



World Health  
Organization



Combat Drug Resistance  
No action today...No cure tomorrow  
World Health Day 2011

# A HEALTHIER IRAQ THROUGH COMBATING DRUG RESISTANCE



*Stronger Commitment*

*Rational Drug Use*

*Stronger Surveillance*

*Ensuring Drug Quality*

*Infection Control*

*Advanced Research*

[www.emro.who.int/iraq](http://www.emro.who.int/iraq)  
[www.moh.gov.iq](http://www.moh.gov.iq)

# COMBAT DRUG RESISTANCE: NO ACTION TODAY, NO CURE TOMORROW

The emergence of AMR is a complex problem driven by many interconnected factors; single, isolated interventions have little impact. **A global and national multi-sectoral response is urgently needed to combat the growing threat of AMR.**

Most of us live longer and healthier lives today, partly because powerful and effective medicines – known as antimicrobials – are available to treat infectious diseases. Until the discovery and availability of antimicrobials in the 1940s, people were dying needlessly from infectious diseases. **Today, none of us can imagine living in a world without antimicrobials.**

**We are now on the brink of losing this precious arsenal of medicines.**

The use and misuse of antimicrobials in human medicine and animal husbandry over the past 70 years have increased the number and types of micro organisms resistant to these medicines, causing deaths, greater suffering and disability, and higher health-care costs.

If this phenomenon continues unchecked, many infectious diseases risk becoming uncontrollable and could derail progress made towards reaching the health related United Nations.

**Antimicrobial resistance is not a new problem but one that is becoming more dangerous.** Furthermore, the growth of global trade and travel allows resistant organisms to spread worldwide within hours. **Many countries are taking action, but urgent and consolidated efforts are needed to avoid regressing to the pre-antibiotic era.**

## What are antimicrobial agents?

Antimicrobial agents are medicines used to treat infections caused by microorganisms, including bacteria, fungi, parasites and viruses.

## What is antimicrobial resistance?

Antimicrobial resistance (AMR) is resistance of a microorganism to an antimicrobial medicine to which it was previously sensitive.

## Drug Resistance arises when...

- Patients do not take their medicine properly and rationally
- Providers do not prescribe the medicine properly
- Patients and community do not know proper use of medicine & problem of drug resistance
- Health authorities do not maintain quality of drugs
- Hospitals do not adopt infection control measures
- Health policy makers do not prioritize drug resistance containment
- There is limited research on new medicine

## Why is antimicrobial resistance a global concern?

- AMR kills human lives
- AMR hampers the control of infectious diseases
- AMR threatens a return to the pre-antibiotic era
- AMR jeopardizes health-care gains to society
- AMR threatens health security, and damages trade and economies

Together we need to work on:

***Stronger Commitment***  
***Stronger Surveillance***  
***Infection Control***

***Rational Drug Use***  
***Ensuring Drug Quality***  
***Advanced Research***

*WHO, supports the MOH in Iraq, and is engaged in guiding the response to antimicrobial resistance (AMR) through:*

- Policy guidance, support for surveillance, technical assistance, knowledge generation and partnerships, including through disease prevention and control programmes;
- Essential medicines quality, supply and rational use;
- Infection prevention and control;
- Patient safety;
- Laboratory quality assurance.

## **THE IRAQI MINISTRY OF HEALTH (MOH) EFFORTS IN COMBATING ANTIMICROBIAL RESISTANCE**

*The Government of Iraq is committed to support the nationwide coordinated activities aimed at combating antimicrobial resistance (AMR) through:*

### **Strengthening the national action plan to combat antimicrobial resistance**

- Strengthening legislative and regulatory mechanisms for ensuring access to quality medicines, their distribution and use through authorized channels and systematic use of standard treatment guidelines.
- Campaigning to discourage the non-therapeutic use of antimicrobials in the veterinary & fishery sectors and other industries

### **Improving the surveillance of resistance**

- Map existing surveillance networks and assess their utilization
- Quantify resistance through efficient laboratory networks
- Identify trends, detect new events and assess impact of interventions
- Monitor use of antimicrobials in health, veterinary and other sectors
- Appraise impact of commercial promotion of pharmaceuticals on drug resistance
- Determine impact of non-pharmaceutical factors on emergence of AMR
- Disseminate data for policy and programme development.

### **Strengthening infection control measures**

- Orient all relevant health professionals in appropriate prescription and dispensing of antimicrobials
- Establish policy and standards for infection control in healthcare facilities

- Build capacity of health professionals and staff to implement these standards
- Institute and empower hospital infection control committees
- Provide an enabling environment for infection control practices
- Promote hygiene in school curriculums
- Launch comprehensive health education campaigns
- Strengthen immunization programmes
- Collaborate with NGOs and mass media to create community awareness self-medication and poor

### **Increasing hospital hygiene and infection control**

- Expand the patient safety programme to cover all health facilities in Iraq.

### **Promoting the use of antibiotics wisely in all sectors**

- Develop evidence-based national/local standard treatment guidelines (STGs)
- Train professionals to use STGs
- Promote the concept of rational use of antibiotics through hospital committees in both public and private hospitals at all levels
- Build laboratory capacity for accurate diagnosis, determination of resistance and utilization of data
- Educate communities on proper compliance and self medication and raise their awareness that this is a serious and urgent public health problem.

### **Supporting research in prevention and containment of antimicrobial resistance**

#### ***Promote basic research***

- To ascertain the mechanisms, dynamics of spread and drivers of resistance
- To generate evidence on the impact on human health of use of antimicrobials in veterinary and fishery sectors

#### ***Support operational research***

- To understand the impact of AMR in terms of illness, economics and low productivity
- To delineate factors that influence prescription habits, self-medication and poor compliance

# WORLD HEALTH DAY 2011

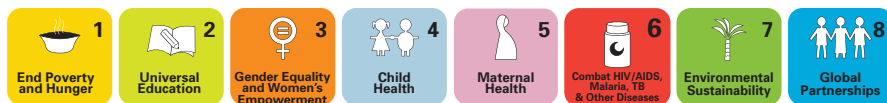


**WHO has selected combating antimicrobial resistance as the theme for World Health Day 2011.** On this day, WHO issues an international call for concerted action to halt the spread of antimicrobial resistance and recommends a six-point policy package for governments.

**WHO calls on all key stakeholders**, including policy-makers and planners, the public and patients, practitioners and prescribers, pharmacists and dispensers, and the pharmaceutical industry, **to act and take responsibility for combating antimicrobial resistance.**

## WORKING TOWARDS ACHIEVING THE MILLENNIUM DEVELOPMENT GOALS

The WHO efforts in combating drug resistance, directly and indirectly, feed into the achievement of the eight Millennium Development Goals by 2015.



Information Sources: Ministry of Health (Iraq) & WHO ([www.who.int](http://www.who.int))

**World Health Organization – Iraq Office**

E-mail: [wrlraq@irq.emro.who.int](mailto:wrlraq@irq.emro.who.int) | Web: [www.emro.who.int/iraq](http://www.emro.who.int/iraq) | [www.moh.gov.iq](http://www.moh.gov.iq) | [www.who.int](http://www.who.int)

## KEY FACTS

### ABOUT ANTIMICROBIAL RESISTANCE - IRAQ

- **TB:** Number of reported cases of TB were about 10,000 in 2010 and 150 cases were MDR-TB causing 5 deaths.
- **Malaria:** Resistance to earlier generation of anti-malarial medicines such as chloroquine and sulfadoxine-pyrimethamine is widespread in most malaria-endemic countries. However, for Iraq, malaria is no longer a major public health concern since no indigenous cases were reported during 2009 & 2010. 7 malaria imported cases were reported and these were from South Africa, Pakistan, India and Sudan. The cases were successfully treated with chloroquine and no resistance was reported.
- **HIV:** In 2010, only 21 cases were reported and no drug resistance was reported, although resistance is an emerging concern for treatment of HIV infection worldwide.
- **Hospital-acquired Infections:** 50% of the hospital-acquired infections are caused by methicillin-resistant *Staphylococcus aureus* (MRSA) and 72% of the isolates were not *Staphylococcus aureus* as was reported in a pilot study conducted in the Medical City hospitals in Baghdad in 2009.
- **Inappropriate and Irrational Use of Antimicrobial Medicines:** is still a major cause for resistant microorganisms to persist and spread countrywide.
- **Ciprofloxacin:** is the only antibiotic currently recommended by WHO for the management of bloody diarrhea due to *Shigella* organisms, now that widespread resistance has developed to other previously effective antibiotics, rapidly increasing prevalence of resistance to ciprofloxacin is reducing the options for safe and efficacious treatment of shigellosis, particularly for children. In Iraq no resistance was reported to the use of fluoroquinolones in treating shigellosis.

## Personal Stories from different people in Iraq addressed to the public on drug resistance



Dr. Mohammad  
Muthafar Abdel Qader

The most important thing is to take the medication on-time with the exact right dosage, and to take it from the pharmacy and not from the streets. In fact, the medication is meant only for people who are sick, and before taking an antibiotic, make sure there is no allergy for the patient towards it. **Before I prescribe a medicine, I make sure it is suitable for the patient's case.**



My name is  
Ziad Mahmoud Abdel Kareem

responsible for the Malaria unit in the Communicable Disease Center in the Directorate of Health Promotion in Suleimaniyah. Through my work, I deal with many communicable diseases and stay up-to-date with their emergence and their coverage rates. Among the diseases that struck me is Malaria. Malaria is considered among the diseases that affect human's health and society's financial situation. It has always been around and thanks to the government and the support of organizations especially the World Health Organization in controlling the situation, Iraq is now a Malaria Free-Zone. **Despite this positive development, the work for monitoring areas previously prone to malaria must continue in order to maintain Iraq a Malaria Free-Zone.**



Pharmacist  
Kheir Allah Attallah

A mother came to me today with a prescription of antibiotic syrup for her child. She asked me to give her an antibiotic injection instead. Of course I refused to do that without a prescription and I told her what the doctor has prescribed is more suitable for your child. **In fact, I never give any medicine without a prescription ahead.**



My name is  
Dr. Sirwan Mohammed. I'm 35 years old. A master's graduate in Community Medicine and I'm almost half way through finishing my PhD from Dohuk University.

I've been working in the Dohuk Health Directorate in the Communicable Diseases Control Center for the past six years. The program started in 2010 with the support of the World Health Organization (WHO) supported Iraq to control Malaria and get rid of it, where as a result, no cases were reported during these last two years. I'm very proud of this work, especially since it's the **result of the many efforts done by the cadres working in this field, and we're all determined in maintaining this progress and to endorse keeping Kurdistan and Iraq Malaria-free zone.**

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My name is  
Ra'eda Daoud Naji

I'm a 38 years old Mother of three. When my child gets sick especially when he suffers from coughing, itching, soar throat and a fever, I learned that before giving him an antibiotic, I would try warm drinks, a medicine for lowering the fever or even suppositories for fever, but if nothing works, then I take him to the doctor. **Before taking a medicine/ I always consult the doctor.**



My name is  
Fairuz Mohammed.

I'm a 52 years old housewife who attends the health center in Broshki/Dohuk. I have been taking my medications without a prescription and didn't know my decision's effect, until the day that one of my relatives had a severe coma, where the doctor explained that her coma was because of taking the medication without a prescription. **From that day onwards, I don't take any medication whatsoever, unless there is a prescription or a visit to the health center.**



My name is  
Noorieh Khyoon.

I'm 45 years old. I'm a mother of eight children and I take care of them when they get sick, but **don't stick to the medication prescription.** My youngest son got sick and the doctor just informed me that he has no immunity because I don't continue with the medications. And since then, **I always make sure to stick to the medication with the doctor's consultation and to never jeopardize my children's health.**



My name is  
Kazal Abdullah.

I'm an employee in the government department in the Suleimaniyah district – Kurdistan governorate. I'm a mother of 4 children, I take care of them and try to keep them safe from getting ill. Therefore, I always follow-up on their vaccination schedules to make sure they get vaccinated on time. **That's why I maintain a specialized notebook for vaccination schedules, and always follow-up on the national vaccination campaigns through TV and specialized health programs, where physicians talk about the importance of vaccination to protect our children from getting ill.**