World Health Organization

08 March 2012 | Geneva - A new book, "**The evolving threat of antimicrobial resistance - Options for action** ", launched by the World Health Organization (WHO), showcases examples of actions taken to **slow down drug resistance** and preserve the ability of medicine to effectively **treat many infectious diseases** . The steps taken by governments, health facilities and providers, and others are examples of what is recommended in the 2001 WHO Global Strategy for Containment of Antimicrobial Resistance.

Over several decades, powerful medicines have been developed to treat diseases such as tuberculosis, malaria, HIV, influenza and many bacterial infections, and all medicines used to treat these infections will likely become ineffective because of resistance at some point. Antimicrobial resistance (AMR) has evolved to become a worldwide health threat. Of critical importance, every antibiotic ever developed is at risk.

This makes it difficult and more expensive to treat many common infections, causing delays in effective treatment or, in worst cases, inability to provide treatment at all.

"In terms of new replacement antibiotics, the pipeline is virtually dry. But much can be done," says Dr Margaret Chan, Director-General of the World Health Organization. "This includes prescribing antibiotics appropriately and only when needed, following treatment correctly, restricting the use of antibiotics in food production to therapeutic purposes and tackling the problem of substandard and counterfeit medicines."

Drug resistance causes increased and prolonged illness, a greater risk of complications and higher death rates. Infections which are increasingly resistant to antibiotics are causing a heavy disease burden, particularly in developing countries.

Some of the examples of a number of successful strategies and measures highlighted in the book include:

- In Thailand, the "Antibiotic Smart Use" programme reduces the prescribing of and demanding for antibiotics by both prescribers and patients. It showed an 18%–46% reduction in antibiotic use while 97% of targeted patients recovered or improved regardless whether they had taken antibiotics.
- A programme in pharmacies in Viet Nam consisting of inspection for prescription-only drugs; education on pharmacy treatment guidelines; and group meetings of pharmacy staff resulted in a significant reduction in antibiotic dispensing for acute respiratory infections.

- In Norway, the introduction of effective vaccines in farmed salmon and trout together with improved fish health management reduced the annual use of antimicrobials in farmed fish by 98% between 1987 and 2004.
- In 2010, the University of Zambia School of Medicine revised their undergraduate medical curriculum. The topics of AMR and rational use of medicines were inserted prominently. The aim is that graduates enter clinical practice with the right skills and attitudes to be both effective practitioners and committed stewards of AMR containment.