



# Public health nursing education in Saudi Arabia

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**Abstract** Public health nurses are key personnel in promoting and protecting the health of populations using knowledge from the nursing, social, and public health sciences. In Saudi Arabia, the nursing profession requires the integration of public health education and associated competencies in the nursing curriculum. In this paper, we aim to highlight the importance of public health nursing in overcoming the challenges associated with epidemiological transitions and responding to the health needs of rising populations, describe the development of the nursing profession in Saudi Arabia, and recommend public health teaching and training objectives for nursing education. The future Saudi public health nurse should be competent in addressing the determinants of health and illness that are salient to a culturally distinct group. This newly outlined role for public health nurses will maximize the use of the educated Saudi nursing workforce and will fill the gap in population public health needs in an efficient and effective way.

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## Introduction

With the burgeoning health care system in Saudi Arabia and the expansion of the nursing schools, a critical need exists for nurses who are ready to partner in the shared responsibility of the prevention movement and to assume a leadership role. Although the nursing workforce is central to the

performance of any health system, in Saudi Arabia, very little is known about its size, composition, skills, training needs, current functions and performance, expectations, or how it can be empowered to support priority health problems in the country. There is pressure to recognize nurses as an important and visible component of the health care movement.

Modernizing nursing careers to fit the public health profession requires emphasizing public health education and the associated competencies. Public health competencies, particularly those related to chronic illnesses, will be of great importance to the 21st century global health care force [1]. The Ministry of Health (MoH) in Saudi Arabia has

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repeatedly underlined the importance of nursing education and still faces the challenge of delivering public health education and training in nursing curricular development [2–4]. In this paper, we aim to highlight the importance of public health nursing in overcoming the challenges associated with epidemiological transitions and the health needs of the rising population, describe the development of the nursing profession in Saudi Arabia, and recommend public health teaching and training objectives for the nursing profession. This is a call for educational and training programs in public health nursing to create “tomorrow’s nurse”, a professional that is responsible for protecting and promoting the health of individual patients, their dependents, and the public.

### The transition from past to future public health needs in Saudi Arabia

Improvement in socioeconomic development over the past 40 years has resulted in startling progress in health, education, housing, and environmental resources in Saudi Arabia [5]. Life expectancy has reached 72.37 years for males and 76.42 years for females, an increase of approximately 11 years since 1970 [6]. The country’s aging population, coupled with rapid socioeconomic development, has increased the prevalence of risk factors for chronic disease; for example, obesity affects 64% of men and 70% of women in Saudi Arabia [7]. In particular, cardiovascular diseases and diabetes have remarkably increased the burden of disease and disability [8,9]. Additionally, deaths and disability from road traffic accidents have been increasing exponentially and are now the most frequent cause of death in adult males aged 16 to 36 years in this rapidly growing nation [10,11].

All these changes in environmental and human resources require an urgent adjustment in the health care system and the health workforce of the country. It has become crucial to empower current health promotion programs and initiate new ones with the aim of reaching the community before they reach the hospital for treatment. Increasing the level of awareness of critical health issues and health education will result in a tremendous improvement in the health of the Saudi population and will enhance the prevention movement. The public health nurse will be able to take the lead in raising awareness and planning health promotion programs to reduce and minimize the burden of disease and disability. This prevention movement requires future Saudi nurses to have an

understanding of the changing dimensions of the population and changing living conditions and to possess an elite public education.

### History of the nursing profession in Saudi Arabia

To understand its strength and weaknesses and be able to make recommendations for public health education in the nursing profession in Saudi Arabia, it is important to understand the history of this role. In Saudi Arabia, the history of nursing and public health can be traced back to Rufaida Al-Asalmiya, the first Muslim nurse [12]. In addition to being the founder of the first school of nursing in the Islamic world, Rufaida advocated for preventive care and delivered health-related teachings to the community [13]. In the last century, the first contribution to nursing is credited to Mrs. Lutfia al Khateeb, who obtained her diploma from Cairo in 1941 and has dedicated her life to enhancing the health education of Saudi women [14]. Samira Islam was also a nursing advocate, a pharmacology professor, and, like Lutfia and Rufaida, made a remarkable contribution to nursing advancement within the framework of Islamic values [12,15].

The first formal training for nurses in Saudi Arabia was initiated in 1958 as a collaborative effort between the Ministry of Health (MoH) and the World Health Organization [2,15]. Shortly after, the health care system in Saudi Arabia began to develop rapidly in response to the changing health care needs of a population that arose from the adoption of an increasingly affluent lifestyle [3]. In 1996, Saudi nurses comprised 9% of the total nursing work force, and by 1999, 17% of the total work force was comprised of Saudi nationals [15]. The rise in Saudi nursing graduates increased the percentage of nurses to 18% in 2003 [15]. The Saudi healthcare system has long been dependent on expatriate nurses that form a large proportion of the nursing workforce [4]. Saudis today still comprise only 29.1% of the total nursing workforce [4]. In recent years, Saudi women have been recruited into nursing preparation courses taught at the degree level [15]. For several years, the MoH continued to operate two levels of nursing education: the “Post-Intermediate Nursing Institute” (3 year course with a diploma) and the “Post-High School Nursing College” (bachelor degree in nursing) [5]. In 2010, the MoH recommended that a Baccalaureate of nursing is the minimum degree required for professionalism and the entry level to

practice [16]. However, the MoH, which is striving to improve the nursing profession, has developed an upgraded bridging program for diploma students for the purpose of improving the professional quality of Saudi nurses entering the labor market [15]. Approximately 23,000 Saudi nursing graduates were identified as candidates for the bridging program [17]. Furthermore, the MoH has upgraded its Health Institutes to the "Colleges of Health Sciences", and by 2008, all educational organizations under the MoH were transferred to the Ministry of Health Education (MoHE) to improve the quality of nursing education [4].

Despite these efforts to improve nursing education in Saudi Arabia and the history that includes the role of pioneers who founded and practiced nursing fourteen hundred years ago [12], nurses in this country still lack a consensus on their role within the wider context of social and health care domains.

In Saudi Arabia, the profession of nursing has progressed in the usual practices and branches of clinical and specialized nursing but has omitted the public health facet. A developmental model of nursing in Saudi Arabia was presented earlier; in that model, public health nurses must form the majority of the nursing workforce and be the foundation that will maintain the power and play a major role in the nursing profession [18]. It is important to consider the education of nurses for this job. In this paper, the interest in public health is emphasized, and reforms of the nurse's role are suggested. We suggest that public health nursing should be integrated and sustained in the Saudi Arabian health care system in addition to other nursing roles, such as the hospital nurse and the specialized nurse. Recommendations are made concerning the public health competencies for the Saudi public health nurse, as well as the integration of public health in nursing education and training.

### **The projected role of the Saudi public health nurse**

According to the American Public Health Association (APHA), public health nursing (PHN) is "the practice of promoting and protecting the health of populations using knowledge from nursing, social, and public health sciences" [19]. By setting new priorities and goals, this evolving practice of nursing originates from discussions about what is most needed in Saudi Arabia in terms of health care services, who the vulnerable populations are, and how they can be reached. The

public health nurse is expected to play an extended role that encompasses community care, support, surveillance, education, and research [20,21]. The development of this role is occurring in response to the rising challenges of chronic illnesses, the aging population, the increase in disabilities, the threat of emerging infectious diseases, and the efforts to address the socioeconomic and cultural determinants of health in order to have the greatest impact on health [20]. Additionally, the need for public health interventions that change individuals' behavior so they make healthy decisions, clinical interventions that require limited contact but provide long-term protection and a plethora of evidence-based practice guidelines, ongoing surveillance for monitoring and evaluation, and counseling skills may contribute to the education and development of the Saudi public health nurse.

The Saudi public health nurse may become competent in addressing the determinants of health and illness that are salient to a culturally distinct group. As a public health professional, the nurse may plan ecological interventions to change the context to promote better health, such as sanitation and safe schools, and may have the capacity to implement protective interventions, such as immunizations and screening [20–22]. The Saudi public health nurse may advocate, build coalitions, collaborate, and organize communities of stakeholders to support health programs [20]. It is expected that this culturally competent nurse will act as a consultant and will counsel, investigate diseases, teach, develop policies, screen, conduct social marketing campaigns, and evaluate situations through ongoing surveillance [20,21]. These actions will have the greatest population impact and will require a high level of education and training.

It is anticipated that implementation of the role of the public health nurse as described above will maximize the use of the educated Saudi nursing workforce and may provide expertise in meeting the current and future needs of populations, communities, families, and individuals. Hence, public health nurses may fill the gap in the public health needs of the population in an efficient and effective way.

### **Recommendations for integrating public health in nursing education**

Delivering public health-specific undergraduate nursing education in Saudi Arabia requires a robust curricular structure that will prepare the nurse to

meet public health competencies as they relate to the management of chronic illnesses and the importance of the global health care workforce in the 21st century. The health and safety of the Saudi Arabian population and surrounding countries are projected to be an important part of the curriculum, and practical learning opportunities must allow the students to perform the following: (1) conduct a needs assessment in relation to the available services; (2) identify the genetic, environmental, and social determinants of diseases and prevention; and (3) be competent in promoting health and preventing diseases, including screening and evaluation. The public health syllabus in nursing education must cover the sciences and disciplines that underpin public health for this particular population (Box 1) and provide benefits to clinical nursing practice and the Saudi population.

With adequate education, the Saudi public health nurse can practice nursing more effectively by applying critical appraisal skills in decision making, even in clinical settings where uncertainties are encountered. Epidemiological sciences will merge with clinical skills to form what is called "clinical epidemiology" and eventually produce a better understanding of the history of disease and disease progression, resulting in improved prevention and allocation of resources [20]. Nurses with

a good educational emphasis and understanding of their role in the health and social context of the Saudi population may have an impact on planning future healthcare services. The well-educated public health nurse will ensure that all delivered interventions benefit all patients with no gaps in delivery and will make a difference for the entire population [20,23].

The public health curriculum in nursing schools in Saudi Arabia will aim to include all the sciences and disciplines presented in Box 1, in addition to being mindful of the human rights aspect, religious restrictions, and ethical issues. Equality and a united view of "health for all" are core values in public health [24]. There is no single list of educational objectives that may apply to all nursing colleges in the country, as educational contexts and environments differ. However, a proposed basic set of public health educational goals (Box 2) for the nurse may be applied flexibly and contribute to what is expected from the Saudi public health nurse. The nursing student with a public health education should be able to understand the disciplines that underpin public health education (Box 1) in order to benefit the population and improve its health. Awareness of the determinants of health in Saudi Arabia, the history associated with the country and its religious and social structures, and the changing current environment will all enable the public health nurse to manage and overcome obstacles during their working careers. There are lessons to be learned from the past and inevitable changes to be faced in the future. The delivery of public health education for nursing may become a challenge for the nursing and public health

#### **Box 1: Recommended sciences and disciplines for public health nursing education in Saudi Arabia**

- Epidemiology
- Disease prevention and control
- Health behavior
- Health promotion
- Health from an Islamic perspective
- Health disparities (with a focus on gender inequality)
- Critical appraisal skills and research methodology
- Literature searching skills for evidence-based practice both globally and regionally
- Communicable and non-communicable disease control
- Medical statistics
- Health economics
- Medical sociology
- Occupational health
- Environmental health
- Global public health
- Sociology
- Psychology

#### **Box 2: Recommended public health nursing educational goals**

- The public health nurse should be able to:
- Discuss the population determinants of health and disease
- Apply principles and practices of health promotion
- Use epidemiology and data handling for the practice of evidence-based public health nursing
- Apply communicable and non-communicable disease prevention and control strategies
- Implement needs assessment, health care planning, and evaluation
- Describe the Saudi health care system and scope of available services
- Help and cope with research activities

academic departments as the 'what', 'how', and 'why' of such education must become a priority on the national public health agenda.

Education and practice guidelines require resources. Ensuring that public health education and training for nurses is well funded and tailored to local needs is an obligation of the academic educator and the decision-makers in nursing institutions. This task is a difficult one that should take into consideration the different models for public health education for nurses throughout the world, as benefits can be gained from learning from the experience of others. It is beneficial to know the costs and benefits of such models and to understand how are they evaluated.

Recommendations for introducing public health to the nursing profession are a powerful reminder of the need for such a discipline in Saudi Arabia. The Saudi Ministry of Health has repeatedly underlined the importance of nursing education and the need to adopt a public health educational curriculum to better meet the health needs of the population. For the nurse, merging individual and population care is a way of highlighting the importance of public health in clinical practice and in shaping society's view about public health. The goals proposed for public health nursing in this manuscript are broad principles that should be used to guide curriculum development and provide the nurse with the professionalism that will earn the trust of the public. These goals can be perceived differently by different people depending on their career intention but necessarily pose the question of what 'skills' are needed to be able to perform the role, and whether a good public health education is associated with a good professional public health nurse.

We recommend public health education for nursing students in order to prepare the Saudi nurse to take a lead in social responsibility and to fulfill the need to understand the causes of the health determinants of the population of Saudi Arabia. The public health nurse will have an indispensable role in preventive population health. Education, patient services, research, health advocacy, and redesigning services for better delivery are all areas that place individual needs in the context of the wider needs of the population.

## Conflict of interest

There are no competing interests to declare.

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