NATIONAL COMMUNICATION STRATEGY FOR INDOOR RESIDUAL SPRAYING (IRS)

2008

The Republic of Uganda
The Ministry of Health
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The National Communication Strategy for Indoor Residual Spraying for Malaria Control in Uganda
September 2008

Foreword

It is with great pleasure that I endorse this long awaited National Communication Strategy for Indoor Residual Spraying in Uganda. Malaria has caused untold suffering among the population of Uganda. Indoor Residual Spraying (IRS), which is the use of safe and effective insecticides on the inside walls of houses and buildings, is a proven and critical part of the national strategy to eradicate malaria in Uganda.

This communication strategy has been specifically developed for use by planners and managers who are involved in the implementation of activities for Indoor Residual Spraying at national, district and community levels. It aims to streamline effective communication as part of IRS implementation.

Because effective communication is a critical part of effective IRS and malaria prevention and control, I strongly encourage all stakeholders to embrace this document and abide by its guidance.

For God and my Country

Dr. Sam Zaramba
Director General of Health Services
Ministry of Health
Executive Summary

Malaria is endemic in 95% of Uganda, with the remaining 5% epidemic-prone areas in the highlands of the southwest and east of the country. A 1995 burden of disease study indicated that 15.4% of life years lost to premature death were due to malaria. Recent Ministry of Health (MOH) data indicates that malaria accounts for as many as 50% of outpatient visits in health centres across the country. In order to address the ongoing challenge of malaria, the Ministry of Health has adopted Indoor Residual Spraying as a key component of the Malaria Control Strategic Plan.

IRS is the application of long-acting insecticides inside human and animal dwellings in order to repel and kill adult malaria vector mosquitoes. IRS works to reduce malaria abundance, life span and human vector contact. Widely reported evidence confirms that malaria control using IRS has made epidemics less frequent and has reduced or eliminated malaria incidence in countries where it has been implemented on a wide scale basis.

The Ministry of Health re-introduced IRS for malaria control in Uganda in 2006 with a pilot spray exercise targeting residential houses in Kabale District. As a result of the success of this exercise, the Ministry of Health began to implement a plan to scale up IRS. The ongoing plan for IRS for malaria prevention will include its use in the following circumstances: congested areas; institutions (e.g. boarding schools, barracks, prisons, agricultural and industrial estates); emergency situations (e.g. internally displaced person (IDP) and refugee camps); and malaria epidemic prone areas.

While IRS was implemented in 2006 and 2007 using ICON, in 2008, the MOH began to implement IRS with dichlorodiphenyltrichloroethane (DDT) in the North. DDT will be used for IRS throughout Uganda because it is more cost effective and lasts longer than other insecticides. In instances where DDT is not recommended, the MOH will employ ICON Capsulated Suspension (CS) as opposed to the wettable powder formulation previously used, as CS lasts at least six months.

While DDT has been used successfully in the past in Uganda, its reintroduction presents challenges for IRS communication. Many in Uganda are concerned about the safety of DDT to their own health and question the viability of agricultural markets outside of Uganda if DDT is used.

Regardless of the chemical used, strategic communication involving a combination of district sensitization, household mobilization, mass media and advocacy has proven to be critical to successful IRS implementation.
This IRS Communication Strategy is a complement to the Communication Strategy for Malaria Control in Uganda 2005-2010. The strategy prioritizes the following communication problems and challenges for IRS communication:

1. Few people know about IRS generally: how it is applied, its effectiveness and safety in controlling malaria;
2. Most people do not know who will be targeted for IRS or the rationale for targeted spraying;
3. Leaders and household members in targeted areas do not know what is required of them during the spray exercise; and
4. There is widespread misinformation about DDT, particularly its safety and effectiveness.

The communication goal for IRS is:

*Malaria is eliminated from areas and populations at high risk.*

In order to achieve this goal, the strategy prioritizes three primary audiences: national and local leaders in areas targeted for IRS; heads of household and institutions targeted for spraying; and media representatives.

The strategy aims to increase the uptake and acceptance of IRS and the insecticides used by addressing critical information gaps regarding the effectiveness of IRS and the various insecticides used.

The communication approaches described comprise a multi-channel approach that includes mass media using print and radio, and community mobilization approaches including community meetings and a documentary style video on IRS.
Abbreviations

ACT  Artemisinin-based Combination Therapy
AMREF  African Medical Research Foundation
ANC  Antenatal Care
BCC  Behaviour Change Communication
CAO  Chief Administrative Officer
CBO  Community-Based Organisation
CCP  Johns Hopkins Bloomberg School of Public Health Center for Communication Programs
CDC  Centres for Disease Control (USA)
CDD  Community-Based Drug Distributors
CHW  Community Health Worker
CORP  Community Resource Person
CQ  Chloroquine
CQ/SP  Chloroquine/Sulfadoxine-Pyrimethamine (Fansidar)
CSO  Civil Society Organisation
CS  Capsulated Suspension
DDT  Dichloro-diphenyl-trichloroethane
DHE  District Health Educator
DHMT  District Health Management Team
DMO  district Medical Officer
DOT  Directly Observed Treatment
EPR  Epidemic Preparedness and Response
FBO  Faith-Based Organisation
HSSP  Health Sector Strategic Plan
IDP  Internally Displaced People
IEC  Information, Education, Communication
IMCI  Integrated Management of Childhood Illness
IPT  Intermittent Preventive Treatment
IRS  Indoor Residual Spraying
ITN  Insecticide-Treated Net
LC  Local Council
LCV  Local Council Five
LLIN  Long Lasting Insecticide Treated Net
MACIS  Malaria and Childhood Illness NGO Secretariat
MCP  Malaria Control Programme (MOH)
MCSP  Malarial Control Strategic Plan
M&E  Monitoring and Evaluation
MIP  Malaria in Pregnancy
MOH  Ministry of Health
NGO  Non-Governmental Organisation
NMS  National Medical Stores
PEAP  Poverty Eradication Action Plan
PMI  US President’s Malaria Initiative
Q & A  Question and Answer
RDC  Resident District Commissioner
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<th>Abbreviation</th>
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<tr>
<td>RBM</td>
<td>Roll Back Malaria (WHO)</td>
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<tr>
<td>SP</td>
<td>Sulfadoxine-Pyrimethamine (Fansidar)</td>
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<tr>
<td>TOT</td>
<td>Training of Trainers</td>
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<tr>
<td>UPDF</td>
<td>Uganda National Defence Forces</td>
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<td>UPHOLD</td>
<td>USAID project</td>
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<td>USAID</td>
<td>US (government) Agency for International Development</td>
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<td>VCD</td>
<td>Vector Control Division (MOH)</td>
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<td>VHT</td>
<td>Village Health Team</td>
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<td>WHO</td>
<td>World Health Organization</td>
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Introduction

Malaria is endemic in 95% of Uganda, with the remaining 5% epidemic-prone areas in the highlands of the southwest and east of the country. A 1995 Burden of Disease study indicated that 15.4% of life years lost to premature death were due to malaria. Recent Ministry of Health (MOH) data indicates that malaria accounts for as many as 50% of outpatient visits in health centres across the country.

In order to reduce the burden of malaria in the country, the MOH/MCP has five main intervention strategies: case management; control of malaria in pregnancy through Intermittent Preventive Treatment (IPT); vector control; epidemic preparedness and response; and information, education and communication (IEC) and social mobilization. A key component of the vector control intervention strategy is indoor residual spraying (IRS).

IRS is the application of long-acting insecticides inside human and animal dwellings in order to repel and kill adult malaria vector mosquitoes coming to rest on these surfaces, thus reducing mosquito abundance, lifespan and human-vector contact. IRS targets mosquitoes which feed and rest indoors. The primary effects of IRS towards curtailing malaria transmission are: 1) to reduce the life span of vector mosquitoes so that they can no longer transmit malaria parasites from one person to another, and 2) to reduce the density of the vector mosquitoes.¹

In 2006, the MOH conducted a massive pilot IRS exercise targeting all residential houses in Kabale District. The exercise, funded by the U.S. President’s Malaria Initiative (PMI), was implemented to reduce the burden of malaria in this epidemic prone region.

As a result of the successful IRS exercise, the MOH began to implement a scaling up of IRS to take place over the next five years.² This scale up began in 2007 with the introduction of IRS in additional epidemic prone districts and districts with internally displaced persons (IDP) camps. The districts included in this round of spraying were the following: Kanungu, Kabale (second round), Apac and IDP camps in Gulu, Kitgum, Oyam, Amuru, and Pader. Each of the districts was chosen because they met specific criteria outlined in the National Policy and Strategy for Indoor Residual Spraying (2006). Kabale and Kanungu were chosen because they are epidemic prone districts located in the Uganda Highlands; Apac and Oyam because they are the districts reporting the highest incidence of infective mosquito bites per day (Ministry of Health, Malaria Control

¹ World Health Organization (2006) IRS WHO Position: Use of indoor residual spraying for scaling up global malaria control and elimination

² Uganda Malaria Control Strategic Plan (2005/6-2009/10), Malaria Control Program Ministry of Health of Uganda,
Program); and IDP camps because those living in highly populated emergency camps are at increased risk for malaria infection.

As part of the scale up, PMI provided support for IRS community education and mobilization during the 2007 spray rounds in Kabale, Kanungu, Apac, and Oyam. Based on experience gained during this exercise, PMI provided assistance to the Malaria Control Programme of the MOH to develop a ‘tool kit’ for IRS communication to enhance community mobilization during subsequent spray rounds.

Available literature about IRS implementation in Uganda including the IRS Kabale Project Report (Research Triangle Institute International, 2006) describes the importance of developing a more strategic approach to communicating about IRS at district, sub-county and community levels. While the south-western spray exercise was generally considered a success, based on the high coverage and low household refusal rate (3%)3, the Malaria Control Program concluded that more intensive community mobilization, including the use of loudspeaker messages, should be an important part of future IRS exercises. It was also noted that despite communication efforts, some community members continued to harbour various myths and misconceptions about IRS, and concerns about the safety and efficacy of ICON™, the insecticide used.

During 2007-2008 the Ministry began spraying in IDP camps in Amuru, Gulu Kitgum and Pader. Due to the fact that the Government of Uganda is currently relocating residents of the IDP camps to their home areas, the exercise presented unique challenges to IRS communication. Those relocated need additional information about malaria prevention once they leave their temporary residences in the camps which have been sprayed and return to homes which are likely to have not been sprayed.

In 2008, the MOH launched dichlorodiphenyltrichloroethane (DDT) for IRS in Uganda during the first spray round in Apac and Oyam Districts. While DDT is being implemented because it is more cost-effective and lasts longer than other insecticides, its re-introduction presents challenges for IRS communication, as there is a sizeable proportion of the population that lacks information about DDT and others who aggressively oppose its use, believing that it is dangerous to humans and to the environment.

It is worth noting that Uganda has used DDT successfully for pest control and malaria prevention. DDT, commonly referred to as “Dudu - maki”, was used in Uganda on a large scale for agricultural purposes, especially for cotton spraying, from the 1940s to the 1970s. The powder form of DDT, commonly called Safi Safi, was also used widely in Uganda for preservation of beans, peas, etc. against weevils.

Uganda successfully used DDT during a pilot malaria eradication project in Kigezi between 1959 and 1963. During the exercise, *Anopheles funestus* was practically eliminated and a dramatic reduction of *An. gambiae s.l.* densities also resulted (Ministry of Health, Malaria Control Program). Additionally, malaria epidemics were controlled in areas around Lakes Bunyonyi, Mutanda, and Kimbugu and in the current Kabale and Kisoro Districts.

The MOH intends to use longer lasting residual insecticides for IRS. While several approved insecticides will be used to delay insecticide resistance, DDT will be central to the IRS program. The MOH has chosen DDT because it lasts longer, requires less frequent spraying and as a result, is more cost effective. In instances where DDT is not recommended, the MOH will employ ICON Capsulated Suspension (CS) as opposed to the wettable powder formulation previously used because it lasts at least six months.

All IRS communication will adhere to the communication goals, objectives and key messages of the National Communication Strategy for Malaria Control in Uganda 2005-2010.

The following document summarizes the national communication strategy for IRS in Uganda. This strategy considers the generic communication needs applicable to all spray exercises and the unique communication issues raised by implementing IRS with DDT.

**Background**

Widely reported evidence confirms that malaria control by IRS has made epidemics less frequent and reduced or eliminated malaria incidence in countries where it has been introduced on a wide scale basis.\(^4\) IRS with DDT was the main method by which malaria was eradicated in the United States, Europe the former USSR and the Caribbean between the 1940’s and 1960’s. Through the use of IRS with DDT in Southeast Asia, Latin America and parts of Africa, malaria was greatly reduced. South Africa is often cited as an IRS success story in Africa. IRS was taken to scale in South Africa and as a result, malaria was nearly eliminated.

Uganda participated in the use of IRS during the previous period of wide scale IRS for malaria prevention. The exercise implemented in Kabale between 1959 and 1963 is widely recognized as a successful example of IRS for malaria reduction. While cases of malaria have been reported in that region since the

spray exercise, during spraying the incidence and impact of malaria epidemics were greatly reduced.

The use of IRS to prevent and control malaria, especially in epidemic-prone areas and institutions, is now one of the key strategies of Uganda’s *Malaria Control Strategic Plan (2005/6-2009/2010)*. To support the appropriate use of IRS, the MOH has adopted IRS using safe and effective insecticides in the following circumstances: 1) Congested areas (e.g. high-density slum settlements); 2) Institutions (e.g. boarding schools, barracks, prisons, agricultural and industrial estates); 3) Emergency situations (e.g. internally displaced person (IDP) and refugee camps) and, 4) Malaria epidemic-prone areas (e.g. districts prone to epidemics).

In Uganda, malaria epidemics have commonly occurred in the highland areas of the Southwest and East, where malaria is not perennial. These epidemics have resulted in considerable mortality which could have been prevented through the timely use of IRS. The government intends to scale up IRS country wide with emphasis on highly endemic districts in order to rapidly and dramatically reduce vector population and malaria transmission.

In 2006, the MOH selected Kabale district as the pilot site for large-scale IRS using ICON™, as Kabale continues to be one of the most epidemic-prone districts in the country. Ninety-three percent (93%) of the total population in Kabale is estimated to be at risk for contracting malaria. Additionally, because the transmission is unstable, there is a high potential for epidemics to occur. *Plasmodium falciparum* is responsible for 95% of all malaria cases in Kabale.5

Following the pilot exercise in Kabale, the district has not experienced an outbreak of malaria. Because of this success, PMI committed support to the MOH with a second round of spraying in 50% of eligible structures in Kabale, and an initial round of spraying in 70% of eligible structures in Kanungu district, which took place in February and March, 2007.

During the remainder of the year, MOH conducted spraying in other districts of high transmission including IDP camps in Kitgum, Pader, Amuru, Gulu, and Oyum. Spraying in Gulu and Apac began in 2008. While ICON™ was used in most districts, the spray exercise in Apac and Oyam in 2008 reintroduced the use of DDT.

The prevailing national debates regarding IRS have illuminated beliefs about IRS and DDT which are widely held by leaders and community members. Many of the concerns centre around rationale for how and where IRS is applied; concern about the safety of insecticides, particularly DDT; and lack of clarity about what households are supposed to do before and after their homes have been sprayed.

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On the other hand, successful spray rounds in the south-western and northern regions have revealed considerable support for IRS. Many believe this is a service that the government is obligated to provide. They openly support IRS and want their homes to be sprayed.

While there is little representative data about people’s knowledge, attitudes and behaviours with regard to IRS, the Health Communication Partnership (HCP) conducted two focus group discussions with 24 community members from Kanungu district shortly after their homes were sprayed in 2007. Overwhelmingly, respondents indicated their support of the exercise. A female respondent noted, “From the time you sprayed the houses, we have witnessed a change. Malaria has reduced…the mosquitoes no longer bite us in our houses like they used to do.”

When asked what motivated them to participate in the spray exercise, respondents indicated that they were willing to participate because they had been instructed to by their government and local leaders and did not ‘want to let them down’. Others indicated that elderly people who had participated in the previous exercise years ago in the same area influenced them to accept the spraying in their homes.

While there was considerable support for IRS, the MOH’s implementing partner, RTI, documented specific concerns brought up by community members and summarized them in the final activity report of the IRS project in Kabale District.

Key among the concerns was the following:

1) The chemical used (ICON™) was not safe;
2) The fact that you couldn’t see the chemical on the walls meant that the sprayers used only water;
3) Why certain communities are selected for IRS and not others; and
4) Lack of awareness about how households were to prepare for IRS.

RTI concluded that in the previous spray round, inadequate communication targeting institution and household heads with information about IRS caused complications to IRS implementation. Because of a limited focus on community level communication, many household heads were not prepared for the spraying on the day the spray operators arrived. Those who had not received advance communication had not removed household items; had not prepared water for the spray operators to use for mixing and in some instances, no one was home and the homes were locked.

During the spray exercise in 2006 and subsequent exercises in 2007, it was made evident that local and political leaders were critical to the success of IRS. With their support, community members were encouraged to support the

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exercise and were mobilized in advance through community meetings, film vans and educational sessions, door-to-door announcements and radio messages to prepare their homes for the spray teams. While some leaders participated in the district and sub-county meetings with the expectation of allowances and per diems, in Kabale and Kanungu, many leaders wanted to be identified with the spray exercise and the leader sensitization activities held at district and sub-county level were well-attended.

Summative information taken from long-term IRS programs in other countries indicates that upon repeat exercises, people become increasingly reluctant to accept spray operators into their homes and some resistance to the insecticides which are sometimes perceived to be bad-smelling or leave stains (Rozendaal, 1997). This has yet to become an issue in Uganda as to date. Only Kabale and Kanungu have had repeated spray rounds.

**Spraying with DDT**

The use of DDT for IRS is largely credited with the eradication of malaria in many developed countries and the reduction of malaria in several African countries including South Africa. Widely published research indicates a dramatic reduction in malaria incidence in Cuba, Jamaica, Venezuela, India, Italy, Yugoslavia and Taiwan after IRS with DDT was used between 1935 and 1962 (Buchel, 1983). Between the 1970’s and mid 1980’s many countries banned DDT. While the bans were put in place for agricultural use only, they resulted in the practical elimination of DDT for public health use and specifically, for malaria control.

Subsequent to its endorsement by the WHO, the Uganda National Environmental Management Authority (NEMA) and the National Drug Authority (NDA), the MOH began using DDT for IRS. IRS using DDT was re-introduced in Uganda in April, 2008 in Oyam District. DDT was chosen because it’s cost effective (it breaks down more slowly), causes longer lasting protection, and requires less frequent spraying than other insecticides.

The introduction of DDT stimulated a heated national debate in the media and in various public fora largely driven by agricultural and environmental lobbyists and political leaders. Those in support of DDT pointed to the success of its use in eradicating malaria in many parts of the world and its success in the pilot exercise in Kabale between 1959-1963. They stressed the fact that among people who lived in the areas sprayed with DDT, there were no known negative health effects and indicated that reports that DDT had negative health effects including miscarriage, cancer, blindness and genetic defects were largely unfounded (New Vision, March 21, 2007). Additionally, DDT would not be used as an agricultural pesticide, only for IRS as part of malaria control.

Opponents of DDT cautioned against its use, indicating that because it is banned in many countries which import agricultural products from Uganda, the country
would lose much of its export market. Opponents also argued that for DDT to be used effectively with minimal environmental impact, strict controls for storage and disposal must be maintained – some of which may be impossible in the Ugandan context. Some also pointed to a highly controversial study conducted in 2006 in South Africa suggesting that DDT may have a negative affect on sperm count among men in areas sprayed with DDT (New Vision, March 5, 2008).

In June 2008, HCP conducted a series of focus group discussions with 160 people living and working in areas which had been sprayed with DDT in Apac and Oyam. HCP interviewed community members (men and women) who had either accepted or rejected IRS; representatives from the organic farmer groups who had rejected spraying; spray operators; and representatives from the District Health Team who were involved in the spray exercise. Overwhelmingly, community members lacked complete information about IRS and DDT. The lack of information seemed to be the most important reason for not accepting IRS.

Among both groups, IRS acceptors and rejectors, many were concerned about the safety and effectiveness of the insecticide and felt there was not enough information disseminated about the potential side effects.

“We have been hearing all this false information that was passed unto people that DDT kills, causes cancer, impotence, etc.” Male IRS acceptor

“For me, I had made up my mind to participate but a lot of scary rumours about IRS made me change my mind.” Female IRS rejector

“If a hen eats a dead cockroach then it dies and our children are just like those hens.” Female IRS rejector

Others indicated that they didn’t understand why the spraying was conducted inside as opposed to outside of buildings where mosquitoes breed.

Because of the importance of the organic agricultural industry, many people were concerned about the impact of DDT on the viability of their market for goods. Some mentioned that they had been threatened by organic farmers that they would not get high returns for the sale of their products if they accepted spraying.

“The organic company from Lira said that they would buy our ‘sim sim’ cheaply once we accepted our houses to be sprayed.” Female IRS rejector

“I heard that once we spray, our produce won’t be bought on the outside markets.” Male Organic Farmer

Others felt that the reason they were given for the use of DDT in the North was not adequate. Some believed that the use of DDT first in the North was a government plot to kill them because of the prevailing political differences with
the ruling party. Participants indicated that local politicians exaggerated the political angle on radio and in public meetings.

Among those who accepted IRS, the most common reasons for accepting it were:

- They had heard enough information about IRS and DDT either through their local health officials, through the radio or through 'sensitization' meetings
- They had heard from a respected elder that it was 'ok' because DDT was 'safi safi' which had been used successfully in the past
- They believed that the government was implementing IRS as a means to fight malaria

Additionally, both men and women who had accepted noted that they had seen positive results due to the spraying: they had had fewer clinical visits for malaria cases; the rats and roaches had disappeared; and women stated that their husbands were not impotent. While many were pleased with the results, other acceptors noted with some skepticism that they were waiting the duration of the 9 months until the next spray round to see if they experienced any side effects in the interim.

Key implications for communication can be drawn from the previous IRS experiences, among them:

1. The support of national and local leaders is critical to uptake and the success of IRS for malaria prevention and control;
2. Communication about the insecticides used must include evidence about their safety and the fact that the insecticides have been approved by WHO, NEMA, NDA and the MOH;
3. The use of DDT for IRS requires targeted, multi-level communication messages specifically designed to address the safety of the insecticide and to counter myths and misconceptions;
4. Communities need to be informed how often their homes need to be re-sprayed. DDT requires spraying once per year; other insecticides including ICON™ require more frequent spraying;
5. Households need to continue to follow pre- and post-spray instructions for IRS; and
6. If the post-spraying instructions are followed, there are no side effects.

**Communication Strategy Overview**

According to the MOH's *National Indoor Residual Spraying Policy, 2007*, the objective of IRS is to:
Reduce malaria transmission and to eliminate it from certain areas of Uganda.

The Communication Strategy for Malaria Control in Uganda 2005-2010 prioritizes problems and challenges for IRS communication as the following:

- Few people know about IRS generally, how it is applied, its effectiveness and safety in controlling malaria;
- Most people do not know who will be targeted for IRS or the rationale for targeted spraying;
- Leaders and household members in targeted areas do not know what is required of them during the spraying exercise; and
- There is widespread misinformation about DDT, particularly its safety and effectiveness.

The overall objective of IRS communication is to promote and facilitate behaviours supportive of IRS among national and local leaders, household heads, heads of institutions, and media. These supportive behaviours include:

- Leaders support access to accurate and up-to-date information about IRS among community members and household heads;
- Leaders in targeted spray areas make supportive statements for IRS and encourage household heads and leaders of targeted institutions to prepare their homes and structures for IRS; and
- Household heads prepare their homes for spraying and follow instructions for post-spraying.

Communication Goal for IRS:

Malaria is eliminated from areas and populations at high risk

Audiences:
This strategy prioritizes three primary audiences:

1) **National and local leaders** in areas targeted for IRS
2) **Heads of households and institutions targeted for spraying**
3) **Media representatives**

Communication strategies for each of these audiences are described below.

Audience Analysis

**Primary Audience 1:** National and local leaders representing areas targeted for IRS
Secondary Audience: National and local leaders of areas adjacent to areas targeted for spraying

Leaders primarily targeted for the IRS activities are:

- Elected officials (Local Council representatives and their executives);
- Sub-county and parish chiefs;
- Influential religious leaders;
- Popular opinion leaders;
- District representatives, including District Health Teams, District Education Teams and the District Agricultural Teams; and

This audience is likely to be literate, and listens to local FM radio. District leaders usually receive health information for health campaigns through district sensitization meetings. Sub-county leaders usually receive information from district personnel at sub-county meetings. Local parish level leaders including LC1’s receive information at parish level meetings.

Audience Profile
- Trusted, respected, known widely
- Married
- Regarded as community ‘elders’
- Highly influential and powerful

Desired Behaviour
- Advocate for IRS with people in their area of influence
- Share testimonies about IRS with people in their area of influence

Actual Behaviour
- Lack technical support and knowledge about IRS
- Provide inconsistent support for IRS

Reasons Why Audience is Not Currently Practicing Desired Behaviour
- Concerned about the safety of the insecticides used
- Unaware of their role in supporting the exercise
- Lack understanding about why certain areas need to be sprayed
- Don’t understand the process of IRS

Benefits from Actual Behaviour
- Gain/maintain popularity by de-campaigning DDT

Audience’s Feeling about IRS for malaria control
- They are aware of the problem of malaria and the IRS program, but are hesitant to openly support it because they lack information
• They generally support IRS but feel not enough is being done to help community members feel comfortable with IRS

Constraints
• Lack of information about IRS
• Lack of a communication package for IRS
• Afraid of losing popular support if they openly support IRS, particularly DDT

Key Constraint to Practicing the Desired Behaviour
• Lack of information about IRS

Communication Objective
• To increase the proportion of national and local leaders who know the important facts about IRS, value its benefits and support its implementation

Key Promises (Benefits): If you support IRS in your community you will:
• Be recognized as a responsible and caring leader
• Be recognized as a knowledgeable leader
• Have a malaria-free, productive population

Support Points
• IRS is an effective and safe means of malaria prevention, control and elimination;
• IRS is the application of liquid insecticides inside human and animal dwellings to kill mosquitoes and other household pests;
• The MOH is currently using DDT and ICON™ for IRS which have been approved by the NDA, the WHO and the National Environmental Management Authority;
• IRS will be implemented in select situations and districts which have high malaria incidence or are prone to epidemics;
• At least 8 out of 10 structures need to be sprayed in an area for IRS to be effective;
• IRS using DDT is effective for up to 12 months; IRS using ICON is effective for up to 6 months;
• Spraying must be conducted prior to the transmission season in areas where transmission is seasonal (e.g. before the rainy season);
• IRS can only be conducted by professional spray operators who represent the community and who have been adequately trained;
• IRS is not harmful to the environment;
• IRS is conducted indoors, not outdoors in the soil or gardens – it does not affect your produce;
• Households and heads of institutions need to prepare their homes as instructed for IRS during the spray campaign – remove all people,
household goods, and pets from the house, and provide a jerry can of clean water for the spray operators;

- Household heads and heads of institutions should follow instructions after spraying has occurred – stay out of the house for 2 hours; keep people, personal belongings and pets out of the house for 2 hours;
- People should not paint, repaint, plaster, re-plaster or smear the walls of their houses after spraying;
- IRS is provided free by the Ministry of Health;
- Once spraying has occurred, everyone should still sleep under a treated net every night; and
- If anyone has become infected with malaria, they should seek treatment using Artemisinin based Combination Therapy (ACTs) from a qualified health care provider.

**Primary Audience 2:** Heads of households and heads of institutions targeted for spraying

**Secondary Audience:** Heads of households and heads of institutions in areas adjacent to spray areas and not targeted for spraying

This audience is likely to be semi-literate and listens to local FM radio stations. This audience also gets its information from community leaders, religious leaders, community based volunteers, health workers, neighbours, school children and other family members.

This audience widely knows and refers to IRS as ‘spraying’, ‘indoor house spraying’ or ‘fumigation’, not IRS.

**Audience Profile**
- Mostly rural
- Men are household heads and decision makers
- Majority are in a relationship and/or married
- Some households are woman or child headed

**Desired Behaviour**
- Heads of households prepare their homes for IRS in a timely fashion and follow pre, during, and post spray instructions as a result of being adequately informed

**Actual Behaviour**
- Many accept IRS even though they lack adequate information because they believe it’s a mandatory government program
- Some reject IRS in their homes
- Some prepare their homes late or not at all for IRS
Reason Why Audience is Not Currently Practicing Desired Behaviour
- Do not understand why their homes should be sprayed
- Do not believe IRS is effective
- Believe that the insecticides used are harmful to their health and that of their families
- Do not understand how spraying reduces their risk for malaria
- Are not aware that the spray activity is taking place in advance
- Lack information about what they are supposed to do before, during and after the spray exercise

Benefits from Actual Behaviour (rejecting IRS)
- Protect themselves from harmful chemicals
- Protect agriculture

Audience’s feelings about the issue
- They are aware of IRS as a means of malaria prevention and control
- Many feel the chemicals, particularly DDT, are dangerous
- They are aware that there is a problem with malaria and many people especially children die of malaria
- They are capable of accepting IRS and preparing their homes in advance if they have adequate information

Constraints
- Negative or wrong information from the media, neighbours and local leaders about IRS and insecticides, particularly DDT
- Widespread belief in the North that using DDT is a government plot against people of the North
- Poor timing – IRS sometimes implemented during rainy season

Key Constraint to Practicing the Desired Behaviour
- Lack of correct information about IRS

Communication Objective
- Increase the proportion of household heads that have adequate information about IRS and who follow pre, during and post-spray instructions in a timely fashion.

Key Promises (Benefits): If you prepare your home for IRS and accept IRS in your home:
- You will protect your family from mosquitoes and other insects for up to 12 months
- You and your family will prevent malaria
Support Points

- IRS is an effective and safe means of malaria prevention, control and elimination;
- IRS is the application of liquid insecticides inside human and animal dwellings to kill mosquitoes and other household pests;
- IRS is safe for humans and animals;
- IRS will be implemented in selected situations and districts which have high infection rates or are prone to malaria epidemics;
- Spray operators wear protective apparel because they are in the home while the spraying takes place and handle concentrated insecticides all day;
- You can not spray your home or building yourself; only trained spray operators can conduct IRS;
- Spray operators are trained and responsible professionals from your community;
- IRS will use DDT and/or ICON™ which have been approved by the MOH as safe and effective;
- IRS is conducted indoors, not outdoors in the soil or gardens – it does not affect your produce;
- You are required to prepare your home or institution for IRS during the spray campaign – remove all people, household goods, and animals from the house; provide a jerry can of clean water for the sprayers;
- You are required to follow instructions after spraying – stay out of the house for 2 hours; and keep people, personal belongings and pets out of the house for 2 hours to allow the spray to dry properly and avoid minor irritation;
- You should not paint, repaint, plaster, re-plaster or smear the walls of their houses after spraying;
- IRS does not increase the number of mosquitoes and other insects in your home; after spraying they become agitated and fly around making noise before they die, giving the immediate impression that there are more;
- IRS is provided free by the Ministry of Health, you are not required to pay anything for the spraying;
- Once spraying has occurred one should still sleep under a treated net every night; and
- If you have been infected with malaria, seek treatment using ACTs from a qualified health care provider.

Primary Audience 3: Media representatives

Audience Profile

This audience is both male and female, usually above the age of 25 years. They are literate, with varying levels of formal training in journalism or related fields.
Media representatives exercise considerable influence on the actions of the public.

**Desired Behaviour**
- To provide accurate and timely information about IRS and DDT for malaria prevention and control

**Actual Behaviour**
- Often publish negative or sensationalist stories and articles about IRS, DDT and other insecticides and malaria

**Reasons Why Audience is Not Currently Practicing Desired Behaviour**
- Lack of proper information about IRS and malaria generally
- Believe that ‘sensational’ angles sell more papers

**Benefits from Actual Behaviour**
- Public recognition
- Paid by IRS and DDT opponents

**Audience’s Feeling About Problem**
- Don’t see malaria as much of a priority as other diseases like AIDS
- Some believe that insecticides, particularly DDT, are dangerous and not effective for malaria prevention and control

**Constraints**
- Lack proper information about the problem
- Have not been specifically targeted for IRS and DDT information
- Paid by IRS and DDT opponents

**Key Constraint to Practicing the Desired Behaviour**
- Lack proper information about IRS and DDT

**Communication Objective**
- To increase the proportion of media representatives that disseminate correct information about IRS and insecticides used including DDT

**Key Promises (Benefits):** If you give out correct information about IRS, you will:
- Be recognized by the community as reliable/credible source of information
- Be recognized by the community as a partner in protecting the health and well being of Ugandans

**Support Points**
- You have the power to make a positive difference in malaria prevention and control in Uganda;
- IRS is an effective and safe means of malaria prevention and control;
• IRS is the application of liquid insecticides inside human and animal dwellings to kill mosquitoes and other pests;
• IRS is safe for humans and animals;
• The MOH is currently using DDT and ICON™ for IRS which have been approved by the NDA, the WHO and the National Environmental Management Authority;
• IRS has been used successfully for malaria prevention and control in many African countries and in Uganda;
• Areas are chosen for IRS based on the level of malaria infections and risk;
• DDT is being used because it lasts longer and is less expensive than other insecticides;
• IRS will be implemented in selected situations and districts which have high infection rates or are prone to malaria epidemics;
• Spray operators are trained and responsible professionals chosen from the communities they spray;
• IRS is conducted indoors, not in the soil or gardens – it does not affect produce;
• IRS is provided free by the Ministry of Health;
• IRS using DDT is effective for up to 12 months; using ICON™ is effective for up to 6 months;
• Spraying must be conducted prior to the transmission season in areas where transmission is seasonal (e.g. before the rainy season);
• IRS can only be conducted by professional sprayers who represent the community and who have been adequately trained;
• IRS is not harmful to the environment; and
• 8 out of 10 structures need to be sprayed in an area for IRS to be effective.

Channels and Approaches

The following table describes the communication channels that will be used for leaders, household heads and, media representatives.

<table>
<thead>
<tr>
<th>Tools/Channels for Leaders</th>
<th>Objective</th>
<th>Additional Details</th>
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</thead>
<tbody>
<tr>
<td>Leaders’ fact sheet on IRS</td>
<td>Increase district and local leaders’ knowledge about IRS and provide guidance for answering questions about IRS from the public</td>
<td>• Will guide discussion during public meetings, radio programs, film van mobilization activities &lt;br&gt; • Not to be left behind with community members</td>
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<tr>
<td>Radio Spots</td>
<td>Increase knowledge about IRS among leaders to aid their</td>
<td>• Targeting leaders in addition to household head</td>
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</table>
| Communication to respective constituents and address key messages in a timely fashion | • 45 second spots  
• ‘What is IRS?’ describes the process, the chemicals used, the benefits and will be aired before and throughout the exercise  
• ‘How to Prepare’ describes the preparation process for the home and will be aired before and throughout the exercise |
|---|---|
| Radio PSA | Increase public knowledge about IRS  
• ‘IRS is Coming’ 45 second PSA presented with an authoritative voice letting people know IRS is coming and that it’s safe and effective  
• Broadcast starting 2-3 weeks before spray exercise and throughout spraying |
| Radio Talk Show | To increase knowledge about IRS in detail and address myths and misconceptions with correct information  
• Targeting household heads, community leaders  
• Local language  
• On air participants include District Health representatives, local political leaders, satisfied users of IRS, sprayer operators  
• 11-part, 1-hour, weekly series discussing the key issues of IRS in more detail; first broadcast the night before the district sensitization meeting with Director General of MOH  
• Call in for question and answers  
• Broadcast for 8-11 weeks of spray exercise |
| District Sensitization Meetings | To increase district leaders’ knowledge about IRS; gain their support; and encourage them to inform S/C  
• 1-day meetings to sensitize district leaders and area MPs on the implementation of spray exercise |
| Sub-county Sensitization Meetings | To increase sub-county leaders’ knowledge of IRS; gain their support; provide instruction on how to carry out parish meetings | • 1-day meetings at sub-county level to sensitize sub-county leadership on IRS and address key messages
• 1 meeting per sub-county conducted shortly before spraying and 1 week before parish meetings
• Allow questions and answers session from participants
• Local media coverage
• Show IRS video |

| T-Shirts | To encourage awareness and support of the IRS exercise among leaders; to encourage leaders to discuss the exercise with their constituents and peers | • Short messages encouraging spraying
• English and local language |

| Banners | To encourage support among leaders and community members of spray exercise | • Placed at insecticide storage and dispensation sites at the district and sub-county health buildings
• Marked with IRS slogan and MOH logos |

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<td>IRS FAQ Pocket Reference on IRS</td>
<td>Increase spray operators’ knowledge</td>
<td>• For use by spray operators during the spray</td>
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- Carried in pocket; not left behind
- 45 second spots targeting household members, community at large
- ‘What is IRS?’ describes the process, the chemicals used, the benefits and will be aired throughout the exercise
- ‘How to Prepare’ describes preparation process for the houses and will be aired throughout the exercise
- Targeting household heads, community leaders
- Local language
- On air, participants include District Health representatives, local political leaders, satisfied users of IRS, sprayers
- 11-part, 1-hour, weekly series discussing the key issues of IRS in more detail; first broadcast the night before the district sensitization meeting with Director General of MOH
- Call in for question and answers
- Broadcast for 11 weeks of
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<th><strong>Radio DJ mentions</strong></th>
<th>To inform household heads of the spray schedule at least 24 hours before spray teams are schedule to arrive</th>
<th>• Radio announcements made by local station DJs with details of spray schedule by parish</th>
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</table>
| **Parish sensitization meetings** | To increase knowledge of household heads about IRS; give them instruction on how to prepare their home; answer questions about chemicals used and safety; discuss the benefits of malaria prevention using IRS; reiterate the importance of net use and treatment using ACTs | • ½ day meetings with community members at parish level  
• 1 meeting per parish conducted shortly before spraying commences  
• Facilitated by district health team/sub-county health team  
• Show video |
| **Spray operators’ graduation ceremony** | To increase community confidence in professionalism of sprayers and officially announce the completion of sprayer training and the commencement of IRS in the district | • ½ day ceremony conducted on last day of spray operator training  
• 1 event per district in a chosen sub-county  
• Spray operator trained on how to use the spray operators’ pocket reference with household heads and given certificates  
• Spray operators march through the sub-county in protective apparel with banners on IRS and brass band  
• Local media coverage |
| **Community mobilization with film van and district health mobilizer** | To help household heads understand the benefits of IRS, how it’s applied and the safety and effectiveness of the chemicals used | • 1-event per parish—more if budget allows  
• Health educator presents IRS video to mobilize participants;  
• Conducts information session detailing key messages for IRS  
• Answers questions of |
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<tr>
<th>Tools/Channels for media representatives</th>
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</table>
| **Media Outreach Activities**           | To inform media representatives (radio station managers, editors, journalists) about IRS and to encourage them to report accurate information about IRS and insecticides including DDT | • 1-hour interactive meetings conducted at the key media houses (print and electronic media) by IRS implementing partners  
• Discussion and question and answer format |
| **Schools and other institutions**      | To disseminate correct information to household heads about the spray exercise and DDT | • Talking points for the head of the institutions using the FAQ on IRS Card  
• Distribution of print materials to the school and other institutions |

**Materials’ Marking Guidelines**

All materials will include the campaign slogan already developed by the MOH: “Support House Spraying…Kill Mosquitoes, Fight Malaria.”

All print materials will be marked with the Ministry of Health ‘Fight Malaria’ logo (see below) and the Ministry of Health Coat of Arms. No other organizational logos or credits will be included.
References