

TRANSPARENCY AND ACCOUNTABILITY NETWORK



IMMC

INTEGRATED MOSQUITO AND MALARIA CONTROL

A comprehensive integrated mosquito and malaria control program to reduce the incidence of malaria, and other insect spread diseases.

BUSINESS PLAN PORTFOLIO OF IMMC INTERVENTIONS MALARIA TREATMENT

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DRAFT – FOR DISCUSSION ONLY

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INTEGRATED MOSQUITO AND MALARIA CONTROL CONTEXT

**THIS DOCUMENT IS PART OF A SERIES THAT INCLUDES
THE FOLLOWING:**

EXECUTIVE SUMMARY – INTERNATIONAL

EXECUTIVE SUMMARY – LIBERIA

**BUSINESS PLAN – INTEGRATED MOSQUITO AND MALARIA CONTROL
COMPRISING:**

- A ... BP for IMMC – INTRODUCTION SECTION**
- B ... BP for IMMC – THE MALARIA CRISIS**
- C ... BP for IMMC – HISTORY OF SUCCESSES**
- D ... BP for IMMC – MOSQUITOES AND MALARIA**
- E ... BP FOR IMMC – THE IMMC STRATEGY**
- F ... BP for IMMC – DATA AND MANAGEMENT INFORMATION**
- G ... BP for IMMC – PORTFOLIO OF IMMC INTERVENTIONS**
 - GA – ENVIRONMENTAL MANAGEMENT**
 - GB – INTERIOR RESIDUAL SPRAYING (IRS)**
 - GC – EXTERIOR ADULTICIDE SPRAYING**
 - GD – MOSQUITO LARVA CONTROL**
 - GE – INSECTICIDE TREATED BEDNETS (ITN)**
 - GF – MALARIA TREATMENT**
- H ... BP for IMMC – ORGANIZATION AND MANAGEMENT**

APPENDICES

IMMC – ORGANIZATION AND MANAGEMENT

(An Excel workbook/spreadsheet)

IMMC – REFERENCES, ETC.

(An Excel workbook/spreadsheet)

CONTACTS, ETC.

(An Excel workbook/spreadsheet)

SIMULATION MODEL

(An Excel workbook/spreadsheet)

IMMC – BEHAVIOR OF COSTS

(An Excel workbook/spreadsheet)

IMMC – FINANCIAL PROJECTIONS – MACRO OVERVIEW

(An Excel workbook/spreadsheet)

IMMC – FINANCIAL PROJECTIONS – COUNTRY VERSION

(An Excel workbook/spreadsheet)

IMMC – FINANCIAL PROJECTIONS – DISTRICT VERSION

(An Excel workbook/spreadsheet)

SLIDE PRESENTATIONS

Components of IMMC (21 slides)

History of Malaria Eradication (24 slides)

Economics of Malaria (17 slides)

Organization of IMMC (24 slides)

Introduction

Progress in the reduction of the prevalence of malaria is only going to be achieved if there are adequate physical anti-mosquito and anti-malaria interventions. The interventions included in a comprehensive IMMC strategy include the following:

- (1) neighborhood cleanup to reduce mosquito breeding places;
- (2) interior residual spraying (IRS);
- (3) ultra low volume (ULV) adulticide spraying to kill flying mosquitoes;
- (4) larvaciding to kill larvae and stop mosquito recruitment into the population;
and,
- (5) personal use of insecticide treated bednets (ITN).
- (6) malaria treatment

Malaria Treatment

There are many millions of malaria cases in Africa every year. Many Africans get malaria several times a year. Only relatively few of the malaria cases in Africa get any form of professional treatment. Data that only comes from clinics is a subset of data that is not representative of the population as a whole. With 400 million at risk, it is difficult to comprehend that each case has a human face. This child got to a clinic, but the clinic had no medicine. The child died.



Quinine was found to be a useful treatment for malaria in the 19th century and was used as part of the Panama Canal anti-malaria campaign in the early 1900s. In the post WWII years Chloroquine became the most widespread malaria treatment, both as a prophylactic and for treatment, but many malaria strains have now become resistance to Chloroquine.

Other treatments have been developed. Fansidar is now widely used but it has significant side effects, and resistance has emerged.

Artemesin based combination therapies have been developed, but cost a lot more than earlier treatments, and supplies are limited from available natural artemesin sources.

Concern over the development of resistance and side effects from anti-malaria treatments are valid, and as long as endemic malaria in the environment prevails, there will have to be ongoing leap-frogging of medical science and resistance development. This of course, argues for an anti-malaria strategy that addresses the environment and the endemic malaria.

A malaria vaccine has not yet been developed. Malaria is not an easy disease to control with a vaccine, but it is scientifically possible. Whether there is an enabling economic environment for vaccine development and deployment is questionable, and needed political support is also problematic. For the purposes of this IMMC program a malaria vaccine is "in the future". However, the understanding of the parasite may help in accelerating treatment so that the environment can be improved by more rapid treatment to minimize parasite prevalence.

There has to be aggressive use of effective anti-malarial medications as well as vector control. Reduction of the malaria parasite in the human host is a key to long term success. When the malaria parasite is under control, the biting of mosquitoes becomes an irritant, but not as much a danger. The program initiatives to reduce the mosquito as a vector helps to control reinfection until such time as the parasite is brought under control. The assumption is that

mosquito population can be rapidly reduced, but that it will rapidly reemerge ... while the parasite will take much longer to disappear from the host, but then can be kept very much under control. The program aims to be effective in both areas of intervention.