Against Malaria Foundation

LLIN Distribution Programme – Detailed Information

Summary

# of LLINS	Country	Location	When	By whom
19,300	**Malawi**	**Neno District**	**Aug-Sep 2008**	**Partners In Health**

Further Information

1. Please describe the specific locations & villages to receive nets and the number to each? Please provide longitude/latitude information. (Important note: If the distribution is approved, approval will be for the nets to be distribution to these specific locations. Location changes will only be considered, and may be refused, if due to exceptional/unforeseen circumstances.)

Neno District Malawi(long/lat). 1 x District Hospital,
10 x Health Centers with 15-40 villages per health center

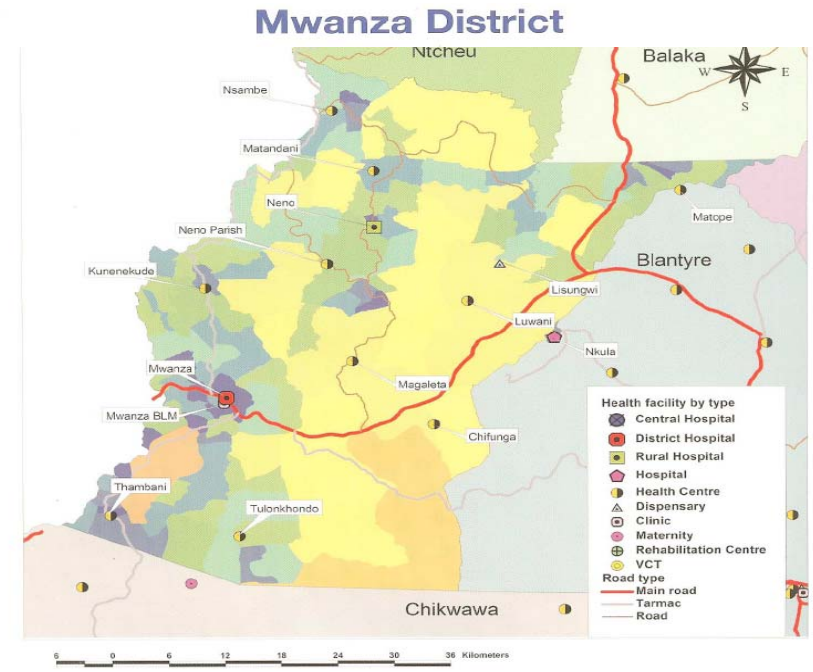
Health Center	Latitude	Longitude
Neno District	15d23'44.2"S	34d39'12.0"E
Neno Parish	15d26'13.8"S	34d36'31.7"E
Matandani	15d19'31.0"S	34d39'11.0"E
Magaleta	15d33'00.8"S	34d37'39.9"E
Luwani	15d28'45.4"S	34d44'32.1"E
Lisungwi	15d26'12.8"S	34d36'24.8"E
Chifunga	15d37'18.0"S	34d42'34.0"E
Nsambe	15d15'41.0"S	34d36'51.0"E
Matope	15d21'15.0"S	34d56'51.0"E
Nkula	15d31'16.0"S	34d49'32.1"E

Health Center	Total/HC	% or total	Projected ITN/HC	Total Pop	Est HIV+	under 5	pregnant	Total Vul.Pop.	% Vul Pop/total	ITN/HC
Chifunga	5,794	11%	2,161	15,511	2,637	3,313	776	6,726	11%	**2,062**
Lisungwi	7,997	15%	2,983	23,217	3,947	5,340	1,393	10,680	17%	**3,274**
Luwani	7,652	15%	2,854	2,510	427	577	150	1,154	2%	**354**
Magaleta	4,982	10%	1,858	15,585	2,650	3,428	779	6,857	11%	**2,102**
Matandani	1,111	2%	414	10,140	1,724	2,231	507	4,462	7%	**1,368**
Matope	1,629	3%	608	18,837	3,202	4,144	942	8,288	13%	**2,541**
Neno District	16,393	32%	6,115	20,121	3,421	4,427	1,006	8,854	14%	**2,714**
Neno Parish	1,774	3%	662	15,398	2,618	3,388	770	6,776	11%	**2,077**
Nkula	3,094	6%	1,154	1,743	297	383	87	767	1%	**235**
Nsambe	1,312	3%	489	18,862	3,207	4,249	943	8,399	13%	**2,575**
TOTAL	51,738	100%	19,300	141,924				62,963		**19,300**

MoH estimate for the number of villages is as follows: Total villages = 147. We have found this underestimates some of the catchment area village numbers. Breakdown per health center as follows:

Chifunga	10	Lisungwi	31	Luwani	7
Magaleta	18	Matandani	10	Matope	14
Neno Dist	14	Neno Parsh	10	Nsambe	32
Nkula	1	(where national power station is located)			

The population of the village of Luwani itself, where the UNHCR camp was located, decreased to less than one thousand. However, the total population of the Luwani catchment area has only decreased to 3-4,000 (from 9-10,000) with the exodus of the last refugees from the UNHCR camp there in late 2007.



2. Is this an urban or rural area and how many people live in this specific area?

Rural. Population Data from Ministry of Health. 2008 Data.

Health Center	Total Pop	Under 1	2-5 yrs	Pregnant women	Total Vul Pop	% VulPop /total
Chifunga	15,511	776	2,537	776	4,089	11%
Lisungwi	23,217	1,393	3,947	1,393	6,733	17%
Luwani	2,510	150	427	150	727	2%
Magaleta	15,585	779	2,649	779	4,207	11%
Matandani	10,140	507	1,724	507	2,738	7%
Matope	18,837	942	3,202	942	5,086	13%
Neno Dstr	20,121	1,006	3,421	1,006	5,433	14%
Neno Par	15,398	770	2,618	770	4,158	11%
Nkula	1,743	87	296	87	470	1%
Nsambe	18,862	943	3,306	943	5,192	13%
TOTAL	**141,924**				**38,833**	**100%**

Note: The Under 1, 2-5 yrs and Pregnant women numbers are Ministry of Health figures based on the % population each of these subgroups are estimated to represent. Actual numbers are not known since the last national census was performed in 1998. Another census is scheduled for some time in (2008).

3. Is this a high risk malaria area? If yes, why do you designate it as high?

Yes. We designate this district as high risk for malaria for the following reasons:

- Underserved population with minimal health infrastructure. Neno is a relatively new district carved out of a pre-existing district named Mwanza. Before 2008, there was no formal district-level hospital and 40% of the health centers were fee-for-service, mission-sponsored facilities with low community utilization. The district is extremely rural with poor road access. Many of the patients were unable to receive care due to both access and costs.
- Dismal ITN distribution to date: Less than 10% of vulnerable population (under 5's, pregnant women, and HIV patients have received ITNs in part because of limited functional health centers, lack of ITNs funding from the Ministry, and remote living conditions limiting patient access to care.
- Higher incidence of HIV/AIDS. HIV prevalence in Malawi is 13% and estimated as high as 18% in Neno District—one of the highest prevalence districts in the country. As such, higher numbers of patients, both children and at-risk adults, are at risk of malaria and in need of ITNs.

4. How many *reported* cases of malaria and malaria deaths were there in this area in 2005? If you do not have statistics please make a qualitative comment.

Ministry of Health (Health Management Information System) Data 2007. All cases are 'clinical' cases as only one laboratory at Neno district health center/hospital capable of doing smears. See attached table for values by health center separated by Under and Over 5. TOTAL CASES 51,738.

Ministry of Health 2007 Data collected by outpatient clinic registry

	Health Center	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Over 5	Chifunga	375	377	269	387	312	317	142	129	200	434	279	245	3,466
	Lisungwi	309	528	524	220	130	218	210	388	416	382	343	360	4,028
	Luwani	465	501	817	550	646	450	326	323	303	260	129	51	4,821
	Magareta	137	161	193	191	302	382	163	220	211	219	221	283	2,683
	Matandani	32	96	41	34	38	41	25	20	29	62	57	60	535
	Matope				130	110	80	62	61	94	30	33	52	652
	Neno District	837	628	758	595	633	621	611	697	675	621	852	1,054	8,582
	Neno Parish	51	50	81	60	23	28	16	18	21	34	35	113	530
	Nkula	195	232	153	215	204	186	105	129	118	121	141	122	1,921
	Nsambe	36	44	38	73	75	67	86	72	94				585
	totals	**2,437**	**2,617**	**2,874**	**2,455**	**2,473**	**2,390**	**1,746**	**2,057**	**2,161**	**2,163**	**2,090**	**2,340**	**27,803**
Under 5	Chifunga	145	199	178	178	169	102	275	283	326	288	185		2,328
	Lisungwi	287	399	542	246	126	233	269	390	463	367	357	290	3,969
	Luwani	235	281	420	283	348	275	266	175	216	173	102	57	2,831
	Magareta	139	147	104	173	240	261	146	187	193	201	211	297	2,299
	Matandani	41	30	32	50	40	34	25	21	21	82	68	132	576
	Matope				150	160	120	120	119	162	38	48	60	977
	Neno District	584	572	673	571	727	689	720	821	410	452	706	886	7,811
	Neno Parish	123	105	128	157	169	80	42	41	41	66	90	202	1,244
	Nkula	102	101	121	141	135	86	65	68	65	86	93	110	1,173
	Nsambe	48	59	4	73	84	74	93	74	68			150	727
	totals	**1,704**	**1,893**	**2,202**	**2,022**	**2,198**	**1,954**	**2,021**	**2,179**	**1,965**	**1,753**	**1,860**	**2,184**	**23,935**
													Total	**51,738**

Malaria Clinical Cases by Health Center in Neno District.

No data available for deaths as to date, most complicated cases referred to another district hospital because no transfusion, critical care services available to date.

Estimate of "severe malaria" based on Jan-April 2008 Neno District Hospital inpatient chart review: 150 cases (Note these cases are referred only from one health center). Estimate 3-5% deaths.

UN common database estimated Mortality: 275-300 deaths per 100,000 people = estd 400 deaths (www.globalis.gvu.unu.edu)

5. Is this distribution of nets 'blanket coverage' of an area/village or to a select/vulnerable group? If the latter, please describe this group.

Phase I: Distribute ITNs to vulnerable groups (under 5's, pregnant women, and people living with HIV/AIDS patients) in all health centers and all pediatric inpatients discharged from district hospital (to be operational by July 2008).
-Committed to district-wide coverage.
-Projected ITN need 47,000
-Initial coverage priority: under 5, pregnant followed by other at-risk groups if enough ITNS

Phase II: Distribute to all children and extend at-risk groups to also include other chronic diseases, orphans, malnourished as supply of ITNs dictates.

We estimate our targeted vulnerable population for this campaign at approximately 47,000. The MoH Neno District and PIH's joint goal to is provide ITNs for vulnerables defined as Under 5, Pregnant women and people living with HIV.

Malawi reports a national HIV seropositive prevalence of 13%. We are seeing about a 17% seroprevalence in our district. That would represent another 24,000+ people at risk in the district (see below) yielding a total of 62,000 vulnerables.

However, not everyone in our district has been tested, and some Under 5s and Pregnant women are also HIV infected. In the last year, we have made HIV Counselling and Testing now available at every health center. So we include another 9 - 10,000 HIV+ individuals in our total estimate for vulnerable population for this campaign.

The 2:1 coverage of at risk person per ITN distributed might hold closer if the whole district were to be visited house to house, where the distributors could actually check out and question who beds with whom, and where, in each house.

However, this is not within our current capacity, and it is much more difficult to control for in a clinic setting where one of several vulnerable individuals may present individually to a clinic at any particular time.

We can adjust figures for how the number of nets AMF might be in a position to donate would be distributed, but in the end,

we feel the District will need much more than 20,000, and so targeted 30,000 in our application to you.

Estimated HIV+ population in Neno district for each health center, assuming a 17% seroprevalence, the data:

Chifunga: 2,637	Lisungwi: 3,947	Luwani: 427
Magaleta: 2,650	Matandani: 1,724	Matope: 3,202
Neno Dist: 3,421	Neno Parsh: 2,618	Nsambe: 3,207
Nkula: 297		
Total: 24,129		

6. What is the existing level of ITN use in this area? Are there existing bednet distribution programmes in this area?

There are no other NGO's in Neno District providing ITNs. In 2007, all nets were provided by the Ministry of Health and procured through PSI. PIH is in the process of procuring donor money to procure a projected need of 47,000 ITNs. To date, we currently have 2,000 ready for distribution.

Min of Health 2007 Data of ITN distribution by Health Center:

Health Center	ITNs Distributed
Chifunga	540
Lisungwi	0
Luwani	476
Magareta	770
Matandani	128
Matope	788
Neno District	1,401
Neno Parish	696
Nkula	137
Nsambe	995
TOTAL	**5,948**

7. Why was the area/villages chosen for bednet distribution and who made this decision? Please provide the name, position and organisation of the person/s making the decision.

We are committed to a district-wide malaria prevention campaign as our organization's mission is to improve the health of the entire district population. Thus, all health centers should benefit from the procurement of needed ITNs. We will distribute the ITNs in a manner that maximizes all current health systems, including a community-based, village-health worker model whereby VHWs deliver and hang ITNs in community.

Decision Makers:
PIH Malawi Country Director: Dr. Keith Joseph
Tel: +265 08208895; Email: kjoseph AT pih.org
PIH Clinical Director: Dr. Jon Crocker
Tel: +265 08208105;,Email: jcrocker AT pih.org
Ministry of Health, Neno District, Malaria Coordinator: Mr. Barnett Kolombo, tel: +265 08872220

8. Have you consulted with the National Malaria Programme in your country about this distribution and what was their response? Please provide the name, position and contact details of the person/s with whom you have liaised.

Ministry of Health, Neno District, Malaria Coordinator: Mr. Barnett Kolombo (+265 8872220)
The National Malaria Control Program, Mwanza Zone Director: Mr. Sande, Southwest Zonal Supervisor, cell +265 (08) 894244.

9. Please describe any pre-distribution activity, in particular how the size of the target group and number of nets required will be ascertained?

We have data regarding the total malaria cases per health center reported for 2007 as well as population data of vulnerable (under 5, pregnant) groups per health center. Projections for needed ITNs can be made based on both variables as a percentage of the total district cases or vulnerable population. An average of these estimates can then be made with influence of any confounding factors (i.e. one health center Luwanii was a refugee health center in 2007 whose population has decreased from several thousand to < 1000). ITNs Needed by Health Center based on case load (2007 MoH data) or at-risk population). Projections given an arbitrary donation of 30,000 LLINs.

Health Center	Total/ HC	% of total	ITN/HC	Total Pop	under 1	2-5 yrs	preg.	Total Vul.Pop.	Pop/total	ITN/HC
Chifunga	5,794	11%	3,360	15,511	776	2,537	776	4,089	11%	3,159
Lisungwi	7,997	15%	4,637	23,217	1,393	3,947	1,393	6,733	17%	5,202
Luwani	7,652	15%	4,437	2,510	150	427	150	727	2%	562
Magaleta	4,982	10%	2,889	15,585	779	2,649	779	4,207	11%	3,250
Matandani	1,111	2%	644	10,140	507	1,724	507	2,738	7%	2,115
Matope	1,629	3%	945	18,837	942	3,202	942	5,086	13%	3,929
Neno District	16,393	32%	9,505	20,121	1,006	3,421	1,006	5,433	14%	4,197
Neno Parish	1,774	3%	1,029	15,398	770	2,618	770	4,158	11%	3,212
Nkula	3,094	6%	1,794	1,743	87	296	87	470	1%	363
Nsambe	1,312	3%	761	18,862	943	3,306	943	5,192	13%	4,011
TOTAL	51,738	100%	30,000	141,924				38,833	100%	30,000

''
**Luwani ITN projection should be based on population given exit of refugee population

10. Please describe how the bednets will be distributed, by whom, whether distribution will be a focussed effort or part of a combined programme and if there will be an information/education component to the distribution? Please indicate over what time period (typically, the number of days or weeks) the distribution will occur.

Brief Overview of Distribution Plan for 20,000 LLINS:

The number of ITNs distributed to each health center will be decided based on number of malaria cases in health center catchment area (MoH 2007 data), at-risk population, and any other significant factors (i.e. a dynamic change in community size secondary to refugees).

We have designed a community-based distribution strategy to maximize the utilization of these ITNs to the highest risk patients. Four of the 10 health centers have approximately 300 combined trained village health workers (VHWs) (PIH accompagnateurs) who will distribute nets in the community, provide home-based ITN education, and simultaneously collect community-based ITN utilization information by a simple survey (# ITN/household, # ITN needed, # under 5's, # under 5 with fever in past month, etc).

The plan is to hold a training for the VHWs in June-July and ask them to each bring several volunteers the following month for the distribution/survey outreach event. The ITNs will be distributed in the community by these VHWs who will install the ITNs directly during the month of August. Education on the use of nets and care of nets will be given at point of delivery. An interval community utilization survey is planned for 6 months to collect data on proper use, additional ITN needs. All patients receiving a net to sleep under with have an ITN stamp placed in their health passport.

If ITNs run out (expected given need), patients will be referred to local health center to request net. The remaining 6 health centers will also receive a bolus of ITNs with training to all clinicians, nurses, and health outreach assistants emphasizing the importance of full coverage to all their outpatient at risk groups. We will also introduce the idea of bundling ITN distribution with outreach immunization clinics.

All health centers will receive MoH education/outreach materials on importance of ITNs, utilizations of health centers for children with fever, and other general malaria education.

Ultimately, this strategy will allow us to leverage all of our health systems to deliver ITNs in a community-based approach. It will also allow us to grossly compare the potential advantages of a community-based, VHW-model distribution campaign verses the standard point-of-care strategy. Data will be compared from the 2007 verses the 2008 malaria season (or by annual year) based on clinical cases recorded in health center outpatient registries.

Inpatient hospital data (which we started recording in Jan 2007) and smear-positive cases/month (currently only collected at the hospital) will also be compared before and after the distribution campaign.

The VHWs will go to their respective catchment heath center on a predetermined day and pick up the ITNs. They will have been asked to have 2-3 volunteers from the community to assist them. They will be given string and tacks to hang the nets, and go door to door in their communities. Depending on the numbers of ITNs we expect to receive we have thought of several strategies.

If we receive far less than the estimated need, VHWs would go door to door, administer the survey, and give 1 net per house with vulnerable individuals living there. As you know, ITNs protect, to a small extent, people sleeping outside but in the same room as the ITN itself. If we have an ample supply, then the VHW will assess household need via the survey, determining # vulnerables per sleeping area, and then distribute based on #beds occupied by vulnerables in a household. We have not finalized the survey questionnaire.

The VHW will have a stamp or sticker to place in the health passport of each at risk individual who recieves a net over their sleeping area so that this is easily determined at future health visits to a health center, where they might otherwise be prescribed one.

The "distribution/survey outreach event" is exactly this --- survey & distribution happening on the same occasion. The VHW will discuss with members of each household the information that they have already learned (and about which they will receive a refresher in the June VHW training). This will include, risks of malaria, prevention, what to do with suspected case, how to care for net, standing water issues, etc. As an aside, VHW receive monthly trainings sessions at their nearest respective catchment health center by PIH/MoH staff.

11. What post-distribution follow-up is planned to assess the level of usage (hang-up percentage) of the nets? How long after the distribution will this assessment take place? Will you provide us with the findings? What will you be able to do subsequently to increase net hang-up if relevant?

In the VHW-distribution model, an interim community-utilization survey will be conducted in Feb 2009 to measure appropriate ITN use, additional need, etc. This will be done at a 6-mnth interval from the first installation campaign. In the non-VWH distribution model, a point-of-care, health center visit survey can be done also at 6 mnths to assess level of appropriate usage. If the VHW-distribution campaign yields significantly greater utilization rates (as anticipated), we hope to train/enrol additional VHWs in each of the other 6 health centers. You will receive the results.

12. Please give the name and contact information for the (government) head of the district health management team for the/each area. Please ensure you include contact information.

PIH Malaria Strategy Coordinator: Dr. Jon Crocker (+265 08208105); Neno District Ministry of Health Malaria Coordinator: Mr. Barnett Kalombo (+265 08872220); Neno District Ministry of Health, Environmental Health Officer Malaria Coordinator: Mr. Verson Chisole (+265 08685928)

13. Please confirm the nets will be distributed free-to-recipients, a requirement for us to fund nets.

Yes.

14. Please confirm you will send us, post-distribution, at least 40 digital photos per sub-location, taken at the distribution/s, to be added to our website as we report on the distribution to donors.*

Yes.

15. Please indicate if you will be able to provide video footage from each sub-location. This is not mandatory but is preferred and aids reporting to donors and encourages further donor giving.*

Yes.

16. Please confirm you will send a Post-Distribution Summary when the distribution is complete.*

Yes.

17. Please provide your name, role and organisation and full contact information.

Jon Crocker, MD, Partners In Health, Malawi Clinical Director, PO Box 56, Neno District, Malawi
Jcrocker AT pih.org, +08208105

Molly McNairy, MD, MSc, Partners In Health, Global Health Equity Fellow (Neno, Malawi) Boston, MA 02116
mmcnairy AT partners.org, +1 617-803-5464 or +08208157

*Information on providing photos, video and a Post-distribution Summary is included in the attached document.