



Ntcheu District, Malawi

**Post-Distribution Check-Up (PDCU)
At 18 - months**

June 2017

REPORT

**Prepared by: United Purpose
For: Against Malaria Foundation**

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1. Executive Summary

This report represents the results of the 18 months PDCU conducted in December 2017. Data was gathered in all of the district's 39 Health Centre Catchment Areas (HCCAs). 162,934 households (HH) were randomly selected and visited unannounced. This check-up was carried out at 18 months after the distribution.

At 18 months post-distribution, sleeping space coverage with a viable net was 50%.

Net hang-up, condition and 'net present but not hung' information for each of the 39 HCCAs has been passed to Ntcheus's Malaria Coordinator (MC), the District Environmental Health Officer (DEHO) and District Health Officer (DHO) to assist in designing further potential targeted malaria intervention activities.

2. Background

Ntcheu District is one of Malawi's 39 districts and has a population of 724,511 people and 162,934 households. A universal coverage distribution of 424,436 nets was carried out from 20th October 2015 to 15th March 2016.

A Post-Distribution Check-Up survey (PDCU) is carried out at 6 months intervals after the distribution as an impact-monitoring tool of net usage and net condition hence this is a third after the distributions.

3. Results

Results and discussions.

- 7,547 randomly selected households were interviewed representing 90% of the targeted households
- 19,491 nets checked
- 9,778 nets were found to still be in hung use, representing 50.17%
- 2,668 AMF nets were present but not hung representing 13.69%
- 2,026 AMF nets were missing representing 10.39%
- 5,019 nets were found to have been worn out and not usable representing 25.75%

See Appendix 2 for detailed results and findings.

Net Hung

Doviko health facility recorded the highest number of nets hung by percentage since out of 158 received 125 were found to be in use representing 78%, while Kampang health Facility recorded the lowest percentage of nets found in use with 31% as out of 388 nets, 120 were found to be still in use.

Net present but not Hung

Kampang health facility had the highest number on nets that were found to be present but not being used, with 30% as the survey revealed that of 322 nets distributed 115 nets were present

while Mlangeni health facility registered a 3% net present but not hung as it recorded 3 nets of 107 nets received which was the lowest.

Missing Nets

Masasa , Mphepozinayi, lakeview and Nsipe health facilities had the highest number of nets recorded missing, with both 17% as of the Masasa 238 nets received 14 nets ,Mphepozinayi 433 nets received 75,Nsipe 594 nets received 101 and Lakeview 310 Nets received 53 were missing while Doviko and Phanga health facilities had the lowest missing nets as of 154 net received there were 4 and of 158 net received there were 5 nets missing both facilities representing 3%.

Nets worn out/not Usable

Katsekera health facility had the highest number of nets that were found in a worn out or not usable state as out of 503 nets received 239 nets were found to be worn out representing 48% while Sharp valley health facilities had the lowest percentage of nets in not usable state of 12% since of 1,457 nets received they had 175 nets recorded respectively.

See Appendix 2 for detailed results and findings.

4. How the work was carried out and key decisions

Schedule

The PDCU planning began two months in advance of the PDCU taking place to ensure plans and resources were in place.

Planning

The PDCU team leader led the planning. See the PDCU-18 Planning document for details.

Budgeting

A budget was prepared using cost drivers for each cost item. This allowed strong estimating of costs and will allow a clear comparison between budget and actual costs. See PDCU-18 Budget vs Actual document.

Resource selection

There are 39 Health Centers (HCs) in Ntcheu District. Each has approximately 20 staff attached to each one, the majority being salaried Health Surveillance Assistants (HSAs).

From lessons learned from earlier PDCUs, it was decided to continue with the focused team of 20 data collectors rather than have a specific number of data collectors from each HCCA. This was based on the following reasons.

First, this would reduce the number of data collectors that would need to be monitored and trained. Second, we would be able to select reliable individuals whom we could trust to do a diligent and accurate job of collecting the data. Third, it would leave the majority of HSAs to

carry on with the normal health tasks and duties. Fourth, by having the same people covering the whole exercise they will get acquainted to the task and reduce errors on data collection.

This meant the data collectors would spend less days collecting data with a day on each health facility rather than the one or several days if not many more data collectors were to be used. This was judged the preferable way of organizing and managing the data collection phase.

Orientation and training

Given the limited number of people involved in collecting data and supervising, this was a relatively simple and focused task. An orientation and training session took place on June 18th, 2017, conducted by UP and MOH Staff (Malaria Coordinator (MC) and Assistant District Environmental Health Officer (ADEHO)).

Supervisors: There were 2 supervisors. The briefing familiarized the supervisors with the overall project, objectives, timing and specific responsibilities.

Data collectors: There were 20 data collectors involved in collecting data, selected from within the district. The orientation included detailed explanation of the survey objectives and the logic behind the survey form (net condition, type of nets, what sleeping spaces are, what is meant by hung nets and noting hung nets against AMF nets received) as well as having the data collectors pre-test exercise in order to fill in sample forms and ask questions to ensure their understanding of what information should be collected and how.

Village selection and household selection

Ntcheu district has 39 health facilities. It was decided to collect data from 5% of households in all HCCA where we carried out the distributions; this meant a different number of households in each HCCA as per individual health facility populations.

Between 52 and 619 households were randomly selected from each of the selected 8 to 181 villages, depending on the HCCA, with the villages also selected at random.

Villages were randomly selected using the village lists generated from the pre-distribution and distribution work for the 20th October 2015 to 15th March 2016 AMF-funded universal coverage LLIN distribution. A random number table was used to select the villages.

Data collection

20 data collectors and 2 supervisors from the District Health Office were involved in the PDCU. The supervisors were responsible for checking the data collection exercise at the same time monitoring how the data was being collected as per requirement.

All the data collectors involved gathered at a days' designated health facility before each being deployed to selected villages. Once the data collection was complete, the data collectors submitted completed forms to their assigned supervisor who was responsible for checking the forms for obvious errors or omissions, including a lack of householder signature, before delivering the forms to the data entry team.

From the selected households, both men and women households heads were interviewed upon giving consent and signing on the form to indicate acceptance. Each data collector was assigned

a village under the health center on which data collection was planned for that particular day, guided by their assigned supervisor. Each data collector visited 20 households per day.

Data collection checking

Supervisors were required to visit 5% of the households in their area to check the accuracy of the data collectors' work and had to check all the completed forms submitted to them before submitting them to the Project Manager. The sampled visited households were also chosen at random so the work of all data collectors was checked.

Data entry

There were two data entry clerks with knowledge in basic computing. The data entry clerks were also exposed to a questionnaire orientation where they were briefed on the forms and introduced to the online web links and how to enter the data on the electronic form, make editions and post the data. The data entry clerks were assigned specific health facilities in order to facilitate their performance monitoring.

Data was entered into a database via a web interface created by AMF. An internet connection was required for this work.

Data entry checking

It was important to monitor and check the work of each data clerk at an early stage to correct any lack of understanding and monitor errors.

Improvements in the data entry interface since the last PDCU carried out in the district (Ntcheu PDCU-12) by AMF meant the data entry proceeded with almost no errors. This reduced the error-checking phase to almost nothing.

5. Finances

The budget was \$22,540

The actual cost was \$20,212

Budget vs actual costs (USD)

ITEM	BUDGET COST	ACTUAL COST	DELTA
BRIEFING/ORIENTATION	404	475	17.6%
DATA COLLECTION	20,834	17,969	-13.8%
DATA ENTRY	469	656	39.9%
MANAGEMENT	833	1,111	33.4%
TOTAL	US\$22,540	US\$20,212	-10.3%

6. Lessons learned

The operational elements that went well were:

- All the selected villages were visited.

- There was a positive response from the LLIN beneficiaries at community level.
- The survey form was short with only one page, which was ideal for the data collectors and the respondents
- Local community leaders and household heads allowed the data collectors to enter their households to see the hung nets and check the condition they were in.
- Management support and commitment towards the activity by United Purpose and District Health staff was very encouraging, hence the timely execution of the exercise.
- The data collectors, supervisors and drivers were committed to collecting the data.

7. Acknowledgements

Special acknowledgement should be made to the Ntcheu District Health Management Team and the Malaria Coordinator (MC) Mr. Nicholas Mwamlima and the Assistant Environmental Health Officer (AEHO) Mr. Rudolph Banda in particular, for tirelessly making this initiative a success. Despite their busy day-to-day schedule they allocated their time and efforts to the successful execution of the survey. This team worked even beyond normal working hours just to accomplish the mission and meet the timelines.

Appendix 1 - Health Areas and households visited

DATA COLLECTION PLAN																					
List of villages per health Facility																					
HEALTH CENTRE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
1	BIULA	Chinkondenji	Katoleza	Majiga 1	Tambala	Akubalira 2	Chapola	Chauluka 3	Gada 2	Hawa	Kalata	Kalumba	Kamakoko	Khomera 1	Kuminga 1	Kuminga 2	Lazaro	Livalo	Livalo chabwera	Majiri	Mauyana
2	BIRWIRI	chipusile 1	Daudi	Kamuuzeni 1	chingawa	Chipula	Galeta	Kambebe	Kasamba	katsalabande	Ntambalika										
3	BWANJE	Chawanje 2	Chawanje ADMA	Chikadya 1	Chimwala	Hoda	Kalolo	Kanyoza 1	Kapasule	Mawira	Mkhwangwanya	Mnkhwani 3	Mose	Mphoola 1	Mwadzaangati	Nankhombe	Njuli	Nkhwani 4	Nkhwani 5	Pendanyama	Thokozani
4	CHAMPITI	EMOSI	Malinda	Maluku	Mpulula	njolomole	Nsamyanya	Phikani													
5	CHIGODI	Chipojola	Dzoole	Gidion	Kancholo	Lazaro	Magombo	Thondoya 1	Zintambira												
6	CHIKANDE	Austain	Chibalala 2	gomile	kateza	magombo	majere	Mapondela	Mateketa	mpoya	Namboya										
7	CHIKOWA	John	njezama	Zidana																	
8	CHIOLE	Chimwaye	Kamwendo 1	Kanyemba	mkolimbo	Zioya															
9	DOVIKO	Doviko	Kabango 2	Sawo	William																
10	DZONZI MVAI	Dzonzi-Mvai	Kamuuzeni	Zidana																	
11	DZUNJE	Chimwala	Jingo	Pendantama	Binya	Chingwalu	kaimaima	KALUMWAI	Kamiza	kamkwindo	KANZANGAZA	Khwangwala	majuwa	Ndadzala	tavekenji	ching'ombe	Hawilani	Malonda	Mmemo	Mthinda	Saiwa
12	GOWA	Chauluka	Chembekeza	Galeta	Kamwaza	Makala	Makhoyo	Mwalo 1	Nzangaya	Zimenyana											
13	KALIMANJIRA	bemerani	kalimanjira 2	Kalimanjira 3	kaweya	SANDE	TAPANI 1	willson													
14	KAMPANJE	kampanje2	Kampanje3	Kanjuzi	Kaziputa	Mabena	Mitchi														
15	KANDEU	Chatchuka	Chawoyoka	chizuzu 2	Chizuzu 1	Gwaza	Kalipande 2	kambadya	Kumbuwa	Mathotho	M'manja	Muuso 1	Muuso 3	Thuta	tofu						
16	KAPENI	James	Kabango	Kamwamba III	Kapulula	Malenga	Mbamba														
17	KASINJE	chinkwende	Chiotcha	Chipezeyani	chisasa	Ganya 3	Kambale	Kambewa 2	Kampheko 2	mafua	masutso	Matsatsa	Mchokera	mdzozzo	Mitongwe	Mtambalika 2	mtete	Mtovonya	ndsauka	njelema 1	Ntunda
18	KATSEKERA	Tachitire	Thunga 1	Tilekane	Zanangaya	Chikhumba	Dzinyenyero	Khungule	Kupsamtima	masase 2	Mbululu	Mfuti	Ndaluzza	Samuel	Thundu						
19	LAKEVIEW	Biliati	Chauluka	DZING'ANDA	Joswa	kakhobwe 1	kakhobwe 2	Kandoma 1	Kandoma 2	Nenani	Chabwera 2										
20	LIZULU	Chikhamwazi	Gulo	Kabwazi	Mphoyo	Njilomole 1	Thom														
21	MANJAWIRA	Gambatula	Kachiyea	Kaiya	KALILOMBE	Maluza	MAPIRA	mzamani 2	Mzamani 3	Nkolimbo 1	Zidana										
22	MASASA	Chagoma	kawala 2	Kunyangwi	Liphava	Manjawira															
23	MATANDA	Chapita	kahumbe	kalima2	manyanje																
24	MATCHE REZA	Chowamba	Goli	Chiwale	Kafumbata	Mtengowabond	Jumbe 1	Thema													
25	MIKOKE	BILWITA	GANGAWAKO	HOWA	matchereza II	NAMAGONA															
26	MLANDA	Njunga 1	Nkonde 1	Nkonde 2	Tsikulamowa 1																
27	MLANGENI	Balamu 1	Balamu 2	Mtambalika	Beka	Timote	yosefe														
28	MP HEP OZINAVI	Donda	Julius	Kang'oma	Thanganyika	Waiyatsa															
29	MULUMA	Chiluzi II	Chimpuza	Ching'amba	chitsuro	kadwala	kamtsitsi	kansapato 1	Kansapato 2	Mtumba	Chibalala	edward	Kaudza 1	Mapazi	Matalala	Pamdule	potolani	Zuza			
30	MZAMA	Chakaniza	kadammanja	chimkwandala	Makwatha	ndombo															
31	NAMISU	Chimkonda	Dickson	dzamba	Kalonga	Madana	phalula	zawanda													
32	NSIPE	Banda	Bonongwe 2	Kanama																	
33	NSIYALUDZU	Chingwalu	Hau	Kalip'eta	kampepuza	Mbirimtengeren	Pheza	S. Zidana	galuakauwa	hambahamba	Saidi	Sullo	Chikafa	Chikomba	Fulatila	kapalamula					
34	NTCHEU D.H.	Adamu	Alasala 2	chimutu 1	chinzakadzi	ellia	gomeleya 1	Goveya	Gumbi 1	Gumbi 2	Gwaza 1	gwaza 2	Hellani	K Malele	kauwa	Mberengwa	Mpakiza	Ngwangwa	Nsiyaludzu 1	Sabwera 2	siliya
35	NTONDA	Tcheza																			
36	PHANGA	Sandalamu	Ben Chinseu	Ben Kadzilawa	chagwamomwe	Chimalizeni	DCS	Dzoole 1	Dzoole 2	eneya 1	Eneya 4	gomeza	Gongolo	gongonya	Gwaza	kachimanga	kandota	Kanzingeni I	KASALE 2	Khangamwa	machila
37	SENZANI	Mastimale	new lines	police lines	senior quarters	thewa	Zakutchire 2	Chibondo	zipirana	Kalumbu 1	Kalumbu 3	Mastimale	new lines	police lines	senior quarters	thewa	Zakutchire 2	Chibondo	zipirana	Kalumbu 1	Kalumbu 3
38	SHARPVALE	Kaneneneni																			
39	TSANGANO	Bwenje3	Chabwera2	Dambule1	Faiti	Lazalo	Londalonda	Matale													
		Chigome	Kadzungu 2	Maseze 1																	
		Chidokowe 2	Chimpini	Ebulo	MASUNDA 1	Masunda II	matale 2	Senzani I	Senzani II												
		Agabu I	Benes 1	Benes 2	Bizalileli	Chayera	Ching'amba 2	Kulanga I	Kulanga II	Mkuphe	motisa	Ndembo	Pelekani	Saiti 2	Saiti II	Saiti Machera I					
		Gochi 1	Gochi 2	kankhuni	Kavala III	Mafuta 1	Mdzawira 1	Saulosi	Willy	Bayani	Katsala 2	Katsala Mbande	Mdzawira Phambala								

LIST OF HOUSEHOLDS PER HEALTH CENTRE							
	Health Centre	Registered Households (HHs)	Total Registered Villages	% of Villages to visit	# of Villages to visit	# of HHs to visit (5%)	# of HHs/Village
1	BILILA H.F.	10,449	49	35%	17	522	31
2	BIRIWIRI H.F	3,970	22	35%	8	199	25
3	BWANJE H.F.	9,135	38	35%	13	457	35
4	CHAMPITI H.F.	2,725	23	35%	8	136	17
5	CHIGODI H.F.	3,367	16	35%	6	168	28
6	CHIKANDE H.F.	4,275	28	35%	10	214	21
7	CHIKOWA	1,031	9	35%	3	52	17
8	CHIOLE H.F	1,949	12	35%	4	97	24
9	DOVIKO H.F.	1,702	9	35%	3	85	28
10	DZONZI MVAI H.F.	1,034	8	35%	3	52	17
11	DZUNJE H.F	8,672	43	35%	15	434	29
12	GOWA H.F.	3,669	25	35%	9	183	20
13	KALIMANJIRA	2,668	14	35%	5	133	27
14	KAMPANJE H.F.	2,583	17	35%	6	129	22
15	KANDEU H.F.	5,855	35	35%	12	293	24
16	KAPENI H.F	2,582	22	35%	8	129	16
17	KASINJE H.F.	14,259	181	35%	63	713	11
18	KATSEKERA H.F.	3,951	21	35%	7	198	28
19	LAKE VIEW H.F.	2,294	11	35%	4	115	29
20	LIZULU H.F.	4,254	23	35%	8	213	27
21	MANJAWIRA H.F.	1,861	9	35%	3	93	31
22	MASASA H.F.	1,650	11	35%	4	83	21
23	MATANDA H.F.	2,325	13	35%	5	116	23
24	MATCHEREZA	1,745	15	35%	5	87	17
25	MIKOKE H.F.	1,733	11	35%	4	87	22
26	MLANDA H.F.	1,935	17	35%	6	97	16
27	MLANGENI H.F.	1,764	9	35%	3	88	29
28	MPHEPOZINAYI H.F.	7,552	47	35%	16	378	24
29	MULUMA H.F.	1,658	15	35%	5	83	17
30	MZAMA H.F.	2,994	20	35%	7	150	21
31	NAMISU	1,128	9	35%	3	56	19
32	NSIPE H.F.	6,091	36	35%	13	305	23
33	NSIYALUDZU H.F.	9,110	52	35%	18	456	25
34	NTCHEU D.H.,	12,379	61	35%	21	619	29
35	NTONDA H.F.	2,938	22	35%	8	147	18
36	PHANGA H.F.	1,220	12	35%	4	61	15
37	SENZANI H.F.	3,121	14	35%	5	156	31
38	SHARP VALLEY H.F.	6,497	34	35%	12	325	27
39	TSANGANO H.F.	4,809	24	35%	8	240	30
	TOTAL	162,934	1,037		362	8,149	

Appendix 2 - Detailed PDCU-18 results (1 page)

18 month PDCU										Location										
Region	Households			Forms Signed		Sleeping Spaces		People		AMF Nets										
	Target	#	%	#	%	#	#/hh	#	#/ss	Nets Received	Hung		Present not hung		Missing		Worn out/ not usable		M + WO	
										#	#	%	#	%	#	%	#	%	#	%
	7,547			7,481	99	17,599	2.33	33,293	1.89	19,491	9,778	50.17	2,668	13.69	2,026	10.39	5,019	25.75	36.14	
Bitira	598			598	100	1,356	2.27	2,590	1.91	1,540	834	54	221	14	174	11	311	20	31	
Biriwiri	275			275	100	651	2.37	1,217	1.87	696	337	48	91	13	70	10	198	28	39	
Swanje	539			539	100	1,200	2.23	2,397	2.00	1,337	708	53	280	21	131	10	218	16	26	
Champiti	108			108	100	258	2.39	452	1.75	321	194	60	28	9	41	13	58	18	31	
Chigodi	132			132	100	310	2.35	617	1.99	300	161	54	37	12	14	5	88	29	34	
Chikande	195			195	100	456	2.34	916	2.01	452	237	52	48	11	29	6	138	31	37	
Chikowa	57			57	100	127	2.23	219	1.72	135	90	67	15	11	8	6	22	16	22	
Chiole	174			174	100	424	2.44	737	1.74	448	194	43	57	13	52	12	145	32	44	
Doviko	84			82	98	182	2.17	373	2.05	158	124	78	6	4	5	3	23	15	18	
Dzonzi-Mvai	24			22	92	34	1.42	83	2.44	48	25	52	10	21	3	6	10	21	27	
Dzunje	358			351	98	851	2.38	1,600	1.88	877	417	48	141	16	131	15	188	21	36	
Gowa	188			187	99	408	2.17	758	1.86	514	225	44	89	17	67	13	133	26	39	
Kalimanjira	136			136	100	320	2.35	618	1.93	333	170	51	54	16	35	11	74	22	33	
Kampanje	134			132	99	326	2.43	568	1.74	388	120	31	115	30	49	13	104	27	39	
Kandeu	230			229	100	543	2.36	1,045	1.92	616	251	41	108	18	59	10	198	32	42	
Kapeni	188			183	97	458	2.44	812	1.77	461	160	35	45	10	51	11	205	44	56	
Kasinje	691			670	97	1,565	2.26	3,170	2.03	1,881	1,051	56	299	16	185	10	346	18	28	
Katsekera	223			220	99	512	2.30	1,021	1.99	503	210	42	22	4	32	6	239	48	54	
Lakeview	98			97	99	252	2.57	433	1.72	310	137	44	21	7	53	17	99	32	49	
Lizulu	281			281	100	693	2.47	1,234	1.78	791	405	51	93	12	51	6	242	31	37	
Manjawira	160			157	98	386	2.41	725	1.88	436	212	49	50	11	58	13	116	27	40	
Masasa	95			95	100	213	2.24	416	1.95	238	102	43	33	14	41	17	62	26	43	
Matanda	124			124	100	264	2.13	557	2.11	244	126	52	11	5	17	7	90	37	44	
Matchereza	126			126	100	301	2.39	590	1.96	305	125	41	35	11	31	10	114	37	48	
Mikoke	34			34	100	120	3.53	178	1.48	129	53	41	13	10	14	11	49	38	49	
Mlanda	43			43	100	102	2.37	177	1.74	107	55	51	11	10	9	8	32	30	38	
Mlangeni	47			47	100	115	2.45	193	1.68	107	42	39	3	3	8	7	54	50	58	
Mphepozinayi	159			159	100	370	2.33	714	1.93	433	219	51	60	14	75	17	79	18	36	
Muluma	87			83	95	200	2.30	376	1.88	248	102	41	47	19	31	13	68	27	40	
Namisu	67			67	100	146	2.18	308	2.11	162	60	37	11	7	16	10	75	46	56	
Nsipe	233			233	100	533	2.29	996	1.87	594	283	48	102	17	101	17	108	18	35	
Nsiyaludzu	541			535	99	1,254	2.32	2,319	1.85	1,400	697	50	163	12	140	10	400	29	39	
Ntcheu D.H.O	503			503	100	1,305	2.59	2,233	1.71	1,457	943	65	207	14	132	9	175	12	21	
Ntonda	103			102	99	233	2.26	406	1.74	251	126	50	34	14	19	8	72	29	36	
Nzama	189			189	100	405	2.14	774	1.91	451	186	41	43	10	32	7	190	42	49	
Phanga	53			51	96	139	2.62	268	1.93	154	61	40	10	6	4	3	79	51	54	
Senzani	82			81	99	164	2.00	326	1.99	214	106	50	21	10	25	12	62	29	41	
Sharp Valley	15			15	100	33	2.20	64	1.94	32	14	44	9	28	5	16	4	13	28	
Tsangano	173			169	98	390	2.25	813	2.08	420	216	51	25	6	28	7	151	36	43	