## Antimicrobial Resistance – What is it?

Antimicrobial resistance (AMR), refers to an increasing number of micro-organisms in the human body, including bacteria, fungi, viruses and parasites, that have become resistant to antimicrobial treatment such as antibiotics. Microbes resistant to antimicrobials are called multidrug resistant, or often **superbugs**.

A World Health Organization (WHO) report released in April 2014 stated,

"This serious threat is no longer a prediction for the future, it is happening right now in every region of the world and has the potential to affect anyone, of any age, in any country. Antibiotic resistance occurs when bacteria change so that antibiotics no longer work in people who need them to treat infections. This is now a major threat to public health."

Antimicrobial resistance is on the rise. Estimates suggest several million deaths are caused by AMR every year world-wide. Drug resistant infection is now a very serious global problem and a huge challenge for public health administrators and producers of animals for human consumption.

Antibiotics are used in animals for treatment, disease prevention and growth promotion. Antibiotic resistance can be transmitted through food, which therefore makes it a major public health safety problem. Antibiotics used in meat production are widely distributed in the soil and water in many countries.

Within some health facilities and the community, antibiotics have been prescribed inappropriately, often for conditions where the infection is either self-limiting or not susceptible to antibiotic treatment, such as viral infections. Australia is one of the highest antibiotic using countries in the world.

Without effective antibiotics, prevention and treatment of infections, illnesses of humans and animals become much harder to treat. Common surgeries become much more dangerous and untreated infections lead to longer hospital stays, higher medical costs, and increased mortality. The Grattan Institute estimates hospital infections costs Australia \$440 million annually and AMR will make these costs rise.

**AMR Aware Inc,** supported by Rotary Clubs, is a not for profit organisation providing health education on the ways to limit exposure to infection, thereby reducing the need for antibiotic treatment. The aim is to **ALERT, INFORM** and **ACT** 

Information is being introduced to schools, community health groups and aged persons homes, etc comprises three messages: –

- Strongly support vaccination programs
- Be educated about the proper use of antibiotics
- Encourage hand washing and safe sanitation

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