

# Challenges in Global Pharmacy Practice

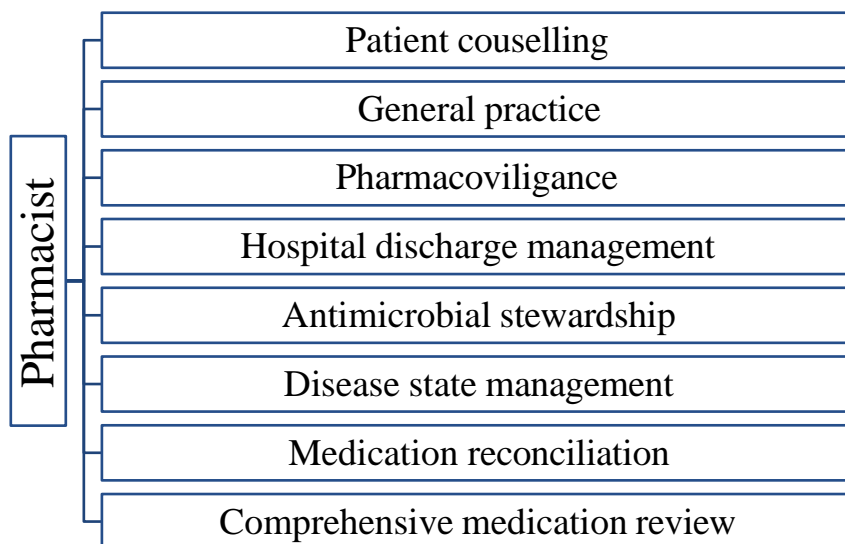
## Introduction

Pharmacy encompasses the skillful craft and scientific expertise involved in the preparation and distribution of medications, as well as offering informative guidance on drug usage to the community. Its scope ranges from compounding and labeling medications to dispensing them, along with monitoring patients and intervening when necessary.

The pharmacy profession encounters a challenge in effectively contributing to patient care and adapting to evolving practices.

The 21st century has seen remarkable advancements in medical science and technology, resulting in increasingly intricate treatments and therapeutic possibilities. This development brings forth opportunities as well as challenges for the pharmacy profession.

Pharmacists encounter various challenges in providing pharmaceutical care, including ethical, economic, clinical, and legal aspects, which pose significant obstacles to healthcare provision. Consequently, there exists a notable disparity between the expected standard of pharmaceutical care and the current level of pharmaceutical services.



**fig- Pharmacists expanded roles**

# Challenges in Global Pharmacy Practice

- Poverty of human resources
- Incorporation of technology
- Safety of drugs
- Regulatory evolution
- Alternating patient expectations
- Collaboration among healthcare professionals
- Development in precision medicines
- Pandemics affecting global health

## ➤ **Poverty of human resources:**

The cause and consequence of human resource poverty

### **1. Rising need and limited accessibility to pharmacy services**

The increasing demand for healthcare services, including pharmacy care, due to an aging population and the prevalence of chronic diseases, has outpaced the growth of the pharmacy workforce, leading to a shortage of qualified professionals. Consequently, shortages of pharmacists and pharmacy technicians in underserved areas can diminish access to pharmacy services, potentially causing delayed or insufficient patient care and poorer health outcomes.

### **2. Widened scope of practice and restricting the expansion of services**

The expanding roles of pharmacists in clinical services, medication therapy management, immunizations, and chronic disease management require more professionals, but the rate of workforce growth hasn't kept pace with these demands. Consequently, workforce shortages may hinder the implementation of essential new pharmacy services like medication therapy management and collaborative practice agreements, which are vital for improving patient outcomes, reducing healthcare costs, and advancing the profession.

### **3. Educational obstruction and effects on patient safety**

The demanding educational path, typically requiring a PharmD degree and the burden of student debt, may deter potential candidates from entering the pharmacy profession, worsening the workforce shortage. Additionally, a stretched workforce may struggle to provide thorough medication reviews and counseling, increasing the likelihood of medication errors and adverse drug events, thereby compromising patient safety due to limited time and resources for optimal medication management.

### **4. Regional inequalities and rising workload and burnout**

Geographical inequalities in workforce shortages often affect rural and underserved areas more severely, attributed to challenges in attracting and retaining healthcare professionals, including pharmacists. Consequently, existing pharmacy staff may experience increased workload, leading to elevated stress, burnout, and potential errors, thereby compromising the quality of care and the well-being of pharmacy professionals.

## **➤ Incorporation of technology**

### **1. Electronic Health Records (EHRs) and pharmacy management systems**

Integrating EHRs into pharmacy workflows demands substantial financial investments, staff training, and process adjustments, while ensuring interoperability is essential for seamless information exchange among healthcare settings.

### **2. Telemedicine and Distance Services**

In telepharmacy, technical infrastructure, internet connectivity, and data security are crucial, along with maintaining patient privacy and facilitating communication between remote pharmacists and other healthcare providers for successful implementation.

### **3. Security And Privacy of Data**

As digital platforms become more prevalent, pharmacists must be diligent in safeguarding patient data from cyber threats and adhering to strict privacy regulations.

## ➤ **Safety of drugs**

Drugs safety is paramount in healthcare, and pharmacists are pivotal in guaranteeing the safe and effective utilization of medications.

### **1. Adverse drug reactions and medication errors**

ADRs can result from individual variations in Drug Metabolism, Drug-Drug Interactions, Drug-Food Interactions, And Drug Allergies. Medication errors may result from various factors, including illegible handwriting, similar drug names, incorrect dosing, miscommunication, distractions, and failure to double-check.

### **2. Resistance of antibiotics and high-risk medications**

Excessive and improper use of antibiotics, both in human medicine and agriculture, contribute to the emergence of antimicrobial resistance (AMR).

## ➤ **Regulatory evolution**

Changes in pharmacy regulations reflect the evolving landscape of healthcare, advancements in medical science, and shifting societal requirements, aiming to safeguard patient safety, enhance care quality, and uphold professional integrity within the pharmacy profession.

- Cost
- Drug therapy management
- Guideline

## ➤ **Alternating patient expectations**

Changing patient expectations have profoundly influenced the evolution of healthcare services, including pharmacy practice, as patients increasingly desire personalized, convenient, and accessible services. With the rise of e-commerce, mobile health apps, and online pharmacies, traditional brick-and-mortar pharmacy settings face challenges in meeting these expectations.

- Convenience and Availability

- Information and Education on Health
- Integration of digital tools

### ➤ **Collaboration among healthcare professionals**

Interprofessional Collaboration (IPC) is a cornerstone of modern healthcare delivery, where multiple healthcare professionals collaborate as a team, combining their expertise and knowledge to deliver comprehensive and patient-centered care. IPC is vital for optimizing patient outcomes, improving care quality, and enhancing the overall healthcare system.

### ➤ **Development in precision medicines**

Precision medicine represents a groundbreaking approach to healthcare, tailoring medical treatments to individual genetic makeup, lifestyle, and environmental factors to optimize efficacy, minimize adverse effects, and enhance overall healthcare outcomes. With significant implications for pharmacy practice, pharmacists are instrumental in medication selection, dosing, and patient education within this patient-centered framework.

### ➤ **Pandemics affecting global health**

Global health pandemics impose significant pressure on public health systems, including hospitals, laboratories, and healthcare personnel, presenting challenges in responding to the influx of cases and implementing effective containment measures.

e.g.- Covid-19; H1n1 Influenza (2009); Ebola Virus Disease (2014-2016)

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