The World Health Organization’s Model List of Essential Drugs Among Nurses and Pharmacists in Zambia

Editor’s Note: The so-called globalization of public health makes the health and health care issues that we face in the United States of importance worldwide, and vice versa. Our nation is not alone in fighting against rising health care costs and for improvements in quality. In many industrialized nations, changing demographics, the discovery of new medicines and medical technologies, and related economic influences have led governments and private purchasers to search out new ways to stretch their limited health resources. The developing world faces even greater challenges and constraints. Dr. Gro Harlem Brundtland, Director General of the World Health Organization (WHO), recently stated that the developing world carries 90% of the worldwide disease burden.

Lessons from comparative health systems studies can be particularly useful for insights into how to obtain effectiveness in cost control, quality improvements, and equity promotion in the distribution of services. The following article examines issues facing Zambia, a nation in sub-Saharan Africa where the human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS) epidemic, a host of endemic infectious and parasitic diseases, poverty, and malnutrition vastly complicate the delivery of health care in the face of very limited health care infrastructure and economic resources. Bukonda specifically examines the practice of pharmacy in Zambia, where, as in other Third World nations, the presence of only 25 pharmacists forces nurses and others to perform tasks normally undertaken by pharmacy professionals. Capacity-building to support pharmaceutical care strategies is so vital to nations coping with disease patterns amenable to known pharmacotherapeutic interventions. The essential drug lists promulgated by WHO can facilitate better use of scarce pharmaceutical resources.

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Reference


Most health care facilities in developing countries, including Zambia, operate without any formally trained pharmacists on staff, most resort to nurses to perform some of the tasks normally entrusted to the pharmacist. The full impact of this shortage and of the subsequent substitution by nurses is not well known. Also unknown is whether or not those who assume the position of the pharmacist, or are more likely to be called on to play such a role, are well prepared for the tasks in the context of essential drug (ED) policies and programs. There is a need to improve not only the availability of pharmacists, but also the adoption of the model list of EDs by nurses and pharmacists.

The adoption of the World Health Organization’s (WHO) model list of EDs by the few pharmacists and many nurses acting as pharmacists can provide definite benefits, including, but not limited to, “extended accessibility of the most necessary drugs to populations whose basic health needs could not be met by the existing supply system.” Increased ease for health care facilities to identify and order the most effective medicines generally under their generic names, and improved rational practice for professionals who prescribe, dispense, and administer those pharmaceutical products deemed essential for the most common and prevalent health conditions facing the populations.

However, for these benefits to materialize, it is essential to have the proper pharmacy professionals not only available, but also trained in and committed to the new policy. Staffing with qualified pharmacists is essential for the delivery of proper pharmaceutical care within hospitals. In these settings, the pharmacist has more opportunities to achieve definite pharmaceutical outcomes, particularly through close interaction with the prescriber and through active participation in the preparation and composition of the hospital drug formulary. The WHO rightly considers that “at all levels of health care, the provision of care is multiprofessional and the health team, which is inevitably concerned with the use of drugs, must include a pharmacist.”

Pharmacists’ training in and commitment to the concept of EDs will make them more likely to be aware of and to use the model list in the assessment and satisfaction of the needs at their facilities. In contrast, health care facilities that employ nonpharmacist personnel or pharmacists who are not committed to the ED ideals can be assumed to be at a disadvantage in terms of procurement and use of medicines.

Established in 1981 by the WHO, the Action Program on EDs (DAP) is an important partner in the pursuit of the ED policy. During its existence, DAP has provided technical and financial assistance to a number of member countries including 15 located African countries. Despite considerable efforts in this area, according to the WHO, “many countries still do not fully appreciate the economic and health benefits of adopting an ED policy.” In the same vein, a large proportion of health professionals do not seem to support the concept of EDs.

A review of the Zambian situation provides interesting insights into the challenges many developing countries face. A landlocked country located in southern-central Africa with a population of more than 8.4 million, Zambia has a health system in which health services are provided by government institutions, mission institutions, mining companies, some semipublic organizations, private practitioners, and the traditional-medi-
cine sector. There were 1,024 health institutions in 1990 with a total of 20,665 beds and 3,907 cots. There were 79 hospitals. The GDP per capita in Zambia was $370 U.S. in 1993. A shortage in drug supply has been a chronic problem. Zambia has attempted to address the major issues of its drug-procurement system by integrating the concept of EDs as early as 1982.

According to year-end personnel reporting for 1988, the total number of pharmacists available in Zambia was 25. These pharmacists received their training outside of the country; Zambia has never had a school of pharmacy. Most pharmacists work in private community pharmacies, while a small number is employed by government and mission hospitals. The 1985 Handbook for Pharmacy Staff in Government and Mission Hospitals provides guidelines necessary for the practice of pharmacy and describes the various activities to be performed by the pharmacists.

Whereas these guidelines were provided to guide the professional activities of the pharmacists, it appears that the majority of hospitals do not include any pharmacists on staff. A University of Minnesota College of Pharmacy study shows that sixty percent of hospitals in Zambia lacked staff pharmacists. Instead, most had appointed nurses or other nonpharmacist personnel to perform some of the tasks normally entrusted to pharmacists. It is likely that this practice will continue.

Another study revealed that the existence of the WHO's ED list was known among both nurses and pharmacists in Zambia. However, empirical results show that pharmacists are more likely than nurses to possess the WHO list of EDs. Pharmacists are also more likely than nurses to have attended training sessions on EDs. Such findings support the view that the shortage of pharmacists may be placing patients at a disadvantage as hospitals proceed to scale down pharmaceutical care using nonpharmacy professionals. The findings are important as they validate the applicability of this view of the pharmacist's drug expertise to the African pharmacy practice. More investigations are needed to support policies to remove obstacles confronting hospitals trying to employ and retain staff pharmacists in Zambia and other developing nations.

Multinational pharmaceutical manufacturers seeking markets among African nations (which differ substantially epidemiologically and in their ability to afford Western pharmaceuticals nationally) may want to consider investment to upgrade the respective pharmacy professionals in African nations. Concepts of managed care from the United States may find applicability in conjunction with the WHO ED policies depending upon the availability of pharmacy professionals to implement them to move toward more appropriate pharmaceutical care to stem the disease burdens. Also needed are policies to encourage pharmacists not only to accept and maintain hospital employment, but also to use ED concepts. Health authorities must work closely with the pharmacy profession to prepare pharmacists to provide essential pharmaceutical care for all.

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References