Australia's National
Science Agency

Enhancing the Management of Antimicrobial Resistance in Fiji

In partnership with the Fijian government, and with our research partners, we're helping to reduce the risk of antibiotic resistant infections in Fiji.

This 2.5 year, $3M protype project will be scalable across other countries and is funded by Australian Centre for International Agricultural Research in partnership with the Department of Foreign Affairs and Trade Indo-Pacific Centre for Health Security.

One of humanity's greatest threats

Antimicrobial resistance (AMR) is one of the greatest threats facing humanity.

Antibiotic-resistant diseases already cause at least 700,000 deaths globally a year. Without intervention this has been projected to reach 10 million by 2050.

Put simply, if we do not act against antibiotic resistance, we will return to the dark ages of medicine where simple infections and injuries are deadly.

Antibiotic-resistant bacteria are found in people, animals, food, water, soil and air. They can spread between people and animals, person to person and environment to people.

The main cause of resistance is antibiotic use – the more we take or give our animals, the faster the bad bacteria develop and spread.

Developing countries at more risk

Several countries in the world have developed national action plans to manage AMR. However, developing countries have limited resources (both workforce and monetary) to implement such plans.

Developing countries are expected to feel the impact of AMR greater than developed countries because of a range of drivers including misuse of antibiotics, lack of regulation, climate change and limited resources.

Given AMR spreads regionally and globally, it is in countries' best interests to pool resources together to tackle the problem, irrespective of their AMR status.

AMR and One Health

While this problem is seen most acutely in the health sector, agriculture and the environment all play a part in to how bacteria develop resistance and spread.

There is international agreement that any solution being developed needs an integrated approach that recognises the contribution of human health, agriculture and the environment. Such an approach is known as One Health.

AMR and Fiji

- In the Western Pacific region, it is estimated that the economic cost of AMR could be as high as USD1.35 trillion over the next 10 years.
- Fiji has one of the highest bacterial infections in the world.
- In Fiji cases of diabetic amputations occur at a rate of 1 every 12 hours, and cases of tuberculosis (both human and animal) are some of the highest in the world – this increases the risk of AMR because of a greater need for antibiotics.

Despite these disease challenges, Fiji was the first country in the Pacific to develop a National Action Plan against AMR but faces several challenges implementing it.

Our solution

This project will increase the knowledge of both antibiotic resistance and antimicrobial use in Fiji, leading to better health outcomes for people in Fiji and the Pacific region.

It will help to increase national skills within the health, agricultural and environmental sectors and help to influence how the public and local communities use antibiotics.

As part of the project, AMR hotspots will be identified through the development of a surveillance system, which will then lead to informed intervention strategies.

The project is a protype that can be implemented throughout other countries in the Indo-Pacific.

The project has four key objectives:

- Develop of a prototype for an integrated AMR and antimicrobial use surveillance system in Fiji
- Develop laboratory capacity and appropriate diagnostic technologies for sustainable AMR surveillance and detection
- Develop risk and socio-economic evaluation frameworks for assessing AMR
- Recommend and influence sustainable AMR management policies at the local, national and regional levels

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