

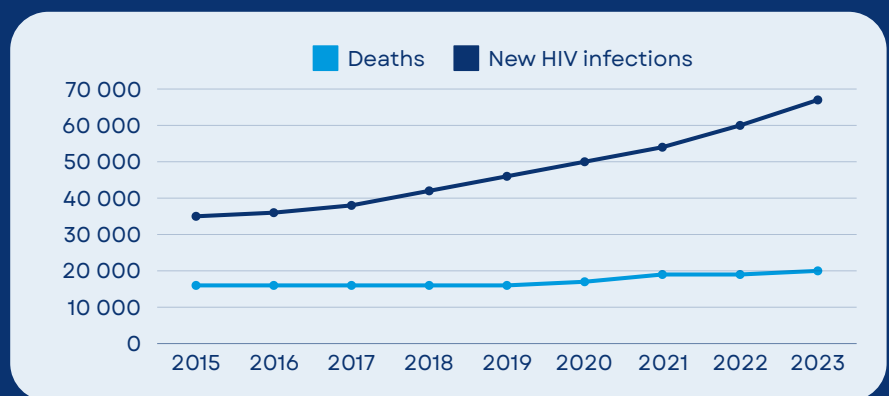


## HIV AND ANTIMICROBIAL RESISTANCE

The overall HIV burden in the Eastern Mediterranean Region remains low, with a prevalence of less than 0.1% in the general population. In 2023, 530 000 people were estimated to be living with HIV. Yet, HIV infections are on the rise: Between 2010 and 2023, new HIV infections increased by 132%, and AIDS-related deaths increased by 69%.

Despite its low burden in the Region, key populations are disproportionately affected by HIV, including men who have sex with men, people who inject drugs, sex workers, transgender people, and people in prisons and other closed settings.

The Region is largely off-track from achieving the global targets towards ending the HIV/AIDS epidemic by 2030 (i.e. 95% of people living with HIV know their status, 90% receive treatment and 86% achieve viral suppression by 2025). The progress against these targets stands at 38% of people living with HIV knowing their status, 28% receiving antiretroviral therapy (ART) and 24% achieving viral suppression.



### THE MAGNITUDE OF HIV DRUG RESISTANCE IN THE REGION

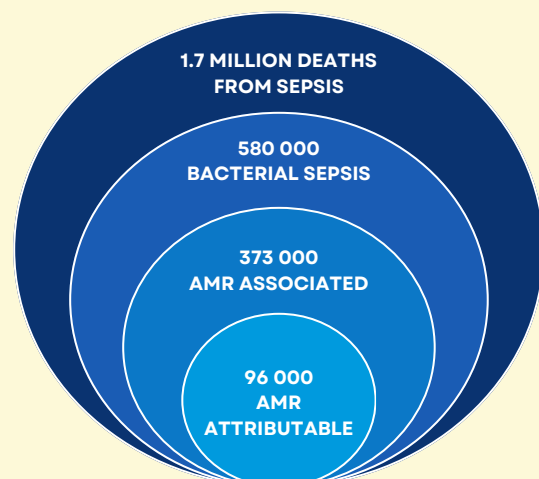
Increased ART coverage has been accompanied by the emergence of HIV drug resistance. While global data remains limited, in published cohorts, resistance to dolutegravir (DTG) has been observed in up to 4.8% of participants without viral suppression. The magnitude of HIV drug resistance in the Region remains largely unknown.

If not prevented, HIV drug resistance can jeopardize the efficacy of medicines used to treat HIV, resulting in increased numbers of treatment failures, HIV infections and increased morbidity and mortality.

### 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 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.

## RISK FACTORS WHICH INCREASE THE EMERGENCE OF HIV DRUG RESISTANCE



Slow transition to optimized DTG-based regimens as a first-line for adult and paediatric patients.



Low access to DTG-based paediatric formulations or lack of appropriate second- and third-line regimens.



Poor adherence to treatment.



Delayed diagnosis.



Lack of access to viral load testing for treatment monitoring.



Delay in switching regimes in cases of treatment failure.



Loss to follow-up due to health system failure, migration, displacement or humanitarian issues resulting in treatment interruption.

## CHALLENGES IN DIAGNOSING AND MANAGING HIV DRUG RESISTANCE



Low coverage of viral load testing to detect treatment failures early and switch to appropriate regimens.



Limited laboratory capacity in countries to conduct HIV resistance testing, limiting individualized care.



High costs of routine resistance testing.



Lack of routine surveillance to inform programmatic decisions on context-appropriate second and third-line regimens.

## MEASURES BEING IMPLEMENTED TO REDUCE THE DEVELOPMENT AND SPREAD OF HIV DRUG RESISTANCE

**Viral load suppression:** Expanding the use of viral load testing to monitor the response to treatment, as drug-resistant HIV is less likely to emerge when viral suppression is achieved.

**Prevention and response:** Focusing on dolutegravir-based ART regimens, monitoring HIV care service delivery and strategies to ensure uninterrupted drug supplies.

**Research and innovation:** Encouraging relevant and innovative research that will have the greatest public health impact in minimizing HIV drug resistance.

**Laboratory capacity:** Supporting and expanding the use of viral load testing and building capacity to obtain quality data on HIV drug resistance.

**Governance and enabling mechanisms:** Ensuring country ownership, coordinated action, advocacy and sustainable funding are in place to support action on HIV drug resistance.

## COLLABORATION BETWEEN HIV AND AMR PROGRAMMES

To stop the emergence of HIV drug resistance, countries need to:



Make optimal ART medicines available



Switch regimens rapidly in cases of confirmed treatment failure



Retain patients in care and ensure adherence to treatment



Conduct ongoing surveillance to monitor HIV drug resistance



Increase access to and use of viral load testing



Incorporate HIV into AMR national action plans

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