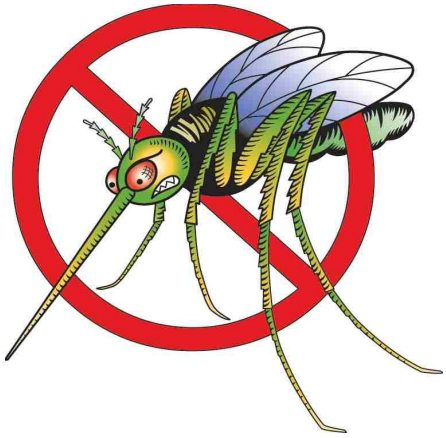
TRANSPARENCY AND ACCOUNTABILITY NETWORK



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
ENVIRONMENTAL MANAGEMENT

July 2006

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 SRAYING
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

Getting a neighborhood to cleanup is a daunting task ... unless the community wants to do it, and understands the incentives there are to do it.

Almost nothing works in Africa, unless the right incentives are in place, and then everything seems to come together in an amazing way.

Most family compounds in Africa are kept very clean, even if the buildings are traditional design, with mud walls and mud floors. But the floors may well be swept several times a day. Meanwhile communal living in the shantytowns of urban Africa is dirty, totally unhygienic and a potential health disaster.

In an organized community, there are some anti-mosquito interventions that are considered to be private interventions, and some that are public health interventions. The line between these depends a lot on the community, both the individuals and the governance systems that are available.

Community awareness, education and training

The primary beneficiaries of a successful IMMC program are ordinary people in the communities all over the areas where substantial IMMC interventions are implemented. Having the people in a community understand what is being planned to help get mosquitoes and malaria under control is an obvious step, but far too often neglected.

Care has to be taken that the priorities and the sensitivities of a community are understood and respected. While health may appear to be a priority from an outsider's perspective, this may not be how priorities are viewed in the community.

An enormous amount can be done with informal communication that is done at the convenience of the community.

Some how the community has got to become engaged, and understand the value of the program and how people in the community will benefit.

Many small steps are needed ... all going in the right direction. Eventually people will come to understand the value of the IMMC interventions and be willing to support the efforts.

A component of community awareness applies to the program itself. There should be a flow of information about the community into the management information system for the program, because it is progress in the community that is the most important metric of progress. The program wants to know how much it has cost to make progress in a community, and be able to prepare reliable comparative management information.

Neighborhood clean up

Reducing mosquito breeding places is a simple way to start getting control of the mosquito population. If the community is organized to help with clean up, and to remove places where mosquitoes can breed, it will get a lot of benefit from the reduction in mosquito nuisance and help to address the the malaria problem. This is something that needs to start at the individual level and the family, and move beyond that to the community.

Cleaning up all sorts of stagnant water is a good way to begin. These various containers are perfect for mosquito breeding.

Water storage needs to be protected from mosquito breeding. How convenient for the mosquitoes and how dangerous for the people.

Cleaning up old tires is worth doing. Tires are almost always containing stagnant water suited to mosquito breeding.

Environmental Management
Man made problems

The following set of manmade problems were identified in the Northern Territory, Australia where close attention is paid to mosquito control and the potential for re-establishing a malaria presence. The photographs were taken by Peter Whelan, Senior Medical Entomologist with the Department of Health and Community Services.

All Photos © Peter Whelan

Plate 1 This tidally flooded ex-sand mining pit is now the site of prolific breeding by *Ochlerotatus vigilax, Culex annulirostris* and *Anopheles farauti s.l.*.

Plate 2 An artificial drain constructed without an outlet to the tidal zone will simply pond and stagnate – and breed mosquitoes.

Plate 3 Inappropriate landfill here has blocked natural drainage on the salt marsh, leading to ponding and mosquito breeding.

Plate 4 Interruption of drainage by nearby roadworks has led to tidally influenced ponding and killed the mangroves: large numbers of the saltmarsh mosquitos, absent before, were a problem here during the construction phase.

Plate 5 Pooling of stormwater through inadequate drainage creates mosquito breeding sites.

Plate 6 A sand dam placed through mangroves leads to upstream ponding; mangrove death and high numbers of mosquitoes.

Plate 7 Machinery disturbance of the tidal area can give rise to significant numbers of mosquitoes after high tides.

Plate 8 Damming of a mangrove creek for water storage, killed the mangroves and the resultant brackish water gave rise to very high numbers of mosquitoes.

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