



ANTIMICROBIAL RESISTANCE AND ACCESS TO ANTIBIOTICS

It is estimated that around **2 billion people worldwide do not have access to essential medicines**. Access to medicines in the Eastern Mediterranean Region varies among countries, depending on their income level and allocation of domestic resources to medicine and vaccine procurement. Access to safe and effective antibiotics remains a major challenge, especially for low- and middle-income countries. Barriers to access include **high prices for new products, weak regulatory systems, substandard and falsified antibiotics, shortages of essential antimicrobials and inefficient procurement and supply management systems**.

In the Region, **19 countries have a national essential medicines list**, and **16 have updated it in the last five years**. Some have incorporated the **AWaRe (Access, Watch, Reserve)** classification for antibiotics in their lists. Many lists remain incomplete: policies have no provisions on regulatory procedures or supply chain management in emergencies, pandemics and crisis situations and lack relevant implementation plans.

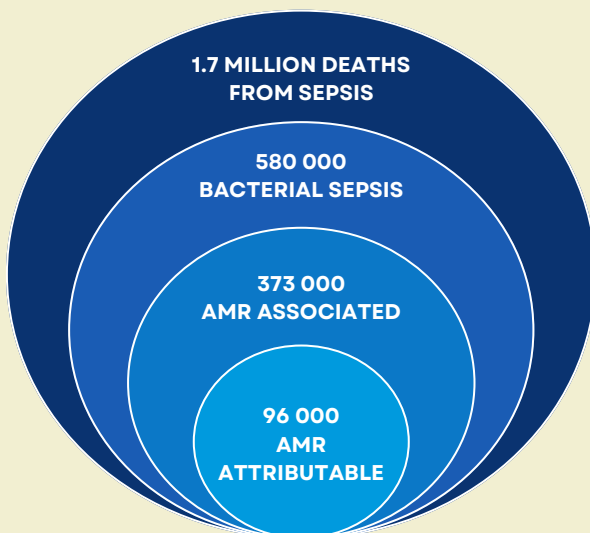
DRUG RESISTANCE IS INCREASING IN THE WHO EASTERN MEDITERRANEAN REGION

In 2021, there were **1.7 million deaths** from sepsis in the WHO Eastern Mediterranean Region. Of these **373 000 were associated with bacterial antimicrobial resistance (AMR)**.

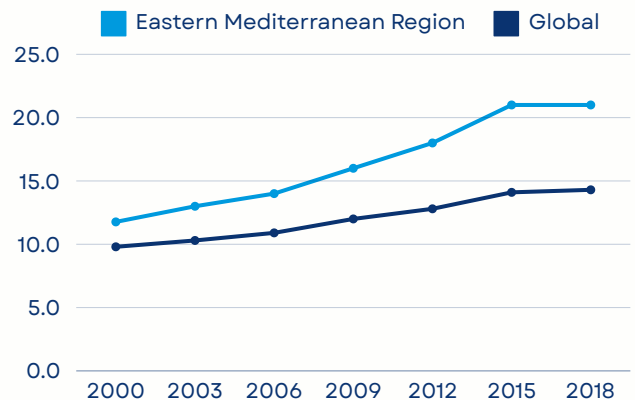
The Eastern Mediterranean Region consumes more antibiotics than any other WHO region.

In 2018, the Eastern Mediterranean Region consumed antibiotics at a higher rate per capita (21.8 defined daily doses per 1000 inhabitants per day) than the global average (14.3) and than any other WHO region. Consumption is greatest in high-income countries, while middle-income countries reported the greatest increase in consumption between 2000 and 2018.

Burden of sepsis and bacterial AMR in the Eastern Mediterranean Region 2021



Source: Based on data from: GBD 2021 Antimicrobial Resistance Collaborators. Global burden of bacterial antimicrobial resistance 1990–2021: a systematic analysis with forecasts to 2050. Lancet. 2024 Sep 28;404(10459):1199–226.



Mean estimated per capita antibiotic consumption globally and in the WHO Eastern Mediterranean Region, Global Research on Antimicrobial Resistance (GRAM), 2000–2018

Source: Developed using data from Global Research on Antimicrobial Resistance [online database]. Oxford: University of Oxford; 2024 (<https://www.tropicalmedicine.ox.ac.uk/gram/research>).

KEY MEASURES TAKEN BY COUNTRIES IN THE REGION TO IMPROVE AVAILABILITY AND ENSURE QUALITY OF ANTIBIOTICS

Most countries of the Region have **national regulatory authorities**. These carry out **marketing authorization, import control, licensing activities, inspection and market control, laboratory testing and quality control, pharmacovigilance and clinical trial control**. Most countries operate a national central medical store. However, in the majority of countries, medicine supply is not based on national standard treatment guidelines. At the hospital level, forecasting and quantification are paper-based.

Several countries have aligned their standard treatment guidelines with their national essential medicines lists, but adherence to these guidelines is lacking.

22

countries have joined the Global Antimicrobial Resistance and Use Surveillance System (GLASS)

13

countries have shared their national antimicrobial consumption data

12

countries have regulations mandating hospitals to establish pharmacy and therapeutics committees

KEY FACTORS LEADING TO INAPPROPRIATE USE OF ANTIBIOTICS IN THE REGION



The **inadequate enforcement of existing regulations** is a significant concern in the Region.



Antibiotics are **frequently overprescribed**, sometimes due to patient requests, and are **heavily promoted by pharmaceutical companies** and distributors.



Antibiotics are often **available without prescription** by a health care professional. In several countries in the Region 40% of prescribed antibiotics are inappropriate.



While 19 countries have laws against dispensing prescription medicines without a prescription, **16 still report over-the-counter sales of antibiotics**.

KEY MEASURES TO IMPROVE THE QUALITY OF ANTIBIOTICS IN THE REGION

Improving access to high-quality antibiotics requires a comprehensive health systems approach and strong partnerships, supported by legal and regulatory frameworks that cover the whole antibiotic life cycle and value chain.



Boosting regional medicine production capacity



Improving procurement arrangements and ensuring effective supply chains



Strengthening national regulatory authorities

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