



Report to The Scott Bader Commonwealth

On a grant awarded to Advantage Africa from the Global Charitable Fund

***To reduce the sickness and death caused by malaria for at least
2,000 disadvantaged people in western Kenya***

This report, which covers the period July 2012 to October 2013, was written with contributions from CAG Project Manager Andrew Otieno, Project Officer Sylvester Ochieng, Advantage Africa Programme Manager Rob Aley and Director Andrew Betts.



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Mosquito net distribution point

Project Summary

Context and Objectives

Advantage Africa was awarded a grant of £25,000 from the Scott Bader Commonwealth in June 2012 to reduce the sickness and death caused by malaria for at least 2,000 disadvantaged people in western Kenya. The project aimed to reduce the incidence of malaria, particularly among vulnerable people, through the free distribution of long-lasting insecticide-treated mosquito nets and accompanying education and training to ensure their effective use.

The project objectives, based on World Health Organisation recommendations, were to:

1. Reduce malaria-related sickness and deaths by distributing 2,000 treated mosquito nets and ensuring their proper installation and continued use, in Obambo, Kadenge and Nyandiwa sub-locations of Siaya District, western Kenya.
2. Raise awareness and educate vulnerable people in rural communities about malaria risk, prevention and treatment.
3. Support the Obambo Community Action Group to manage, implement and monitor the project and strengthen their skills, knowledge and capacity to undertake future development initiatives for the benefit of their local communities.

The project took place in the context of high rates of illness, death and school absenteeism caused by malaria in Africa. Although some success has been achieved in reducing malaria mortality rates across the continent since 2000, Obambo had yet to benefit from any such initiatives.

Achievements

The report concludes that the project has *saved and changed lives*. It has achieved its objective of reducing the suffering caused by malaria and the risk of infection for over 2,000 vulnerable people - and actually reaching nearer 4,000. It has equipped them to be more healthy and productive so that they can work, go to school and build a better future for their families and community. The knowledge and skills created by the project and the continued committed work of the Obambo community will ensure this life-changing impact will be sustained for many years to come.

Background

Malaria is a potentially fatal disease caused by a plasmodium parasite which is spread through the bites of female mosquitoes. Its victims are disproportionately children, who have yet to build up their immunity. UNICEF estimates that 85% of those who die from malaria are children under five.

The most severe form of malaria (cerebral malaria) causes convulsions, coma and death in 93% of children affected. The 7% who survive are often left with permanent neurological problems such as epilepsy, blindness or learning disabilities. Pregnant women are also more at risk because of their compromised immune systems.

The WHO has confirmed that at 9.8 million, Kenya has the highest absolute numbers of probable and confirmed malaria cases in the world. Further reports highlight malaria exposure rates in Siaya District to be among the highest in all of Africa, with an average 300 infectious bites per person per year.

In one of Kenya's poorest areas, with one of the highest rates of HIV prevalence, the result is that children, women and men are constantly ill, and frequently dying from malaria. In addition to the terrible suffering and anxiety caused, the impact on agricultural productivity and educational standards is a major limiting factor to development.

The project started in July 2012. The implementation was delayed by the Kenyan general election in March 2013 when all development initiatives throughout Kenya were suspended for one month either side of the poll for security reasons.

Project Activities and Achievements

The focus of the project was in the villages of Obambo sub-location of Siaya District, western Kenya with support also provided to Kadenge and Nyandiwa sub-locations. In line with our proposal, vulnerable people with low immunity, including children, expectant mothers and elderly people were prioritised throughout the project. The following activities were carried out against objective (1) the reduction of malaria-related sickness and deaths and (2) raising awareness among vulnerable people about malaria risk, prevention and treatment:

Volunteer recruitment and training

Six volunteer community health workers (CHWs), Michael Aduol, Elijah Odhiambo, Collins Omondi, Bernard Ochieng, Florence Amollo and Jane Anyango were appointed using a rigorous recruitment process and then trained during the first two weeks of the project. The training was carried out with the support of a public health officer and community health workers from Siaya District Hospital and aimed to ensure the volunteers were fully equipped to implement the project activities. Topics covered included:

- Knowledge of malaria including types such as Falciparum (cerebral).
- Geographic distribution of malaria.
- Popular myths and misconceptions about malaria and traditional treatment.
- Current recommended malaria diagnosis and treatment.
- Vulnerability to malaria, including pregnancy, children, HIV and elderly people.
- Malaria prevention including environmental control and use of treated mosquito nets.
- Malaria and related diseases such as typhoid.
- Community mobilisation and communication skills.
- Referrals for severe cases of existing malaria.

Advantage Africa's Programme Manager Rob Aley also contributed to the training and data collection during the baseline survey. Photographs of the project team and planning phase are in Appendix 1(a).



The Project Team with Andrew, far left and Sylvester, far right

Project launch

The one-day project launch aimed to create community ownership of the project, introduce the community to the project team and start the collection of baseline data by conducting a survey of 500 households using the questionnaire in Appendix 2.

The analysis of the survey indicated many community members were not protecting themselves against malaria and had poor and insufficient knowledge to do so. For example when asked unprompted about what causes malaria, less than half (47%) mentioned mosquito bites and 7% said they had no idea. When asked to choose between different options, 63% and 56% believed it could be caused by eating cold food, or newly harvested crops respectively, 84% cited being rained on and 36% witchcraft. 55% believed malaria could be caused by drinking contaminated water.

When asked about how malaria could be prevented, only 5% mentioned treated mosquito nets and 13% of people had no idea. During the survey, the poor living conditions of many of the beneficiaries were noted, for example many people were sleeping on bare floors without mattresses (see Appendix 1 (c)). The importance of religious leaders providing the right information about malaria was also noted as some householders initially rejected the project workers, saying their faith would protect them.

Community Education

Community education was carried out among the households immediately after the knowledge survey and each household received between 1-4 subsequent visits depending on their initial understanding, vulnerability and other circumstances. Further education and awareness raising was carried out at five chief's meetings (*barazas*), 12 community events held in central homes in each village under the jurisdiction of village elders, and in events in three schools and one church.

In each case the education and awareness raising provided clear and accurate information to redress the myths and misconceptions identified in the survey. The information covered all aspects of malaria infection, prevention and treatment.

Methods used for effective communication included short drama performances e.g. of two people arguing about the causes of malaria. A third person would join the debate to clarify the actual causes before the scenario was opened to the audience for further discussion. Poems and a simple illustrated information leaflet in the local Luo language were also used to back up the messages (see Appendix 3).

The community education focused particularly on how insecticide-treated mosquito nets are effective at preventing malaria. Emphasis was placed on the keeping the nets clean, using them properly by tucking them in under a mattress, hanging up during the day and repairing any holes quickly.



Education and net distribution in a local home

The community health workers also advised patients on actions to take after noticing symptoms of malaria including obtaining a test from a health centre and appropriate medication.

In keeping with the project's holistic approach to malaria prevention and ensuring a sustained reduction in mosquitoes, instruction was given on reducing standing water where they breed - for example by removing tins and other rubbish around homes, draining or levelling depressions and covering open water storage vessels.

Distribution of insecticide-treated mosquito nets

The nets used were manufactured by Bestnet Europe Ltd and were of the highest quality available, with long-lasting insecticide incorporated at the time of manufacture. The distribution took place between November 2012 and July 2013 using the project motorcycle and bicycles. During the rainy season when roads and paths became impassable with mud the project workers proceeded on foot. The nets were distributed directly to households and at designated distribution centres.

In the beneficiary households, the number of nets to be provided was determined by the number of sleeping places including beds and rugs where children sleep on the floor.

The nets were universally well-received. People commented on the quality of the nets and expressed excitement that they would no longer experience malaria in their families. The majority of recipients were overwhelmed to receive nets without having to make an unofficial payment to the local administration. They also appreciated them more because of what they now understood about their importance. The house-to-house method of distribution was effective in demonstrating how nets could be properly fixed and used; many malaria projects do not provide adequate accompanying education and distribute nets in market places only. In many cases advice was given on moving furniture and arranging the sleeping places to ensure all household members could be protected. In some instances, especially where many children were sleeping on the floor, stands were made to fix the nets and ensure all inhabitants could be properly protected. Some photographs of the nets being distributed are contained in Appendix 1(b).

Distribution of mattresses and blankets

The savings made on the nets by buying them before the imposition of taxes enabled the purchase of more mattresses and blankets than originally anticipated. These were sourced from Kenya's third town Kisumu at nearly half the price they are sold locally. In total, 175 mattresses and 50 blankets and bedsheets were provided to the most vulnerable families. This enabled the awful conditions in which many of them were sleeping to be significantly improved. For example, Bendeta Buong is an elderly woman living with her grandchildren who were sleeping on an animal skin without a blanket. Cleophas



Osino is an elderly disabled man living in a house about to collapse and sleeping on a metal bed with no mattress at all. Consulata Aluoch commented that *'now I have this mattress I might sleep until 11 o'clock in the morning!'* One family of two adults and two children had to sleep in the same bed and this shows how people living in extreme poverty prioritise food over health and living conditions.

The beneficiaries were overjoyed with this support to their welfare. Most of them said this was the first time they had slept on a mattress. Many initially thought this gift had come from President Barack Obama, whose father comes from Siaya District!

The mattresses enabled the more effective use of the mosquito nets and recipients were encouraged to tuck their nets under the mattresses for better protection. The mattresses will also serve to reduce the rate of parasitic skin infections suffered by many people in this area. In households where no beds were present, recipients were encouraged to remove the plastic wrapping and lay it on the floor and place the mattress on top. The activity further cemented the positive perception of the project in the community.

Building the skills and capacity of the Community Action Group

In line with Advantage Africa's approach to building the capacity of its partner organisations by empowering them with resources to manage and implement projects and 'learning by doing', the project has improved their skills in data collection and analysis, project planning, implementation, monitoring and reporting. It has further strengthened their skills in finance and working with communities, in line with objective (3) of the project.

The support provided by Advantage Africa to this end was mostly provided informally during weekly phone calls between our Kenya Programme Manager Rob Aley and key project staff Andrew Otieno and Sylvester Ochieng as well as three project visits.

Impact of the project on reducing malaria and improving knowledge



Project team meeting

A follow up-survey carried out in October 2013 focused on the knowledge levels of a 50-household sample of the project beneficiaries. Key improvements recorded were:

- An eight-fold increase, from 9% to 75%, of respondents who were able to identify four or more symptoms of malaria.
- A ten-fold increase (from 5% to 52%) in respondents mentioning sleeping under treated mosquito nets as a means of preventing malaria.
- A reduction (from 27% to 8%) in respondents citing malaria medicines as a means of prevention, which indicates a real improvement in understanding the preference of avoiding malaria rather than treating it after infection.
- An improvement, from 7% to 2%, of people who said they have 'no idea' about how to prevent malaria.
- The number of people unable to identify a single symptom of malaria has reduced from 22% to 5%.
- A very small minority of people still believe that cold food causes malaria, suggesting that some myths remain entrenched, perhaps among the very elderly.

The final survey also provided an encouraging indication that the nets were being used and that messages about vulnerability had got through. For example 92% of children under 5 years were using the nets, 87% of expectant mothers, 88% of young people and 90% of adults. The lowest rate of use was among elderly people at 70%. All these rates have risen from virtually nil at the start of the project. It should also be remembered that those not sleeping under nets are doing so in households and compounds where others are and that the insecticide, together with reduced breeding sites, will still reduce their exposure to mosquito bites.

The knowledge and resources to prevent malaria have significantly increased as a result of the project and the benefits of reduced sickness and school absenteeism and greater productivity are now being realised. We have not heard of a death from malaria since the project was implemented!



A protected child

Challenges and Lessons Learned

Among the challenges faced by the project were:

- At the start of the project, it became apparent that we had underestimated the extent of ignorance and misinformation about malaria in the community.
- People already suffering from malaria in need of support. Through the project, people were encouraged and empowered to access relatively affordable tests and know the best drugs for treatment such as AL and Quinine. In such cases, the lack of nearby clinics and dispensaries was also a challenge. In future projects, a modest allocation should be made for these drugs. If a significantly bigger project were undertaken, an allocation should be made to renovate the worst houses, i.e. those found to be effectively uninhabitable.
- Some beneficiaries were discovered with multiple infections, including parasitic skin infections and typhoid. The project responded with the distribution of mattresses and the volunteers did their best to advise and refer to appropriate clinics.
- Some areas could not be accessed easily when it was raining and the roads became impassable.
- Religious belief prevented some householders from being receptive to the message of the CHWs and they were rejected on several occasions. There are some sects in Siaya District that prevent their members from accessing healthcare services. In one instance the leader of such a sect was persuaded, after a '*big argument*' of the scientific basis and importance of the project interventions.
- Some beneficiaries expected direct financial support because they face a constant challenge in finding money for food, as other NGOs have been known to provide cash handouts just for attending meetings.
- Identifying the most vulnerable households to benefit from the mattresses in the face of immense and widespread need.
- The disruption caused by the Kenya general election.
- The effort required to revisit homes when finding householders not there.
- Some of the volunteer Community Health Workers found alternative employment or education.

Expenditure

Expenditure occurred between July 2012 and July 2013 and was made directly by the Community Action Group and Advantage Africa.

Seven transfers were made to Kenya during this period in response to the CAG's budget requests to fund activities for the next project period. A financial summary is shown below:

	Details	Budget £	Expend. £	Variance £
a	Durable quality mosquito nets Includes robust fixings, 2,000 nets	13,846	12,126	1,720
b	Essential and urgent welfare assistance to aid malaria prevention and family hygiene (Includes household & bed repairs, mattresses, blankets etc)	1,730	3,600	-1,870
c	Educational and information materials For distribution with mosquito nets	385	394	-9
d	Other health education resources Includes videos, DVDs and books	192	197	-5
e	Motorcycle For project coordination, mosquito nets distribution and outreach support visits	1,231	1,143	88
f	Bicycles Includes pumps and maintenance kits	408	501	-93
g	Digital camera For involvement of beneficiaries, project monitoring and reporting	123	118	5
h	Outreach meetings Includes visual aids and demonstration resources	346	354	-8
i	Public transport and occasional vehicle hire For mosquito net distribution and follow-ups	192	197	-5
j	Motorcycle fuel and maintenance Includes petrol, oil, servicing and tyres	385	394	-9
k	Communication and reporting costs Includes mobile phone airtime, internet, stationery etc	92	94	-2
l	Programme Manager Jack Okoth, with overall responsibility for community outreach and links	346	236	110
m	Project Manager Andrew Otieno, responsible for the project's management and implementation	1,231	1,207	24
n	Project Officer Sylvester Ochieng, responsible for community outreach	1,385	1,535	-150
o	Project Outreach Workers Allowances for community health volunteers	1,523	1,701	-178
p	Carpenter House and mosquito net repairs, fixings and training outreach workers	185	189	-4
q	Contribution towards Advantage Africa's technical support mentoring and monitoring (Includes contributions to project visits, management time etc)	1,400	1,014	386
	Total	25,000	25,000	0

a/b: Savings made on mosquito nets enabled additional welfare support to ensure effective net use.

e: Motorcycle remains in use by the project

f: The bicycles were given to the health workers in appreciation for their work on the project.

q: Additional funding to support Advantage Africa's costs were provided from unrestricted sources.



Mosquito net demonstration

Long-term Impact and Sustainability

This project was designed with a strong emphasis on education to ensure that the project beneficiaries were equipped with the appropriate knowledge and skills, alongside the mosquito nets, for long-term impact. The initial survey indicates the education has been largely successful and the nets, which typically have a five-year life, are being well used and will be maintained and eventually replaced.

The Community Action Group remain active in the community and have mainstreamed malaria prevention into their other health and education work. Furthermore, a follow up activity is planned in 2014 to ensure continued use of the nets and a sustained reduction in malaria.

Building on this project, Advantage Africa and Community Action Group have started a new project to provide further health education in the community, particularly on HIV. Malaria prevention messages will be incorporated into the outreach activities to ensure the momentum is maintained.

Thank You

This project has saved and vastly improved lives. It has achieved its objective of reducing the suffering caused by malaria and the risk of infection for over 2,000 vulnerable people. It has equipped them to be more healthy and productive so that they can work, go to school and build a better future for their families and community.

Since the net insecticide both kills and deters mosquitoes and many nets are shared by two or more people (especially children), we estimate the actual number of people protected to be nearer 4,000. With the continued input from the community above, this impact will continue for many years to come.

All of us at Advantage Africa and in the Obambo community are sincerely grateful for the generous and committed support of the Scott Bader Commonwealth, which has made this life-changing project possible.

Appendix 1: Photographs

1(a): Project Preparation and Team Building



1(b): Community Education and Mosquito Net Distribution



1(b): Community Education and Mosquito Net Distribution



1(b): Community Education and Mosquito Net Distribution



1(c): Beneficiaries and their Homes



1(c): Beneficiaries and their Homes



1(d): Welfare Support



1(e): Mosquito Nets in Use



Appendix 2: Baseline Survey Questionnaire

COMMUNITY ACTION GROUP

P o Box 979[40600] SIAYA, KENYA

MALARIA INTERGRATED PROGRAME 2012/2013

Monitoring Questionnaire

Village KUBAR G Home Number / Household number (eg. 001/001) 021/001

Name of respondent LILIAN ADMA

How many adults in household 2 How many children in household 3

How many disabled people in household NIL type of disability:

How many sleeping units in household? 2

How many adults sleep under Insecticide treated mosquito nets? NIL

How many children sleep under Insecticide treated mosquito nets? NONE

How many people do not sleep under Insecticide treated mosquito nets? NONE

Reason why they do not sleep under Insecticide treated mosquito nets?

cannot afford

BENEFICIARY KNOWLEDGE LEVEL ANALYSIS

1. What causes malaria? mosquito bites,

Can it be caused by? [Y for yes and N for no and D for don't know]

Drinking contaminated water	D	Eating cold food in cold weather	D
Take fly bite	D	Witchcraft	N
Being tained on	D	Eating newly harvested crops	N
Mosquito bites	Y	Curses	N

2. What are the signs and symptoms of malaria?

vomiting, loss of appetite, shivering

[Asses knowledge level between 0-5] 3

3. How can you prevent Malaria?

sleeping under treated mosquito net.

[Asses knowledge level between 4-5]

4. How is malaria treated?

Buying tablets, seek medication

[Asses knowledge level between 4-5]

MALARIA INCIDENCES

1. How many cases of malaria have you had in the household in the last one month?

2. Has anybody died from malaria in the last one year? Yes ☐ No ☒

Is this household eligible for welfare support? Yes

If yes, state the reason that children below 5yrs who do not have net.

Any other comments

3. How can you prevent Malaria?

Sleeping under treated mosquito net.

[Asses knowledge level between 0-5]

4. How is malaria treated?

Buying tablets, seek medication.

[Asses knowledge level between 0-5]

MALARIA INCIDENCES

1. How many cases of malaria have you had in the household in the last one month?

2. Has anybody died from malaria in the last one year? Yes ☐ No ☒

Is this household eligible for welfare support? Yes

If yes, state the reason Has children below 5yrs who do not have net.

Any other comments _____

Wagore gi malaria kanyakla



- Nind ei bwo net maothiedhi otieno ko otieno
- Ka iparo ni ngato nigi malaria, dwar thieth mapiyo –kik ilew
- Rit nyithindo gi mon mayach maber
- women

Ok inyal yudo malaria kuom:

- Koyo chiemo manyien mca e puchho kata mangich
- Juok kata kuong
- mangich kata mako koyo
- Chamo

You can get more advice and information from
Obambo Community Action Group

Project supported by

Advantage Africa
pathways out of poverty

Thanks to Faiths Act for the use of pictures

Gima inyalo timo ka iparo ni ngato ni gi
malaria



Dhi e od thieth mondo opimi remo
Tim piyo-kik ilew



Muony yath momiyi nyaka itiek kata iwinjo maber

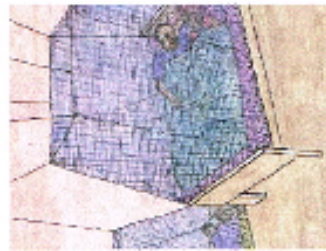
Malaria iyudo nadi?

Malaria ikelo ka okayi gi suna madhako



- Suna kecho ga mana go otieno
- Nyaka ipar soyo net e bwo godro kata par.

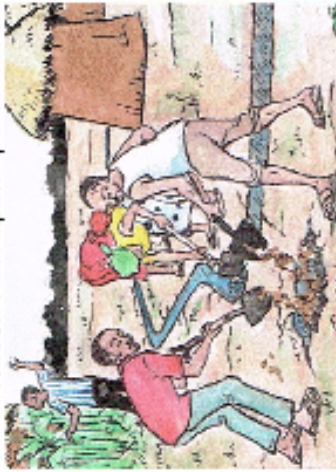
Kaka inyalo gengo malaria



Nind e bwo net maothiedhi atieno ka atieno
Mar mayach gi nyithindo kika we oko.



Los kuonde maoyiech e net
Luok net e pi bang dweche adek
Thiedh net kaponi pok othiedhe



Gol pi ma ochung nikech gin ema giyuayo suna ka
ginyuolre

NYITHINDO MANEBWO IGNI ABICH
GI MINE MAYACH NIGI TEKO MATIN
MAR GEGHO MALARIA. KA MIYO
MAYACH OYUDO MALARIA
ONYALO KELO KOSO REMO, ICH
WUOK KATA NYUOL CHON
KATANYUOLO NYATHI MATIN.

Ere kaka ingeyo ni nhato nigi malaria?

Ngeyo ranyisi mag malaria nyalo konyo jo ot
mondo oyud thieth chon.



Ranyisi mag malaria gin kaka:

- Wich bar gi del maremo, koyo liet gi luya
- Koso muluma mar chie mo
- Ngok gi samoro diep.
- Rieruok kuom nyithindo man gi malaria