



Total population	1,459,699
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Mortality

Total number of deaths (all causes)	3,978
Crude mortality rate (CMR) (/1000/month)	0.25 
Under-five mortality rate (U5MR) (/1000/month)	0.64 

Cause-specific mortality (%)*

Malaria (Crude)	10% (n=420)
Malaria (Under 5)	15% (n=242)

Morbidity

Total number of health events	2,777,767
Total number of malaria cases	313,994
Malaria incidence (Crude) (/1000/month)	19.7
Malaria incidence (Under 5) (/1000/month)	51.6



Cause-specific morbidity (%)*

Malaria (Crude)	11%
Malaria (Under 5)	13%

Diagnosis

Slide positivity rate	24%
RDT positivity rate	30%

Prevention

Coverage of IPTp for malaria	71% 
Coverage of LLIN distribution	82% 

POPULATION UNDER SURVEILLANCE

At the end of Dec 2008 a total of sixteen countries were reporting into the HIS using standardised tools and guidelines. The total population under surveillance was 1,459,699 across 84 refugee camps and 24 different implementing partners. The start dates of reporting and population in each HIS country is shown in Annex 1. The annex also lists the camps which opened or closed during the period and the names of the HIS implementing partners.

GLOBAL HIGHLIGHTS

- **Malaria was the second leading cause of illness** during the period. 11% of total morbidity and 13% of under-five morbidity was due to malaria. This marks a successive reduction in malaria disease burden from 42% in 2006 and 23% in 2007 (crude);
- The scaling up of coverage of **long-lasting insecticide net** (LLIN) has been identified as one of the operational priorities in the 2008-12 Strategic Plan for malaria. In November 2009 UNHCR and the UN Foundation engaged in a partnership to reach universal LLIN coverage for refugees in Africa through the **Nothing But Nets** campaign.
- **Malaria was the second leading cause of death** after LRTI between Jan – Dec 2008. 10% of total deaths and 15% of deaths in under-fives were attributable to malaria;
- **High malaria-specific mortality rates were observed in Uganda** (Crude 0.97; U5 3.36) and should be investigated.
- **High malaria case fatality rates (CFR) should be examined in Yaroungou**, Chad (CFR 7%), **Imvepi**, Uganda (CFR 10%), **Nayapara**, Bangladesh (CFR 9%) and **Fugnido**, Ethiopia (CFR 8%)

PUBLIC HEALTH ISSUES AND CONCERNS

MORTALITY

Between Jan and Dec 2008, a total of 3,978 deaths were reported in all age groups (CMR 0.25/1000/month). The major causes of crude mortality were LRTI (14%; n=567), followed by **malaria** (10%; n=420) and neonatal death (5%, n=186)*.

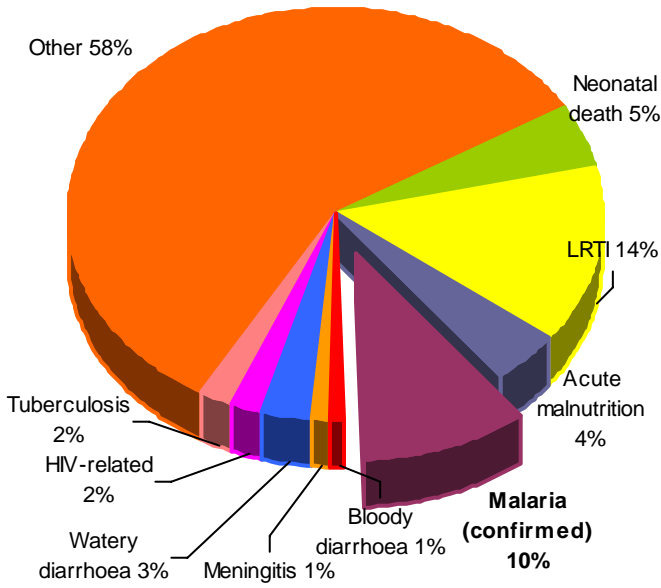
In total 1,655 deaths (40%) during the period were among children under five (U5MR 0.64/1000/month). The major causes of <5 mortality were LRTI (23%; n=381), **malaria** (15%; n=242), and neonatal death (11%, n=186)*.

The highest malaria-specific mortality rates were observed in **Uganda** (Crude 0.97; <5 3.36). Borderline high rates should also be monitored in **Sudan** (Crude 0.76; <5 3.45). Proportional crude mortality for all sites is shown in Figure 1.

37% of crude deaths (n=1,518) were reported from in-patient facilities. On average, country-specific case fatality rates (CFR) due to malaria were low. However, high malaria case fatality should be examined in **Yaroungou**, Chad (CFR 7%), **Imvepi**, Uganda (CFR 10%), **Nayapara**, Bangladesh (CFR 9%) and **Fugnido**, Ethiopia (CFR 8%)

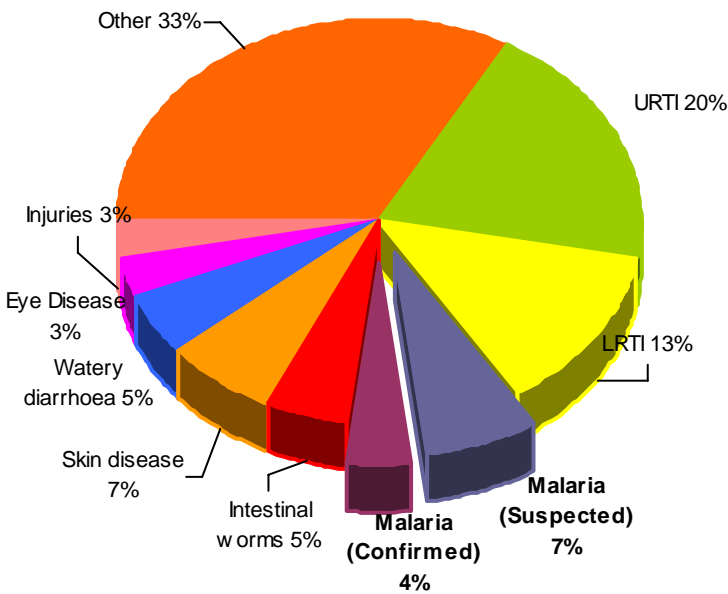
* excluding the category 'others'

Figure 1 - Crude Proportional Mortality



MORBIDITY

Figure 2 - Crude Proportional Morbidity



A total of 2,777,767 cases of health events under surveillance were reported from all age groups during the period. Of these 36% (n=990,463) were among children under 5 years of age.

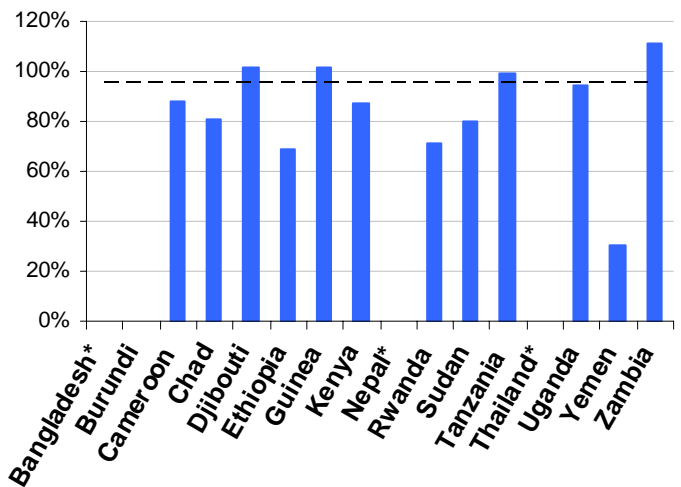
In all age groups URTI (20%) was the major cause of morbidity followed by **malaria** (11%), LRTI (13%), skin disease (7%) and intestinal worms (5%)*. Among children under five the top causes of morbidity were URTI (25%), LRTI (20%), **malaria** (11%), watery diarrhoea (9%) and skin disease (7%)*. Proportional crude morbidity rates are shown in figure 2.

* excluding the category 'others'

PREVENTION

Global coverage of intermittent preventive treatment for malaria in pregnancy (ITPp) was 71%. Lowest coverage rates were observed in Ethiopia (69%), Rwanda (71%), Sudan (80%) and Yemen (30%) (see figure 3). Imvepi, Kyaka II, Madi Okollo and Rhino Camps in Uganda, and Mwange in Zambia, should investigate this indicator for reporting error and were excluded from the analysis. Borderline reporting error should also be monitored in Zambia (111%). Bangladesh, Nepal and Thailand were excluded due to low malaria endemicity meaning that routine IPTp is not indicated.

Figure 3 - Coverage of IPTp

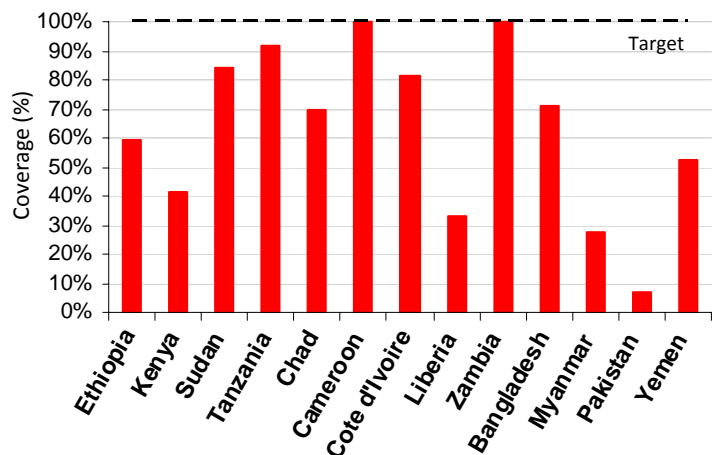


* No routine IPTp programme

Global coverage of long-lasting insecticide treated nets (LLITN) averaged at 82%. Universal coverage (1 net per 2 persons) was achieved in Cameroon and Zambia with the support of the UN Foundation. Kenya, Uganda, Tanzania and Sudan are among the countries to benefit first from the ongoing Nothing But Nets fundraising campaign that the UN Foundation has dedicated to UNHCR in 2008/9.

Figure 4 - Coverage of LLIN distribution

(Target: universal coverage 100% 1LLIN/ 2 persons)



ANNEX 1 POPULATION UNDER SURVEILLANCE

Table 1 Reporting start dates for HIS (in chronological order)

No.	Country	Population	First reporting date
1	Tanzania	176,183	Sep 05
2	Kenya	288,031	Jun 06
3	Ethiopia	66,920	Oct 06
4	Uganda	115,215	Jun 07
5	Sudan	96,880	Jul 07
6	Bangladesh	28,123	Aug 07
7	Nepal	101,638	Sep 07
8	Djibouti	8,259	Oct 07
9	Guinea	3,500	Oct 07
10	Chad	253,168	Nov 07
11	Burundi	16,762	May 08
12	Rwanda	53,846	May 08
13	Thailand	146,852	May 08
14	Zambia	54,288	June 08
15	Yemen	45,592	June 08
16	Cameroon	4,442	July 08
	Global	1,459,699	

Table 2 List of opened/closed camps during the reporting period

Country	Opened	Closed	Date
Ethiopia		Bonga	Apr 08
		Dimma	Apr 08
Tanzania		Mtabila II	Jan 08
		Lukole	Jun 08
		Nduta	Jun 08

Table 3 List of HIS partners

Name of Organisation

- | | |
|---------------------------------------------------------------------|------------------------------------------------------------|
| 1. Administration for Refugee and Returnee Affairs, Ethiopia (ARRA) | 13. Human Appeal International (HAI) |
| 2. African Development and Emergency Organisation (ADEO) | 14. International Federation of Red Cross Societies (IFRC) |
| 3. Africa Humanitarian Action (AHA) | 15. International Medical Corps (IMC) |
| 4. Aktion Afrika Hilfe (AAH) | 16. International Rescue Committee (IRC) |
| 5. Aide Medicale Internationale (AMI) | 17. Malteser International (MI) |
| 6. American Refugee Committee (ARC) | 18. Ministry of Health, Bangladesh |
| 7. Asian Medical Doctors Association (AMDA) | 19. Norwegian Peoples Aid (NPA) |
| 8. Cooperazione Internazionale (COOPI) | 20. Sudanese Red Crescent Society (SRCS) |
| 9. Deutscher Entwicklungsdienst (DED) | 21. Tanzania Red Cross Society (TRCS) |
| 10. District Directorate Health Services Uganda (DDHS) | 22. Zambian Red Cross Society (ZRCS) |
| 11. German Agency for Technical Cooperation (GTZ) | 23. CSSI |
| 12. Global Health Foundation (GHF) | 24. CSSW |

ANNEX 2 MALARIA INDICATOR TABLE

Indicator	Total pop	Malaria deaths <5	Malaria %morb <5	Malaria deaths crude	Malaria %morb crude	Malaria cases <5	Malaria %morb <5	Malaria cases crude	Malaria %morb crude
Global									
	1459699	242	13%	420	11%	127239	13%	313994	11%
By country			0%		0%				
Bangladesh	28123	0	0%	0	0%	156	0%	1211	1%
Burundi	16762	2	0%	3	1%	1470	9%	3327	8%
Cameroon	4442	1	9%	2	8%	540	23%	3658	35%
Chad	253168	40	12%	53	11%	14133	12%	32673	11%
Djibouti	8259	0	23%	0	35%	2	0%	57	0%
Ethiopia	66920	1	0%	2	0%	1566	4%	3856	4%
Guinea	3500	4	4%	5	4%	1646	34%	4023	24%
Kenya	288031	39	34%	73	24%	19373	11%	34017	8%
Nepal	101638	0	11%	0	8%	52	0%	1530	0%
Rwanda	53846	0	3%	1	3%	477	3%	1124	3%
Sudan	96880	32	16%	74	16%	6239	16%	22706	16%
Tanzania	146852	0	1%	5	2%	1066	1%	10963	2%
Thailand	176183	47	21%	84	20%	34162	21%	81625	20%
Uganda	115215	70	43%	112	37%	35823	43%	91109	37%
Yemen	45592	1	0%	1	0%	7	0%	18	0%
Zambia	54288	5	36%	5	35%	10527	36%	22097	35%
By Camp									
Abuda	21968	15	40%	19	38%	726	25%	2445	24%
Adjumani	8259	0	0%	0	0%	7520	40%	19948	38%
Ali Adde	12040	4	35%	4	27%	2	0%	57	0%
Amboko	16696	0	12%	0	11%	2432	35%	5539	27%
Amnabak	4382	0	0%	0	1%	475	12%	1144	11%
Ban Don Yang	4014	0	0%	0	1%	17	0%	209	1%
Ban Mae Surin	18355	0	0%	0	1%	30	0%	365	1%
Ban Mai Nai Soi	14995	0	0%	0	0%	27	0%	440	1%
Basateen	17504	0	0%	0	1%	1	0%	1	0%
Beldangi I	21194	0	0%	0	0%	26	0%	509	1%
Beldangi II	11458	0	0%	0	0%	0	0%	92	0%
Beldangi II ext	938	0	6%	0	7%	7	0%	168	0%
Bonga	31798	2	7%	2	7%	72	6%	215	7%
Bredjing	66737	9	10%	15	6%	334	7%	910	7%
Dagahaley	2715	0	14%	0	12%	4739	10%	6479	6%

e = error in data collection, excluded from analysis

Indicator	Total pop	Malaria deaths <5	Malaria %mort <5	Malaria deaths crude	Malaria %mort crude	Malaria cases <5	Malaria %morb <5	Malaria cases crude	Malaria %morb crude
By Camp									
Dimma	16895	2	1%	3	2%	69	14%	142	12%
Djabal	8339	11	33%	16	27%	178	1%	627	2%
Dosseye	20782	0	7%	0	6%	2685	33%	5682	27%
Farchana	1400	0	29%	0	24%	177	7%	388	6%
Fau 5	21989	0	0%	0	1%	244	29%	614	24%
Fugnido	20221	0	6%	0	6%	68	0%	342	1%
Gaga	8092	2	7%	3	8%	498	6%	1193	6%
Gasorwe	17053	0	0%	1	2%	408	7%	1178	8%
Gihembe	2826	0	4%	0	5%	21	0%	161	2%
Gihinga	9210	1	14%	1	14%	133	4%	387	5%
Girba	8282	0	0%	0	0%	734	14%	2526	14%
Goldhap	12709	0	41%	0	27%	6	0%	174	0%
Gondje	20833	13	4%	18	5%	2586	41%	4979	27%
Goz Amer	90956	15	7%	31	4%	775	4%	2280	5%
Hagadera	79433	9	6%	14	3%	3409	7%	4900	4%
Ifo	791	0	41%	1	37%	2633	6%	3914	3%
Ikafe	7321	0	46%	0	36%	560	41%	1185	37%
Imvepi	50905	6	26%	13	19%	891	46%	3050	36%
Kakuma	12753	0	18%	0	21%	8592	26%	18724	19%
Kala	16096	0	0%	0	1%	624	18%	1686	21%
Kebribeyah	7637	1	0%	1	0%	12	0%	177	1%
Kharaz	13214	0	0%	0	0%	6	0%	17	0%
Khudunabari	12954	4	15%	14	17%	4	0%	198	0%
Kilo 26	5919	0	52%	2	42%	585	15%	4148	17%
Kiryandongo	18498	0	6%	0	4%	923	52%	2473	42%
Kiziba	3500	4	34%	5	24%	258	6%	527	4%
Kouankan II	18644	0	4%	0	6%	1646	34%	4023	24%
Kounougou	11047	0	0%	0	1%	263	4%	1045	6%
Kutupalong	14893	33	39%	41	33%	57	0%	753	1%
Kyaka II	12946	5	42%	7	40%	3531	39%	7310	33%
Kyangwali	4442	1	23%	2	35%	6960	42%	17424	40%
Langui	28995	10	10%	13	9%	540	23%	3658	35%
Lugufu	3577	2	46%	5	37%	4804	10%	8533	9%
Lukole	1012	2	65%	4	49%	4984	46%	9044	37%
Madi Okollo	42896	0	1%	2	3%	630	65%	1477	49%
Mae La	16528	0	2%	0	4%	362	1%	4153	3%

e = error in data collection, excluded from analysis

Indicator	Total pop	Malaria deaths <5	Malaria %mort <5	Malaria deaths crude	Malaria %mort crude	Malaria cases <5	Malaria %morb <5	Malaria cases crude	Malaria %morb crude
By Camp									
Mae La Oon	17424	0	1%	1	2%	319	2%	2261	4%
Mae Ra Ma Luang	15751	0	38%	0	39%	125	1%	1186	2%
Maheba	10474	3	48%	3	37%	3577	38%	8092	39%
Mayukwayukwa	17019	1	2%	1	7%	1207	48%	2472	37%
Mile	45247	9	23%	20	22%	185	2%	1294	7%
Mtabila	36692	1	19%	1	19%	10533	23%	23331	22%
Mtabila II	5844	0	13%	0	12%	392	19%	1130	19%
Musasa	15310	2	36%	2	36%	929	13%	1762	12%
Mwange	30829	11	42%	29	36%	5119	36%	9847	36%
Nakivale	17076	0	0%	0	1%	6086	42%	17838	36%
Nayapara	12044	3	28%	10	28%	99	0%	458	1%
Nduta	17959	0	1%	1	2%	7806	28%	24248	28%
Nu Poh	18295	0	4%	0	4%	99	1%	1061	2%
Nyabiheke	49628	22	17%	35	18%	198	4%	436	4%
Nyaragusu	2175	1	50%	4	43%	5643	17%	15339	18%
Oruchinga	27218	0	2%	0	3%	899	50%	2394	43%
Oure Cassoni	11899	2	45%	4	40%	359	2%	1136	3%
Palorinya	5462	1	48%	1	40%	6035	45%	13141	40%
Rhino Camp	22960	0	0%	0	0%	1788	48%	4869	40%
Sanaa	20070	0	0%	0	0%	0	0%	0	0%
Sanishare	23417	12	15%	38	13%	7	0%	246	0%
Shagarab I II III	4784	1	12%	2	12%	1765	15%	5826	13%
Sherkole	10172	0	10%	0	8%	380	12%	970	12%
Shimelba	3009	0	24%	0	21%	965	10%	2003	8%
Suki	10226	0	0%	0	0%	197	24%	637	21%
Teferiber	7866	0	1%	0	2%	0	0%	7	0%
Tham Hin	9916	0	0%	0	0%	51	1%	567	2%
Timai	16641	0	8%	0	9%	2	0%	143	0%
Treguine	10328	3	12%	5	11%	1112	8%	2854	9%
Um Gargour	17428	0	0%	1	1%	272	12%	870	11%
Umpiem Mai	32498	5	19%	5	18%	36	0%	721	1%
Wad Sharifey	13333	7	46%	9	35%	1716	19%	5640	18%
Yaroungou						2074	46%	3602	35%

e = error in data collection, excluded from analysis

Disclaimer - This document is based on routine health data that implementing partners submit every month to UNHCR from health facilities and hospitals within refugee camps.

The information does not reflect the situation from areas outside of refugee camps where no health services are offered or where UNHCR does not support health services.

Information is collected and reported using standardised paper-based tools and normative guidelines and aims to be as accurate and reliable as possible. Data aggregation and analysis is performed using HIS database software developed with the support of iMMAP (www.immap.org).

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