadership<br>(4) Understanding of the healthcare system |
| | Managing Healthcare Human Resources | (5) Application of business principles |
| Communications | Marketing Management for Healthcare Enterprises | (2) Communication/Relationship management<br>(4) Understanding of the healthcare system |
| | Management Communications and Media Relations in the Healthcare Environment | |
| Health & Society | Healthcare Organization Ethics and Governance | (3) Professional and social responsibility |
| | National Public and Private Healthcare Systems | (4) Understanding of the healthcare system |
| | Healthcare Law and Policy | (1)Leadership<br>(3) Professional and social responsibility<br>(4) Understanding of the healthcare system |

*Source: Authors' arrangement and International Hospital Federation (3).*

has proven effective and provides all the opportunities needed for learning by the students, it would be even more effective (and less costly) with a locally-based, specialized and dedicated faculty that focuses on African healthcare issues. Consequently, the interaction between visiting international faculty and local faculty was structured in a way that prepared the local Strathmore faculty to assume full teaching responsibility for most of the courses in the curriculum. This was achieved through observation, co-designing and co-teaching, interactive meetings and learning sessions and granting access to learning materials and faculty development opportunities.

## OTHER LESSONS LEARNED AND NEXT STEPS

Beyond the creativity in sourcing and filling faculty positions for a novel program in a resource-poor setting, one of the key lessons learned has been the highly recursive nature of the development of a competency-based curriculum. The development of this curriculum required several meetings and iterations, with oftentimes a report-back/validation meeting with stakeholders whose input had been sought earlier and whose views might have been modified by the designers in response to other stakeholder concerns. Another lesson is the importance of the students to the development of a continually-improving and perpetually relevant curriculum. As working professionals, the students are acutely aware of the challenges and needs of the population served by the healthcare system. The students and other stakeholders provide SBS with a steady flow of recommendations to enhance the programme. The students have requested more content on leadership, integrating traditional medical care and belief systems into allopathic care, supply chain management and in-depth review of the producer function and its relationship with providers. A Curriculum Committee is devoted to making these changes and submitting them for approval to the Kenyan Education Ministry as well as to the US-based Commission on the Accreditation of Health Management Education (CAHME) for international accreditation.

The SBS programme's next steps are to design and conduct impact assessment of the programme as it relates to health systems improvement, patient care improvements, emerging best practices in the devolved Kenyan health system, career progress of its graduates, development of effective and relevant teaching materials, and incorporation of web-extended learning. At the current time, full time graduate education in Africa carries too large an opportunity cost for the population. Reaching students and providing access to education requires creative approaches in structuring requirements and classroom contact on a part-time basis. Mixed methods and on-line supplements are slowly working their way into the educational process and will accelerate as broad-band and reduced data charges proliferate.

## CONCLUSION

African healthcare services are at an inflection point driven by many forces such as: 1. the economic advancement of the African population, especially the aspirations of the emerging middle class that seeks better education and healthcare; 2. a reversal of the population diaspora whereby many young Africans who historically had not returned home after medical training abroad are now repatriating and in doing so accelerate improvement in the standards of practice; 3. increased public and private investment in the healthcare infrastructure; and 4. technological opportunities that allow the healthcare system to leapfrog over its developed world counterparts. In response to the growing demand for world-class healthcare, professional management must emerge. Creation of degree programmes supplemented by post-graduate executive education can accelerate the development of managerial depth when built on the experience of Western academic programmes and modified for the special needs and cultures of African peoples.

The case described in this article provides a glimpse as to how higher education institutions could approach the design and development of such a degree programme. Here, SBS built on a US-centric yet globally recognized healthcare management competencies platform, while concurrently embedding the nuances of their African context. The case has also presented two possible approaches to dealing with the real concern of accessing qualified faculty to teach these courses. And it has presented possibilities for programme delivery that can help drive the costs of such programmes down, thus increasing access. While the programme is clearly a work-in-progress, its exposition here should hopefully stimulate action in developing similar programmes to produce suitably qualified and competent professionals that can help lead, guide and manage the health sector challenges facing Africa.

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All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

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## REFERENCES

1. Institute for Health Metrics and Evaluation (2018). Available online at: http://www.healthdata.org/gbd. (Accessed September 20, 2018).
2. Management Sciences for Health. *Leading Change for Better Health.* (2005). Available online at: www.wahooas.org/mshdvd2/book_contents/CO_ch6.pdf
3. International Hospital Federation. *Leadership Competencies for Healthcare Services Managers.* (2015). Available online at: https://www.ihf-fih.org/resources/pdf/Leadership_Competencies_for_Healthcare_Services_Managers.pdf
4. Kirigia JM, Barry SP. Health challenges in Africa and the way forward. *Int Arch Med.* (2008) 1:27. doi: 10.1186/1755-7682-1-27
5. WHO/AFRO. *Ouagadougou Declaration on Primary Health Care and Health Systems in Africa: Achieving Better Health for Africa in the New Millennium Brazzaville* (2008).
6. WHO/AFRO. *Framework for Implementation of the Ouagadougou Declaration on Primary Health Care and Health Systems in Africa: Achieving Better Health for Africa in the New Millennium Brazzaville* (2008).
7. Kenya Health Policy 2014- 2030 (2014). Available online at: http://www.health.go.ke/resources/reports/ (Accessed September 20, 2018).
8. Naicker S, Plange-Rhule J, Tutt RC, Eastwood JB. Shortage of healthcare workers in developing countries – Africa. *Ethn Dis.* (2009) 19(1 Suppl. 1):60–4. doi: 011-4883672
9. WHO. *Toward Better Leadership and Management in Health*. Geneva: WHO (2007).
10. Kebede S, Abebe Y, Wolde M, Bekele B, Mantopoulos J, Bradley EH. Educating leaders in hospital management: a new model in sub-Saharan Africa. *Int J Qual Health Care.* (2010) 22:39–43. doi: 10.1093/intqhc/mzp051
11. Wamai RG. The Kenyan health system - Analysis of the situation and enduring health challenges. *Jpn Med Assoc J.* (2009) 52:134–40.
12. Oppong NY. Towards African work orientations: guide from Hofstede's cultural dimensions. *Eur J Bus Manage.* (2013) 5:20.

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# Global Advances in Value-Based Payment and Their Implications for Global Health Management Education, Development, and Practice

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Global advances in health policy reform, health system improvement and health management education and practice need to be closely aligned to successfully change national health policies and improve the performance of health care delivery organizations. This paper describes the globally acknowledged need for incentive-based organizational performance and relevant implications for health care management education (HCME) and practice. It also outlines the major rationale underlying Value-Based Payment (VBP) or Pay for Performance (P4P) health policy initiatives and their basic elements. Clearly, the major global health policy shift that is underway will likely ultimately have major impacts on the strategic and operational management and performance of health care delivery organizations. Thus, practical specific suggestions are made regarding changes that need to be introduced and strengthened in contemporary health care management education and development programs to help organizational managers in the future.

**Keywords: hospital performance, hospital quality, value-based payment, health care management education, healthcare costs, pay for performance, health policy**

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## BACKGROUND AND RATIONALE

There is a growing recognition around the global that managers of healthcare organizations must receive management training to be effective systems leaders. This paper focuses on a major trend in health system reform that has direct implications for the types of skills and competencies that health system managers must acquire to assure effective healthcare organizational and health system performance. We address the need for increased curriculum focus on the underlying competencies that managers need to acquire in order to respond to the incentives and expectations that are built into health financing systems that will increasingly depend on value-based approaches to budgeting and payment.

### Goals of This Paper

We first discuss the rapid, global change of health care delivery reimbursement models and methods and the strain that is being experienced in many health systems because of rising health care costs and persistent systemic problems such as inefficiency and variable effectiveness. The major

purpose of this paper is to explore the global interaction of reimbursement changes, global health management education, training programs, and health management practice.

Many health systems are experimenting with or implementing payment systems that rely on pay-for-performance (P4P) or value-based payment (VBP). The trend in health system payment in moving from pay-for-quantity to pay for quality. Changes in the incentive structures require radically different organizational goals and strategies in order to maintain fiscal viability. Current managers will need re-education and new managers will need to be well-trained in meeting the new economic environment they are facing.

Two areas that we address in this paper are:

1. What changes in management practice will be needed of future health care managers and leaders to help their organizations effectively respond to the full-scale introduction of P4P/VBP? Will there be changes needed in traditional management development programs, so they are not "globally blind" to useful practices in other countries (1)?
2. How do HCME programs across the world need to change to fully ensure that their graduates are well-prepared for successful employment in healthcare organizations operating in the new financial environments?

While we focus specifically on healthcare management education, it is important to recognize that the changes in the system of financing discussed here have far-reaching implications for health professional and public health education. Health professionals (physicians, nurses, therapists, health records managers, etc.) must be prepared to work in an environment where they are held increasingly accountable for the quality they deliver and impact they have on the health of populations.

## Drivers of Global Changes in Health Care

Although there is considerable variation in health system organization, ownership, and payments across the world (2), it is clear that all health systems are facing major macro-level drivers of change. These drivers include the rapid diffusion of health care information systems, aging populations, increased demand for medical treatments, and widespread recognition that health care systems (and their constituent provider organizations—ambulatory care facilities and hospitals) must significantly and continually improve their performance. However, healthcare organizations are increasingly able to collect, organize, and analyze large amounts of data generated by electronic health records (EHRs). Thus, they are developing the capacity and capability to meet the demands of the new payment environments.

## Payment for Personal Health Care Services

As Jacobsen (3) has noted, the World Health Organization reports that the diverse types of health care financing systems can be contrasted across four different domains. They are: (1) the sources of funds, (2) payment of services, (3) risk/cost burden, and (4) level of coverage. In the last 20 years, international health care system reform efforts have accelerated for four interrelated reasons. First, it has been widely recognized that health care systems need to increase the value of their efforts and outcomes (return on investment and sustainability). Second, there is widespread agreement that there is too much of an emphasis upon rewarding the volume vs. the quality and safety of health care delivery. Third, performance assessment, and ultimately improvement, must take full advantage of new sources of data and analytic methods. And fourth, patient concerns and reports of their personal experiences and satisfaction need to be fully acknowledged and incorporated into the payment of health care services.

## Major Challenges to Funding and Controlling Health Care Costs

Given the continued escalation of health care expenditures across national health care systems, as initially reported by Savage et al. (1), there have been many different types of remedial health policy initiatives. They have included balancing levels of private and public payment, mixing non-profit and for-profit providers and creating mixtures of market forces and regulations. Also noteworthy are experiments with new payment structures, managed care designs, changes in budgeting, capitation, and many other types of regulatory interventions. However, as the authors conclude: "While successful at improving the availability of care, attempts to remedy rising costs have failed. They suggest that policy reforms can only address certain aspects of the iron triangle of access, cost and quality…Comparative studies of international health care management …need to delineate innovative ways to improve the quality and the efficiency of health care delivery."

Because of the problems cited above, health care reform efforts continue to be implemented across the globe. They are typically sensitive to local constraints. Nonetheless, there is a common strong focus across national health care systems on:

- Broadening individual insurance coverage and reducing barriers to access;
- Improving levels of unwanted variation of quality and safety;
- Shifting the focus from sickness to wellness care; and
- Lowering the costs of health care services.

# INTRODUCTION OF PAY-FOR-PERFORMANCE/VALUE-BASED PAYMENT FOR HEALTH SERVICES

The basic idea of linking the level of financial payment for a health care service to the quality of the provider's service has been of long-standing interest to health care policy makers. The movement began in highly developed countries, but with strong support from international organizations such as the World Bank, it is now also being extended to lower-income countries (4).

## Fee-for-Service vs. Salaried Physicians

During health care reform policy discussions and initiatives, a variety of reasons are offered for why certain health care systems tend to have much higher costs. Underlying reasons are often

cited to be administrative costs and practice patterns of fee-for-service (FFS) physicians that lead to "over-treatment" of patients. However, even integrated, capitated health plans (the obverse of FFS) have also been criticized because of their predilection to "cherry pick" healthier populations and avoid sicker ones (5).

**Figure 1**, based on the findings of Fried and Gaydos (2), depicts the diverse approaches to provider payment observed in 20 different countries spanning the globe. While nearly all have at least some use of FFS, we see evidence of low, middle, and high-income countries experimenting with multiple alternative means of payment, including forms of P4P.

## Introduction of Pay-for-Performance (P4P) in Health Care

Beginning in the mid-1990s, a series of influential reports were produced by the Institute of Medicine in the US that ultimately led to increased attention to the issues of the quality and safety of patient care in America (6, 7). What the IOM reports basically documented were referred to as significant "quality gaps" between physician practice patterns vs. best-practices supported by evidence. A recent major OECD report addressed the widespread diffusion of P4P across ambulatory care providers and hospitals in Europe, Brazil, Korea, Australia, New Zealand, and the US between the late 1990s and 2010 (8). This very ambitious and comprehensive report highlighted that the general idea of "paying for results" has attracted substantial interest across the world since most health systems are facing ever-increasing health costs which continue to further strain budgets and fuel interest in "trying to obtain more for less" (improved health care processes and personal health service outcomes for lower costs). While global interest in P4P is rising, the extent to which experimenting countries use it to influence overall provider compensation is highly variable. This shown below in **Figure 2**.

Despite the attractiveness of the concept of P4P, meta-analysis of the reported effects of P4P indicate that the effects of financial incentives (especially regarding health outcomes) are very difficult to assess and interpret (9).

## New Perspective: Creating Value-Based Competition on Results

Porter and Teisberg (10) introduced a new approach to improving health care by focusing on the structure of health care delivery itself. Their general thesis is that in normal markets, competition leads to ever-improving quality and lower costs. Alas, they argue that such open competition that will create increasing value for consumers (higher quality/lower costs), is absent from current health care delivery which "erodes quality, fosters inefficiency, creates excess capacity, and drives up administrative costs (11)." Thus, they contend that current ideas such as a focus on provider/organizational practices ala P4P will inherently have limited effects. Instead, a new positive competition needs to be supported that has distinct emphases:

- Value for patients vs. solely cost reduction
- Results-based competition
- Focus on medical conditions over a full cycle of care
- Greater value of provider, experience, expertise and uniqueness of the condition
- Results and price information to support value-based completion
- Incentivize innovations to increase value to the consumer

## Centers for Medicare and Medicaid Services Value-Based Purchasing Program

As stated earlier, many different types of P4P/VBP have been developed across the world. One approach that attempts to incorporate both elements of traditional P4P and the concepts of end-results and consumer value is the Hospital Value-Based Purchasing (VBP) program developed and now implemented in hospitals by the Centers for Medicare and Medicaid Services (CMS) in the US (12–14). The CMS plans to introduce a similar value-based program in ambulatory care organizations (14). Like

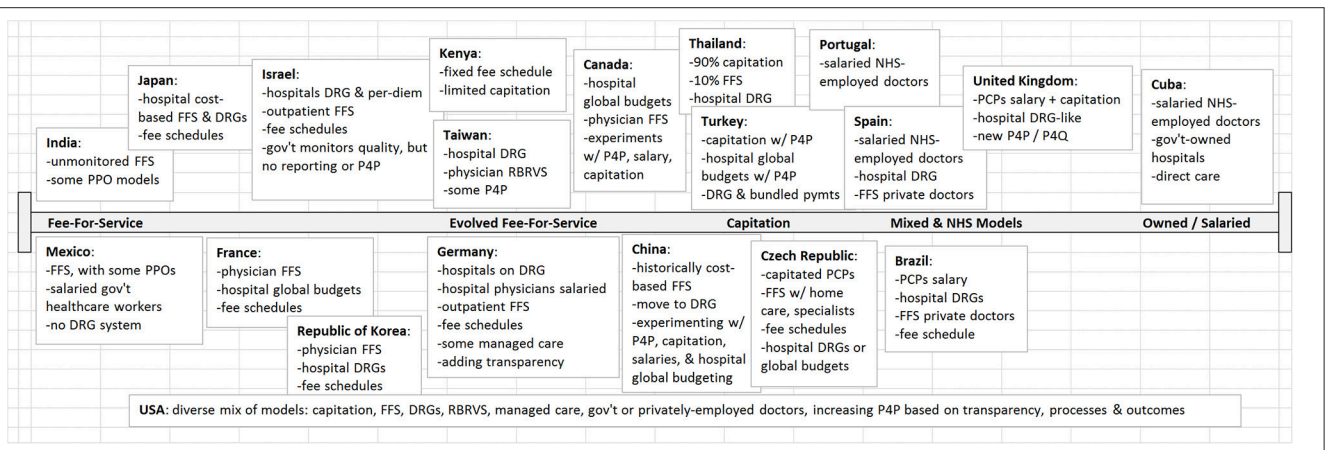


**FIGURE 1 |** Healthcare Payment Models in 20 Countries. Adapted from Fried and Gaydos (2). FFS, Fee for Service; DRG, Diagnosis-Related Groups; PPO, Preferred Provider Organization; RBRVS, Resource-Based Relative Value Scale; P4P, Pay for Performance; P4Q, Pay for Quality; NHS, National Health Service; PCP, Primary Care Provider.

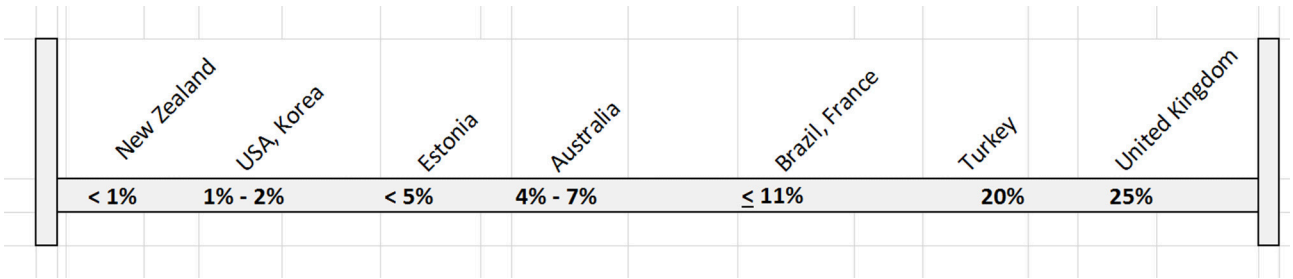


**FIGURE 2 |** P4P as Percentage of Base Payments. Adapted from Cashin et al. (8). In all cases presented, P4P was in the form of bonus payments or withhold models. None in the form of penalties. German P4P system pays a flat rate. Maryland USA system pays a variable amount not determined. Both were omitted from this Figure.

many P4P programs, it initially sets aside 1%, then eventually 2%, of the total CMS payment pool that can subsequently be awarded to organizations that provide higher levels of service quality and patient safety (∼$1.5 billion USD in 2018).

There are four equally weighted VBP Hospital Performance Domains (25% each) and a total of $N = 24$ indicators in the areas of Patient Safety, Clinical Care (select outcome assessment and best-practice compliance indicators), Efficiency and Cost Reduction, and Patient and Caregiver-Centered Experience of Care. Thus, the VB reimbursement system: is a marked departure from FFS incentives; places much more emphasis on results/outcomes; is truly multidimensional since it incorporates both patient and clinical perspectives and is an important part of a major effort to adopt this reimbursement approach in the reimbursement of many if not most types of health services. The goals of these expansive programs are to provide better care for individuals, better health for populations and lower costs.

## HEALTH CARE MANAGEMENT EDUCATION, DEVELOPMENT, AND PRACTICE

### Growth and Development of Health Care Management Education and Practice: The Case of Taiwan

During the last 50 years, Taiwan (a small nation of 23 million people in East Asia (closely aligned with the United States, Japan, Australia and Europe) has undergone widespread, dramatic economic development. This broad change has affected all sectors of Taiwanese health care. For example, high economic growth has fostered the development of a very strong educational system, a comprehensive national insurance system called National Health Insurance (NHI) that assures ready access to health care services and finally, high quality health care provider organizations and associations that strengthen the continually improved delivery of health care to its population.

Health care management education programs are of two types. First, there are currently $N = 11$ Master of Health Administration (MHA) programs in Taiwan. The first was offered in 1984 and modeled on the MHA program at the University of Michigan. There are also a smaller number of Health Policy programs offered in Taiwan. There are $N = 9$ undergraduate Health Management programs that have been offered in Taiwan since 1993. Taiwanese health management education programs are often modeled on foreign programs, but modified to meet local needs and cultural expectations. Also, entry into these programs is highly limited since the central Taiwanese government places a strong emphasis on maintaining the quality of academic programs and it limits supply of graduates to the level of current demand from Taiwanese health care organizations (restricts over-supply of graduates).

Pay-for-Performance/Value-Based Payment models are currently being evaluated by the Department of Health in Taiwan and several pilot projects have been initiated. Thus, even though VBP may be an attractive alternative approach to FFS in the NHI, it is being introduced very slowly in Taiwan, and at this point, there has been little inclusion of P4P/VBP in Taiwanese HCME programs. Also, several foreign universities including Saint Louis University, Johns Hopkins University and Tulane University have been active in collaborative HCME programs and the development of extensive management development programs for Taiwanese health care managers and executives.

Taiwan faces important challenges to its health care system in the years ahead. Issues include:

1. The need to adapt to increased needs of a rapidly aging population. This is compounded by a very low birth rate.
2. The financial burden of certain subgroups and the prevalent fee-for-service payment system will necessitate increased regulation to further limit services and payment.
3. Health care labor shortages that create personnel concerns and increased medical disputes.
4. Malpractice claims are rapidly escalating.

For Taiwan to continue to be a major leader in the field of global health care, in coming years it will need to further incentivize health care organizations to become both more efficient and effective, and to fully utilize its population of very highly qualified health care professionals. This will ensure that Taiwan's health care system can continue to improve its already admirable level of performance.

## Impacts of VBP/P4P on Global Health Care Management Education and Development

Like Taiwan, most other middle- and high-income countries are contending with aging populations, low birth rates, and escalating health care costs. Given these demographic and economic trends, health systems that were not previously incentivized to emphasize quality, safety, or value are now being forced to do so. Policymakers are increasingly demanding higher health care quality. Ministries of Health, like that in the Czech Republic, are establishing specialized structures to promote improved safety and quality of care (in Colombia, the Supreme Court has even ordered actions to improve health system quality). However, as observed in Taiwan, the Health Care Management Education (HCME) programs are largely trailing in their responses to health policies that seek to improve value. The Atlas Health Foundation has commissioned multiple assessments of International HCME (15, 16). Together, the Atlas Foundation reports have focused on 22 countries, including the most recent analyses of Colombia, Czech Republic, Germany, Ireland, the Netherlands, and South Korea (16).

While the 2013 report shows an increasing HCME program focus on the teaching of quality initiatives, there was no indication that programs are preparing students to manage the increasing connection between such quality improvement programs and new P4P/VBP payment models. South Korea was ranked as the most advanced environment for HCME, largely because of its strong emphasis on quality improvement. With strong curricular coverage of quality improvement and reimbursement methods, Germany was also highly rated, though the degree of intersection between payment and quality in the classroom is unclear. Irish hospitals have mandatory quality assurance/quality improvement programs and are required to report quality metrics. Further promoting health, prevention, and cost control, Ireland uses a system of general practitioners as gatekeepers. Again, it is unclear that any incentives or penalties are directly tied to quality metrics. The Netherlands may be the most forward-thinking on VBP in Europe. As in Ireland, the Dutch hospitals have mandatory quality reporting. Health insurance is mandatory in the Netherlands and private insurance companies provide the coverage, competing on quality and cost. It is likely this combination that has led to more bundled payments, an early step toward VBP. While South Korea shares other countries' concerns about safety and quality, little has been done to formalize policies at the governmental level. The Korean payment system remains a direct FFS system, and even an effort to institute a relatively modest DRG system failed. Cost is addressed through price-setting by the National Health Insurance Program, but is not tied to quality. Like the U.S., South Korea has common FFS-driven inefficiencies, such as duplication of services and unnecessary utilization.

From these global examples, we see an increasing emphasis on quality and safety, but no consistent trend toward teaching students in HCME programs how to manage quality in an environment that is increasingly linking level of reimbursement to results. Judging from growing interest in the Global Healthcare Management Forum of the Association of University Programs in Health Administration (AUPHA) and the growing number of Global Healthcare Management courses, HCME programs are beginning to recognize this need. Another major step is a forthcoming textbook on Global Health Management on the topic (17). This textbook is dedicated to the topic of Global Health Management education and management development. It focuses on three areas: significant organizational challenges facing health care managers, formulation and implementation of health policies, and macro-level trends that health care organizations will need to adapt to in the future. Clearly the text recognizes the need to adapt to the new emphasis on service value so HCME program graduates are better prepared to manage organizations under the new payment models on the horizon. Yet, even additional changes in the content and delivery of HCME may be in order.

## Changes Needed in Health Management Education

How then should HCME programs adapt their instruction to such important changes in health care reimbursement? First, Health care Performance Improvement (Quality) courses must place greater emphasis on measurement and metrics. For example, as described earlier, the U.S. Centers for Medicare and Medicaid Services has instituted a new VBP program. To succeed under the new VBP program, hospitals must be able to accurately measure and report a group of more than 12 ever-changing metrics (some with sub-components) across four domains: Safety, Clinical Care, Person and Community Engagement, and Efficiency and Cost Reduction. While this is just one VBP program in one country, the catalysts driving this policy are globally relevant. All countries are concerned about improving quality of care, patient safety, and cost reduction. Second, the consumerism trend is also impacting societies globally, with varying degrees of influence over health systems (18). New HCME graduates must be prepared to fully understand these metrics, how health care delivery organizations are affected and ensure health system goals are being met. Health care organization leaders need to be prepared to negotiate target metrics with payers, national health insurance systems, and ministries of health.

# COMPETENCIES AND SKILLS FOR EFFECTIVE MANAGEMENT PRACTICE

In order to better plan healthcare management educational strategies, it is important to identify the competencies and skills needed to engage in effective leadership and management of healthcare organizations. The environmental changes described in this paper can be addressed through articulation of relevant competencies. The International Hospital Federation with the support of a consortium of professional organizations and educational institutions identified and defined competencies for healthcare leadership that are universally applicable (19).

The competencies required to meet the environmental contingencies fall within two domains: health/healthcare environment, and business. With the health and healthcare

environment competency domain, the following health systems and organization competencies are most critical:

- Balance the interrelationships among access, quality, safety, cost, resource allocation, accountability, care setting, community need, and professional roles
- Assess the performance of the organization as part of the health system/healthcare services

In addition, multiple business competencies are required. Special attention must be given to the financial management competencies, especially as follows:

- Effectively use key accounting principles and financial management tools, such as financial plans and measures of performance (e.g., performance indicators)
- Use principles of project, operating, and capital budgeting
- Plan, organize, execute, and monitor the resources of the organization to ensure optimal health outcomes and effective quality and cost controls

## Curricular Issues

The introduction of VBP completely realigns financial incentives. As a consequence, healthcare management educational programs must carefully rethink the traditional approaches to curriculum that focus largely on independence of financial management competencies. There are several specific curricular concerns that need to be addressed in order to assure effective competency development. In addition to updating how we teach Quality, Financial Management curricula must also be modified to be better integrated with Quality Performance. Today, most HCME programs have at least one course in Financial Management. While the basics of Financial Management are as imperative as ever, advanced courses need to be closely aligned with Quality, Operations, Data Analytics, and Customer Experience courses.

Curricular innovation must focus on integrative approaches to program design. By using large, cross-cutting cases and/or live client projects, students can learn the increasing interrelationships between Financial Management and these other functions of the modern health care organization. Negotiation and Leadership courses should use mock negotiation exercises, followed by modeling the financial repercussions of the arrangements negotiated. Then in Analytics class, students learn how to extract data from a database and report on the metrics previously negotiated. In turn, the students can come back to the negotiation table to discuss the outcomes of their previous agreements and propose how they should be modified.

By modifying HCME program curricula to better include the new metric-intensive realities of the changing health care environment, and by better connecting previously "siloed" disciplines, graduates will be better prepared for not only the early stages of their careers, but also for the long-term requirements of health care leadership. Not only will such an approach make HCME programs more relevant to the evolving health care environment, accreditation may well be requiring it. Accrediting bodies, such as the Commission on the Accreditation of Healthcare Management Education require competency-based education. The competencies and approaches to teaching need to be informed by alumni and other external stakeholders from the health care industry. We should expect to see accreditors requiring HCME programs to demonstrate how their models prepare students to succeed in the increasingly interdisciplinary health care work environment where providers' revenues are closely tied to processes and outcomes that produce value for patients and for society overall. These changes in HCME curricula and competencies should also guide future management development programs intended to keep practicing managers and clinicians fully aware of how policy-level incentives will affect the performance of their organizations.

# DISCUSSION AND CONCLUSION

In summary, given the rapid emergence of health policies that promote VBP/P4P, we contend that in the future, health care management education and management development programs need to introduce changes in contemporary health management education and practice. Such programmatic improvements include:

1. Fully explaining the organizational implications of emergent changes in health policy and reimbursement—especially the emerging multi-dimensional view of quality (e.g., clinical, efficiency, patient experience, outcomes, etc.).
2. Placing a much greater emphasis on teaching about quality/process performance management and metrics (both conceptual issues and assessment methods).
3. Acting to vertically and horizontally integrate program curricula (e.g., financial management and operational performance improvement.) Perhaps, this should include cases that students work on across their academic program. This will help students to acquire a systematic perspective that alleviates "siloing."
4. Ensuring that throughout their program, participants have full exposure to many major changes that are occurring in the real world of health care delivery such as advances in Health Information Technology, the age of Big Data and Analytics, and how effective management interventions can help organizations respond to ever-changing health policy priorities (e.g., Management Rounds, Internships).
5. Helping students to develop and use a strategic management perspective that shows how organizations need to continually learn more about (and perhaps even anticipate) significant micro-level (local area) and macro-level external environmental changes. This is the only way that managers and leaders can effectively modify their organization's appropriate service mix and how quality performance can be used as a source of competitive advantage.
6. Working with other health professional leaders to offer programs that build inter-professional awareness and recognition. These types of experiences should be of value to practice-based attempts to re-structure patient care in alignment with changes in the delivery system.

## CONCLUSION

This paper outlines the major rationale underlying contemporary VBP or P4P health policy initiatives and their basic elements. Clearly, the major global health policy shift that is underway will ultimately have major impacts on the strategic and operational management and performance of health care delivery organizations. Successful implementation of Evidence-Based Management and ever-improving, complex information systems in Health Care Management Education and Management Development programs will likely provide major benefits to program participants and ultimately, their employer organizations. It is imperative that these changes to HCME and Management Development not happen in a vacuum. While quality improvements and success under P4P/VBP initiatives will require better trained health care managers, clinicians are arguably even more important. Leadership teams at HCME programs around the world must coordinate their efforts with their colleagues in Medicine, Nursing and Allied Health schools. Together, we can achieve much greater impacts on population health and quality health care than we can working in isolation from each other. There are also numerous global health services research implications of VBP/P4P that will provide further useful insights into the dynamics of health policy reform and health system performance during the next several decades.

## AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

## REFERENCES


1. Savage GT, Chilingerian JA, Powell M, eds. *International Health Care Management*. Amsterdam: Elsevier (2005).
2. Fried BJ, Gaydos LM, eds. *World Health Systems: Challenges and Perspectives.* Chicago, IL: Health Administration Press (2012).
3. Jacobsen KH. *Introduction to Global Health.* Boston, MA: Jones and Bartlett (2008).
4. Eldridge C, Palmer N. Performance-based payment: some reflections on the discourse, evidence and unanswered questions. *Health Pol Plan.* (2009) 24:160–6. doi: 10.1093/heapol/czp002
5. Kemble S. *Fee-for-Service is Not the Problem*. Physicians for a National Health Program (2012). p. 1–6.
6. Institute of Medicine. *To Err is Human: Building a Safer Health System.* Washington, DC: National Academy Press (1999).
7. Institute of Medicine. *Crossing the Quality Chasm: A New Health System for the 21st Century.* Washington, DC: National Academy Press (2001).
8. Cashin C, Chi YL, Smith P, Borowitz M, Thomson S. *Paying for Performance in Health Care: Implications for Health System Performance and Accountability* Berkshire: Open University Press (2014).
9. Ogundeji YK, Bland JM. The effectiveness of payment for performance in health care: a meta-analysis and exploration of variation in outcomes. *Health Pol.* (2016)120:1141–50. doi: 10.1016/j.healthpol.2016.09.002
10. Porter M, Teisberg EO. *Redefining Health Care: Creating Value-Based Competition on Results.* Boston, MA: Harvard Business School Press (2006).
11. Porter M, Teisberg EO. *Redefining Health Care: Creating Value-Based Competition on Results.* Boston, MA: Harvard Business School Press (2006).
12. Centers for Medicare and Medicaid Services. *CMS Value-Based Programs* (2018). Available online at: www.cms.gov/Value-BasedPrograms.html
13. Studer Group. *Value-Based Purchasing at a Glance* (2018). Available online at: https://www.studergroup.com/industry-impact/value-based-purchasing
14. Centers for Medicare and Medicaid Services. *Measures and Current Data Collection Periods* (2018). Available online at: www.medicare.gov/hospitalcompare/Data-Updated.Html
15. West D, Filerman G, Ramirez B, Steinkegler J. *International Health Care Management Education: Phase I*. University of Scranton & Atlas Research (2011).
16. West D, Filerman G, Ramirez B, Steinkegler J. *International Health Care Management Education: Phase II*. University of Scranton & Atlas Research (2013).
17. Counte M, Ramirez B, West D, Aaronson W. *The Global Health Care Manager: Competencies, Concepts and Skills.* Chicago, IL: Health Administration Press (2018).
18. Counte M, Wang B, Pai JY, Chang L. Globalization of performance improvement and approaches in health organizations: implications for health management education and practice in the United States and Taiwan. *J Health Admin Educ.* (2013). 30:251–65. Available online at: https://www.ingentaconnect.com/contentone/aupha/jhae/2013/00000030/00000004/art00003
19. International Hospital Federation. *Leadership Competencies for Healthcare Services Managers.* Bernex: International Hospital Federation (2015).


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# Successful Curriculum Change in Health Management and Leadership Studies for the Specialist Training Programs in Medicine in Finland

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In Finland, the specialization programs in Medicine and Dentistry can be undertaken at all five university medical faculties in 50 specialization programs and in five programs for Dentistry. The specialist training requires 5 or 6 years (300–360 ECTS credits) of medical practice including 9 months of service in primary health care centers, theoretical substance specific education, management studies, and passing a national written exam. The renovation of the national curriculum for the specialization programs was implemented, first in 2008 and officially in August 2009, when theoretical multi-professional social, health management and leadership studies (10–30 ECTS credits) were added to the curriculum. According to European Credit Transfer and Accumulation System (ECTS), 1 ECTS credit (henceforth, simply "ECTS") means 27–30 h of academic work[1] National guidelines for the multi-professional leadership training include the basics of organizational management and leadership, the social and healthcare system, human resources (HR) management, leadership interaction and organizational communication, healthcare economy, legislation (HR) and data management. Each medical faculty has implemented management studies autonomously but according to national guidelines. This paper will describe how the compulsory management studies (10 ECTS) have been executed at the Universities of Tampere and Turku. In Tampere, the 10 ECTS management studies follow a flexible design of six academic modules. Versatile modern teaching methods such as technology-assisted and student orientated learning are used. Advanced supplementary management studies (20 ECTS) are also available. In Turku, the 10 ECTS studies consist of academic lectures, portfolio and project work. Attendees select contact studies (4–6 ECTS) from yearly available 20 ECTS and proceed at their own pace. Portfolio and project comprise 2–5 ECTS each. The renovation of medical specializing physicians' management and leadership education has been a successful reform. It has been observed that positive attitudes and

[1] http://www.enic-naric.net/ects---european-credit-transfer-and-accumulation-system.aspx.

interest toward management overall are increasing among younger doctors. In addition, management and leadership education will presumably facilitate medical doctors' work as managers also. Continuous development of medical doctors' management and leadership education for physicians and dentists is needed while the changing and complex healthcare environment requires both professional and leadership expertise.

**Keywords: management-healthcare, specialist training in medicine, management education and development, leadership and physicians, medical specialist training and management**

## INTRODUCTION

Continuous development of physicians' management and leadership education is needed while the changing and complex healthcare environment requires not only professional expertise but also expertise in comprehensive and collaborative leadership (1–3). Professionals in health care are working more and more often in multi-professional teams. Hence, it is no longer possible to concentrate on medical expertise only and to ignore management and leadership.

Meanwhile, critical observations on insufficient skills for management and leadership among physicians have emerged (1, 3, 4). Among physicians, difficulties have been observed in finding a balance between leadership and clinical work (5). The transition to become a "hybrid," clinical leader, often also requires leaders to move outside their comfort zone (2, 6, 7). Physicians are expected to take responsibility for the management of financial and human resources in health care, especially in hospitals (1) but often without previous management training or mentorship (8). In health care, it is also common that physicians have been appointed as managers according to their clinical expertise, scientific qualifications and/or seniority (9, 10). Expertise in a certain profession does not automatically also qualify one to practice management and leadership (11). Core management and leadership competencies have to—and can—be formally educated (2).

Earlier in Finland, since 1960's, education for health care administration was mainly provided to senior physicians as further education or short courses. Twenty hours course on administration in health care was included in medical specialization training in 1978 and the requirement was valid for more than 30 years (12). At the same time, many other healthcare professionals were required to undertake an increased amount of leadership training as a part of their education (13–15). However, the very short course did not satisfy most physicians because basic knowledge of management and leadership could not be achieved (16, 17). In addition to education on clinical skills, the introduction of management competencies should start early in the career to develop a seamless educational continuum for future health care leaders and to ensure that future specialists are capable "team-players," e.g., communicating and giving constructive criticism and making decisions together (2). Two earlier Finnish surveys (Physician 2008 and Physician 2013) showed that gynecologists, pediatricians and neurologists, in addition to senior physicians with a managerial position, were more often dissatisfied with management, leadership and administration education included in their specialist training, while more often satisfied were GPs and physicians in surgery specialties. No differences were observed between genders, however most of the respondents in gynecology and pediatrics were female physicians, while surgery specialties were male-dominated (17).

Thus, it was obvious, that the curriculum of Medical specialist training needed a renovation. Finally, in the report of the Ministry of Social Affairs and Health in 2007 it was suggested that multiprofessional management and leadership education of minimum of 10 ECTS should be included in all specialization programs (16, 18).

During the renovation of the curriculum in 2009, Universities of Oulu, Eastern Finland, Tampere and Turku included 10 ECTS theoretical management and leadership studies in specialist training, whereas University of Helsinki had 30 ECTS compulsory for all specializing physicians. However, also in the University of Helsinki the extent of compulsory management studies included in medical specialization was changed to 10 ECTS starting 1.1.2018.

A national guideline for the management and leadership studies incorporated into curriculum of the medical specialist degree was accepted in all five medical faculties in Finland. However, each medical faculty has implemented management studies autonomously but according to the national guidelines.

This paper will describe how these studies (10 ECTS) have been implemented in the Universities of Tampere and Turku and what specializing physicians think about management education.

## The Specialist Training in Medicine in Finland

In Finland, the specialist training in medicine is classified as specialized postgraduate degree. It can be undertaken at all five medical faculties in Finland. To complete the specialist degree, 5 or 6 years (300–360 ECTS) of medical practice is required, including 9 months of service in primary health care centers, theoretical courses, management studies, and passing a national written exam. At least half of the total training time must be completed outside the university hospital, except for


**FIGURE 1 |** The structure of specialist training in medicine in Finland.

the Programs mentioned in **Figure 1** (Decree on education of specialist physicians and dentists 56/2015 § 6[2]).

The universities of European Higher Education Area (EHEA)[3] use European Credit Transfer and Accumulation System (ECTS) to describe dimensioning of an educational program and aimed learning outcomes. One ECTS means 27–30 h of academic work (ENIC-NARIC[4]).

The curricula of all specialization programs for physicians and dentists in the Universities of Tampere and Turku include 10 ECTS of compulsory, theoretical, multi-professional, social and health management studies. These studies are offered according to the national curriculum consisting of the basics of organizational management and leadership, the social and healthcare system, human resources (HR) management, leadership interaction and organizational communication, healthcare economy, HR legislation and data management. In addition to compulsory management studies, specializing physicians are offered an option to undertake an additional, voluntary 20 ECTS of studies in management and leadership.

For the part of management and leadership studies, the specialization training in dentistry is congruent with specialization in medicine including the same 10 ECTS of management studies.

## Health Management Studies in the University of Tampere

In the University of Tampere, the 10 ECTS management studies follow a flexible design of six separate modules according to the national guidelines. Students are free to plan the timing of the study modules and participation during their specialist training (**Figure 2**).

Pedagogical solutions used for each subject 1-day-module include academic lectures on the theoretical bases, the integration of theories into health care practices, as well as student-inspired workshops based on preliminary orientating reading materials assisted with web-based solutions (e.g., Padlet, Answer Garden etc.) utilizing BYOD-pedagogy (Bring Your Own Device). Furthermore, the online education network Moodle, as well as, gamification [JOPE serious virtual game (19)] has been used, e.g., for completing web-based assignments to deepen trainees' understanding on academic lecture topics.

The Department of Health Sciences in The Faculty of Social Sciences organizes both compulsory and supplementary studies in co-operation with The Faculty of Medicine and Life Sciences with financial support from the Hospital Districts of Kanta-Häme, Päijät-Häme (2008–17), Pirkanmaa, South Ostrobothnia and Vaasa (2008–14). The contact education has taken place in the central hospitals of Hämeenlinna, Lahti, Seinäjoki and Vaasa in addition to the University of Tampere. This has enabled specializing physicians to participate in management studies also close to their learning through service period workplaces.

The constant feedback after every module was first collected with paper forms, but lately as open feedback using a virtual Padlet "wall." Nowadays, the feedback has been very positive: in particular the flexibility of the education template, relevance of the subjects included in the compulsory management and leadership studies, possibility to have discussions with lecturers and in small groups with colleague trainees and the offering of education near to the students. Discussions about why medical trainees must use their time in studies like management instead of clinical training no longer appear like they used to in the very first years after the curriculum renovation, when the extent of management and leadership studies increased from 20 h to 10 ECTS.

Students are also provided an additional option for advanced and supplementary management studies (20 ECTS). For these modules, students can choose team-based tutored eLearning assignments applied to health care practices (5 × 2 ECTS) in subjects such as managing professionals, ethics and HR, project management, and understanding key financial indicators related to the economics of health care organization. However, to every eLearning assignment also face-to-face (or Skype) kick off or

[2]https://www.finlex.fi/fi/laki/alkup/2015/20150056.

[3]European Higher Education Area (EHEA) is based on the Bologna Declaration (1999) including 48 European countries (*Statement of the Fifth Bologna Policy Forum* http://media.ehea.info/file/2018_Paris/36/8/BPFStatement_with_Annex_958368.pdf) http://www.ehea.info/pid34247/how-does-the-bologna-process-work.html. The main goal of academic institutions and stakeholders of the EHEA countries is to increase staff and student mobility and to facilitate employability (http://www.ehea.info/).

[4]http://www.enic-naric.net/ects---european-credit-transfer-and-accumulation-system.aspx

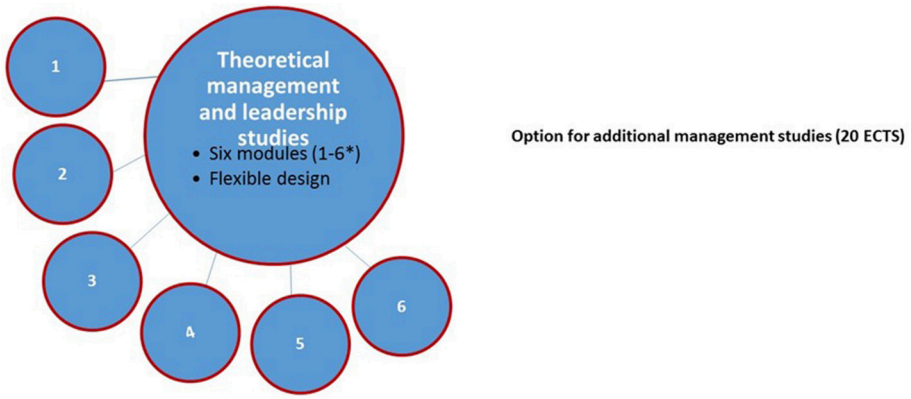


**FIGURE 2 |** Compulsory management and leadership studies (10 ECTS) for specializing physicians in the University of Tampere. * (1) Organizational management and leadership [(1 ECTS) e.g., management of a health care organization; customer-oriented approach in health care; managerial work in health care]; (2) Social and healthcare system [(2 ECTS) e.g., history and future of the social and health care and welfare system in Finland; social justice and quality of life; reform of the social and healthcare system in Finland]; (3) Human resources (HR) management [(2 ECTS) e.g., managing professionals; management and leadership of working teams; interpersonal workplace skills; self-management, occupational health of physicians]; (4) Leadership interaction and organizational communication [(2 ECTS) e.g., interaction in management; public relations; communicating in social media as a health care professional; workplace communication]; (5) Healthcare economy [(2 ECTS) e.g., why and how (in practice) to pay attention to economy and cost-effectiveness as a manager in health care]; (6) HR legislation and data management [(1 ECTS) e.g., legislation related to human resources management; legislation of patient safety and management; legislation of public procurements; data management in health care organizations; digitalization of health care services].

summary seminar is included. Also, modern book exams (5 × 2 ECTS) conducted as face-to-face sessions in teams using flipped classroom pedagogy on current topics in health care management and leadership are offered. In addition, recognition of prior learning (RPL) is possible when it comes to, e.g., earlier management studies, research or manager experience. At the same time, while management and leadership substance are studied, communication and teamwork skills are also practiced. Upon request, the students receive a separate certificate of their 30 ECTS management and leadership studies. All completed studies are marked in the student's study register.

Even though the additional 20 ECTS of courses can be done mainly as distance learning assignments with flexible timing, only 4–5% of all specializing physicians have completed the 30 ECTS management and leadership studies.

## Health Management Studies in the University of Turku

In the University of Turku, management studies consist of contact studies, portfolio and project work. Attendees select contact studies (3–6 ECTS) from yearly available 20 ECTS and proceed at their own pace. The Faculty of Medicine has organized these studies with financial support of The Hospital District of Southwest Finland and in co-operation with faculties of Law and Social Sciences and School of Economics to gain a multi-professional perspective. Portfolio and project comprise 2–5 ECTS each and it is up to the attendee's discretion to decide on the proportion of these three sections (**Figure 3**).

Contact studies are arranged as academic lectures on the theoretical bases, including the integration of theories into workshops and conversations to confirm communication and teamwork skills. An additional significance of contact studies among specializing physicians is to create networks where they can share experiences. Also, preliminary orientating reading materials are provided and the online education network Moodle is utilized and, exercises, assignments and exams may be included. The contact studies have taken place in Turku in addition to online video provided, to enable trainees to participate nearby their workplaces.

The majority on contact studies consist of 2 ECTS courses but also 1 ECTS courses exist. The topics of the courses adhere to a 2-year-rotation, which has been revised on demand. The constant feedback is collected after each course and it has been mostly laudatory. The attendees also appreciate the opportunity to choose the courses according to their own schedule and interest and, during courses to meet trainees of other specialization fields as well as specialists.

The main objective of the project work is to connect leadership studies to clinical work. A specializing physician is supposed to formulate, together with her/his supervisor, an administrative project that will benefit both the workplace and their employees or patients. The combined experience of quality improvement and education makes these projects a good initiation into further managerial roles (20). Portfolio work, meanwhile, is supposed to enhance the trainee's ability to take responsibility as a team leader, to support professional growth and to highlight targets for development. It may include, for example, a SWOT analysis or curriculum vitae. Another tool for learning through project and portfolio is mentoring: every specializing physician decides on a supervisor, who guides the trainee through project work and portfolio as a senior colleague. The main objectives of mentoring are personal and professional development of the mentee with some benefit for the mentor. The mentor is acting as a guide to the mentee in a non-formal and non-structured way.

In Turku, students are also provided optional management studies (extra 20 ECTS). However, only 2–5% of specializing physicians have completed the 30 ECTS management and leadership studies during their specialist training.

## The Volume of Medical Specialization Trainees and Graduated Medical Specialists

During the years 2009–2017, the number of specializing physicians, as well as the number of graduated medical specialists, has shown a slightly increasing trend in the University of Tampere (**Table 1**). Also, in the University of Turku, the number of graduated medical specialists has shown a moderate increase whereas the number of trainees starting specialist training has increased considerably (**Table 1**).

**Table 2** shows the increasing number of participants to compulsory management and leadership studies (10 ECTS). This is in accordance to the number of initiators of specializing physicians. In Tampere, the number of participants has been calculated according to the number of attendees in each module which means that one trainee may have participated in one or more modules during one's specialist training. In Turku, a trainee may participate in three courses, at the most, during the 5 or 6-year specialization program.

The annual variation may be due to a recent change in the student selection procedure (specializing students will be selected, whereas before they could simply sign up). A small proportion of the increase may also be due to the number of applicants to the new and attractive specialty of acute medicine, which some of the specialized/specializing doctors in other fields have also specialize in.

## Feedback Related to the Extent of Management and Leadership Education Among Medical Trainees and Trainers

After the 2008 renovation of medical specialization program, especially younger physicians reported more often satisfaction with their management and leadership education and competences compared to their senior colleagues (17). Hence,

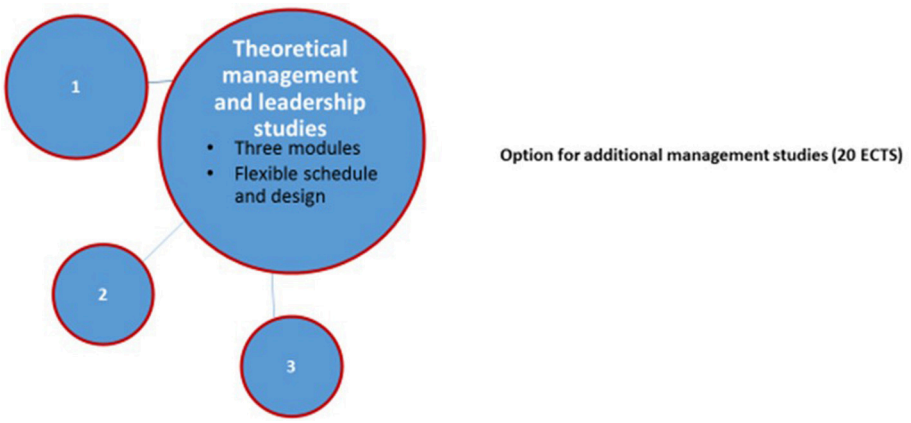


**FIGURE 3 |** Compulsory management and leadership studies (10 ECTS) for specializing physicians in University of Turku. (1) Contact studies (in total 3-6 ECTS) in relation to organizational management and leadership, social and healthcare system, human resources management, leadership interaction and organizational communication, healthcare economy and law. (2) Portfolio (minimum 2 ECTS and duration for 1 year). (3) Project work (minimum 2 ECTS).

**TABLE 1 |** Number of specializing physicians and graduated medical specialists in Universities of Tampere and Turku in 2009–2017.

| Year | Specializing physicians—started | | Graduated medical specialists | |
|---|---|---|---|---|
| | Tampere | Turku | Tampere | Turku |
| 2009 | 195 | 62 | 119 | 83 |
| 2010 | 185 | 35 | 118 | 83 |
| 2011 | 277 | 59 | 106 | 77 |
| 2012 | 276 | 63 | 123 | 93 |
| 2013 | 282 | 85 | 150 | 91 |
| 2014 | 302 | 151 | 129 | 88 |
| 2015 | 237 | 150 | 127 | 91 |
| 2016 | 254 | 130 | 131 | 81 |
| 2017 | 244 | 123 | 135 | 100 |
| 2009–2017 | 2,252 | 858 | 1,138 | 787 |

**TABLE 2 |** Number of participants in compulsory management and leadership studies (10 ECTS) in 2009–2017.

| | Participants | |
|---|---|---|
| | Tampere[a] | Turku[b] |
| 2009 | 396 | na |
| 2010 | 555 | 70 |
| 2011 | 543 | 117 |
| 2012 | 799 | 171 |
| 2013 | 905 | 234 |
| 2014 | 984 | 257 |
| 2015 | 1,053 | 314 |
| 2016 | 1,054 | 277 |
| 2017 | 1,141 | 329 |

[a] *One trainee may participate in one or more (maximum 6) modules during the 5 or 6 years of the program.*
[b] *One trainee may participate in one or maximum of 3 courses during the 5 or 6 years of the program.*

the renovation of doctors' management and leadership education has been a successful reform.

In spring 2017, Halava (16) conducted a survey among specializing physicians and their trainers to study opinions on the appropriate extent of management and leadership education incorporated into the specialization program in the University of Turku. Among trainees, 82% reported the extent of 10 ECTS management studies to be appropriate. Also, among trainers the result (93%) was similar to trainees (16). The results of Turku are in accordance with the results of the Physician 2013 survey: half of young trainees were satisfied with the current extent (10 ECTS) of management education (17).

In Tampere, trainees have been asked to give structured feedback (eForm) also after completing the compulsory management and leadership 10 ECTS program. For the feedback, a Likert-type scale (1 = completely disagree, 5 = completely agree) is used to assess the importance of management studies, structure and execution of the program, availability of information, and the benefit of the management and leadership studies to practice. Giving feedback is not compulsory, and so only a small number of trainees have answered during 2010–2017. The feedback (mean of scores 1–5) concerning completed compulsory studies in the management and leadership 10 ECTS program in 2010–2017 in Tampere can be summarized as follows:

- Management and leadership education is important to medical specialization trainees (4.7./5)
- The structure of the compulsory management and leadership studies 10 ECTS is fitting for the purpose (4.5/5)
- Information regarding the compulsory management and leadership studies 10 ECTS was easily available (4.5/5)
- The management and leadership studies conducted are beneficial to practice (4.5/5)

Hence, the power of the quantitative results (mean of all the responses in 2008–2017) presented is not strong, but in accordance with the qualitative feedback collected after each module.

Both in Tampere and Turku, the steering group of medical specialization management and leadership, the deans, as well as the financing organizations, are informed annually regarding each academic year's implementation. The report includes also the results of collected feedback. In addition, trainees' feedback and ideas have been taken into account for the continuous development of the management and leadership education program.

## DISCUSSION

Although not every doctor will work as a manager, it is also important to have good workplace skills as a member of a professional team. Management and leadership education will presumably make it easier for doctors to also work as managers. Additionally, it appears that positive attitudes toward management overall are increasing among younger doctors (16, 17). In Finland, positive attitudes toward developing specializing trainees' management and leadership skills can also be observed in the employers' contribution to the funding of management education.

According to the feedback received, students consider compulsory studies (10 ECTS) as necessary and useful for the profession and work of a medical specialist. Most younger specializing physicians, as well as their trainers, reported the extent of 10 ECTS management and leadership studies to be appropriate (16, 17).

However, of all specializing physicians, only 2–5% have completed the 30 ECTS management and leadership studies during their specialist training in both Tampere and Turku. According to discussions with specializing physicians, this is partly due to a lack of time required to complete the extra 20 ECTS management studies in addition to medical courses, but also partly due to a lack of interest to be a "hybrid" manager and physician. Most physician leaders choose to continue with their clinical practice (5). Clinicians may feel powerless for being responsible for organizational issues without the time, support or budget to improve the situation, and it may be difficult to control the workload (4, 21–23). A further barrier to physicians is that leadership training rarely affords opportunities to engage in strategy making in hospital or health care centers (24). However, according to Veronesi et al. (25), the representation of clinicians in management would help to improve the performance of a health care organization, e.g., in hospital-level outputs and outcomes (25). In Finland, it is often expected that a medical specialist will also serve as a team leader, or that a GP will take care of the management of a primary health care center in addition to her/his clinical duties. In hospital districts around both Tampere and Turku, employees in the health care organization are also provided further education of various extents in management and leadership by their employers.

Informal and tacit performance of management and leadership, as traditionally conducted in professional organizations such as hospitals, need to be renovated into

more explicit and structured procedures (24). In Finland, recent remarkable reforms of the social and health care system, as well as rapid changes in society and in (health) technology also challenge execution of management and leadership to change in health care organizations and among professionals. Health care professionals have to pay more attention to cost efficiency, quality and safety of health care performance, expectations to new service design, to changing mode of their work and communication as members in multi-professional teams, in addition to patients' increasing expectations and demands as consumers of health care services (6, 16, 17, 24). As de Bruijn (11) has stated, expertise in a certain profession rarely qualifies one to also practice management and leadership (11), but it is possible to learn (2). All the specializing physicians who have completed the 30 ECTS management and leadership studies, in both Tampere and Turku, have been extremely motivated to officiate as managers, as well as ready to start to develop management and leadership in health care organizations in the future.

Notably, the increase in the proportion of management and leadership education incorporated into specialization programs since 2008 has developed young physicians' awareness of the markers of good medical leadership, as well as their criticism of managing professionals in health care. Among physicians in specialist training, a good medical leader was emphasized to have good interpersonal and communication skills (good interpersonal skills, discusses and shares, easy to approach, available), leadership skills (supports and guides employees, knows employees' work, respects and values employees, supports professionalism, is fair and just) in addition to good managing expertise (clinical know-how, future envisioning, sharing information, good networker) (26).

To become a health care leader today, long-term, comprehensive and interdisciplinary management and leadership training is needed. Early career management programs for medical students may also be valuable as a basis for further health care leadership training and development. Workplace skills, such as interactive communication and teamwork, economical awareness, as well as a broader understanding of the environment where health care organizations are acting, are basic components required of a health care leader. Continuous development and research of medical doctors' management and leadership education is needed, while the changing, complex healthcare environment additionally requires professional expertise and strong, multifaceted expertise in management and leadership.

## CONCLUSIONS

The renovation of doctors' management and leadership education has been a successful reform. However, continuous development of medical doctors' management and leadership education is needed because of the changing healthcare environment which requires managers with both professional and leadership expertise. Although not every doctor will work as a manager, it is also important to have good workplace skills as a member of multi-professional teams.

In addition to education on clinical skills, the introduction of management competencies should be started early in the career to ensure that future specialists are capable team-players. Early career management programs for medical students may also be valuable as a foundation for further health care leadership training and development. Modernization of management and leadership in health care may only be possible if the professionals in this field are offered further education to achieve professional skills also in management and leadership.

## AUTHOR CONTRIBUTIONS

HP is the main and corresponding author. HH is the author of the parts of the article especially regarding the University of Turku. EL, EK, and P-HR provided comments for the article throughout the writing process.

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## REFERENCES

1. Lee TH. Turning doctors into leaders. *Harv Bus Rev.* (2010) 88:50–8.
2. Sonnino R. Health care leadership development and training: progress and pitfalls. *J Healthc Leadersh.* (2016) 8:19–29. doi: 10.2147/JHL.S68068
3. Stoller JK. Developing physician-leaders: a call to action. *J Gen Intern Med.* (2009) 24:876–8. doi: 10.1007/s11606-009-1007-8
4. Martin WM, Quinn SM. Developing the physician executive: from the surgical suite to the executive suite. *J Execut Edu.* (2007) 6:21–32.
5. Ham C, Clark J, Spurgeon P, Dickinson H, Armit K. Doctors who become chief executives in the NHS: from keen amateurs to skilled professionals. *J R Soc Med.* (2011) 104:113–9. doi: 10.1258/jrsm.2011.110042
6. Kirkpatrick I, Kuhlmann E, Hartley K, Dent M, Lega F. Medicine and management in european hospitals: a comparative overview. *BMC Health Services Res.* (2016) 16(Suppl 2):171. doi: 10.1186/s12913-016-1388-4
7. Souba WW. The being of leadership. *Philosophy Ethics Humanities Med.* (2011) 6:5. doi: 10.1186/1747-5341-6-5
8. Dwyer J, Paskavitz M, Vriesendorp S, Johnson S. *An Urgent Call to Professionalize Leadership and Management in Health Care Worldwide* (2006). Available online at: http://www.msh.org/sites/msh.org/files/An-Urgent-Call-to-Professionalize-Leadership-and-Management-in-Health-Care-Worldwide.pdf
9. Arroliga AC, Huber C, Myers JD, Dieckert JP, Wesson D. Leadership in health care for the 21st century: challenges and opportunities. *Am J Med.* (2014) 127:246–9. doi: 10.1016/j.amjmed.2013.11.0046
10. Spehar I, Frich JC, Kjekshus LE. Clinicians' experiences of becoming a clinical manager: a qualitative study. *BMC Health Serv Res.* (2012) 12:421. doi: 10.1186/1472-6963-12-421

11. de Bruijn JAD. *Managing Professionals.* New York, NY: Routledge (2010).
12. Hermanson T. *Lääkäri Terveydenhuollon Hallinnossa: English Summary: The Physician in Health Care Administration* (1989). Available online at: http://catalog.hathitrust.org/Record/003267627
13. Gould D, Kelly D, Goldstone L, Maidwell A. The changing training needs of clinical nurse managers: Exploring issues for continuing professional development. *J Adv Nursing* (2001) 34:7–17. doi: 10.1046/j.1365-2648.2001.3411735.x
14. Kleinman C. Leadership roles, competencies, and education: how prepared are our nurse managers? *J Nursing Administr.* (2003) 33:451–5.
15. Sinkkonen S, Lammintakanen J, Taskinen H. Hoitotyön johtamiskoulutus suomessa 1900-luvun alusta vuoteen 1965. (Nursing managament education in finland from the beginning of the 20th century to 1965). *Hoitotiede* (2018) 30:91–105.
16. Halava H. *Erikoislääkärikoulutukseen Kuuluvat Johtamisopinnot: Selvitys Kevään 2017 Tilanteesta ja Ajatuksia Tulevasta.* (2017) Available online at: https://www.utupub.fi/handle/10024/144989
17. Parviainen H, Hyppölä H, Heikkilä T, Sumanen M, Halila H, Vänskä J, et al. Lääkäri 2013: erikoistuvien lääkärien hallinto- ja johtamiskoulutuksen muutokset näkyvät myönteisesti. (summary in english). *Lääkärilehti* (2016) 71:1694–1700.
18. Puolijoki H, Tuulonen A. *Evaluation of the Education of Specialists in Medicine and Specialists in Dentistry. (summary in english).* Reports of the ministry of social affairs and health, Helsinki (2007). Available online at: http://urn.fi/URN:NBN:fi-fe201504224138
19. Parviainen H, Konu A, Suutala E, Kokkinen L, Järvensivu A, Turunen M, et al. (2017). *Developing Leadership by Gamification – the "JoPe" Game as Part of Management Studies Included in Medical Doctors' Specialization Education*. Round table presentation in conference. Paper presented at the AMEE 2017 - The Power to Surprise! 27.-30.8.17At. Helsinki. Available online at: https://amee.org/getattachment/amee-news/AMEE-2017-Abstracts/AMEE-2017-Abstract-Book.pdf
20. Snell AJ, Briscoe D, Dickson G. From the inside out: the engagement of physicians as leaders in health care settings. *Qual Health Res.* (2011) 21:952–67. doi: 10.1177/1049732311399780
21. Damschroder L, Robinson C, Francis J, Bentley D, Krein S, Rosland A, et al. Effects of performance measure implementation on clinical manager and provider motivation. *J Gen Intern Med.* 29:877–84. doi: 10.1007/s11606-014-3020-9
22. Hayes C, Wallington T, Ginzburg A, Yousefi V. Case study of physician leaders in quality and patient safety, and the development of a physician leadership network. *Healthc Q.* (2010) 13:68–73. doi: 10.12927/hcq.2010.21969
23. Martin G, Beech N, MacIntosh R, Bushfield S. Potential challenges facing distributed leadership in health care: evidence from the UK national health service. *Sociol Health Illness* (2015) 37:14–29. doi: 10.1111/1467-9566.12171
24. Lega F, Sartirana M. Making doctors manage… but how? recent developments in the italian NHS. *BMC Health Services Res.* (2016) 16(Suppl. 2):170. doi: 10.1186/s12913-016-1394-6
25. Veronesi G, Kirkpatrick I, Vallascas F. Clinicians on the board: what difference does it make? *Soc sci med.* (2013) 77:147–155. doi: 10.1016/j.socscimed.2012.11.019
26. Viitanen E, Mikkola L, Parviainen H. Good medical leadership assesed by doctors in training. *HealthMed* (2015) 9:190–8.


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# Better Board Education for Better Leadership and Management in the Health Sectors of Low and Middle Income Countries

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Board member education must be elevated within the curricula of leadership development programming in Low and Middle Income Countries (LMICs) across the globe. When properly trained and supported, the community, business, and health sector leaders serving on these boards can create the conditions within which those who deliver and manage health services are more likely to successfully achieve the mission of their organizations. The importance of incorporating education for governing body members into health sector leadership development programming, and three strategies for board development, are defined in in this article.

**Keywords: governance, boards, hospitals, leadership, governing bodies**

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## INTRODUCTION

Good board work is essential to establish and oversee: policies, the work of healthcare providers and managers needed for the vitality of health sector organizations, and the wise use of funds allocated into the health sectors of Low and Middle Income Countries (LMICs)[1]. Unfortunately, boards and good governance are not well-understood, and often overlooked, in the design, development and management of high performing health sectors in LMICs.

If LMIC health system leaders and educators want stronger health systems and greater health outcomes, they need to be prepared to invest in smarter governance. This includes targeted investments into special programs for the development of the community leaders serving on boards that hire, fire, and hold to account the leaders and managers of health sector organizations, agencies, and programs.

The three key board development strategies described here are:

**Strategy 1: Discovery**: Map and assess the current governance gaps, philosophies and structures within each LMIC health system and each major healthcare organization.
**Strategy 2: Design**: Explore and embrace modern methods for the education, training, and onboarding of board members, using multi-media learning systems and advanced pedagogical techniques.
**Strategy 3: Development**: Implement case based learning programs, materials, and experiences that parallel new education tools and techniques used in executive development.

[1]LMICs are defined by the World Bank here: https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

Before describing these strategies, the article describes the rationale for educating boards and offers a framework for health systems governance that defines content needed for new board development programming in LMICs.

## UNDERSTANDING THE VALUE OF GOOD BOARDS AND GOOD GOVERNANCE

Whether in non-governmental organizations (NGOs), civil society organizations (CSOs)[2], for-profit private sectors, and facilities run under a Public Private Partnership (PPP) arrangements or decentralized/autonomous organizations of ministries of health, people who lead, manage, or deliver health services benefit when governing bodies and governance decision-making processes are wise and ethical[3]. This is particularly true for low-resourced health systems in low and middle income countries, which are the focus of this article[4]. These governing bodies make decisions about policy, plans, and rules of collective action. When good governance is evident, the members of governing bodies wield power and resources to define, promote, protect, and achieve the health mission of the organization, be it a program within an institution or an entire country.

Good governing bodies offer health sector leaders 10 major health system benefits:

1. They improve rapport and engagement with and support from the community, and enhance our understanding of the health needs of people and communities for business planning and market planning;
2. They expand political influence with local and regional politicians to strengthen our access to needed resources (human, financial, technical, regulatory);
3. They leverage their members' experience and ideas to help develop better plans to expand equitable access to health services;
4. They encourage our leaders to improve our accountability to implement plans and improve our performance for the many constituencies and stakeholders;
5. They help support oversight, accountability, and professional growth for the chief executive officer (CEO), senior management team, and senior clinical leaders in numerous areas. These areas include: clinical expertise including medicine and nursing; health promotion; business expertise; finance; legal matters; marketing; process improvement; total quality improvement; public health; and epidemiology. They also encompass six sigma[5] thinking and tools; supply-chain management; and change management in turbulent times and with scarce resources;
6. They shield the CEO from pressures from politicians, health workers, staff, vendors, and unions to make inappropriate changes;
7. They foster an objective view of our strategic plans and tactical initiatives by posing challenging questions about their meaning and importance;
8. They bring new and objective perspectives on our problem definitions and problem resolutions;
9. They support the pursuit of philanthropy, grants, funding and/or government backing needed to achieve our mission;
10. They serve as a sounding board to clarify and make plans, strategies, and resource investments more effective.

## CHARACTERISTICS OF LMIC BOARDS

A nation's health sector is composed of many types of organizations, all of which are likely to have "boards" variously called:

- Board of directors
- Governing body
- Governing council
- Board of trustees
- Board of commissioners
- Board of governors
- Board of overseers
- Health Committees

While the role and scope of authority of these bodies can vary widely, the engagement of these governing bodies with multiple stakeholders from their communities can represent a positive force for popular capitalism, democracy and economic well-being.

A study for the African Union estimated that over one million people are serving in over 170,000 governing bodies in the health sectors of their 54 member states[6]. Many of those serving on boards do not have formal education that prepares them for leadership roles, nor are they familiar with the operations of healthcare system. Educating the board thus becomes essential to enable the institution they govern to realize the benefits of strong board leadership.

## FRAMEWORK FOR EDUCATION

For health services organizations, the focus of this collective action is to strengthen all pillars of health systems (**Figure 1**) in

[2]CSOs exist in all countries as a "third sector" found between organizations that are public sector government and private sector commercial companies. NGOs and CSOs are often used interchangeably.

[3]Transparency International has championed a call for good governance of health care organization across the globe, see: http://www.transparency.org.uk/publications/transparency-good-governance-in-global-health/

[4]The authors recognize that non-governmental and private sector health systems in low and middle income countries are playing a more significant role in health services delivery. Governing these organizations will also benefit from the principles and practices of this chapter. For insights into the growing role of private health services organizations, see the WHO paper: http://www.who.int/bulletin/volumes/91/3/12-110791.pdf

[5]See: https://www.isixsigma.com/industries/healthcare/six-sigma-powerful-strategy-healthcare-providers/

[6]Correspondence with Mahesh Shukla, Management Sciences for Health, and meetings with the African Union in Addis Abba Ethiopia, Summer 2015.


**FIGURE 1 |** Health system pillars.

order to expand access to health services[7]. This leads to better and more sustained health outcomes[8].

A well-performing health system is one that achieves sustained health outcomes through continuous improvement of these six inter-related health system functions:[9] human resources for health; health finance; health governance; health information; medical products, vaccines, and technologies; and service delivery. Education programs for boards must help board members better understand each of these functions, and what is required to structure and manage them effectively.

A review of USAID funded health sector board development programs in LMICs suggests that good board work consists of mastering and continuously improving these four key practices:

- Setting strategic direction and objectives for an organization;
- Making policies, laws, rules, regulations, or decisions;
- Raising and deploying resources to accomplish the organization's mission, strategic goals, and objectives;
- Overseeing the work of the organization to achieve its mission.

The governing body seeks the best ways to achieve their strategic goals and objectives and enhance the long-term vitality of the organization so it can pursue its mission.

[7]Health systems are defined by the World Health Organization as.... See: http://www.who.int/topics/

[8]For a comprehensive review of literature on governance in health, see: http://projects.msh.org/global-presence/upload/4-GovernanceLitReviewMay2012FINAL_PRINT.pdf

[9]USAID Health systems strengthening policy framework, see: https://www.usaid.gov/sites/default/files/documents/1864/HSS-Vision.pdf

In order to foster good governance for health, people who govern, governing bodies, health sector leaders, and managers at all levels in low- and middle-income countries must become more knowledgeable about good board work. This would include new governing body organizational forms and practices of governing for health.

## BOARD OBSTACLES TO GOOD GOVERNANCE

Health sector managers must therefore master new concepts, strategies, and processes for effective health system board work. This mastery is challenging due to certain obstacles to good governance

Five common obstacles to good board work found in LMICs include:

- Boards are not given adequate authority to govern.
- Boards are unable to recruit talented and ethical people to serve in the board and its committees.
- Board members do not understand their roles and responsibilities.
- Boards do not receive support (information, orientation, education and staff help) from managers to successfully engage in wise decision-making.
- Boards do not commit to continuously evaluate and refine their governance processes and practices.

Those involved with the education of board and administrative leaders can overcome these obstacles by: (a) being ever vigilant to identify and commit to remove each obstacle, and (b) understanding and applying the positive activities and practices described below.

## THREE STRATEGIES FOR GOOD BOARD EDUCATION

To overcome these challenges, and the above cited board work obstacles, intentional educational programming investments are essential within the three strategies of Discovery, Design, and Development.

### Strategy 1: Discovery: Map and Assess the Current Governance Gaps, Philosophies and Structures Within Each LMIC Health System

Educators and health sector policy leaders should understand the numbers and types of governing bodies that already exist in their nation's health sector. They should annually survey these governing bodies to develop a written profile of the numbers and types of people serving on these governing bodies. Basic demographic information should be tracked to ensure that gaps in needed diversity and experience can be identified, and action plans designed to address such gaps. Polling to define topics judged necessary for high performance board decision-making can also be included in such surveys. This information serves as background for curricula design and recruiting

board members into multi-media learning opportunities and materials.

## Strategy 2: Design: Explore and Embrace Modern Methods for the Education, Training and Onboarding of Board Members Within Multi-Media Learning Systems

The authors' work to conduct board education programs; support the onboarding of new board members; and the design of distance and face-to-face learning methods suggest board member development curricula needs to address these design features:

The Curricula should incorporate content and case studies such as those developed in the USAID "Leaders Who Govern" text, see: https://www.msh.org/resources/leaders-who-govern.

The topics addressed in this comprehensive text include:

1. Role Confusion The general role of governing bodies
2. Composition and Competencies
3. Use of Subgroups
4. Culture to Empower Workers What Is Organizational Culture?
5. Context Constraints
6. Organization Types and Levels
7. Deciding on the Need to Establish a Governing Body: The pros and cons of governing bodies
8. Value and Creation of Terms of Reference for Governing Bodies The value of terms of reference for governing bodies
9. Motivation and Measurement of Performance
10. Clear Processes and Practices
11. Culture of Accountability
12. Stakeholder Engagement
13. Strategy Development
14. Stewardship of Resources
15. Continuous Improvement
16. Management Oversight
17. Member Recruitment
18. Member Orientation and Education
19. Strategic Thinking and Planning
20. Resource Mobilization
21. Quality Assurance
22. Human Resources Development
23. Governance Self-Assessments
24. Communication Plans and Strategies
25. Effective Meetings
26. Themed Meeting Calendar
27. Use of Information
28. Culture of Celebration
29. Governance in Pharmaceutical Systems Managing access to essential medicines

Content for the curricula will vary in the types of curricula and learning methods but essential topics are shown in this exhibit:

| Common curricula and content | Teaching methods and instructors |
|---|---|
| Functions of board<br>Board composition<br>Board onboarding and development<br>Organization of health system<br>Quality care and patient experiences<br>Health economic & financing<br>Functions of management<br>Human resources<br>Stakeholder engagement<br>CEO performance development<br>Population and public health<br>Board self-assessment<br>Health care statistics<br>Program evaluation | Board competency based content in the UK national health service are maintained here: https://www.leadershipacademy.nhs.uk/resources/healthy-nhs-board/ Case studies (See Strategy 3 below) Handbooks and guides on each topic See https://www.msh.org/resources/governance-guides-and-handbooks<br>• Classroom learning in ministry of health training centers<br>• Webinars<br>• Speakers in board meetings from ministry of health and the organization's executive team or medical staff<br>• Board strategic planning and education retreats<br>• Study tours to other boards and regions<br>• Attendance at public health association, hospital, and medical society associations<br>Internet based materials can be secured from the WHO, The World Bank, OECD, USAID, DFID, and US Board Development organizations like BoardSource, see: https://boardsource.org/about-boardsource/ |

## Strategy 3: Development: Implement Case Based Learning Programs, Materials, and Experiences that Parallel New Executive Education Tools and Techniques

- As most board members are volunteers, and not necessarily experienced in health systems leadership, management and clinical affairs, learning experiences should be provided in short, targeted executive education style and case study focused programming. A case study from South Africa is here: https://www.researchgate.net/publication/320379417__The__state__of__public__hospital__governance__and__management__in__a__South__African__hospital__A__case__study
- The governance of various styles of health sector organizations, from community or district level health councils to national hospital boards, requires different content, and curricula. The learning materials should therefore be focused on the unique needs of each type of organization, such as in the handbooks and guides developed by Management Sciences for Health in their USAID supported project, see: https://www.msh.org/resources/governance-guides-and-handbooks
- Low cost distance learning modules have also been made available under this USAID program, see https://www.globalhealthlearning.org/course/governance-and-health-101.

This article seeks to address these strategic governance competency focused challenges and opportunities for leaders and managers working in the health sectors of low and middle income countries. A curriculum focused on seven infrastructure factors of good governing bodies, and the suggested methods and content for teaching boards about these

factors was prepared by Management Sciences for Health and is available on-line, see: http://www.msh.org/sites/msh.org/files/msh_ehandbook_complete.pdf.

Great board leaders—both men and women—come in many shapes, sizes, and ages. They come to work representing a variety of backgrounds, experiences, nationalities, languages, cultures, and attitudes, and with a range of knowledge, skills, and competencies. To fully maximize these characteristics, you will find it increasingly necessary and valuable to work with, for, and inside many types and forms of governing bodies. The principles in this article also apply to most types of organizations in wealthier countries and to sectors beyond health. They can also be used in organizations that purchase, finance, or regulate health services.

The work of effective leaders has been previously described in the book *Managers Who Lead*[10] Leaders and managers here are generally defined to be the men and women who develop, lead, or manage not only health sector–related organizations, but also boards, councils, or commissions dedicated to sustainable health systems strengthening. Roles may also include: Regional/Provincial Medical/Health Directors/Officers; Regional/Provincial/Nursing Officers; District Medical/Nursing Officers. These persons must realize that they have a role to play in health sector governance and it is part of their responsibility or duties to facilitate the work of health governance boards/structures.

Good governance enables those who lead, manage, and deliver health services to be more effective and efficient by:

1. Establishing policies, plans, and procedures that remove obstacles for leaders to do their work;
2. Encouraging leaders to be more successful in supporting the governing body to accomplish the essential governing practices of:
   - cultivating accountability
   - engaging stakeholders
   - setting a shared strategic direction
   - stewarding resources responsibly
   - continuously improving the four practices above;
3. Making available the resources—political, human, technological, and financial—that leaders and health care professionals need to do their work;
4. Expecting, encouraging, and empowering leaders and managers to strive for service delivery that meets or exceeds standards of excellence;
5. Celebrating the organization's journey toward stronger health systems and better health outcomes.

The practices cultivated in board education programming should also be shaped by work to define and live within essential principles for good governance advocated by these international organizations: The Global Fund[11], World Health Organization[12], World Bank[13], Organization for Economic Co-operation and Development (OECD)[14], and the Center for Healthcare Governance of the American Hospital Association[15].

[10]See: https://www.msh.org/resources/managers-who-lead-a-handbook-for-improving-health-services

Good governance is also taken to be key to the achievement of Sustainable Development Goal 3: Ensure healthy lives and promote well-being for all at all ages[16].

## CONCLUSION

Countries, health organizations, and health managers that want to achieve sustainable gains in health system performance must master good governance principles, processes and practices. This mastery is more likely to be accomplished throughout all levels of the health sectors in low and middle income countries of Asia, Africa, Europe, and Latin America when well-trained boards are in place and healthcare executives, as well as board members, work together to incorporate training about good governance into recruiting and nurturing their leadership. LMIC leaders need to not only have good educational programs, but in many Low and Middle Income Countries, as well as Developed Countries, board members should be selected-not just because they are wealthy or powerful members of the community. Each member should also commit to learning about the business responsibilities of health sector organizations and to participate in ongoing education. The task of the management is then to provide education that is meaningful, well-structured, appropriate for the audience of board members, and offered on a regular and consistent basis.

## AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

[11]To see a comprehensive set of governance policies and guides, see: http://www.theglobalfund.org/en/governance/

[12]WHO insights into governance for health: http://www.who.int/healthsystems/publications/nhpsp-handbook/en/ and also http://www.who.int/universal_health_coverage/plan_action-hsgov_uhc.pdf and also here: http://www.euro.who.int/__data/assets/pdf_file/0019/171334/RC62BD01-Governance-for-Health-Web.pdf

[13]Insights into Governance and Corruption: http://www1.worldbank.org/publicsector/anticorrupt/Corruption%20WP_78.pdf

[14]OECD Health system governance http://www.oecd.org/els/health-systems/governance-health-systems.htm

[15]Competency based governance in US hospitals: http://trustees.aha.org/boardeval/10-competency-based-governance.pdf

[16]See: https://sustainabledevelopment.un.org/sdg3

**Conflict of Interest Statement:** GS is employed as a principal of Compre Health Services, an education and advisory services organization based in Zimbabwe. EO-D is a principal of Anadach Group, an education and advisory services organization based in Nigeria. JR is a principal of a consulting services firm based in the United States.

The remaining author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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