

Medicines use in primary care in developing and transitional countries: fact book summarizing results from studies reported between 1990 and 2006

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Promoting rational use of medicines is becoming a priority issue for governments and other organizations all over the world. Evidence suggests, however, that more than half of all medicines are not used appropriately. Due to various reasons, irrational use of medicines is more common in developing and transitional countries. Measuring how medicines are used is the first step towards understanding and documenting these problems. Drug utilization and pharmaco-epidemiological studies can investigate problems with use of medicines, suggest possible interventions to improve their use and measure the impact of these interventions. Although the situation is improving, it is difficult for researchers in developing countries to obtain information about published drug utilization studies.

In association with Harvard Medical School and Harvard Pilgrims Health, WHO recently published a fact book summarizing studies dealing with medicine use in primary care in developing and transitional countries between the years 1990 and 2006. The fact book describes the findings from a WHO database of all published surveys and interventions of medicine use at the primary health-care level in developing and transitional countries. A total of 679 studies from 97 countries are identified and described.

Certain parameters in medicine use have improved while others have either remained static or deteriorated over the years. According to the book, use of medicines was of a higher standard in the public sector and prescription practices of paramedical and

nursing staff were as good as those of doctors. These studies used the WHO/International Network for the Rational Use of Drugs (INRUD) indicators to measure drug use. Educational programmes for health providers were the most common interventions carried out to improve drug use. The most effective interventions used multiple intervention components. The methodologies followed during the creation of the WHO database form the focus of chapter 2. Chapter 3 describes the studies, using pie charts according to year of data collection, World Bank region, WHO regions, income level of countries, prescriber type and facility type. Chapter 4 concentrates on studies using WHO/INRUD prescribing indicators and describes results of studies using these indicators under the various parameters mentioned in chapter 3. The key points summarizing each graph are interesting. For example on page 27, the authors state that the WHO African region has the highest percentage of medicines prescribed from a WHO Essential Medicines List or formulary and the highest percentage of patients treated according to clinical guidelines. The region also had the highest percentage of patients who were prescribed with an injection.

Analysis of studies in primary health-care settings using WHO/INRUD patient care and health facility indicators, treatment of important public health problems like respiratory infections, acute diarrhoea and malaria and inappropriate

antibiotic use are also covered. Studies using interventions to improve the use of medicines are discussed.

The last chapter suggests recommendations for future action. Annexes present the summary of data included in figures, the results according to WHO region and describe in detail the WHO indicators database manual.

The strength of the book lies in the "snapshot" picture it provides of medicine use in primary care in various regions and according to various parameters. Workers can compare their findings with their region, in a similar type of health facility, in countries with a similar income range and among similar prescriber types and health facilities. The findings of studies conducted over a 17-year period have been systematically analysed and presented in an easy-to-comprehend manner.

A problem is that the studies are restricted to primary health care. Studies in secondary and tertiary health-care institutions have not been analysed. It would be very helpful for researchers in developing countries if the authors could provide a complete list of studies included in the book and the database, with access to these studies on the WHO web site.

This book is well produced and would be a valuable addition to the libraries of pharmaco-epidemiologists, health-care managers (especially in primary care) and all those interested in promoting the rational use of medicines. ■

review by P Ravi Shankar^a

Letters

Please visit <http://www.who.int/bulletin/volumes/87/10/en/index.html> to read the following letters received in response to *Bulletin* papers:

Ivermectin worthy of further investigation, by Andrew C Steer, Therese Kearns, Ross M Andrews, James S McCarthy, Jonathan R Carapetis & Bart J Currie responding to:

Ly E, Caumes E, Ndaw CA, Ndiaye B, Mahe A. Ivermectin versus benzyl benzoate applied once or twice to treat human scabies in Dakar, Senegal: a randomized controlled trial. *Bull World Health Organ* 2009;87:424-30. PMID:19565120 doi:10.2471/BLT.08.052308

with author reply.

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