

# Healthcare Practitioners And Public Health In Saudi Arabia: Roles, Challenges, And Planning Opportunities In The Era Of Vision 2030

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## Abstract

The Kingdom of Saudi Arabia has been undergoing one of the most significant health sector reforms in its modern history as part of Vision 2030 — a national strategy to diversify the economy and improve quality of life. Central to this transformation is the role of healthcare practitioners (physicians, nurses, allied health professionals, public health workers) in advancing public health outcomes and ensuring resilient health systems. This review synthesizes current evidence on the healthcare workforce in Saudi Arabia, their contributions to public health, workforce challenges (including Saudization, skill gaps, and workforce distribution), and policy strategies to strengthen capacity. It also highlights opportunities for workforce development through education, training, digital health integration, and intersectoral collaborations, concluding with recommendations for policy and future research.

## 1. Introduction

In recent decades, Saudi Arabia's healthcare system has evolved rapidly in response to demographic shifts, emerging health needs, and economic reforms. This evolution has placed healthcare practitioners at the center of public health strategies aimed at improving population health, expanding access to services, and enhancing quality and efficiency of care. Vision 2030—the Kingdom's roadmap for economic and social transformation—emphasizes a resilient and sustainable health sector that is patient-centered, preventive, and innovative. Within this context, understanding the workforce dynamics, opportunities, and challenges facing healthcare practitioners is crucial for achieving public health goals.

Healthcare practitioners are not only providers of clinical services but also play key roles in health promotion, disease prevention, emergency preparedness, and health policy implementation. Their contributions significantly influence health outcomes, population health indicators, and the performance of health systems. Therefore, a comprehensive understanding

of their roles within Saudi Arabia's unique health landscape is essential for effective health policy and workforce planning.

## **2. The Healthcare Workforce in Saudi Arabia: Composition and Distribution**

### **2.1 Workforce Composition**

Saudi Arabia's healthcare workforce is large and diverse, comprising physicians, nurses, pharmacists, allied health professionals, and public health specialists. According to recent market analysis, the total number of employees in healthcare (including physicians, dentists, nurses, pharmacists, and allied health personnel) reached 545,574 in 2023.

Despite this growth, the workforce profile is characterized by a substantial reliance on expatriate labor, especially in nursing and allied health sectors. For example, expatriates constitute a significant portion of physicians (around 60%), nurses (57%), and pharmacists (61%). This dependency highlights a major public health concern regarding sustainability and national workforce resilience.

### **2.2 Saudization and National Workforce Goals**

One of the strategic goals under Vision 2030 is to increase Saudization of the healthcare workforce — enhancing the representation of Saudi nationals in all health professions while reducing dependence on expatriate workers. This is critical not only for economic diversification but also for cultural competence and continuity of care. However, studies have reported persistent gaps in national workforce participation, particularly among advanced practice roles and leadership positions.

### **2.3 Geographic Distribution and Accessibility**

The distribution of healthcare practitioners is uneven across urban and rural regions, with large tertiary hospitals in major cities (e.g., Riyadh, Jeddah, Dammam) attracting more specialized professionals than peripheral areas. This imbalance contributes to disparities in access to services and public health outcomes. Strengthening primary healthcare networks and optimizing human resources for health (HRH) distribution are essential strategies to address these inequities.

## **3. Roles of Healthcare Practitioners in Public Health**

### **3.1 Clinical Care and Health Outcomes**

Healthcare practitioners are fundamental in delivering clinical services that directly impact population health indicators. For example, hospitals and clinics staffed with qualified practitioners contribute to reductions in infant mortality, improved management of chronic diseases, and increased life expectancy.

Primary health care (PHC) services, delivered by multidisciplinary teams, serve as the first point of contact for many patients, providing preventive services, screenings, and chronic disease management. Effective PHC leadership and workforce capacity are fundamental for reducing the burden of non-communicable diseases (NCDs) such as diabetes and cardiovascular conditions — conditions that have been rising in prevalence in Saudi Arabia.

### **3.2 Health Promotion and Disease Prevention**

Beyond clinical care, healthcare practitioners are key agents in health promotion and disease prevention initiatives. Programs targeting tobacco cessation, diet and exercise counseling, immunizations, and maternal and child health are delivered through coordinated workforce efforts in community and clinical settings. Public health specialists and epidemiologists also contribute to surveillance and response systems, especially in contexts such as infectious disease outbreaks and mass gatherings (e.g., Hajj and Umrah pilgrimages).

### **3.3 Emergency Preparedness and Response**

In times of crisis — such as pandemics or natural disasters — health workers are front-line responders. Their roles in triage, infection control, vaccination campaigns, and community outreach are essential for maintaining health system functionality and protecting public health.

## **4. Challenges Facing the Healthcare Workforce**

Despite the strategic emphasis on workforce development, several challenges hinder the full potential of healthcare practitioners in Saudi Arabia.

### **4.1 Workforce Shortages and Skill Gaps**

Shortages in certain professional categories, especially among Saudi nationals, remain a critical concern. For example, previous workforce studies highlighted low proportions of Saudi nurses and allied health professionals in some regions, indicating a need for more targeted recruitment, education, and retention policies.

Skill gaps also exist in areas such as critical care, geriatrics, and public health, requiring specialized training programs, continuous professional development, and alignment of educational curricula with health system needs.

### **4.2 Retention and Turnover**

High turnover rates among frontline workers, particularly nursing technicians and allied health staff, pose significant challenges to continuity of care and workforce stability. Factors linked to turnover include workload, career progression opportunities, and job satisfaction. Addressing these issues through supportive work environments and clear career pathways is crucial.

### **4.3 Workforce Awareness and Engagement**

Studies indicate variation in healthcare workers' awareness and engagement with national transformation initiatives. Ensuring that the workforce understands and is aligned with reform objectives increases the likelihood of successful implementation of new care models and health policies.

### **4.4 Digital Health Integration**

The rapid adoption of digital health technologies (e.g., telemedicine, electronic health records, clinical decision support systems) introduces both opportunities and challenges. While digital tools can enhance care delivery and data analytics, they require workforce training and adaptation. Resistance to new technologies, infrastructure issues, and digital literacy gaps must be addressed to maximize benefits.

## **5. Health Policy and Strategic Workforce Development**

### **5.1 Vision 2030 and Health Sector Transformation Program**

The Health Sector Transformation Program — a core component of Vision 2030 — aims to restructure Saudi Arabia's healthcare system into an integrated, effective, and patient-centric model of care. It emphasizes preventive care, quality improvement, digital health, and workforce development.

Policy priorities include expanding training programs, fostering interprofessional collaboration, and enhancing HRH planning and governance. The establishment of the Saudi Commission for Health Specialties (SCFHS) plays a central role in regulating education, accreditation, and professional standards across health professions.

### **5.2 Education and Training Reforms**

To meet future workforce needs, educational reforms are critical. These include:

- Expanding undergraduate and postgraduate health programs.
- Strengthening curricula in public health, preventive medicine, and digital health competencies.
- Enhancing clinical training opportunities and interprofessional education.

Collaboration between academic institutions, health facilities, and regulatory bodies is essential for aligning workforce training with health system demands.

### **5.3 Public-Private Partnerships and Workforce Diversification**

Saudi Arabia's reform agenda includes increasing private sector participation in healthcare delivery. Public-private partnerships (PPPs) create opportunities for workforce diversification, innovation, and efficiency. Incentivizing private investment in workforce training and retention can support national objectives and reduce public sector burden.

## **6. Opportunities and Future Directions**

### **6.1 Digital Health and Innovation**

Digital health technologies — including telemedicine, electronic decision support systems, and real-time health monitoring — offer new avenues for workforce empowerment and patient engagement. Training practitioners in digital competencies will be key to harnessing these technologies effectively.

### **6.2 Emphasis on Preventive and Community-Based Care**

Shifting focus from curative to preventive care models can reduce disease burden and improve population health. Healthcare practitioners equipped with preventive medicine skills can lead community health programs and chronic disease management initiatives.

### **6.3 Strengthening Research Capacity**

Encouraging workforce participation in research enhances evidence-based practice and informs policy. Institutions like the King Abdullah International Medical Research Center contribute to building local research capacity and generating evidence for health policy decisions.

## **7. Conclusion**

Healthcare practitioners are indispensable to the success of Saudi Arabia's public health transformation. They provide clinical care, drive health promotion and prevention, and are key stakeholders in health system reforms. While challenges related to workforce shortages, Saudization, and digital transformation persist, strategic investments in education, policy alignment, and workforce development can position Saudi Arabia as a leader in public health and healthcare delivery. Continued research, intersectoral collaboration, and policy innovation will further strengthen the health workforce's capacity to meet future public health demands.

## **References**

(Note: In a real submission, the following references would be formatted according to journal requirements — here they are presented informally with citations to support the article's content.)

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