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ORIGINAL ARTICLE

Integrating interprofessional education with needs-based health workforce planning to strengthen health systems

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ABSTRACT

Providing quality health care is the core purpose for health systems, and it is only possible with adequate capacity among the workforce to provide the required services. Addressing the requirements for, and supply of, the health workforce (workforce planning) is essential for strengthening health systems. There is a global recognition that interprofessional education (IPE) is critical to achieving universal health care. In this introductory paper we discuss how IPE is a key factor within needs-based health systems strengthening and Human Resources for Health (HRH) planning. This perspective is illustrated through six case studies from countries around the globe which provide discourse on how the integration of IPE/IPC with needs-based workforce planning can contribute to strengthening the health systems. Three key learnings arise from the case studies – 1) IPE is important to meet health care needs of populations efficiently and effectively; 2) integrated needs-based planning provides a framework within which IPE has an integral role, and 3) stakeholders from both health and education are critical to the process of seamless integration of IPE across the continuum of health systems.

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Introduction

Strengthening health systems to improve health outcomes has been a global priority, with the World Health Organization setting out a framework for action in 2007 which focused on six building blocks and priorities (World Health Organization [WHO], 2007). Addressing the requirements for, and supply of, the health workforce for a health system to meet the health care needs of a population is a major element in this framework. Traditionally, planning for the health workforce and planning for health services have been supply based and conducted in silos. The integration of health services, workforce and financial planning, which is aligned with a health system objectives and policy and incorporates a rigorous monitoring and evaluation framework, is more likely to be sustainable (Tomblin Murphy, Birch, MacKenzie, Rigby, & Purkis, 2017) and contribute to the achievement of universal health care/coverage.

Identifying best strategies for addressing health workforce shortages is unfolding. Among challenges found globally are efforts to ensure there is a workforce in place to provide adequate, accessible and acceptable services to a whole population. Over the last few decades, health care reform, and, in particular, Primary Health Care (PHC), has been moving towards client-centred team-based care delivery models. Interprofessional education (IPE)[1] is posited to play a critical role in providing effective service provision in a team-based health care delivery system.

For this themed issue of the Journal of Interprofessional Care (JIC), we sought discourse on 1) how IPE, interprofessional practice (IPP) and interprofessional care (IPC) are important factors in needs-based workforce planning for primary health care and 2) how the planning for and the education of the health workforce has been integrated into efforts to strengthen health systems as countries strive to achieve Universal Health Coverage (World Health Organization [WHO], 2019). This series of articles bring together global perspectives and lessons learned on the juxtaposition of workforce planning and IPE as we globally work toward Universal Health Coverage. In this introductory article, we discuss how IPE, IPP, and IPC are key factors within needs-based health systems strengthening and provide a HRH planning conceptual framework, along with comments about how the six case studies included in this issue provide examples of facilitators for and challenges to successful integration of IPE into professional learning, practice and care. The six case studies (Barreto et al., Fraher & Brandt, Lee et al., Muller et al., Nigenda et al., and Thistlethwaite et al.) provide a range of narratives on how the integration of IPE with health care practice and needs-based workforce planning can contribute to strengthening the health systems within their particular country or region.

The juxtaposition of HRH planning and IPE/IPC

At a time when the world is facing a shortage of health workers, policy-makers are looking for innovative strategies that can

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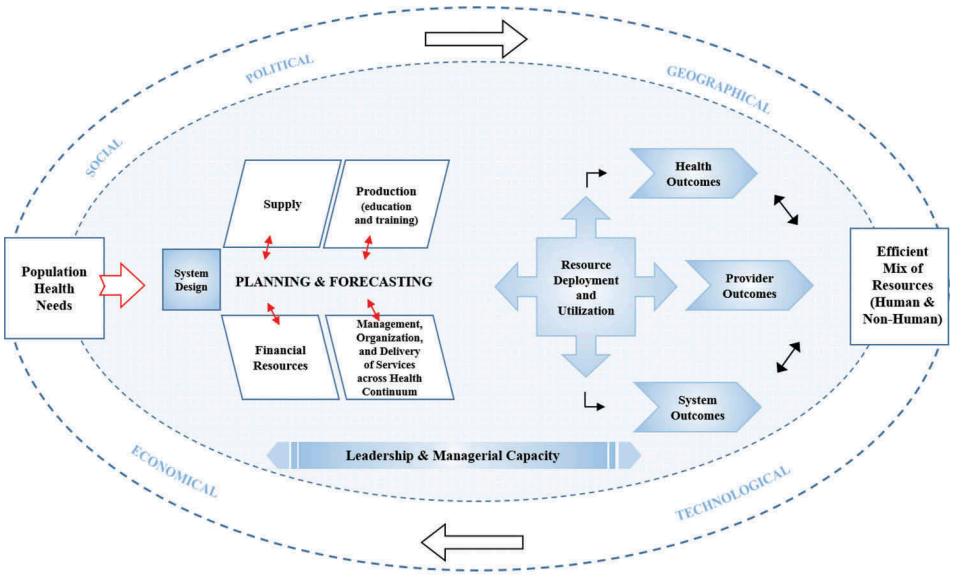
help them address these shortages and develop programmes that optimize the knowledge and skills of the global health workforce. In particular, strengthening primary health care (PHC) to move towards Universal Health Care (WHO, 2019) has become a focus for health care systems, necessitating the need for systematic needs-based health workforce planning. In the *Global Strategy on Human Resources for Health: Workforce 2030* (World Health Organization, 2016) there is recognition that there is a growing mismatch between health workforce requirements (supply) and the health needs of the population (requirements for care) (Tomblin Murphy et al., 2015, 2011, 2009). Present and future health workers are charged with providing health services in the face of increasingly complex health issues. Planning mechanisms are needed that match the numbers, skills and knowledge of that workforce to the health needs of the population – both present, and as estimated for the future. Planning for this workforce requires consideration of many factors, as depicted in Figure 1 (adapted from Tomblin Murphy, 2005).

We suggest that using this conceptual framework for health systems' strengthening and workforce planning, which is based on the health care needs of the targeted population, and within which IPE is integrated can guide an integrated approach to planning (Tomblin Murphy, 2005; Tomblin Murphy, Kephart, Lethbridge, O'Brien-Pallas, & Birch, 2009). An integrated approach ensures that education curricula and health care delivery models (i.e. collaborative practice), in sync with each other, are able to adapt to meet changing health care needs. IPE is successful when there is effective collaboration to improve health outcomes and services (Centre for the Advancement of Interprofessional Education [CAIPE], 2019). High performing interprofessional collaborative health-care teams understand how to optimize the knowledge, skills, and attitudes of their members, share case management and provide high quality care to patients, clients and their communities (National Center for Interprofessional Practice and Education [NCIPE], 2016). Planning and scaling up of the education systems to produce more of the same has been a major barrier to IPE, collaborative practice and improvement in the quality and safety of care (Dow et al., 2017; Rowland, 2017).

It is important that policy-makers review IPE for collaborative person-centred practice through a lens that is focused on the health needs of a population, rather than the needs of a profession. In this issue, examples of this are found in the case studies from Australia, Lao PDR and Mexico. This focus on the health needs of a population means a move away from a system that focuses on producing more health professionals of existing types, to a system where there is assessment of the health needs of a population and then education of providers who are able to meet those needs (as illustrated in Australia) – either through the redefinition of scopes of practice to be more reflective of interactions between professionals, or the development of new kinds of health professionals who may address those needs (Dow & Thibault, 2017). Rethinking IPE as it contributes to collaborative practice is necessary to promoting IPE as a framework with which systems can address identified workforce issues.

Within our case studies, important facilitating factors contributing to successful IPE and collaboration in the provision of health care, particularly with underserved populations such as those in rural areas or higher-needs groups, are discussed. For example, the framework for interdisciplinary training for health (ITH) implemented by the Partners in Health (PIH) in Mexico has established core principles that provide common ground for the health professionals participating. According to the authors, their model promotes a sense of equality and respect among the trainees (Nigenda et al.). In Brazil (Barreto et al.) and Australia (Thistlethwaite et al.), IPE has been oriented within health care reform and emphasized within



Adapted from Tomblin Murphy, 2005; Developed by O'Brien-Pallas, Tomblin Murphy & Birch (2005) and based on work by O'Brien-Pallas, Tomblin Murphy, Birch & Baumann (2001), and O'Brien-Pallas & Baumann (1997)

Figure 1. HRH and health system planning conceptual framework.

the health workforce planning models promoted across the two countries. Fraher and Brandt present an interesting case history of New Zealand's efforts to design care around the populations' need for health services, and suggest that New Zealand provides a valuable health workforce model for other countries. These authors further suggest that *"The New Zealand workforce service forecasts suggest ways to diffuse tasks currently provided by specialists – particularly for rehabilitation and aged care – to the primary care and community-based workforce"*. However, the case studies also illustrate the difficulties associated with attempts to promote and implement IPE within established health systems.

In all of the case studies, authors have explored IPE (either as a theme or in implementation) in terms of health workforce production – the importance of adult learning frameworks, collaboration between Ministries of Education and Health, and a community of practice among those who are involved in IPE. For example, Thistlethwaite and colleagues describe findings from Australian studies which illustrate local, regional and national disconnects among those who are involved in IPE and note that a national IPE governance and development framework may provide guidance for connecting those involved in IPE. Barreto and colleagues bring strong evidence of Brazil's longstanding practice of IPE within its HRH planning, and the reorientation of the professional training model and its integration into the teaching-service-community relationship that is the core modality within the Unified Health System (SUS). However, they argue that one of the main challenges is a comprehensive break with old, static, fragmented and conservative curricula. Lee and colleagues describe how, in Lao People's Democratic Republic (PDR), the government identified IPE as an important component of its HRH reform strategies and has developed a specific approach to embed IPE into health professional education, though their work is still within its infancy. Nigenda and colleagues demonstrate how IPE has become an important training model for team-delivered care in poor and rural populations in Mexico, but, as with Lao, this work is still early in its development.

To date, almost all work on IPE has addressed the role of regulated health professionals. In their case study, Muller et al. consider the interaction between health professional students and community health workers (CHWs) in a service-learning project developed at Stellenbosch University in South Africa. Undergraduate interprofessional collaborative practice with CHWs in primary health care has had value in identifying unaddressed primary health and social care needs. Interaction between students being prepared for regulated health professions and CHWs has the potential to build more comprehensive assessment, improve shared decision making and positively impact the setting of realistic goals with patients in primary health care settings in communities where the CHWs play a leading role in providing health care.

Challenges to the successful incorporation of IPE into professional learning, practice and care, are discussed in the six case studies. We see challenges related to the ability of IPE trained professionals being able to practice interprofessional collaboration within the health care environments as the models of care delivery do not always adapt to team-based care effectively. This highlights the need to integrate health services and health workforce planning, allowing the system to be strengthened in all areas in an integrated manner rather than isolated approaches that may be out of step with each other, resulting in less effective and unsustainable impact.

Globally, IPE is being promoted as a key element in the production of a health workforce that is able to provide team-based care within all settings, and in particular PHC. Efforts to strengthen the integration of IPE in education/training and in practice through IPC are strategies being implemented in the move toward achieving Universal Health Coverage (Pan American Health Organization [PAHO], 2016). However, IPE itself is shaped by several mechanisms (World Health Organization [WHO], 2010) and it has not always been clear how well it translates into practice (Reeves et al., 2016). Education of the health workforce needs to be delivered within the framework of lifelong learning that is seated in a needs-based curriculum, and community-based practice education (Zwarenstein, Goldman, & Reeves, 2009). It has been shown that as health workers or students move through health care systems, opportunities may occur for them to gain interprofessional experience (Lackie, 2016). This interprofessional experience then helps them to acquire the knowledge and learn the skills necessary to become part of an interprofessional collaborative practice-ready health workforce. Fraher and Brandt propose that " … *IPE must develop new models of learning that are delivered in the context of practice. This will require a shift from today's predominant focus on preparing students in the pipeline to be collaboration-ready to designing clinical practice environments that support continuous learning that benefits not just learners, but patients, populations, and providers as well.*" It is clear from all the case studies that the time has come to more effectively and efficiently deploy the current health workforce to avoid duplication of effort whilst endeavouring to meet the needs of patients and populations.

What have we learned about the integration of IPE and HRH planning?

There are several key learnings for the full integration of IPE/IPC within health systems and its integral relationship with HRH planning presented in the six articles. First, the articles lead us to assume that appropriate IPE based on population needs-based assessment is important to ensuring an adequate health workforce that can work together in teams to meet the health care needs of populations. Second, locally-based integrated needs-based planning allows for the different contexts, mechanisms and drivers of a health care system to be taken into account, thus providing a framework within which IPE has that integral role. In addition, stakeholders from health and education are critical to the process of ensuring integration of IPE/IPC principles and practice that are seamless across the continuum of a health system – from education to health care delivery.

It has become clear that health and education systems must work together to develop policies that result in coordinated health workforce strategies. When health workforce planning and policy-making are integrated, IPE and team-based

collaborative practice can be fully supported (Cox, Cuff, Brandt, Reeves, & Zierler, 2016; Reeves et al., 2016). Supporting these within an integrated process requires identifying and implementing a mechanism for delivering both IPE and IPC, as envisioned in the *Framework for action on interprofessional education & collaborative practice* (WHO, 2010).

Note

1. Throughout this paper we use the acronym *IPE* ("interprofessional education" as defined by the Centre for the Advancement of Interprofessional Education [CAIPE], 2019) to describe interprofessional education (IPE) as the beginning of a *continuum of collaboration* that spans interprofessional learning (IPL), and views IPE and IPL as continuously interwoven into interprofessional practice (IPP), and interprofessional care (IPC).

Declaration of interest statement

The authors have no conflicts of interest to declare.

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