

# Strengthening Local Capacity to Establish or Improve Performance of Drug and Therapeutics Committees in Low- and Middle-Income Countries

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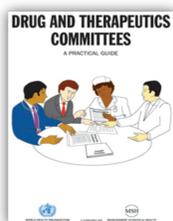


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## Background

The World Health Organization recommends Drug (Medicine) and Therapeutics Committees (DTCs) to enhance rational medicine use and contain antimicrobial resistance (AMR).<sup>1,2</sup> However, many low- and middle-income countries have few or weak DTCs.



Woldia General Hospital conducted a study on the use of the combination antimalarial artemether-lumefantrine. The results showed that blood tests were ordered for 87.5% (196/224) of fever cases; 36.7% (72/196) of the cases were deemed appropriate indications for artemether-lumefantrine. However, the remaining 124 cases, which tested negative for malaria, were also given the antimalarial.<sup>3</sup> Woldia's DTC then developed a plan to improve prescribing practices, including orientation of all physicians to follow the country's malaria standard treatment guideline.

## Purpose

To build DTC-related capacity of stakeholders in low- and middle-income countries

## Methods

The USAID-funded Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program has enhanced DTC-related capacity of health providers and policy makers in the Democratic Republic of Congo, Ethiopia, Jordan, Mozambique, South Africa, and Swaziland. Collaborating with in-country stakeholders, 51 trainings were provided to 1,411 participants, as was ongoing support, such as on-site technical assistance and supportive supervision.

## Results

Following the trainings and technical assistance, 447 DTCs were created and 49 revitalized. DTCs helped conduct 36 medicine use studies or evaluations and 68 ABC/VEN analyses; develop or implement 5 treatment/prophylaxis guidelines and 2 formularies; develop 5 DTC- or rational medicine use-related policies; conduct 15 in-service trainings on rational medicine use or DTC topics; and revise 2 pre-service curricula to include DTC-related topics.

## Selected Accomplishments

### Ethiopia

An ABC/VEN analysis at Dessie Referral Hospital showed that 18.3% of the hospital's total cost of medicines was for antibiotics, with ceftriaxone second on the list of top 10 antibiotics. The resulting drug use evaluation showed that ceftriaxone was prescribed appropriately in only 55% (56/102) of the patients and that general practitioners were the most frequent prescribers (67% of the cases). Taking action, the hospital DTC developed a ceftriaxone use policy that specified proper indications, dosing, and duration and required complete documentation of medical records, including clinical outcomes, following its use.



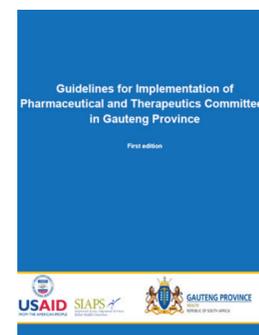
A DTC subcommittee at Ethiopia's Woldia Hospital discussing a study of artemether-lumefantrine prescribing practices

### Jordan

Multidisciplinary teams including DTCs in three public hospitals implemented a program combining drug use evaluation with continuous quality improvement methods to improve antibiotic prophylaxis in cesarean sections. Over 2 years, this antimicrobial stewardship program increased the use of the correct antibiotic from 0% to 86% (1,984/2,303), the correct timing of the first dose from 0% to 92% (2,118/2,303), and the correct number of doses from 0% to 88% (2,033/2,303). In addition, the average antibiotic prophylaxis cost per case decreased 79%, while the average surgical site infection rate was low at 1.6%.<sup>4</sup>

### South Africa

To create an integrated network of DTCs, optimize resources, and enhance rational medicine use, the Gauteng provincial DTC developed a guidance document for DTCs operating at all health care levels. This guideline addresses governance structures, processes, accountability, and communication strategies to assist hospital- and district-level DTCs to ensure the quality of pharmaceutical care.<sup>5</sup> For example, the West Rand district DTC used the guideline's drug use evaluation data-collection tool to assess the use of cefixime and abacavir tablets in the district's clinics. The National Department of Health is currently developing a national policy for the establishment and functioning of DTCs in South Africa.



Gauteng (South Africa) provincial DTC guidelines document

### Swaziland

To advocate and act for AMR containment, Raleigh Fitkin Memorial Hospital DTC implemented a quality improvement program that included performing culture and sensitivity tests on inpatients prescribed antibiotics. The results showed high levels of pathogen resistance to several antibiotics, including ceftriaxone and vancomycin. In response, the DTC led the development and implementation of hospital guidelines on prescribing antibiotics and switching from intravenous to oral antibiotic therapy. The Laboratory Department provides culture and sensitivity test reports monthly to the DTC to monitor drug sensitivity patterns for appropriate antibiotic prescribing.



A technical staff in the microbiology lab of Raleigh Fitkin Memorial Hospital in Swaziland doing culture and antibiotic sensitivity testing as part of the DTC-initiated quality improvement program

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## Conclusion

Stakeholders are motivated to implement DTC activities if they receive locally customized technical support. Although trainings help jump-start the process, ongoing technical assistance is critical for continuing momentum, effective implementation, institutionalization, and sustainability.