

# Monitoring and evaluation **tool kit** for indoor residual spraying

August 2010

Kala-azar elimination in Bangladesh, India and Nepal



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*Kala-azar elimination in Bangladesh, India and Nepal*

**August 2010**

In collaboration with:

WHO Regional Office for South-East Asia (SEARO)

**Bangladesh:** Directorate General of Health Services (DGHS), Ministry of Health & Family Welfare; National Institute of Preventive and Social Medicine (NIPSOM); International Centre for Diarrhoeal Research, Bangladesh (ICDDR,B)

**India:** National Vector Borne Disease Control Programme (NVBDCP); Rajendra Memorial Research Institute of Medical Sciences (Indian Council of Medical Research)

**Nepal:** Epidemiology & Disease Control Division (EDCD), Ministry of Health; Institute of Medicine at Tribhuvan University; B P Koirala Institute of Health Sciences (BPKIHS)

## **Preface**

Integrated vector management is one of the key elements of the kala-azar (KA)/ visceral leishmaniasis (VL) elimination strategy in the three target countries – Bangladesh, India and Nepal. A research programme coordinated by the Special Programme for Research and Training in Tropical Diseases (TDR) and the World Health Organization (WHO)/WHO Regional Office for South-East Asia (SEARO) has shown that indoor residual spraying (IRS) in particular – but also long-lasting insecticide treated nets (LNs) and environmental management – are efficacious in reducing sandfly densities (Joshi et al. 2009; Das et al. 2010). However, in spite of enormous efforts, research has also shown that national vector control programmes need to be strengthened in order to achieve the goal of reducing vector densities to the low level required to interrupt KA transmission (Chowdhury et al. 2010).

This monitoring and evaluation (M&E) tool kit has been developed as an interagency effort involving both public health and academic institutions. Its main purpose is to support IRS programmes through systematic M&E of processes and outcomes, allowing timely detection of gaps and constraints and so ensuring that adequate responses are triggered.

The tool kit is designed not only to assist vector control managers in their daily practice but also as a background document for training and capacity building at all levels of the vector control programme.

This is a working document which will be adapted every two to four years according to experiences gained in field applications and feedback received from those who have applied it in their environments.

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# Contents

Preface	2
Abbreviations	5
<b>CHAPTER 1. INTRODUCTION AND JUSTIFICATION</b>	<b>6</b>
1.1 General features of organizing an IRS programme	6
1.2 Public health authorities involved in the IRS programme	7
1.3 Spray activities	9
1.3.1 Selection criteria for IRS areas	9
1.3.2 Calendar of IRS activities (preparation and implementation)	9
1.3.3 Dosage of insecticide	10
1.3.4 Spray timing	11
1.3.5 Insecticide requirements	11
1.3.6 Personnel requirements for spray activities	11
1.3.7 Spray equipment	13
1.3.8 Training of spray personnel	14
1.3.9 Pre-spray operations	15
1.3.10 Good and poor IRS practices	15
1.3.11 Need for M&E	17
<b>CHAPTER 2. M&amp;E (SELF-EVALUATION)</b>	
<b>AT CENTRAL/NATIONAL LEVEL</b>	<b>19</b>
2.1 Overview	19
2.2 M&E of progress and quality of IRS operations	20

<b>CHAPTER 3. M&amp;E OF PRE-SPRAY CYCLE AND SPRAY CYCLE</b>	
<b>ACTIVITIES AT DISTRICT AND PHC/BLOCK/UPAZILA/VDC LEVELS</b>	<b>24</b>
3.1 Overview	24
3.2 M&E checklists and reporting form	25
3.2.1 Checklist for preparation of IRS activities (pre-spray phase) at district level	25
3.2.2 Checklist for preparation of IRS activities (pre-spray phase) at PHC/upazila/VDC level	25
3.2.3 Reporting form for analysing and reporting PHC/upazila/VDC-level information on IRS activities during and at the end of spray cycle	25
3.3 Data processing and analysis	26
 <b>CHAPTER 4. M&amp;E OF OPERATIONAL LEVEL (SPRAY SQUADS AND COMMUNITY)</b>	 <b>30</b>
4.1 Overview	30
4.2 Observation of spray squads in sample villages	31
4.3 Verification of target dose of insecticide on sprayed walls (filter paper method)	31
4.4 HH interviews on community satisfaction and IRS coverage	32
4.5 Data processing and analysis	32
 <b>CHAPTER 5. M&amp;E OF IRS IMPACT ON VECTOR DENSITIES, BIOEFFICACY AND INSECTICIDE SUSCEPTIBILITY</b>	 <b>38</b>
5.1 Overview	38
5.2 Vector density (before and after spraying)	38
5.3 Bioefficacy of insecticide on sprayed surfaces (bioassay)	39
5.4 Insecticide susceptibility (WHO standard chamber method)	40
5.5 Correction of mortality in bioassay and susceptibility tests	40
 References	 49
Glossary	50

## Abbreviations

<b>AHI</b>	assistant health inspector
<b>BE</b>	budget estimate
<b>CDC</b>	Centers for Disease Control and Prevention
<b>DDT</b>	dichlorodiphenyltrichloroethane
<b>DGHS</b>	Directorate General of Health Services, Bangladesh
<b>DMO</b>	district malaria officer
<b>DPHO</b>	district public health officer
<b>EDCD</b>	Epidemiology and Disease Control Division, Nepal
<b>FCHV</b>	female community health volunteer
<b>HH</b>	household
<b>HI</b>	health inspector
<b>HP</b>	health post
<b>ID number</b>	identification number
<b>IEC</b>	information, education and communication
<b>IRS</b>	indoor residual spraying
<b>KA</b>	kala-azar
<b>LN</b>	long-lasting insecticide treated net (also abbreviated as LIN or LLIN)
<b>M&amp;E</b>	monitoring and evaluation
<b>MI</b>	malaria inspector
<b>MO</b>	medical officer
<b>MODC</b>	medical officer of disease control
<b>MPHW</b>	multipurpose health worker
<b>NVBDCP</b>	National Vector Borne Disease Control Programme, India
<b>PHC</b>	primary health centre
<b>PPE</b>	personal protective equipment
<b>PPS</b>	probability proportionate to size
<b>SI</b>	sanitary inspector
<b>SOE</b>	statement of expenditure
<b>UC</b>	utilization certificate
<b>UHC</b>	upazila health centre
<b>UHFPO</b>	upazila health and family planning officer
<b>VCA</b>	vector control assistant
<b>VCO</b>	vector control officer
<b>VDC</b>	village development committee
<b>WHOPES</b>	WHO Pesticides Evaluation Scheme

# CHAPTER 1. INTRODUCTION AND JUSTIFICATION

## 1.1 General features of organizing an IRS programme

Vector control is an essential element of the KA (or VL) elimination strategy in the Indian subcontinent. Of the various options for vector control, IRS with appropriate insecticides is a key intervention which can be used both to reduce the vector population in a given area and to interrupt transmission of disease-causing parasites.

The successful implementation of any IRS programme depends on well-organized planning, implementation that follows a strict timeline, and proper monitoring and supervision on all levels; timely feedback through monitoring allows appropriate corrective measures.

Technical guidelines on vector control and specifically for IRS are available in the three countries concerned – Bangladesh, India and Nepal. As well as providing technical guidance, central governments provide logistical support and financial assistance for IRS activities in the KA-endemic areas. States or districts<sup>1</sup> submit macro action plans detailing their requirements for insecticides; spray persons' wages; capacity building; mobility support; and information, education and communication (IEC) activities. Budgetary provisions for insecticide procurement are made in current-year budgets for use the following year. However, the cash grants are released from the national level to the districts for undertaking activities during the current year. Release of funds to the respective states or districts is dependent on the submission of utilization certificates (UCs) and statements of expenditure (SOEs). The process to supply the required insecticide is done one year in advance, depending on the spray cycles to be carried out.

State and/or district action plans need to be formulated well in advance, indicating the target population for IRS (based on the official criteria) and projecting the requirements for insecticides, funds, spray persons, spray pumps and other logistics. Training and IEC activities need to be planned in well-framed timelines so that proper training skills are developed to ensure good quality spraying and effective coverage. The advocacy of community leaders and sensitization (awareness raising) of the community plays an important role in achieving the goal for IRS activities. Adherence to the spray

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