Antibiotic resistance is...

1. THE CAPACITY OF CERTAIN BACTERIA TO ADAPT THEMSELVES TO RESIST THE ACTION OF ANTIBIOTICS

This is a worrying phenomenon, because antibiotics are essential to fight against – or to prevent – many infections induced by bacteria. Antibiotics are a mainstay of modern medicine:

- They can treat bacterial infections (pneumonia, septicaemia, etc.)
- They make surgery and organ transplants considerably safer.
- They protect cancer patients undergoing chemotherapy, as well as patients on immunosuppressant drugs due to an auto-immune condition such as rheumatoid arthritis, Crohn’s disease, etc.

2. AN UNWANTED COMPLICATION DURING THE TREATMENT OF INFECTIONS

Antibiotic resistance makes bacterial infections longer – and sometimes impossible – to treat. It is responsible for deaths, prolonged hospital stays, and increased costs for the health system. Globally, more and more infections are becoming resistant to the action of certain antibiotics. The graph underneath shows five examples relevant to the Swiss setting, involving invasive bacterial infections of the blood or cerebrospinal fluid.
Streptococcus pneumoniae (pneumococci) are known to induce pneumonia. Following vaccination campaigns, the number of infections due to penicillin-resistant pneumococci has fallen since 2004.

The proportion of infections induced by Methicillin-resistant Staphylococcus aureus (found in skin infections) has been reduced threefold since 2004, thanks to the early identification and treatment of infected patients in hospitals.

Regarding Escherichia coli (often found in urinary tract infections), resistance to fluoroquinolones, a class of antibiotics, has doubled since 2004. And resistance to a wide-spectrum antibiotic – 3rd and 4th generation Cephalosporins has been multiplied fivefold.

3. A PROBLEM LINKED TO ANTIBIOTIC CONSUMPTION

Each time that antibiotics are used, the subset of bacteria able to endure their onslaught not only survive but can make the most of the elimination of susceptible bacteria around them to thrive.

4. A PHENOMENON COMPOUNDED BY THE DISPLACEMENT OF PEOPLE

People returning from abroad can import antibiotic-resistant bacteria – especially if they were hospitalised during their stay. If they are admitted to a hospital or private clinic within 12 months of their return, they should inform the medical personnel of their hospitalisation in a foreign country. The early detection of resistant bacteria helps limit their spread and makes medical treatments easier.

What can I do to combat antibiotic resistance?
Check the Federal Office of Public Health website (www.bag.admin.ch)
Swiss Strategy on Antibiotic Resistance: www.star.admin.ch