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Skill mix, roles and remuneration in the primary care workforce: Who are the healthcare professionals in the primary care teams across the world?

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ABSTRACT

World-wide, shortages of primary care physicians and an increased demand for services have provided the impetus for delivering team-based primary care. The diversity of the primary care workforce is increasing to include a wider range of health professionals such as nurse practitioners, registered nurses and other clinical staff members. Although this development is observed internationally, skill mix in the primary care team and the speed of progress to deliver team-based care differs across countries. This work aims to provide an overview of education, tasks and remuneration of nurses and other primary care team members in six OECD countries.

Based on a framework of team organization across the care continuum, six national experts compare skill-mix, education and training, tasks and remuneration of health professionals within primary care teams in the United States, Canada, Australia, England, Germany and the Netherlands. Nurses are the main non-physician health professional working along with doctors in most countries although types and roles in primary care vary considerably between countries. However, the number of allied health professionals and support workers, such as medical assistants, working in primary care is increasing. Shifting from 'task delegation' to 'team care' is a global trend but limited by traditional role concepts, legal frameworks and reimbursement schemes. In general, remuneration follows the complexity of medical tasks taken over by each profession.

Clear definitions of each team-member's role may facilitate optimally shared responsibility for patient care within primary care teams. Skill mix changes in primary care may help to maintain access to primary care and quality of care delivery. Learning from experiences in other countries may inspire policy makers and researchers to work on efficient and effective teams care models worldwide.

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What is already known about the topic?

- Internationally, primary care is delivered by teams of physicians and healthcare professionals.
- Significant differences regarding education, tasks, remuneration and terminology of health professionals in primary care can be observed internationally.

What this paper adds

- Nurses are the major non-physician workforce in primary care teams in the US, Canada, Australia, UK and the Netherlands.
- In general, remuneration follows complexity of tasks in most countries under study.
- "Team-care" rather than "delegation" is an upcoming trend as well as integration of "allied health professionals" under the supervision of doctors and nurses, but this is often limited by local legislation and traditional role concepts.

1. Background

Primary care systems across the world face the challenge of decreasing medical workforce in tandem with increasing care demands. On the supply side, the numbers of medical graduates entering primary care specialties such as general internal medicine, family medicine or geriatrics are decreasing in the United States (US) (Swartz, 2012) and internationally (OECD, 2012). On the demand side, numbers of patients (Hofer et al., 2011; Petterson et al., 2012) as well as care demands (Tinetti et al., 2012) are substantially increasing. In some countries changes to health systems also increase demand. For example, in the US, the Patient Protection and Affordable Care Act of 2010 expanded insurance coverage to millions of uninsured individuals by the year 2014 thereby further increasing the demand for primary care (Hofer et al., 2011). In the face of these developments, the traditional concept of the 'lone-doctor-with-helpers model' may induce substantial problems with access to primary care (Ghorob and Bodenheimer, 2012).

In response to these problems, the diversity of the primary care workforce is expanding to include non-physician health professionals such as nurse practitioners, registered nurses and other clinical staff members (Green et al., 2013). Although this development can be observed internationally, the skill mix in the primary care workforce as well as speed of progress to deliver primary care as a team differs across countries (Buchan and Dal Poz, 2002; Richards et al., 2000; Sibbald et al., 2004). This paper aims to discuss skill-mix, education and training, tasks and remuneration of health professionals within primary care teams in the United States, Canada, Australia, England, Germany and the Netherlands. We characterize and compare health professionals and provide insight into global trends in changing skill mix of the primary care workforce.

1.1. Classification of health professionals

Differences in terms and names describing non-physician health professionals in different countries hinder international comparison. Therefore, in this paper health professionals are classified by the care continuum framework proposed by Kernick (1999). This scheme divides health professionals into five distinct areas of care delivery according to complexity of tasks and resource allocation ranging from full management of all clinical cases (Area A = general practitioner) to simple well-defined tasks like urine analysis or phlebotomy (Area E = nursing aide/assistant).

In this article, skill mix in the primary care workforce of six countries is discussed by a team of national experts; each country is represented by one expert (i.e., the authors). We include the US, Canada, Australia, England, Germany and the Netherlands as publications from these six countries cover over 80% of the literature on primary care skill mix and workforce (as determined by a MEDLINE search on May 10, 2013 by using the keywords "primary care", "workforce" and "skill mix") Each national expert (i.e., author) decided on the position of the providers on Kernick's continuum. By means of this framework, non-physician health professionals in primary care can be compared and matched with each other across countries, although we acknowledge that this framework is limited by its focus on medical tasks. Characterization of the workforce and issues for each country was informed by scientific publications, policy reports of local authorities (including websites) and supplied by personal communication if further information was needed (referenced at the end of each table).

Skill mix of the primary care workforce is characterized as follows: Original titles/roles of members of primary care teams in all countries are provided in local language. This may enable international readers to map from titles/roles of local health professionals to similar roles in other countries. The 'Basic education' required to enter professional training includes minimum years of primary and secondary school. 'Professional education' refers to basic training which is required for becoming a specific health professional with 'special training' referring to mandatory or optional training prior to working in primary care practice. We report on the licensing for each health profession extended by information on the accreditation of specialty training (if applicable). Common medical work performed by each health professional is displayed according to either legal frameworks, official statements or common practice where legal frameworks or official statements do not exist. We inform about the existence of professional organizations for each health profession and whether membership is mandatory for those practicing in primary care. Finally, information about average annual salary is given in US dollars by converting local currency into US dollars by averaged exchange rates for the year 2012 (Interbank, 2013).

2. The national perspective: primary care workforce in six countries

2.1. United States

A constellation of social and political factors have set the stage for team-based primary care in the US. With the