



**THE GOVERNMENT OF FIJI**

**FIJI NATIONAL  
ANTIMICROBIAL RESISTANCE  
ACTION PLAN**

**2015**

MINISTRY *of* HEALTH &  
MEDICAL SERVICES  
*Shaping Fiji's Health*



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This document sets out the Government of Fiji action plan in support of the World Health Assembly resolution on the Global Action Plan to combat Antimicrobial Resistance in Fiji.

# FIJI NATIONAL ANTIMICROBIAL RESISTANCE ACTION PLAN

## *Foreword*

Antimicrobial Resistance according to the World Health Organisation's definition is a microorganism's resistance to an antimicrobial drug or medicines that once was able to treat an infection by that microorganism. Resistance is the property or characteristic of the microbe and not the person, animal, and plants affected by the microbe.

AMR is a serious and growing global problem. A WHO report released in 2014 stated that this serious threat is no longer a prediction for the future it is happening now in every region of the world and has potential to affect anyone, of any age in any community – a real threat to the public health.

The coming together of the various important stakeholders to develop this document is the testimony of their agreement of how serious is the issue at hand and their intentions to combat AMR is translated into an Action Plan.

WHO also reported that there are about 2 million people in the US are infected with the AMR organism while 23,000 die annually from AMR infections. Fiji is just 10 hours journey away from the United States of America therefore Fiji must act now to keep our population safe from AMR organisms.

Antibiotics are one of the most important therapeutic discoveries in human and animal medical history as they revolutionised the way we treat human and animals which has contributed in reducing morbidity and mortality caused by bacterial infections. This is the concern that with AMR, we might be back to square one where simple infections such as pneumonia and diarrhoea can be a threat to our health.

One of the five strategic objectives is creating the awareness of the risks of AMR and what are the ways we need to reduce these risks. AMR is caused by man and education with evidence base information to Fijians will ensure behavioural changes on how we use antimicrobials appropriately will safeguard the public health.

## *Acknowledgments*

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Thanks also to all participants from various unit/departments of Ministry of Health and Medical Services who attended the AMR Consultation Workshops that have been held in Warwick Resort and Holiday Inn Hotel in August and October 2015 respectively. This action plan derived from presentations and interactive discussions during the workshops.

Finally, thanks to WHO for technical support for funding to make the Fiji National Antimicrobial Resistance (AMR) Action plan a success.

## *Acronyms*

AST	antibiotic susceptibility testing
CSA	country situational analysis
IPC	infection prevention and control
MoHMS	Ministry of Health and Medical Services
NGO	non-governmental organization
NHPSP	National Health Policies, Strategies and Plans
NMTC	National Medicines & Therapeutic Committee
PBSC	Pharmaceuticals and Biomedical Services centre
PPE	Personal Protective Equipment
TOR	Terms of Reference
WHO	World Health Organization

## *Introduction*

In 2014, the World Health Organization (WHO) declared antimicrobial resistance as a global health threat that requires urgent collaborative action. Alarming rates of resistance to hospital and community-acquired infections have been reported globally, with some of the highest rates reported in the Western Pacific Region.

The Ministry of Health and Medical Services, Fiji have identified antimicrobial resistance as one of the priority agendas. This is supported by the priority actions listed in the Action Agenda for Antimicrobial Resistance in the Western Pacific Region, which was endorsed by the Sixty-fifth session of the Regional Committee for the Western Pacific Region in 2014. In May 2015 the Global Action Plan on Antimicrobial Resistance was also endorsed at the Sixty-eighth session of the World Health Assembly, where Member States were urged to develop National Plans on antimicrobial resistance within the next two years following endorsement.

To develop the national plan, the MHMS with support from WHO held two national workshops. The first national workshop on antimicrobial resistance was held, 20 to 21 August, 2015. The workshop outcomes identified that antimicrobial resistance threatens the sustainability of the public health response to communicable diseases in Fiji. The need for and members of an inter-sectorial antimicrobial resistance working group were identified and the objectives and priority actions for Fiji on combating antimicrobial resistance were discussed. It was concluded that a national response framework needs to involve a multi-stakeholder approach which will include international technical agencies to combat antimicrobial resistance. With inspiration from the Australian National Plan on antimicrobial resistance as well as the Regional action agenda and Global action plan, the framework for the national plan was developed for Fiji. A second national workshop was held, 1 to 2 October, 2015 to finalize the Fiji National Antimicrobial Resistance (AMR) Plan and the roadmap for the development of a strategic operational plan undertaken by the National Committee on antimicrobial resistance with clear actions, responsibilities, budget, monitoring and evaluation.

## *Summary of country situational analysis on*

### *ANTIMICROBIAL RESISTANCE*

A detailed country situational analysis (CSA) on antimicrobial resistance was conducted in order to provide the baseline information on the situation of antimicrobial resistance in Fiji focusing primarily on antibiotic resistant and to identify gaps and challenges in containing antimicrobial resistance. The CSA consisted of a comprehensive literature review of both published and unpublished data as well as key informant interviews across all relevant sectors. The findings of the CSA informed the development of the Fiji National Antimicrobial Resistance (AMR) Action Plan on antimicrobial resistance in Fiji.

Fiji has identified antimicrobial resistance as a priority agenda, with support from senior management. An informal National Committee was formed in 2015, however dedicated resources and planning is needed to address the critical issues to contain antimicrobial resistance. Awareness of the policy makers is high on antimicrobial resistance; however the awareness in the general public is low. For example, the antibiotic amoxicillin is often identified to be synonymous with a general pain killer and high unnecessary usage has been reported.

Currently Fiji does not have a national surveillance system on antimicrobial resistance or antimicrobial consumption. In addition there is a lack of an electronic laboratory information management system, with the exception of Labasa laboratory. Antibiotic susceptibility testing (AST) is being performed at the major hospital laboratories; however laboratory capacity strengthening is needed to ensure timely and quality results on antimicrobial resistance surveillance to inform prescribing habits. Antimicrobial resistance data that has been reported voice serious concerns on the rapid increase and spread of nosocomial multidrug resistance microorganisms including extended-spectrum *Klebsiella pneumoniae* and pan-drug resistant *Acinetobacter baumannii*. In addition there were gaps identified in the procurement and supply of essential medicines, with stock outs reported leading to the unavailability of first and second line antibiotics. This often resulted in inappropriate prescribing of third or last resort antibiotics (high prescription rates of ceftriaxone and meropenem reported). The monitoring of antibiotic consumption and promotion of rational use in private pharmacies also does not exist, however prescription only is promoted.

Surveillance of antimicrobial resistance and consumption of antibiotics is virtually non-existent in the other sectors including animal and environmental health. Bacterial testing is performed randomly, however AST is not common. However, the use of antibiotics as growth promoters in the animal and environmental sectors was reported and an area that must be addressed. In addition the sale of illegal antibiotics is also becoming an ever more pressing problem

In regard to infection prevention and control (IPC) in the human health sector, unavailability of alcohol hand-rub in hospital wards and shortages of gloves and hand washing agents were reported often and a major concern resulting in multidrug resistant organism outbreaks within health-care facilities. There is also the need for a high

temperature incinerator and the separation of infectious and non-infectious waste, which is currently weak and leading to emergence and spread of resistant microorganisms. In the animal and agricultural sector protective clothing and hand hygiene is promoted. In addition the Department of Fisheries focuses efforts on the prevention of the spread of antimicrobial resistance through pre-border and border controls and good husbandry practices.

In summary, the major gaps and challenges identified by the CSA were, 1) lack of awareness on antimicrobial resistance in all areas; 2) lack of national comprehensive policies on antimicrobial resistance; 3) lack of national surveillance systems to monitor antimicrobial resistance and antimicrobial use; and 4) poor regulation and implementation of health systems responses to antimicrobial resistance. These findings advised the development of the findings from the CSA as well as guidance from the relevant Ministries and stakeholders informed the development of the National AMR Action Plan.

## ***FIJI RESPONSE TO ANTIMICROBIAL RESISTANCE***

**The responsibility of the implementation of the Fiji National Antimicrobial Resistance (AMR) Action Plan on antimicrobial resistance in Fiji will fall under the National AMR Committee. The National AMR Committee will be formed by the Medicinal Products Board as per part 5 (Committees of the Fiji Medicinal Products Board), section 24 (Committees).**

Firstly the National AMR Committee shall be subject to and act in accordance with any directions given to the committee by the Board. Secondly the AMR Committee will decide in their TOR(endorsed by the Medicinal Products Board) who should report to them, as related to the functions of the board. Thirdly the AMR Committee will report and make recommendations to the Board. Finally the AMR committee will develop and finalize their TOR based on suggestions from the 1<sup>st</sup> and 2<sup>nd</sup> stakeholder consultations on AMR held in 2014. The proposed TOR of the committee are to include:

1. Purpose: implementation of the National Antimicrobial Resistance (AMR) Action Plan on AMR
2. Reporting: to the Medicinal Products Board
3. Report: quarterly and Annual Report
4. Meet periodically
5. Develop the Strategic Operational Plan (prioritise)
6. Develop annual workplan
7. Allocate workplan activities
8. Monitoring and evaluation of outcomes

### **National AMR Committee Members**

Members of the National Committee on antimicrobial resistance are recommended to include members from the following:

1. Ministry of Health and Medical Services (2) (Chairperson and Secretary)
2. Ministry of Agriculture (1)
3. Ministry of Education (1)
4. Department of Environment (1)
5. Ministry of Fisheries and Forestry (1)
6. Tertiary Institutions UPISM and FNU) (2)
7. Private Sector (Pharmaceutical and GPs) (2)
8. Consumer Council (1)
9. Fiji Revenue and Customs Authority (1)
10. BioSecurity Authority of Fiji [BAF]

Technical Advisors of the committee

1. GMU representative
2. WHO (reporting to tripartite agreement)
3. Others

### **Budget**

The overall budget and implementation of the AMR activities will be the responsibility of the line Ministries advised by the National AMR Committee. External funding for AMR activities will be coordinated by the National AMR Committee.

## **Strategic Objectives**

The five strategic objective areas to focus for the next three years is the result of the extensive consultation from the stakeholders;

1. Improving awareness and understanding of antimicrobial resistance through effective communication, education and training.
2. Strengthen nationally coordinated surveillance systems.
3. Reduce the incidence of antimicrobial resistance events through improved infection prevention and control, sanitation and hygiene, measures and implementation of wellness.
4. Optimise the use of antimicrobial medicines in human and animal health.
5. Establish and ensure governance, sustainable investment and actions to combat antimicrobial resistance.

### **1. Improving awareness and understanding of antimicrobial resistance through effective communication, education and training.**

#### **1.1 Raise awareness of antimicrobial resistance through a One Health approach with partnership of all stakeholders in human & animal health.**

- 1.1.1 Identify clear terminology on antimicrobial resistance to be understood by all.
- 1.1.2 Develop individual IEC materials for specific target groups in all three languages (Fijian, Hindi & English). This is to include messaging on general awareness, interventions and wellness.
- 1.1.3 Conduct regular public awareness campaigns on antimicrobial resistance to change general practises and influence behavioural change through annual events, public gatherings, and media (focusing on consumers, prescribers, waste management, media and education).
- 1.1.4 Use influential people for example in sports, chiefs, politicians, senior citizens and TV Personalities to raise awareness on antimicrobial resistance and train the agents of change.
- 1.1.5 Undertake awareness raising activities in primary, secondary and tertiary schools with specialized materials to be properly structured, prioritizing target groups.
- 1.1.6 Use non-governmental organizations, Civil Society Organizations and the media to deliver messages on antimicrobials.
- 1.1.7 Use social networking sites and groups to develop effective networks with appropriate groups to raise awareness of antimicrobial resistance.

<p><b>1.2 Include antimicrobial resistance as a core component of professional education, training for the health professionals, veterinary sector and agricultural practise</b></p>
<p>1.2.1 Antimicrobial resistance included in undergraduate curricula for medical doctors, public health professionals, nurses, pharmacists and veterinarians</p> <p>1.2.2 Antimicrobial resistance as part of the continuous professional development(both public and private) for all sectors and professionals including health, agriculture, animal and environment.</p>
<p><b>2. Strengthen nationally coordinated surveillance systems.</b></p>
<p><b>2.1 Establish a One Health antimicrobial resistance surveillance system that integrates and shares data from human, environment and agricultural sectors</b></p>
<p>2.1.1 Establish a surveillance technical group with an endorsed TOR to develop the One Health surveillance system to include routine, sentinel and surveys.</p> <p>2.1.2 Define national objectives and standards across all sectors for surveillance of antimicrobial resistance and list of priority organisms.</p> <p>2.1.3 Establish vertical reporting with sectors and horizontal reporting across sectors with defined frequencies.</p> <p>2.1.4 Develop inter-sectorial coordination with a mandatory reporting system.</p> <p>2.1.5 Publishing and sharing of antimicrobial resistance surveillance and auditing reports that are accessible to all sectors.</p>
<p><b>2.2 Build laboratory capacity and infrastructure to test for antimicrobial resistant microorganisms in the environment, animal and human health</b></p>
<p>2.2.1 Establish antimicrobial resistance surveillance systems linked to infection control for human health.</p> <p>2.2.2 Establish an electronic laboratory information management system.</p> <p>2.2.3 Increase laboratory capacity for diagnostics and susceptibility testing of multi-drug resistant microorganisms.</p> <p>2.2.4 Ensure quality data through internal and external quality assurance programmes.</p> <p>2.2.5 Improve laboratory facilities, medical equipment and diagnostic tools used in the human and animal sector.</p> <p>2.2.6 To designate a national antimicrobial resistance reference laboratory twinned with an International Laboratory and build its capacity.</p>

<b>2.3 Establish an antibiotic residue testing programme</b>
<p><b>2.3.1</b> Conduct a feasibility study on antibiotic residue testing programme supported by the relevant stakeholders and the tripartite agreement.</p> <p><b>2.3.2</b> Establish an antibiotic residue testing and a regulatory mechanism.</p>
<b>2.4 Establish a multi-sectorial research agenda</b>
<p>2.4.1 Invest resources in additional studies including waste management sites and its effect on the spread of antimicrobial resistant microorganism.</p> <p>2.4.2 Develop a research agenda across all sectors on antimicrobial resistance.</p> <p>2.4.3 Regular information sharing through an annual One Health conference on antimicrobial resistance research.</p>

**4. Reduce the incidence of antimicrobial resistance events in human, animal and environmental health through improved infection, prevention and control practices.**

<b>4.1. Implementation of IPC programmes across all sectors</b>
<p>4.1.1. Conduct a baseline survey on IPC.</p> <p>4.1.2. Establish IPC programmes in health-care settings, agriculture and fisheries.</p> <p>4.1.3. Establish an effective waste management system, specifically addressing water sewage and landfills (solid waste) involving agricultural and medical waste.</p>
<b>4.2. Wellness approach to the IPC plan of action</b>
<p>4.2.1. To promote good dietary nutrition as a means to prevent infections and the need for antimicrobials.</p> <p>4.2.2. Strengthening of vaccination programs in human and animal sectors.</p>
<b>4.3. Establish a human, animal health and environment risk management system</b>
<p>4.3.1. Establish Risk Management Unit and develop risk assessment system for antimicrobial resistance in all sectors.</p>

#### 4. Optimize the use of antimicrobial medicines in human and animal health.

<b>4.1 Ensure regulation and governance of antimicrobial medicines</b>	
4.1.1	Develop the appropriate regulations to cover the governance of antimicrobials in all sectors aligned to existing legislation (e.g. Medicinal Product Decree). Strengthen the role of the National Medicines Regulatory Authority in the managing of antimicrobial products in human health.
4.1.2	Establish a multi – sectorial committee (National Committee on antimicrobial resistance) linking to the Medicinal Product Board.
4.1.3	Strengthen the role of National Medicines & Therapeutic Committee (NMTC) and extend its roles to the private sector. <ul style="list-style-type: none"><li>- To regulate the appropriate disposal of antimicrobials in all sectors.</li><li>- To advocate the concept of One Health to all sectors.</li></ul>
<b>4.2 Rational purchasing and prescribing of antimicrobial medicines</b>	
4.2.1	Strengthen the regular review of Essential Medicines List including Veterinary Medicines list and antimicrobial treatment guidelines.
4.2.2	Review and strengthen current regulations and policies on prescribing and dispensing of antimicrobials in all sectors.
4.2.3	Establish a regular evaluation program for antimicrobial use.
4.2.4	Review and strengthen the supply chain management and procurement of antimicrobials.
<b>4.3 Policies in place on the use of antimicrobial medicines in all sectors</b>	
4.3.1	Establish alternative method to replace antimicrobials (e.g. with probiotics) and develop the relevant guidelines.
4.3.2	Standardize the process of medication registration across all sectors through the Medicinal Products Decree.
<b>4.4 Antimicrobial stewardship programmes implemented at the national and local levels</b>	
4.4.1	Establish a National Stewardship Programme for Hospitals (private and public)
4.4.2	Establish a stewardship programme for the animal sector.

**5. Establish and ensure governance, sustainable investment and actions to combat antimicrobial resistance.**

<b>5.1 Establish a governance structure for the implementation of the Fiji National Antimicrobial Resistance Action Plan</b>	
5.1.1	Formalize the National AMR Committee to coordinate antimicrobial resistance activities.
5.1.2	Ensure a dedicated secretariat and budget for the committee.
5.1.3	Scope of the terms of reference for the committee focusing on a One Health approach.
<b>5.1.4</b>	Link the national antimicrobial resistance action plan to existing strategic plans from all sectors.
<b>5.2 Build evidence to support the case of antimicrobial resistance as a priority health threat requiring immediate actions</b>	
5.2.1	Conduct a comprehensive impact analysis on antimicrobial resistance in Fiji.
5.2.2	Identify priority specific issues in all sectors on antimicrobial resistance.
5.2.3	Ensure best utilization of the evidence to review and update antibiotic use.
5.2.4	Encourage international technical collaboration and information sharing on all aspects of antimicrobial resistance through regional forums (e.g. Pacific Health Ministers Forum).
<b>5.3 Develop a multi-sectoral national antimicrobial resistance action plan on with a defined budget</b>	
5.3.1	Conduct stakeholder consultation to develop the strategic operational plan on antimicrobial resistance.
<b>5.4 Enforcement of appropriate legal framework in all sectors</b>	
5.4.1	Ensure compliance for all sectors with activities related to antimicrobial resistance using an antimicrobial resistance compliance Trademark.
5.4.2	Strict enforcement, through imposing of penalties of non-compliance, of current legislation related to the use of antimicrobials.

## ***Implementation Framework***

### **1. Strategic Operational Plan**

Upon the adoption of the Fiji National Antimicrobial Resistance (AMR) Action Plan on Antimicrobial Resistance, the National AMR Committee will develop a two year Strategic Operational Plan that includes clear targets, responsibilities, monitoring, evaluation and the National AMR Action Plan review process.

### **2. Review and Evaluation**

The Fiji National Antimicrobial Resistance Action Plan on Antimicrobial Resistance will be reviewed every three years, or more frequently if necessary.

