

# **ANTIMICROBIAL RESISTANCE IN LEPROSY**

## **REPORT OF A GLOBAL CONSULTATION**

**27-28 October 2016**

**Kathmandu, Nepal**



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## Abbreviations

ALM	American Leprosy Missions	LWM	Leonard Wood Memorial (Cebu, the Philippines)
AMR	antimicrobial resistance		
BI	bacillary index	MB	multibacillary
BPPH&RC	Blue Peters Public Health and Research Centre (Hyderabad, India)	MDR	multidrug resistant (TB)
		MDT	multidrug therapy
CICM	Centre d’Infectiologie Charles Mérieux (Antananarivo, Madagascar)	MRL	Mycobacterial Reference Laboratory (Anandaban, Nepal)
		NJIL&OMD	National JALMA Institute for Leprosy and Other Mycobacterial Diseases (Agra, India)
DDS	dapsone		
DNA	deoxyribonucleic acid	NLP	national leprosy programme
DRC	Democratic Republic of the Congo	NTD	neglected tropical disease
		OFX	ofloxacin
FRF	Fondation Raoul Follereau	PB	paucibacillary
GLASS	Global Antimicrobial Resistance Surveillance System	PCR	polymerase chain reaction
GLP	Global Leprosy Programme	RMP	rifampicin/rifampin
GLRA	German Leprosy and Tuberculosis Association	SHR&LC	Schieffelin Health Research and Leprosy Centre, (Karigiri, India)
G2D	grade-2 disability	SOP	standard operating procedure
HIV	human immunodeficiency virus	TB	tuberculosis
ILEP	International Federation of Anti-Leprosy Associations	TLMTI	The Leprosy Mission Trust India
ILSL	Instituto Lauro de Souza Lima (Sao Paulo, Brazil)	USA	United States of America
		US\$	United States dollar
LPA	line probe assay	WGS	whole genome sequencing
		WHO	World Health Organization

## Background

The Global Leprosy Programme (GLP) has set up since 2008 a surveillance network to ensure information related to resistance to antimicrobials used for the treatment of leprosy is collected at the global level. Representatives of the network, composed of reference and national laboratories, meet bi-annually to review results and plan the work ahead. The meetings were funded since 2011 by the American leprosy Missions (ALM) and the Fondation Raoul Follereau (FRF), both members of the International Federation of Anti-Leprosy Associations (ILEP), while GLP was in charge of the workshop, technical agenda and its logistics related to the invitations of government representatives.

## Opening session

The consultation of antimicrobial resistance (AMR) surveillance in leprosy was inaugurated by Mr Gagan Kumar Thapa, Minister for Health, Government of Nepal, as Chief Guest. Welcome remarks were provided by Dr Jos Vandelaer, WHO Representative to Nepal. The meeting objectives were presented by Dr Laura Gillini, Medical Officer GLP. On behalf of the co-sponsors, Dr Paul Saunderson from ALM and Dr Bertrand Cauchoix from FRF addressed the meeting.

In his welcome remarks **Dr Jos Vandelaer** recalled the effectiveness of multidrug therapy (MDT), which has led to a significant reduction of the leprosy prevalence, leading to “elimination of leprosy as a public health problem” (prevalence <1/10 000 population) globally and from most countries. WHO data indicate, however, suboptimal cure rates in more than 50 countries. Relapses were reported from 48 countries with the data showing a gradually increasing trend over the past five years.

Improving surveillance for leprosy is an important step. Introduction of single dose rifampicin in prophylaxis protocols heightens the need for AMR surveillance. WHO is leading the AMR initiative for leprosy with support from partners. The experience in AMR surveillance through sentinel centres will help improve future plans. Introduction of AMR surveillance in leprosy is an important milestone of the Global Leprosy Strategy 2016–2020.

The National Leprosy Programme (NLP) of Nepal has many achievements to its credit, supported by a number of nongovernmental organizations (NGOs) including some members of ILEP.

**Dr Laura Gillini** presented the objectives of the meeting. MDT remains the cornerstone for leprosy control, and resistance to one or more drugs constituting MDT, especially with an increasing trend, is a concern as it forms the secondary prevention strategy. WHO initiated AMR surveillance using sentinel sites. Data from these sites is reviewed biannually since 2008. An increasing number of countries are showing interest in testing for drug resistance and more laboratories are joining the sentinel network.

The Consultation on AMR Surveillance in Leprosy was planned with the following objectives:

- To discuss AMR surveillance data (2010-2015);
- To hold technical discussions to allow finalization of updated surveillance guidelines;
- To prepare a plan of action for future activities on AMR surveillance in leprosy at country, regional and global level.

Participants in the Consultation included representatives from all WHO regions (except the European Region); coordinators of NLPs, staff from leprosy, tuberculosis (TB) or mycobacteria or AMR laboratories; experts and scientists, WHO staff, staff from the Nepal NLP and its partners. The list of participants is provided in Annex 2.

**Dr Paul Saunderson** stated that WHO has taken an active role in implementing AMR surveillance programmes in many countries involving laboratories managed by NGOs as sentinel sites. ALM supports the biannual meeting, as it is vital for the future of leprosy control.

**Dr Bertrand Cauchoux** mentioned that the fight against leprosy is successful due to MDT. Though the prevalence has dramatically decreased, the trend of new cases detected shows only a slow decline over the past ten years. Rifampicin is the major antibiotic in leprosy treatment and, hence, it is important to expand AMR surveillance for rifampicin along with dapsone, especially since MDT is also the tool for secondary prevention.

**H.E. Mr Gagan Kumar Thapa** welcomed all participants. Leprosy remains an important communicable disease and is also the cause of preventable disability. While Nepal reached elimination of leprosy as a public health problem at national level in 2010, elimination at subnational level remains a priority. The Nepal NLP continues to report nearly 3000 new cases annually; one third of them are women, one tenth of them children and five percent had grade-2 disabilities (G2D) at the time of diagnosis. Nepal formulated a national strategic plan in line with the Global Leprosy Strategy 2016–2020. Mr Thapa further noted the timely organization of this global Consultation on AMR in leprosy.

## Technical Session I: Global scenario

### Operational Manual for the implementation of the Global Leprosy Strategy and its focus on surveillance of drug resistance (Dr Laura Gillini, GLP)

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