

Action against antimicrobial resistance (AMR) Investment case



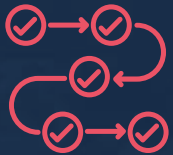
World Health
Organization

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Objective

To inform global, regional and country action on **AMR response** and to **mobilise resources**. The workstreams conducted to **estimate the costs and associated benefits** of AMR included the development of: a **business-as-usual (BAU) scenario** to estimate the current and projected costs of AMR if no action is taken; a **consensus-based list of key AMR interventions** across sectors, and the sub selection of a package of interventions with cost and effectiveness information reported; a **global AMR investment case** to estimate the return-on-investment (ROI) of the AMR response.



Methods

- **BAU scenario:** Analysed using the **OECD Strategic Public Health Planning for AMR (SPHeP-AMR) model**. We estimated the **current and projected costs of AMR** should no action be taken, using this as the benchmark for the investment case.
- **Consensus-based list of key AMR interventions:** A multi-step approach, including **evidence generation and expert consultation**. We performed a targeted search of literature from global organisations, non-governmental organisations and research institutions, and received feedback from the Quadripartite Core Group as well as from the Quadripartite Technical Group on the Economics of AMR.
- **Investment case:** All relevant outcome variables associated with key AMR interventions were gathered and utilised as inputs for the SPHeP-AMR model, which provided **estimations of the incremental effects and costs**. The output data from the SPHeP-AMR model was then used to conduct the **return-on-investment (ROI) analysis**.



Key
messages

- At the current level of action, we estimated that AMR will lead to **significantly higher healthcare costs** reaching approximately US\$ 412 billion per year globally, with related **productivity losses** reaching approximately US\$ 443 billion.
- A **mixed policy of One Health interventions** shows potential to reduce this by nearly US\$ 7.7 trillion by 2035.
- **Investment required** for the intervention package was estimated at about US\$ 1,420.7 billion worldwide by 2050.
- For every US\$ 1 invested in a mixed policy intervention package, a **global net return** of between USD 7.2 and USD 13.1 is expected, on average by 2050.