

# Development of antibiotic resistance has serious consequences

You can take action against the development of antibiotic resistance



## What is antibiotic resistance?

Antibiotics are used to treat bacterial infections in both humans and animals. They control or even kill the bacteria that cause the infection. Bacteria can change so they are not harmed by antibiotics anymore. Antibiotics are then no longer effective in treatment of bacterial infections which they could previously cure. This is what we call “resistance”.

**If no action is taken now, by 2050 an estimated 10 million people per year will die from bacterial infections that are resistant to treatment.**

## What is the problem?

In every region of the world, more bacteria have become resistant to antibiotics. This makes it more difficult to treat bacterial infections in animals and people and it increases the costs of care and treatment. If we don't take action now, more animals and human will die from easy to treat infections, like pneumonia.

## When does antibiotic resistance develop?

Resistance develops in bacteria that are exposed to antibiotics. Some behaviour speeds up the development and spread of resistance:

### Not using the right antibiotic for the right infection

There are different types of germs: bacteria, viruses and fungi. Each is killed by a different type of medicine. For example, antibiotics cure only bacterial diseases. They do not cure viral diseases like Foot and mouth disease, Newcastle disease, Gumboro disease and Pox.

### Not fully completing the course of treatment.

For example stopping treatment when animals get better, before the recommended period of use is over

### Under-dosing

For example using antibiotics in lower amounts than recommended. Always read the label and use the recommended dose and time.

### Not observing the withdrawal period.

This is not following what is written on the label about when to sell animal products such as milk, eggs or meat after treatments. Time is needed so that the antibiotics are not in the animal anymore.

### Consumption of products from medicated animals

Products from medicated animals should not be consumed. Slaughtering, or selling of milk and eggs of animals that are not responding to treatment is a health risk.

### Not disposing animal and human excreta properly

Medicines in the excreta of treated humans and livestock contaminate water and soil which create a reservoir for resistance.

### Carelessly disposal of unused antibiotics

Such as: into sinks or compounds. Animals may consume them directly (high doses) or animals may be exposed indirectly (low doses). When exposed to low doses of antibiotics, some bacteria in these animals may become resistant to the antibiotics. The resistant bacteria may then be passed-on to other animals and/or humans when they consume meat, eggs or milk from these animals or through direct contact.

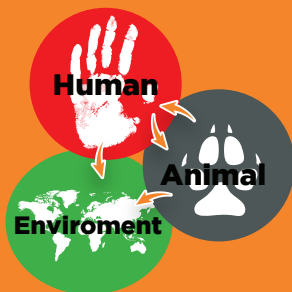


## Complex problem

- Antibiotic resistance is a worldwide health threat. Experts say it can become a bigger problem than HIV/AIDS if no action is taken.
- 60% of the disease causing bacteria in human and animals are the same. So resistant bacteria in animals can lead to resistant bacteria in humans, and the other way around.
- New antibiotics are not coming up at the same rate as resistance occurs. This means we soon don't have enough treatment options available.
- Good farm management practices, such as good hygiene, bio-security and vaccinations, will prevent animals to become sick, so we use less antibiotics which will lead to less resistance development.

## Everything is involved

Humans and animals are both responsible for dissemination of antibiotic resistant bacteria. Thus, isolated interventions have little impact. We need co-ordinated action from the human health and animal sector to minimise development and spread of antibiotic resistance.



Resistant bacteria in one environment may not stay there but can be carried miles away by water, animals and people. It is easy to pass resistant bacteria from one organism to another. So, when only a few animals/humans carry resistant bacteria, it can spread widely among animals and humans.

# ! How can you take action?



## Do's

- 1 Observe good management practices on hygiene and biosecurity. These will prevent animals from falling sick.
- 2 Use antibiotics only after prescription by the animal health provider.
- 3 Complete the full treatment course, even if the animal gets better before the recommended period of use.
- 4 Use right amounts of antibiotics per animal as instructed by the animal health provider or as given on the label.
- 5 Observe the withdrawal period. Follow what is written on the label about when to sell animal products such as milk, eggs and meat after treatments.
- 6 Vaccinate animals to prevent them from falling sick.



## Don'ts

- 1 Don't use antibiotics in lower amounts than recommended on the label. (under-dosing)
- 2 Don't use feed supplements containing antibiotics to promote growth and productivity.
- 3 Don't dispose excess/unused antibiotics carelessly.
- 4 Don't buy antibiotics without a prescription from a veterinarian.
- 5 Don't entertain ignorance. Learn about the consequences of antibiotic resistance. Sick animals may die and if not, there is reduced production and reduced financial income. They may also be a source of infection and/or resistant bacteria to you and other humans and animals.
- 6 Don't let poverty be an excuse for using amounts of antibiotics that are not recommended.

