

## PRESCRIPTIONS AND DRUGS

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**Abstract:** *This paper examines the significance of prescriptions and drugs in modern healthcare systems, highlighting their medical, social, and economic implications. It discusses the difference between prescription-only and over-the-counter (OTC) medications, explores the rising trends in drug use, and identifies the global challenges of misuse and affordability. The study incorporates data from the World Health Organization (WHO), U.S. Food and Drug Administration (FDA), and other reliable institutions to demonstrate how prescriptions ensure safe, rational, and controlled use of pharmaceuticals. It concludes that strong regulatory systems and public education are essential to prevent drug misuse and promote global health.*

**Keywords:** *prescription, drugs, pharmacology, public health, regulation, drug safety, misuse, affordability.*

**Introduction:** Drugs play a vital role in preventing, treating, and managing diseases, making them an integral part of modern medicine. However, their safe and effective use depends largely on prescriptions — formal authorizations issued by licensed healthcare professionals that specify the type, dose, and duration of medication. The prescription system serves as a safeguard against the misuse of powerful drugs that could lead to addiction, side effects, or life-threatening complications.

According to the World Health Organization (WHO, 2023), over two billion people globally lack access to essential medicines, while inappropriate use of drugs contributes to more than 10% of preventable health problems. These statistics underscore the importance of medical prescriptions and pharmaceutical regulation in ensuring safe and equitable access to healthcare.

**Main Part:** 1. Global Trends in Drug Use: Over the past decade, global drug consumption has risen significantly. The IQVIA Institute (2024) reported that worldwide medicine use is expected to increase by 12% by 2028, with more than 4.5 trillion doses dispensed annually. In the United States, 71.9% of medical visits in 2019 resulted in at least one prescription drug being issued (CDC, 2021).

Furthermore, studies from the Pennsylvania State University (2019) found that Americans spend nearly half of their lives taking prescription medications, reflecting the central role of pharmaceuticals in chronic disease management.

2. Prescription vs. Over-the-Counter (OTC) Drugs: Prescription-only medicines are those that require a doctor’s authorization due to their strong effects or potential side effects — examples include antibiotics, antihypertensives, and antidepressants. In contrast, OTC drugs like ibuprofen, paracetamol, and antihistamines can be purchased without a prescription but must still be used responsibly. The U.S. Food and Drug Administration (FDA, 2024) emphasizes that misuse of OTC medications can cause toxicity, liver damage, and dangerous drug interactions. Hence, pharmacists play a critical role in patient counseling and dosage monitoring.

3. Prescription Drug Misuse and Health Risks: Prescription drug misuse — taking medication without a prescription or in ways not intended by a doctor — has become a serious public health concern. According to National Institute on Drug Abuse (NIDA, 2023), about 13.8 million Americans misused prescription drugs in the previous year, and approximately 52 million people aged 12 and older have done so at least once in their lifetime. The most misused drugs include opioids, sedatives, and stimulants. The WHO (2023) estimates that around 500,000 deaths annually are linked to the inappropriate use of prescription medications. These figures illustrate the urgent need for global education campaigns on rational drug use.

4. Economic and Social Aspects: Drug pricing and affordability remain pressing global challenges. A Kaiser Family Foundation (KFF, 2022) survey found that 82% of U.S. adults consider prescription drug prices too high, and 29% of them have skipped medications due to cost. In low-income countries, 20–30% of household income may be spent on medicines (WHO, 2023).

Expanding the use of generic drugs and implementing price transparency policies could help make essential medicines more affordable while maintaining quality standards.

5. Regulation and Safety Mechanisms: Effective regulation is crucial for ensuring the safety, efficacy, and quality of pharmaceuticals. The FDA and European Medicines Agency (EMA) require rigorous testing and clinical trials before approving new drugs. The WHO Model List of Essential Medicines (2023) helps guide countries in prioritizing life-saving drugs that must be available and affordable for all.

In recent years, technological tools such as electronic prescribing systems and AI-based drug monitoring have been developed to reduce prescription errors and improve patient safety.

**Conclusion:** Prescriptions and drugs form the backbone of modern healthcare. While they save millions of lives, their misuse or unregulated access poses significant risks. Ensuring safe medication use requires the cooperation of doctors, pharmacists, policymakers, and the public. Education about responsible drug use, stricter regulatory control, and global equity in medicine access are essential for sustainable healthcare development.

In the future, integrating digital technologies and global partnerships can further enhance prescription accuracy, reduce misuse, and ensure that every individual receives the treatment they need safely and affordably.

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