



World Health Organization

Eastern Mediterranean Region



## ANTIMICROBIAL RESISTANCE AND CHILD HEALTH

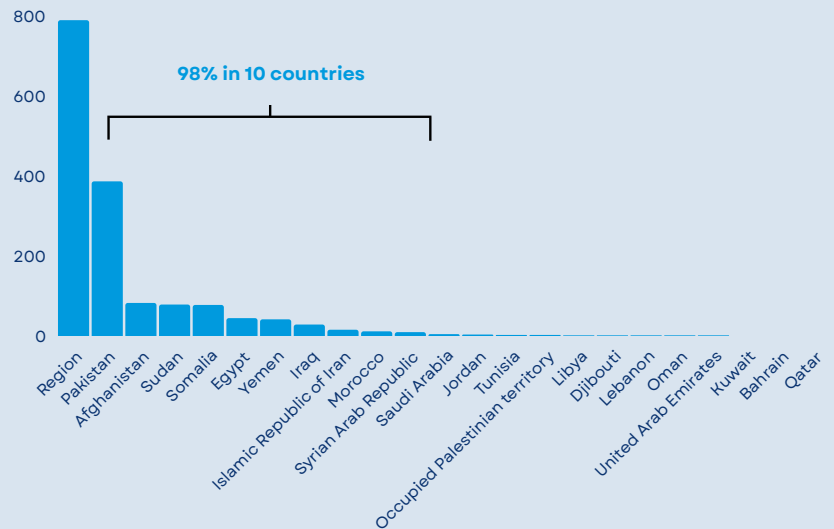
Despite progress over the last decades, the Region continues to face the challenge of preventable child mortality. **In 2022, under-five mortality was the second highest in the world, with 43 deaths per 1000 live births. Similarly, neonatal mortality was 25 per 1000 live births.**

### THE LINK BETWEEN ANTIMICROBIAL RESISTANCE (AMR) AND CHILD HEALTH

Children's underdeveloped immune systems make them more susceptible to infections such as pneumonia, diarrhoea and meningitis.

These infections are mostly caused by viruses, but are often inappropriately treated with antibiotics. Insufficient knowledge of paediatric pathogen resistance and a lack of paediatric-specific data contribute to antibiotic overuse and misuse, making paediatric antibiotic resistance a growing public health threat.

Number of deaths (thousands) in children under five in the countries of the Region, 2022

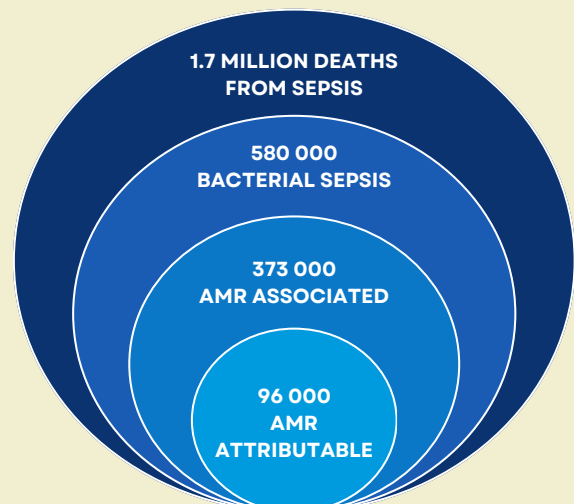


In the Region, there were 123 834 deaths directly due to AMR in 2019, of which 35% were of children under five.

### DRUG RESISTANCE IS INCREASING IN THE WHO EASTERN MEDITERRANEAN REGION

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

## MEASURES TO REDUCE THE RISK OF AMR IN CHILD HEALTH IN THE REGION



WHO advocates for both promotive and curative interventions at community level through two packages: *Caring for the newborn at home* and *Integrated community case management*.



At primary health care level, the integrated management of childhood illness is the key strategy for children to reduce under-five mortality, morbidity, and disability, and improve child growth and development. The strategy plays a crucial role in combating AMR through standardized guidelines ensuring that antibiotics are only prescribed when necessary at primary and tertiary health care levels.



At hospital level and in delivery settings, the early essential newborn care package has been implemented in several countries in the Region. It aims to ensure health workers have the skills and knowledge to provide appropriate care including immediate and thorough drying of the newborn, skin-to-skin contact, delayed cord clamping and early initiation of breastfeeding. WHO also supports countries in improving and standardizing the quality of paediatric care at hospital level using the *WHO Pocketbook of hospital care for children*.

## INCORPORATING STRATEGIES ADDRESSING AMR IN ROUTINE CHILD HEALTH PROGRAMMES



**AMR education**, particularly on the rational use of antibiotics, needs to be integrated into health care worker training.



**Stronger surveillance systems** need to be developed to monitor how antibiotics are used among children and how resistance patterns develop.



Encouraging **vaccinations and good hygiene** practices can lower infection rates, reducing the need for antibiotics.



**Public awareness campaigns** are crucial for educating communities about the risks of misusing antibiotics and the importance of following prescribed treatments.

### WHO-EM/CSR/790/E

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