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RAPIDS Malaria Initiative: 2007 Final Report

REACHING HIV/AIDS AFFECTED PEOPLE WITH INTERGRATED DEVELOPMENT AND SUPPORT
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Abbreviations

AIDS – Acquired Immune Deficiency Syndrome

BCC – Behavioral Change Communication

CRS – Catholic Relief Services

DHMT – District Health Management Teams

ECR – Expanded Churtch Response

GBC - The Global Business Coalition on HIV/AIDS, Tuberculosis and Malaria

HBC – Home Based Caregivers

HIV – Human Immunodeficiency Virus

IEC – Information, Education and Communication

LLINs – Long Lasting Insecticidal Nets

MACEPA – Malaria Control and Evaluation Partnership in Africa

M&E – Monitoring and Evaluation

MIAM – Malaria Institute at Macha

NMCC – National Malaria Control Centre

OGAC – Office of the U.S. Global AIDS Coordinator

OVC – Orphans and Vulnerable Children

PATH – Program for Appropriate Technology in Health

PEPFAR – President's Emergency Plan for AIDS Relief

PMI – President's Malaria Initiative

PPP – Public Private Partnership

RAPIDS – Reaching HIV/AIDS Affected People with Integrated Development and Support

RDT – Rapid Diagnostic Test

TSA – The Salvation Army

WV – World Vision

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Executive Summary

Objective Accomplished: Approximately 500,000 long-lasting insecticidal nets distributed by caregivers to households and individuals affected by HIV/AIDS as a part of an integrated malaria initiative to reduce malaria burden in those most vulnerable to clinical malaria.

The RAPIDS consortium and the Global Business Coalition on HIV/AIDS, Tuberculosis and Malaria (GBC) assembled a private public partnership (PPP) with the Office of the U.S. Global AIDS coordinator (OGAC), The President's Malaria Initiative (PMI), and Vestergaard-Frandsen, to secure and distribute approximately 500,000 long lasting insecticidal nets to the most vulnerable households in Zambia. This partnership will address the critical linkages between malaria and HIV/AIDS.

This PPP leverages the infrastructure of RAPIDS (Reaching HIV/AIDS Affected People with Integrated Development and Support), a proven President's Emergency Plan funded NGO network that reaches 122,000 Zambian households through its network of 12,000 volunteer Zambian caregivers.

The RAPIDS consortium is led by World Vision and is comprised of Africare, CARE International, Catholic Relief Services, Expanded Church Response and The Salvation Army. The RAPIDS consortium is a partner with the National Malaria Control Centre (NMCC), the National AIDs Council, Ministry of Health, PATH (MACEPA), and other Roll Back Malaria partners in both the design and implementation of this malaria initiative.

RAPIDS consortium partners utilized the majority of the LLINs with additional nets distributed through the partners of the USG Forum for Orphans and Vulnerable Children (OVC) and through Catholic Relief Services SUCCESS program. The total project budget for acquiring and distributing the 500,000 LLINs is approximately US $2.55 million. The LLINS were purchased at a reduced rate from Vestergaard-Frandsen, a Danish GBC member company specializing in emergency response and disease control textiles. Vestergaard-Frandsen's LLINs are long-lasting, have zero impact on the environment, and empower families to easily prevent malaria transmission.

To educate communities, caregivers, and households about LLINs and malaria, RAPIDS has partnered with the Ministry of Health. The goal of this education is to encourage high LLIN utilization rates. Caregivers were educated by malaria focal point persons under District Health Management Teams (DHMTs) to recognize the importance of sleeping under LLINs, to prioritize pregnant women, children and those living with HIV/AIDS sleeping under LLINs, and to recognize the signs and symptoms of malaria. Caregivers passed on their training to target households by physically hanging the net, teaching each household the importance of sleeping under a net, and describing which household members are more susceptible to clinical malaria and should therefore be given priority.

In addition to distributing LLINs, each caregiver distributed malaria information, education and communication (IEC) materials to target households and individuals. RAPIDS developed IEC materials with the National Malaria Control Centre and the Health Communication Project. The IEC materials emphasized that pregnant women, children-under-five, and those living with HIV/AIDS are most susceptible to clinical malaria and therefore should sleep under the LLINs. The material also outlined malaria prevention, epidemiology, and testing and treatment options.

In some areas, rapid diagnostic tests for malaria were distributed in rural clinics and hospitals to improve the accuracy and speed of malaria diagnosis.

Immediate Impact

A Letter from Bruce Wilkinson, RAPIDS Chief of Party:

It gives me great pleasure to report that 500,000 long lasting insecticidal nets (LLINs) have been distributed in 60 of Zambia's 72 districts. From the town of Nakonde in rural Northern Province to the capital city of Lusaka, households and children made vulnerable by HIV/AIDS have been given a chance to prevent malaria. The nets that this public-private partnership between, the Global Business Coalition (GBC), the Office for the US Global AIDS Coordinator(OGAC) and the President's Malaria Initiative (PMI) have purchased will prevent thousands of Zambian children from dieing from malaria next rainy season and countless children and adults from developing severe anemia and cerebral malaria. Communities have been empowered to prevent malaria through the training of community caregivers in malaria prevention and epidemiology, and rapid diagnostic tests are now available for faster and more accurate malaria diagnosis.

RAPIDS is proud of the many partnerships that made this initiative so effective. Support from Malaria No More, the Global Business Coalition, the Office for the US Global AIDS Coordinator, the President's Malaria Initiative, and Vestergaard Frandsen, made the purchase and shipment of the 500,000 life-saving nets possible. A partnership with the Zambian National Malaria Control Centre (NMCC) resulted in our caregivers being trained in malaria prevention and epidemiology by malaria focal point persons through Ministry of Health District Health Management Teams. A partnership with World Bicycle Relief provided our caregivers with bicycles to bring nets directly to our clients. Premier Medical Corporation and JN International supplied the much needed rapid diagnostic tests for malaria.

These partnerships have strengthened our 12,000+ caregiver network which is our critical link to the communities we serve. Our caregivers take their training directly to households, where they have hang each net, and return to make sure that those most at risk of severe malaria such as children, pregnant women, and those living with HIV are sleeping under the net. They also provide each household an informational pamphlet which explains why it is important to sleep under a net, the signs and symptoms of malaria, and offers encouragement to seek fast diagnosis and treatment. All levels of Zambian society, from individuals, households, communities, to the national government are partners in this effort to protect Zambia's most vulnerable citizens.

This initiative is unique in that it directly addresses the fact that Malaria and HIV/AIDS are epidemics that feed off each other. Malaria increases transmission of HIV/AIDS by raising HIV viral concentrations in co-infected individuals, therefore making it more likely that such individuals will transmit the disease to their sexual partners. HIV weakens the immune system which can lead to more severe manifestations of malaria, such as anemia, cerebral malaria, and death. Both diseases are symptoms and causes of poverty, making it more difficult for the 94% of Zambians that live on less than $2 a day to increase their earnings. Both diseases combine to take approximately 100,000 lives

per year. By tackling both diseases at once, RAPIDS stands to make a larger impact then if each was targeted singularly.

Rather than a use statistical measure, perhaps a more meaningful way to describe the immediate impact of this initiative is through the words and actions of Effie Munsanje. Effie is a translator, a counselor, and now a LLIN distributor at the anti-retroviral (ART) clinic at the Macha Mission Hospital in Zambia's Southern province. Effie Munsanje first realized she had HIV in 1994 when by chance she happened to see her physician's note in her medical chart during a brief hospital stay. At that time, the few anti-retroviral therapy drugs available in Zambia where prohibitively expensive, so it is not surprising that her physician choose not to reveal her diagnosis or that Effie was unprepared to accept her status. There was very little either of them could do.

Effie continued to live with the physical and mental burdens of her disease until 2002, when she visited the New Start Center at University Teaching Hospital in Lusaka where her status was confirmed. Her brother, who at the time was working for CARE in Lusaka, encouraged her to go. When she received her test results, she was unfazed. "I said nothing to my counselors, except show me the way forward."

The way forward was made difficult by the still high cost of anti-retroviral therapy. For the first two years of treatment her family helped her pay for drugs that cost 580,000 Kwacha ($145) a month. In Zambia the average income is below $2 a day. Now she receives ART for free and is in better health then she has been in years thanks to drugs and funding provided through OGAC.

But Effie's story doesn't end there. Brought back to health by ART provided through OGAC, she works exhaustively to make sure that others receive the support they need to get tested, start treatment, and adhere to the treatment regime. At the ART clinic in Macha her day begins at 6:40am when she begins to counsel patients that have traveled as far as 120kms to receive treatment. By the time her day ends, sometimes as late as 8:30pm, she has helped as many as 80 patients.

Effie is one of thousands of caregivers that are distributing nets purchased by this partnership to people affected by HIV/AIDS. Every day she patiently describes the right way to hang a net and emphasizes the importance of children and pregnant women sleeping under a net. She makes sure that each household has an educational pamphlet that explains why sleeping under a net is so important. "I'm very happy now that my people have nets", she says, "this will encourage more people to start ART." It is inspiring to know that people like Effie are making a difference in their community, and it is a privilege to be able to help her.

It is also inspiring to see people like Effie receive the recognition they deserve. For example, when First Lady Laura Bush came to Zambia this year, she personally thanked caregivers like Effie for their outstanding work. At a RAPIDS program site, the Mututa Center, Laura Bush joined Zambian First Lady Maureen Mwanawasa in a private discussion with our caregivers. Following the meeting, she personally handed nets

purchased by this partnership to caregivers. In her speech at the Center, Mrs. Bush reaffirmed the US government's commitment to reducing the malaria burden in Zambia. To close the ceremony American Idol finalist Melinda Doolittle joined The Salvation Army Children's Choir in a beautiful rendition of "Amazing Grace". The visit from the First Lady was quickly followed by a visit from Admiral Ziemer, the coordinator of the President's Malaria Initiative. We took the Admiral to Chongwe district where he witnessed our caregivers hanging nets in households.

We believe part of the reason this initiative has received so much attention is RAPIDS unique approach to malaria prevention. The RAPIDS consortium remains committed to helping households and children made vulnerable by HIV/AIDs. We target those that are most susceptible to the severe forms of malaria that result in anemia, brain damage, or death. This vulnerable group includes children, pregnant women, and those that suffer from HIV/AIDS.

But mostly the attention is due to children like the one pictured to the right. She is one of our recipients in Northwestern Province, in a village outside of the town of Solwezi. Inside the bag she is holding is a net that will help keep her safe from malaria. It remains our hope that one day every child in Zambia will have access to a net.

Sincerely,

Bruce Wilkinson
RAPIDS Chief of Party

Children in Chongwe District Proudly Display Their New Nets

A Caregiver in Solwezi District Prepares to Deliver Nets to Target Households:

Background

In Zambia, malaria is the leading cause of morbidity and mortality in children under five representing 49.8% of all illness and 53.4% of all deaths according to the WHO (1). While every Zambian is at risk of contracting a malaria infection, malaria is a disease that disproportionably burdens vulnerable groups. It is a constant threat to life for all who have not acquired immunity, such as children, and pregnant women, and those whose immunity has been compromised, such as people living with HIV/AIDS. These vulnerable groups are more likely to suffer from the severe manifestations of the disease such as cerebral malaria, severe anemia, and death.

HIV/AIDs is the number one cause of mortality in Zambian adults, with an estimated 98,000 deaths in 2006 (2). HIV and malaria combine to take lives, hinder development, and add to the burden of disease in a country where 73% of the population lives below the national poverty line (3).

The extent and significance of HIV/malaria interactions are only beginning to be appreciated. Recent research has demonstrated that dual infection with HIV and malaria fuels the spread of both diseases in sub-Saharan Africa (4). Malaria fuels the AIDS epidemic by increasing HIV viral loads in co-infected individuals, thereby increasing the likelihood of transmission to sexual partners. HIV compromises the immune system which makes it more likely that the severe manifestations of malaria such as anemia, cerebral malaria, and death will occur.

The RAPIDS consortium is in the unique and opportune position to be able to fight both diseases at the same time. This approach has the potential to make a bigger impact than if each disease was targeted individually. Utilizing RAPIDS network of 12,000 volunteer Zambian caregivers, the RAPIDS consortium will be able to enhance its HIV program by introducing life saving malaria interventions in more than 122,000 Zambian households. These life saving interventions include the distribution of LLINS, which are proven to help protect those who sleep under them from malaria.

LLIN Distribution

Summary: 485,387 LLINs were purchased by the Global Business Coalition, President's Malaria Initiative and others, and distributed to 60 districts in Zambia through the RAPIDS partnership, the OVC forum, and other partner NGOs.

Accomplishments:

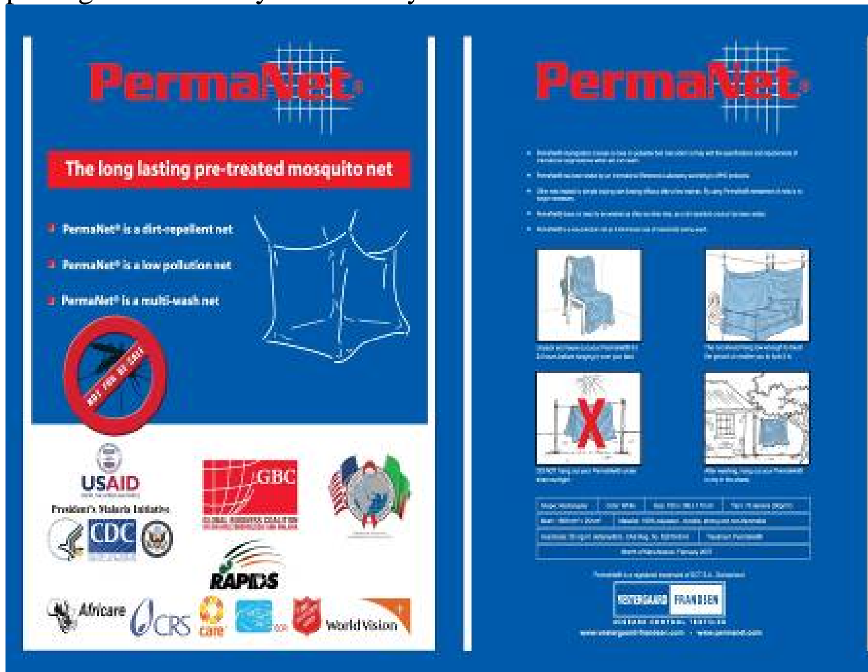
- 485,378 LLINs were distributed to 60 districts at low cost within six months.

Challenges:

- Shipment delays
- LLIN security at distribution hubs
- delivery address and consignee information
- coordination with national malaria control centre and district health management teams
- string and hooks for hanging nets in households

LLIN Procurement and Shipment:

The Global Business Coalition on HIV/AIDS, Tuberculosis and Malaria (GBC) assembled a private public partnership (PPP) with the Office of the U.S. Global AIDS coordinator (OGAC), The President's Malaria Initiative (PMI), Vestergaard-Frandsen, and a number of corporate partners to secure and distribute 500,000 LLINs to the most vulnerable households in Zambia. These long lasting insecticidal nets are designed to be effective for three years or up to 21 washes and are pre-treated. The LLINs were packaged in a readily identifiably manner as shown below:



All LLINs were shipped from Vestergaard-Frandsen factories in Vietnam and Thailand to the ports of Bera, Mozambique and Dar es Salem, Tanzania. They arrived in Zambia at eight designated hubs according to the schedule below:

LLIN Transportation Schedule

1st Shipment:

Destination	Net Amounts	Containers	ETD	ATD	Port Destination	ETA	ATA
Ndola	45,305	1x40'DC,1x20'DC	10-Mar-07	16-Mar-07	Dar Es Salaam	14-May-07	5-May-07
Solwezi	30,671	1x40'DC	10-Mar-07	9-Mar-07	Dar Es Salaam	12-May-07	7-May-07
Lusaka	61,751	2x40'DC	10-Mar-07	16-Mar-07	Dar Es Salaam	10-May-07	28-Apr-07
Mpika	30,877	1x40'DC	10-Mar-07	9-Mar-07	Dar Es Salaam	12-May-07	8-May-07

2nd Shipment:

Destination	Net Amounts	Containers	ETD	ATD	Port Destination	ETA	ATA
Lusaka	69,019	2x40'DC	20-Apr-07	20-Apr-07	Dar Es Salaam	16-Jun-07	11-Jun-07
Mpika	38,359	1x40'DC	20-Apr-07	20-Apr-07	Dar Es Salaam	12-Jun-07	7-Jun-07
Kwambwa	38,359	1x40'DC	20-Apr-07	20-Apr-07	Dar Es Salaam	15-Jun-07	12-Jun-07
Livingstone	38,359	1x40'DC	20-Apr-07	20-Apr-07	Dar Es Salaam	15-Jun-07	11-Jun-07
Chipata	38,359	1x40'DC	20-Apr-07	24-Apr-07	Beira	6-Jul-07	9-Jul-07
Mongu	18,519	1x20'DC	20-Apr-07	20-Apr-07	Dar Es Salaam	18-Jun-07	16-Jun-07

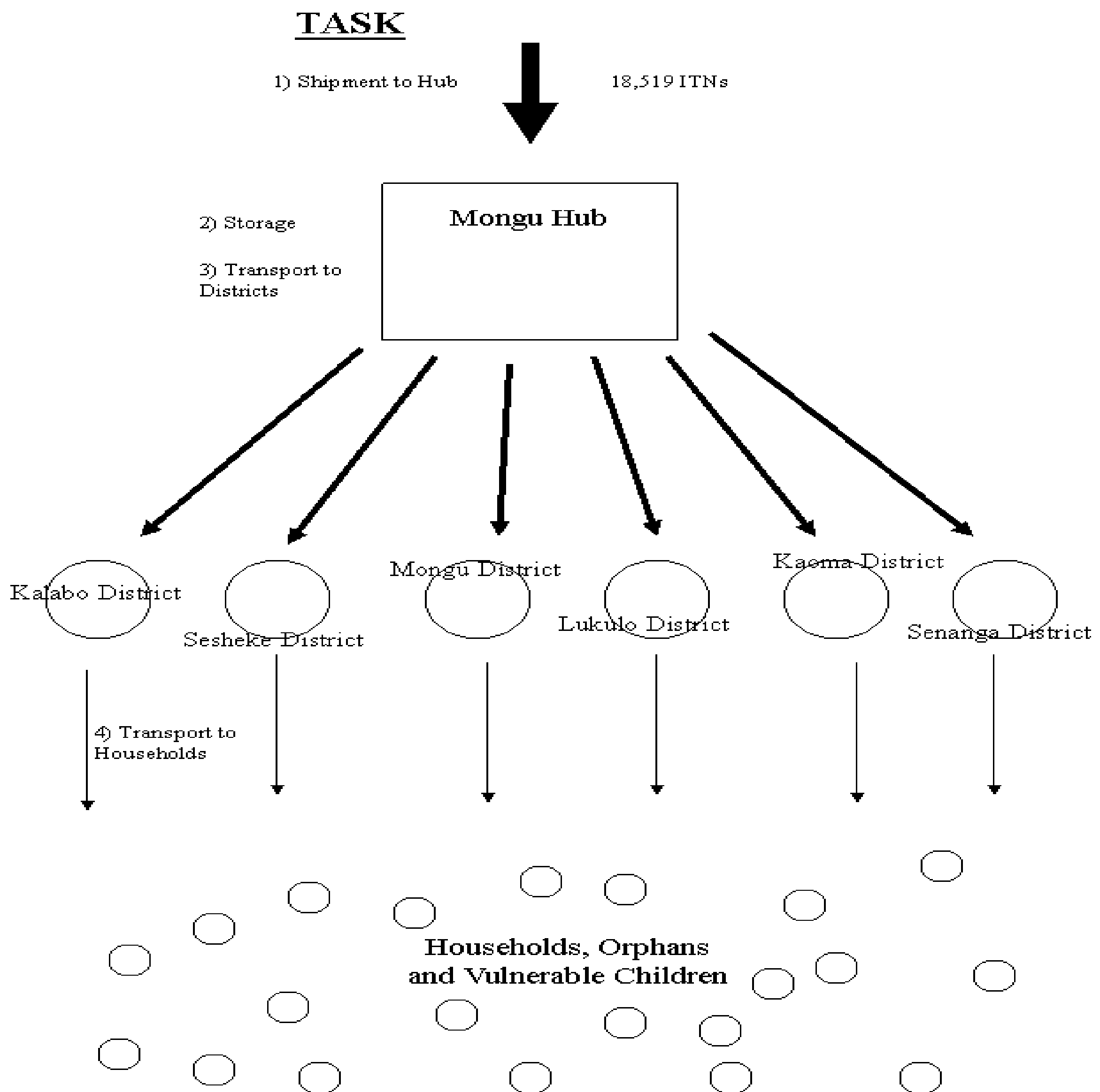
3rd Shipment:

Ndola	37,400	1x40'DC	30-Jun-07	5-Jul-07	Dar Es Salaam	8/25/2007	9/15/2007
Livingstone	38,400	1x40'DC	30-Jun-07	5-Jul-07	Dar Es Salaam	8/21/2007	9/15/2007

All Shipments:

Destination Totals		
Kwambwa	38,359	
Ndola	82,705	
Solwezi	30,671	
Lusaka	130,770	
Mpika	69,236	
Livingstone	76,759	
Chipata	38,359	
Mongu	18,519	
Net Totals		485,378

Diagram of LLIN Distribution for Mongu Hub



TASK	RESPONSIBLE PARTIES
1. Shipment to Hubs	Vestergaard-Frandsen
2. Storage	RAPIDs and OGAC Partners
3. Transport to Districts	RAPIDS and OGAC Partners
4. Delivery to Households and OVAC	Home Based Caregivers

LLINs from Port to Hub: Vestergaard – Frandsen was responsible for shipping LLINs to hubs. Vastergaard contracted Freight Africa for overland transportation from ports to hubs. Partners and RAPIDS PMU had joint responsibility for ensuring that LLINs were placed in secure storage at hubs.

LLINs from Hub to District: RAPIDS PMU absorbed the cost and coordinated logistics in order to transport LLINs to the district level. Partners helped PMU determine the route and delivery schedule.

LLINs from Districts to Households: Partners planned and executed LLIN distribution from districts to households. Rapids caregivers delivered LLINs to households using bicycles donated by World Bicycle Relief. All other partners demonstrated their capability of transporting LLINs to target households or OVCs before they received LLINs through RAPIDS.

Number of LLINs per Hub and District: LLINs were distributed to partners according to national and roll back malaria guidelines:

1. Demonstrated need based on the number of households without LLINs as determined by each partner organization for their respective districts.

2. Each household was determined to have an average need of three nets, based on national guidelines as determined by the National Malaria Control Centre

2. Demonstrated capability to store and transport LLINs from districts to households.

LLIN Distribution by Partner:

RAPIDS PARTNERs	Households	LLIN Need as of 1-May-2007*	LLINs Delivered	% of need met	Beneficiaries**
CRS	20,483	61,449	61,449	100%	106,512
WV	50,713	152,139	152,139	100%	263,708
TSA	9,868	29,604	29,604	100%	51,314
ECR	2,953	8,859	8,859	100%	15,356
CARE	12,186	36,558	36,558	100%	63,367
AFRICARE	26,224	78,672	78,672	100%	136,365
TOTAL RAPIDS	122,427	367,281	367,281	100%	636,620
OGAC PARTNERS					
CRS SUCCESS	18,861	56,583	56,583	100%	98,077
CRS CHAMP OVC	3,846	11,538	11,538	100%	19,999

WORLD CONCERN	11,242	33,726	6,961	21%	12,066
HACI	410	1,230	984	80%	1,706
PCI KIDSAFE	6,247	18,741	7,496	40%	12,994
FHI - FABRIC	4,923	14,769	5,908	40%	10,240
CETZAM	4,322	12,966	3,890	30%	6,742
CHRISTIAN AID	2,488	7,464	2,986	40%	5,175
HOPE WORLD WIDE	1,060	3,180	1,590	50%	2,756
BELONG	12,888	38,664	5,800	15%	10,053
QUESST	10,000	30,000	6,000	20%	10,400
TOTAL OGAC	76,287	228,861	109,735	48%	190,207
OTHER PARTNERS					
MIAM	1,667	5,000	5,000	100%	8,667
DOC	100	300	449	150%	520
CWB	67	200	200	100%	347
MRU	333	1,000	1,982	198%	1,733
CHIKUNBUSO	244	731	731	100%	1,267
TOTAL OTHER PART	1,767	7,231	8,362	116%	11,267
GRAND TOTAL	200,381	603,373	485,378	80%	838,094
TOTAL LLINs AVAILABLE 1-05-06		485,378	485,378		
excess LLINs		-117,995	0		

LLIN Distribution by Hub and District:

Hub	Districts	Households	LLINs TOTAL
Chipata	Chama	539	1,617
	Chipata	8,336	24,720
	Katete	1,334	4,002
	Lundazi	3,810	11,429
	Nyimba	305	915
	Petauke	3,782	11,175
	TOTAL	18,106	53,858
Kawambwa	Kawambwa	4,404	13,212
	Kaputa	62	186
	Mlporokoso	82	246
	Luwingu	148	444
	Mansa	2,571	7,713

	Milenge	107	321
	Mwense	396	1,188
	Nchelenge	1,213	3,639
	Samfya	1,433	4,298
	TOTAL	10,416	31,247
Livingstone	Choma	4,339	13,018
	Gwembe	1,791	5,373
	Kalomo	8,781	26,344
	Kazungula	2,456	7,368
	Livingstone	5,470	16,409
	Monze	633	1,704
	Sinazongwe	846	2,538
	TOTAL	24,317	72,754
Lusaka	Chikankata	3,865	11,595
	Chibombo	1,986	5,694
	Chongwe	3,733	11,124
	Kabwe	4,843	14,100
	Kafue	1,174	3,522
	Kapiri Mposhi	794	2,148
	Luangwa	0	0
	Lusaka	20,079	62,435
	Mazabuka	4,835	14,505
	Mkushi	1,615	4,725
	Mumbwa	69	0
	Siavonga	1,119	3,357
	TOTAL	44,111	133,206
Mongu	Kalabo	3,876	11,628
	Kaomo	186	558
	Senanga	356	1,068
	Lukulu	77	231
	Mongu	10,817	32,451
	Sesheke	1,192	3,576
	TOTAL	16,504	49,512
Mpika	Kasama	3,216	9,648
	Mbala	1,000	3,000
	Mpika	4,856	14,569
	Nakonde	2,674	8,022
	Serenje	362	1,086
	Chinsali	432	1,296
	Isoka	221	663
	Mungwi	232	696
	TOTAL	12,993	38,980
Ndola	Chingola	1,642	4,925

	Kitwe	10,418	31,039
	Luanshya	2,208	6,624
	Lufwanyama	898	2,694
	Masaiti	1,503	4,508
	Mufulira	1,019	3,056
	Ndola	7,963	23,889
	TOTAL	25,651	76,736
Solwezi	Mwinilunga	1,065	3,195
	Solwezi	5,102	15,306
	Kabompo	322	966
	Mufumbwe	126	378
	Zambezi	293	879
	TOTAL	6,908	20,724
		159,006	477,017*

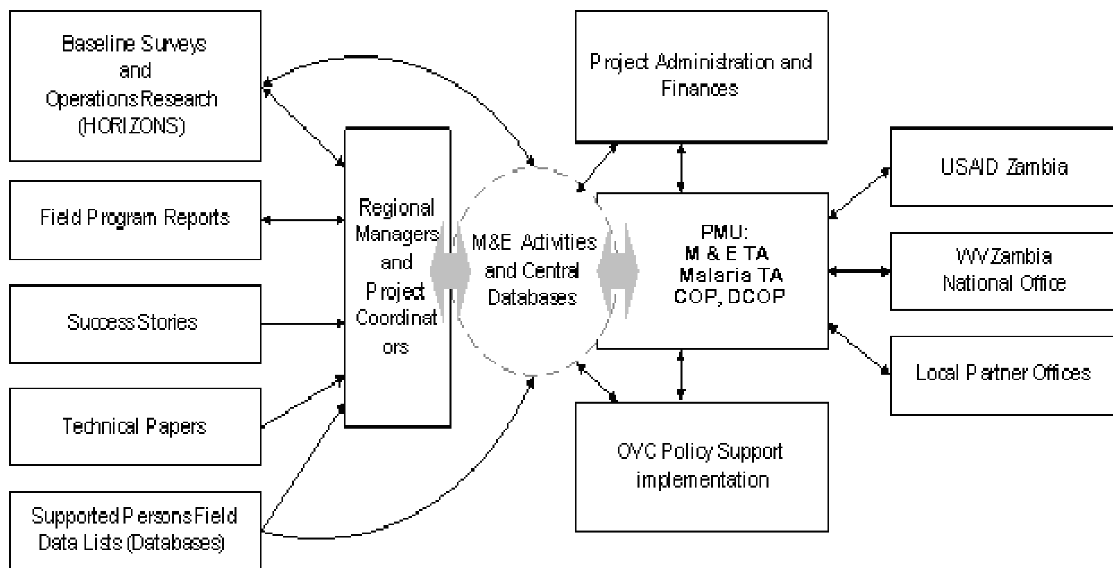
*Nets picked up from the distribution center are not included in this total. Some districts listed with zero nets will receive nets from neighboring districts.

Monitoring and Evaluation

Summary: All LLINs were tracked from arrival at hubs to distribution to individuals and households.

The RAPIDS Monitoring and Evaluation (M&E) system follows the guidelines set forth by the NMCC. It also draws on the WV and partner's M&E frameworks and experiences. The WV CHARMS framework is based on global best practices in M&E tested both within WV and in partner organizations. All M&E activities are led by a full time lead M&E Technical Advisor, who will work closely with M&E staff from each consortium partner. The M&E TA also receives support from a Monitoring and Evaluation Technical Working Group that comprises project partners (M&E and project officers).

RAPIDS M&E System:



The following guidelines were distributed to partners:

LLIN Distribution and Reporting

Guidance

May 2007

1. Net Distribution

The following is the criteria for distributing the LLINs:

- The initial nets will be distributed to RAPIDS, SUCCESS and OVC Forum caregivers and clients.
- Each household will receive nets based on the number of sleeping spaces. Sleeping spaces are defined by where people sleep. For example, if three people sleep together in one space, then one net will be provided to cover those three people. If two people sleep separately, in different spaces then two nets will be distributed to that household. Caregivers and Partners should determine the number of sleeping spaces and the need for nets in each household.

The levels of responsibility associated at each level of distribution will be as follows:

Level	Partner	Staff
Delivery to Hub	RAPIDS PMU	RAPIDS PMU
Delivery to District	RAPIDS PMU	RAPIDS PMU
Delivery to Community	Partner	District staff

2. Reporting

To maintain a clean trail of all households/individuals that will receive the nets, it is important that you keep records of all beneficiaries of the nets. If you have no system of recording beneficiaries, use the form attached in annex 1. Where systems already exist for collecting such data, there will be no need to use the attached form. Just be sure that all the variables contained in the form are included. This will assist in minimising difficulties when reporting.

You will be required to report on the following set of indicators:

1. Number of households that received nets

2. Total number of nets distributed (disaggregated by type of beneficiary – Caregiver, OVC, HBC, Youth)

This reporting will only apply to PMI nets labelled as shown at the conclusion of this document. Other nets distributed by other programs will not be counted on these indicators. Numbers for above indicators can be obtained from ITN Distribution Form.

For RAPIDS partners, note that these indicators will be included in the datasheet to be sent to you at a later stage. Note that reporting on LLINs will follow already existing routine reporting cycles. Apart from the new inclusions, this also means that your internal reporting systems and forms remain the same.

For SUCCESS and OVC Forum, you are required to submit data on above indicators every quarter to RAPIDS PMU. Note that the lowest level of reporting is the district. If you are working in 10 districts submit consolidated data for each of these districts. The reports are due to RAPIDS PMU on the 10th after the end of each quarter. See table below for guidance on deadlines:

Reporting Period	**Due Date to RAPIDS**
Oct – Dec	January 10th
Jan – Mar	April 10th
Apr – Jun	July 10th
Jul – Sept	October 10th

<u>LLIN Distribution Form</u>

To be used when distributing LLINs to beneficiaries

District Name:…... Partner Name:…………………………...

Issued By: ………………………………….. Position………………………………......

Date	**Collected By (Name of Beneficiary)**	**Gender** (M=Male; F=Female)	**Household Size**	**No. of Nets**	**Signature of Beneficiary**

Information, Education and Communication Interventions

Summary: In order to encourage net utilization, information, education and communication materials were developed and distributed to households and individuals receiving LLINs.

Achievements: Approximately 190,000 IEC pamphlets describing malaria epidemiology and prevention, which household members are more susceptible to clinical malaria, and testing and treatment options were distributed to beneficiaries and other stake holders.

Challenges: IEC materials were not translated into local languages.

RAPIDS developed IEC materials with the National Malaria Control Centre and the Health Communication Project. The National Malaria Control Centre (NMCC) is the governing body underneath the Ministry of Health responsible for coordinating all malaria control, prevention, and treatment activities within Zambia. The goal of the Health Communication Partnership to Zambia (HCP) interventions is to contribute to the "improved health status of Zambians by supporting Zambians taking action for health". The partnership includes the Johns Hopkins University Center for Communication Programs, Save the Children, the International HIV/AIDS Alliance and Academy for Educational Development, with Tulane University serving the role of external evaluator. The expected result of HCP Zambia interventions is that individuals, families and communities will undertake behavior change conducive to the optimisation. Together RAPIDS, NMCC, and HCP produced an educational pamphlet that was distributed to caregivers, to households and to individuals along with the LLINs. Each household receiving nets received one pamphlet, and each individual receiving a net received one pamphlet.

IEC Material

Your Insecticide-treated Mosquito Net

Malaria is the leading cause of ill health and deaths in Zambia. Malaria is very dangerous to children and pregnant women. However, malaria is largely preventable where measures to prevent mosquito bites, such as the use of Long Lasting Insecticide-treated Nets (LLINs) are taken.

What causes malaria?

Malaria is caused by a parasite (germ) that is passed on from one person to the other by mosquitoes.

Signs and symptoms

- Body hotness (fever), sweating, shivering
- Joint pains or body pains
- Headache, diarrhea, vomiting

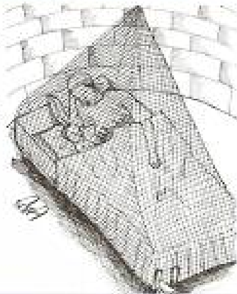
What to do if you have these symptoms

- Go and see a health worker as soon as possible
- If found to have malaria, **take the medicine correctly and completely**

Anyone can get malaria! ... but by sleeping under a Long Lasting Insecticide-treated Net every night, you can prevent malaria.

What is a Long Lasting Insecticide-treated Net and how does it work?

A Long Lasting Insecticide-treated Net is a mosquito net treated with an insecticide that repels or kills mosquitoes that come into contact with it. This insecticide can last for a period of three years or up to twenty-one washes.



Who should sleep under a net?

- Everyone should sleep under an LLIN, but priority should be given to children under five years because their immune system is not fully developed to fight malaria.
- Pregnant women should also be given priority because malaria during pregnancy can cause severe anemia in the mother, as well as low birth weight, pre-mature delivery, and stillbirth in the newborn.

Does the insecticide cause any discomfort?

Like any other chemical, the insecticide used to treat nets may cause a mild rash in people with sensitive skin or when incorrectly used. The condition is usually temporary. If this does happen, thoroughly rinse the affected area. Ensure you air your nets before use and seek medical attention if necessary.

Benefits of Using LLINs

- LLINs prevent malaria.
- LLINs protect your children. Children are less likely to get malaria and become very sick or die if they sleep under a net.
- LLINs protect pregnant women. Pregnant women are less likely to get malaria and avoid becoming sick and risking their baby's health.
- A person sleeping under a LLIN has added protection from malaria carrying mosquitoes than one sleeping under a net that is not treated.

Behavioral Change and Communication Interventions

Summary: In order to increase LLIN utilization, behavioral change and communication interventions such as training of caregivers by malaria focal point persons, and communication between caregivers and households were carried out.

Achievements:
- 12,000 caregivers trained by malaria focal point persons
- Caregivers hang nets in 122,000 households
- Beneficiaries encouraged to use nets correctly by caregivers

Challenges:
- Coordination between partners
- Monitoring of training sessions

LLIN utilization remains a significant challenge to distribution programs. Numerous studies have found that even in households with free access to insecticide-treated mosquito nets, nets may not be utilized correctly, used for purposes other than their intended function, or not used at all. To increase LLIN utilization among target households and individuals, RAPIDS initiated and executed behavioral change and communication interventions.

RAPIDS caregivers were trained at the district level by malaria focal point persons attached to district health management teams. District health management teams are the main provider of government health care in most rural districts. Malaria focal point persons are trained to take a lead role in all malaria control, testing and treatment within the district. Training sessions included instruction on malaria epidemiology and prevention, emphasizing the importance of sleeping under a LLIN, characteristics of groups more susceptible to clinical malaria, signs and symptoms of malaria, and testing and treatment options. Caregivers passed on messages from training sessions to target households and individuals. Caregivers physically hung LLINs in households and returned to households to encourage correct LLIN utilization.

Training guidelines issued to partners:

Education and training of home based caregivers is a critical component of the RAPIDS Malaria and HIV/AIDS Initiative. Home based caregivers will be trained to hang LLITNs in each household, educated to understand the importance of sleeping under an insecticide treated net, taught to recognize the signs and symptoms of malaria, and encouraged to seek rapid treatment for children and adults displaying such signs and symptoms. Caregivers will then be responsible for serving as examples in their community by using the nets correctly, and by disseminating their knowledge to households. The goal of the RAPIDS malaria educational component is to encourage high utilization of nets, the correct utilization of the nets, and to empower communities to prevent and treat malaria.

RAPIDS malaria education will occur in two phases. The first phase will take place the same day the nets are delivered to districts and to caregivers. The second phase will be more comprehensive and will happen within the first month after the nets arrive.

Phase One Education and Training

In this first phase partners will mobilize caregivers the day the truck arrives to deliver nets. Partners will be notified as to the day and time that the nets will arrive by the World Vision Gifts in Kind (GIK) team responsible for delivering nets to districts where partners are operating.

Before the nets are distributed to the caregivers to deliver to households, caregivers will participate in a training session that will include a hands-on demonstration of how to hang a net in a household. This training session will be aided by the fact that each LLIN bag includes an instructional pamphlet describing how to hang an LLIN. The leader of the training session will follow the instructions while demonstrating to the caregivers how to hang the net. The LLIN bag also includes all necessary materials to hang the LLIN in a house.

The training session will also describe the importance of using a LLIN, and emphasize that pregnant women and children under-five should be given priority when deciding who in a household sleeps under a LLIN. Before this segment of the training session begins, informational pamphlets about LLIN and malaria, provided along with the LLINs, should be distributed to caregivers. Caregivers should receive enough pamphlets so that each household served by the caregiver receives one pamphlet. Caregivers will keep a pamphlet themselves so that they can use it as a guide when instructing households on how to use an LLIN. In addition to reviewing the pamphlet with the caregivers, leaders will instruct caregivers to go over the information included in the pamphlet with households.

Leaders need only follow the guidelines included in the pamphlet when instructing caregivers. Leaders of the training session will use the pamphlet as a guide to instruct caregivers in the importance of using a LLIN, emphasizing that pregnant women and children under-five should be given priority when deciding who in a household sleeps under a LLIN.

Only after the training session is complete should caregivers receive nets to distribute to households.

Partners will decide who leads this training session. Partners should contact the RAPIDS Malaria Technical Advisor (MTA contact information included at end of this document) if they are having difficulty finding a person to lead the training sessions.

A check list for the first phase of the training session is included with this document. This check list should be completed for each training session and stored in the safe

place at the district level. Check lists will be reviewed by RAPIDS Monitoring and Evaluation Teams.

Phase Two Education and Training

Phase two training will occur within one month of the first distribution. Phase two training will involve the District Health Management Teams (DHMT) Malaria Focal Point Person. Partners will work with Malaria Focal Point Persons to facilitate malaria education sessions with caregivers. The Malaria Focal Point Person will lead the training session, which will cover basic malaria epidemiology, including environmental factors that facilitate the growth of the *anopheles* mosquito population. The session will describe in detail the signs and symptoms of malaria and emphasize the importance of seeking fast treatment using an effective artemisine based combination therapy such as Coartem. The importance of pregnant women receiving Intermittent Preventive Therapy (IPT) will be emphasized. At designated sentinel sites, caregivers will be trained to monitor LLIN utilization. While RAPIDS PMU will set the guidelines for Phase two, it is up to the Partners to work with DHMTs to ensure that training is carried out within those guidelines. A check list for phase two training is included with this document. This check list is only a guide to the minimum of what should be covered during a training session. It is expected that training sessions will contain more information and will be more comprehensive then the provided checklist.

A check list for the phase two training session is included with this document. This check list should be completed for each training session and stored in the safe place at the district level. Check lists will be reviewed by RAPIDS Monitoring and Evaluation Teams.

<u>Partner Check List for Phase One Malaria Education and Training</u>

1. Caregivers Mobilized

2. Demonstration of How to Hang an LLIN

3. Caregivers Instructed to Hang LLIN in Households

4. IEC Pamphlets Distributed to Caregivers

5. Leaders Describe Information Included in Pamphlet

6. Caregivers Instructed to Go Over Pamphlet with Households

7. Caregivers Receive LLINs

Date:

Name:

Position:

Signature:

Partner Check List for Phase Two Malaria Education and Training

1. Importance of using LLINs

2. Children and pregnant women are at most risk for clinical malaria

3. It is important for children and pregnant women to sleep under a LLIN

4. Malaria is spread by mosquitoes

5. Mosquitoes cannot spread HIV/AIDS

6. Mosquito breeding sites are identified

7. Signs and symptoms of malaria explained

8. Seek fast diagnosis and treatment if such signs and symptoms are present

9. Effective medications for malaria

10. HIV/AIDS infected individuals are more at risk for clinical malaria

Date:

Name:

Position:

Signature:

Malaria Technical Working Group

A Malaria Technical Working Group was formed with representatives from each RAPIDS partner and from each OVC forum partner. The objectives of this working group are:

1. To facilitate communication and coordination between RAPIDS PMU and partners.
2. To help with the logistics of the LLIN distribution
3. To provide feedback to RAPIDS PMU regarding the progress of the initiative
4. To further develop the RAPIDS Malaria and HIV/AIDS Initiative

Rapid Diagnostic Tests

Rapid Diagnostic Tests (RDTs) for malaria were distributed in community settings in two districts in Zambia. 8,000 RDTs of two types, 4,000 Histidine Rich Protein-2 (HRP-2) and 4,000 plasmoduium Lactate De-Hydrogenase (pLDH) were donated to RAPIDS from the Premier Medical Corporation, and 960 pLDH tests were donated by JN International Incorporated. HRP-2 and pLDH tests have similar sensitivities, but differ in their specificity – HRP-2 gives more false positives than does pLDH. They also differ in their storage requirements. HRP-2 is less affected by heat than the pLDH tests. Both tests give results within 15 minutes and are easy to use. However, Zambian regulations currently stipulate that only physicians, clinical officers, or nurses are allowed to administer the tests.

The Malaria Institute at Macha (MIAM) in Choma District received the 960 pLDH tests from JN International. The RDTs were used in the pediatric ward at Macha Mission Hospital to rapidly diagnose cases of suspected malaria admitted from the community, and in the anti-retroviral clinic to diagnose suspected malaria in people living with HIV/AIDs. The 8,000 RDTs donated from Premier Medical Corporation were used by the University of Zambia School of Medicine Malaria Research Unit (MRU) and the National Malaria Control Centre. MRU used 3,000 RDTs in semi-rural areas around Lusaka, including the Chongwe and Chipata DHMTs. The NMCC used the remaining 5,000 RDTs in rural clinics across the country.

Operations Research

RAPIDS is currently in the process of designing and implementing operations research with the goal of better elucidating the impact of the malaria initiative. RAPIDS hopes to partner with research organizations to conduct studies to determine the impact on malaria mortality and morbidity in households receiving LLINs through RAPIDS, and to determine the impact of behavior change and communication through community caregivers on the use of insecticide treated nets. While currently limited by funding, it is likely that at least one of these trials will begin next year.

Budget

LLIN Procurement and Transportation to Hubs in Zambia:

Organization	Donation
GBC	$1,250,000.00
PMI	$1,250,000.00
V-F	$50,000.00
Total	$2,550,000.00
cost per LLIN	$5.25
Total LLIN	**485,378**

Fiscal Year 2007 Malaria Initiative*:

Expense Account	Expence Account Description	Oct-06 Sep-07
Training	Caregiver Training & IEC Material	50,000
Ministry Supplies	LLIN Expansion/Replacement	0
Transport	Distribution Costs/Fuel/Perdiem	80,000
Consultancy	M&E and Op Research	45,000
Total		$175,000

*This spreadsheet represents estimated expenses.

References

1. Ministry of Health - RBM Baseline Survey in Selected Districts (Chibombo, Chingola, Chipata, Chongwe, Isoka, Kalomo, Kaputa, Mwinilunga, Samfya, Senanga) in Zambia (2001)

2. UNAIDS Country Situational Analysis 2006: Zambia. Accessed November 25th, 2007

3. World Bank Data and Statistics: Zambia at a Glance. Accessed November 25th, 2007

4. Abu-Raddad et al., Dual infection with HIV and malaria fuels the spread of both diseases in sub-Saharan Africa. Science. 2006 Dec 8;314(5805):1603-6. Erratum in: Science. 2007 Feb 2;315(5812):598. PMID: 17158329