

WHAT ARE ANTIMICROBIALS?

An antimicrobial is an agent (natural, semisynthetic, synthetic in origin) that kills or inhibits the growth of microorganisms. Antimicrobials have saved millions of lives, and made procedures such as common surgeries, cancer treatments and organ transplants possible.



Antimicrobials

- ANTIBIOTICS
- ANTIFUNGALS
- ANTIVIRALS
- ANTIMALARIALS
- ANTHELMINTICS

WHAT IS AMR?

Antimicrobial resistance (AMR) is a global health threat. Increasing economic and regulatory obstacles have shifted the scientific community away from the development of new antimicrobials that could combat these infections.



CAUSES

- Improper antimicrobial prescribing
- Over-use in agriculture
- Lack of new antimicrobials being developed



Anyone of any age can get an antimicrobial resistant infection

Global public health threat

Antimicrobial resistance present in every country in the world

In US **2,000,000+** acquire resistant infections each year; **23,000** die



Drug resistant infections cost the US **\$20 billion** in excess healthcare costs & **\$35 billion** in lost productivity annually

If nothing is done, we risk falling into an era without effective antimicrobials



Minor infections become life threatening



Routine medical procedures such as surgery will be nearly impossible to perform



Resistant infections predicted to kill more than **10,000,000** people per year by 2050, more than currently die from cancer

AMR
10,000,000
VS.
CANCER
8,200,000



The crisis is exacerbated by the fact that US scientific research and development has largely shifted away from investment in new antimicrobials to combat these infections



Less than **5%** of pharmaceutical investment goes towards antimicrobial development



Only 6 of top 50 drug companies in the world still developing antimicrobials

Total investment
\$38 BILLION

VS.

Antimicrobial investment
\$1.8 BILLION



80%

of products in development are being developed by smaller companies

WHAT POLICYMAKERS CAN DO

Support policies that would provide incentives and stewardship measures that allow innovators to develop new life-saving medicines



Remove financial hurdles and equip doctors with a full array of treatment options



Ensure that patients can get the drugs they need, when they need them



Streamline the regulatory process to decrease the amount of time needed for new drugs to reach the market



Create financial incentives that spur companies' ability to develop innovative new medicines to treat serious, and life-threatening diseases



Encourage the appropriate use of antimicrobials

