



SUMMARY OF GHANA 2004 ITN SURVEY

HIGHLIGHTS

91% of respondents were aware of nets treated with insecticide

38% of households owned a net

19% of households owned a currently treated ITN*

30% of children under five slept under a net the prior night

13% of children under five slept under an ITN the prior night*

21% of pregnant women slept under a net the prior night

8% of pregnant women slept under an ITN the prior night*

*Roll Back Malaria Core Indicator; ITN=long lasting net or one treated within the prior 12 months



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SUMMARY

GHANA 2004 ITN SURVEY

SAMPLE

- Sites: Accra, Keta, Kumasi, Wa and Tamale
- Sample size: 300 per site; 120 respondents from the urban center, and 180 households from up to 200 kilometers from the urban center.
- Respondents: women aged 15-49 who were mothers or guardians of at least one child under the age of five

DATA COLLECTION: August 2005

KEY FINDINGS

Net Ownership

- The percent of households owning at least one net was 38%, but varied considerably by site. Coverage by site was: Accra 17%, Kumasi 19%, Wa 45%, Tamale 46% and Keta 64%.
- Net ownership was equitable; it did not vary much by socio-economic status (SES).
- The percent of households that owned a net was approximately equal in urban and rural areas.
- Among net-owning households, 27% owned more than one net, with an average of 1.5 nets per household.
- The most common reason given for not owning a net was lack of money (63%). Another 17% of respondents (46% in Tamale) cited lack of availability and 13% of respondents (31% in Accra) said they didn't need nets or used something else for protection against mosquitoes.
- One fourth (25%) of households owned a baby net with a built-in frame.¹

ITN Awareness and Ownership

- Awareness of treated nets was very high; 91% of respondents said they had heard of them.
- Twenty-one percent (21%) of households owned a net that had ever been treated (i.e., already treated when acquired or treated after acquired), ranging from a low of 10% in Accra and Kumasi sites to a high of 36% in Tamale site.
- Nineteen percent (19%) of households surveyed owned an ITN (a currently treated net)², ranging from a low of 9% in Accra site to a high of 34% in Tamale site.
- Ever-treated nets and ITNs were most common in the highest SES households and least common in the middle SES quintile.

¹ Baby nets are not counted in net coverage figures.

² An ITN or currently treated net is defined as a long-lasting net that does not require frequent treatment, a pretreated net obtained within the last 12 months inclusive, or a net that has been soaked with insecticide within the past 12 months inclusive. This definition corresponds with the Roll Back Malaria definition of an ITN.

- ITN-owning households averaged 1.1 ITNs per household.
- Thirty-seven percent (37%) of all nets owned were already treated when they were acquired (either a long-lasting net, a pre-treated net, or treated by someone before acquired by owner).

Appropriate Use

Children under five

- Among all households, 25% of children under five slept under a hanging net the prior night. This ranged from a low of 10% in Accra site and 12% in Kumasi site, to a high of 47% in Keta site. There was not much variation by urban-rural or by SES.
- When baby nets were included, 30% of children under five in all households slept under some type of net, ranging from a low of 17% in Accra site and 20% in Kumasi site, to a high of 50% in Keta site. There was not much variation by urban-rural or by SES.
- Among all households, 13% of children under five slept under an ITN (currently treated net) the previous night, ranging from a low of 5% in Accra site to a high of 24% in Tamale site. Under-fives in the middle SES quintile were least likely to sleep under an ITN.
- Within net-owning households, 68% of children under five slept under a net the prior night. When baby nets were included, 71% of under-fives in net-owning households slept under some kind of net.
- Younger under-fives were more likely than older ones to sleep under a net or ITN, with use dropping off most sharply at age four.
- There did not appear to be gender bias in childhood net use.

Pregnant women

- Among all households, 21% of pregnant women slept under a net the previous night, from a low of 13% in Kumasi site (n=23) and 14% in Accra site (n=21) to a high of 29% in Tamale site (n=24). There was virtually no urban-rural difference.
- Among all households, 8% of pregnant women slept under an ITN the prior night. No pregnant woman in the sample from Wa (n=20) slept under an ITN the prior night. The highest proportion was in Tamale at 17% (n=24).
- Within net-owning households, it appears that pregnant women were somewhat more likely than non-pregnant women of reproductive age to sleep under a net: 69% compared with 61%. (There were only 32 pregnant women in net-owning households, so we cannot draw firm conclusions.)

General patterns

- Within net-owning households, children under five years (71%, including those under baby nets) and pregnant women (69%) were most likely to sleep under a net. Males over the age of 15 were the least likely to sleep under a net (25%).
 - Nearly one-quarter of nets (23%) were not used the prior night, with the highest proportion of unused nets in the Accra site (37%).
 - Thirty-seven percent (37%) of net-owning households used their nets year-round. The mean number of months nets were in use was 7.2 months per year, but ranged from a low of 5.4 months in Tamale to a high of 9.2 months in Keta.

Characteristics of Nets

Net Treatment and Washing

- Among all nets owned, 45% had ever been treated; 38% were already treated when they were acquired, and 19% had been treated since purchase, regardless of whether they were pretreated. Forty percent (40%) of nets were currently treated (ITNs).
- Seven percent (7%) of nets owned originally came bundled with an insecticide packet.
- Among nets that were treated since acquired, 48% were treated at home by a member of the household the last time they were treated, 4% were treated somewhere else (usually by a health worker), and 9% were treated by someone who came to the house specifically to treat the net.
- Among nets that were treated since acquired, the source of the treatment product was about half commercial and half non-commercial. The non-commercial source was mainly a health facility.
- Brand awareness (aided) of net treatment product was high: 73% of nets that were last treated at home were said to be treated with KO Tab and 12% by Iconet; 16% did not know the brand.
- The median cost of the treatment product was 5000 cedis, but ranged from 2000 in Tamale to 13000 in Keta.
- Three-quarters (75%) of nets had been washed. Net were washed often: 46% of all nets were reportedly washed at least once a month.

Net type, age, source, brand, price, and purchaser

- A high proportion of nets was tailor-made: 58% of nets were manufactured; 38% were tailor-made; and 4% were originally manufactured but re-configured by a tailor (usually rectangular nets re-made into conical).
- Many nets were fairly new: 32% were obtained within the prior year and 34% were obtained 1-2 years prior.
- Most nets (63%) were obtained from commercial sources, almost all from a market. Almost all non-commercial nets were obtained from a health facility. In some sites the source of nets owned was primarily commercial while in others it was primarily non-commercial. In Keta, 85% of nets owned were obtained from commercial outlets, whereas in Tamale, 72% of nets were obtained from a clinic, the only non-commercial source.
- The brand was unknown for 30% of commercially-made nets owned. The main brands identified by the respondent or a label were UNICEF and/or SiamDutch (26%), followed by Permanet (16%), KO Net (13%), NetMark (8%).
- Reported net prices ranged considerably: from under 5,000 to almost 100,000 cedis. The median price was 30,000 cedis (US\$3.42), with higher SES households paying more than lower SES households. [Note that for 24% of nets the cost was unknown and for another 1.4% the net was free. Further, because of potential problems with recall for older nets, and because of currency devaluations over time, these prices should be taken as very general estimates.]
- Just over half (52%) of the nets were obtained by the respondent and one-fourth (24%) by the respondent's husband.

Net size, shape, and color

- Most of the nets owned were double-sized (82%) and rectangular in shape (94%).
- Two-thirds (67%) of nets owned were white (90% in Keta) and 13% were green (39% in Tamale, where the green UNICEF-SiamDutch nets were common.)

Net Preferences

- Equal numbers of respondents (44% each) preferred round/conical-shaped and rectangular-shaped nets.
- Large nets were preferred: 61% preferred triple/king nets and 31% doubles.
- Preferred colors were white (17%), turquoise (13%), and green (13%). Colors most disliked were black (26%) and the dark multi-color sample shown (22%).

Brand awareness, and use and perceptions of other insect control products

- Brand awareness in Ghana is low: 4% could name a net/ITN brand unprompted, and a total of 57% recognized at least one brand after being shown a card with logos with associated brand names. UNICEF was the most recognized “brand”, at 27% (prompted and unprompted).
- Awareness of coils and aerosol insecticides was nearly universal. Use of these commercial insect control alternatives was moderate: 62% had used coils during the mosquito season in the past 12 months and 30% had used aerosols. Among coil users, use was very frequent, with 46% using them daily.
- Among various mosquito control products—coils, sprays, nets, and ITNs—ITNs were ranked highest on most attributes that people want in such products: “is a modern solution”, “keeps mosquitoes away while sleeping”, “is safe to use around children”, “is good value for the money”, “is a long-term solution”, “is a high quality product”, and “reduces malaria.” Sprays were ranked most highly on “kills mosquitoes” and “kills other insects,” with ITNs coming in second on these attributes.

Knowledge of malaria and perceptions of nets

- Recognition of the English term “malaria” was nearly universal at 97%.
- Among those who had heard of the term “malaria”, knowledge of the symptoms of malaria was fair. The main symptoms named were fever (65%), vomiting (37%), pale/yellow palms or eyes (31%), chills (29%), weakness/tiredness (27%), headache (26%) and loss of appetite (25%). Given that the defining symptom of malaria is fever, the proportion mentioning fever was rather low. Only 2% mentioned convulsions, a symptom of severe malaria.
- Among those who had heard the term “malaria”, 82% identified mosquitoes as the cause. Most people also mentioned other causes such as dirty surroundings (31%), weather (24%), and dirty food or water (20%).
- Among those who had heard the term “malaria”, two-thirds correctly named both children under five and pregnant women as the most vulnerable groups.
- Respondents mentioned very few disadvantages of nets and ITNs, and many advantages, chiefly preventing malaria and avoiding mosquito bites. Killing mosquitoes was also commonly cited as an advantage of ITNs.

Communication

- Exposure to information about ITNs was high; 90% had seen or heard something about treated nets in the prior 12 months.
- Those who had heard/seen information about ITNs in the prior year were significantly more likely to own a net that had ever been treated: 23% of those who had heard/seen information and 3% of those who had not owned a net that had ever been treated.
- The main source of information for those who had seen or heard information about ITNs in the previous year was health staff (57% overall, but more than 70% in Keta and Tamale). Other important sources of information were radio (41% overall; 57% in Accra), television (31% overall; more than 50% in Accra and Kumasi), and friends, neighbors or relatives (16%).
- Among those who had seen or heard information on ITNs in the last 12 months, the ideas that were remembered most were: “Kill mosquitoes” (part of the NetMark slogan) and “prevent malaria” (both 41%); protects against mosquito bites (32%); “Mosquitoes kill” (the other part of the NetMark slogan, 22%); “it’s good to use a treated net” (22%); and “prevents illness/better health” (20%).

CONCLUSIONS

There is a “net culture” in many parts of Ghana, and the situation is extremely favorable for further expanding ITN ownership and use. The focus now should be on increasing availability and variety; on reducing the cost of ITNs, especially for vulnerable groups; and on using motivational keys to convert non-owners to owners. Special attention should be given to net treatment—especially treatments that convert nets to long-lasting insecticide-treated nets (LLINs)—given the large quantity of untreated nets already in households. Additionally, special effort is needed to encourage pregnant women to sleep under an ITN.

Favorable factors include:

- Nets are accepted in much of Ghana: they are widely used across SES groups, in urban and rural households, and are generally favorably viewed.
- The great majority of respondents had been exposed to messages about ITNs in the past year; current channels are reaching people.
- The vast majority of people have heard of ITNs. People know that ITNs are more effective than untreated nets; perceive them to be effective against malaria; and do not have negative perceptions of the insecticide.
- A high proportion of nets was obtained in the past 1-2 years, indicating that recent promotion and distribution efforts have been effective.
- Most nets/ITNs are from the commercial sector, suggesting that people see nets/ITNs as a valued commodity that is worth the price.
- There is relatively high use of aerosols and very frequent use of coils, suggesting that people see mosquitoes as a problem and find it worthwhile to pay to combat the problem.
- ITNs are more favorably viewed than aerosols and coils on most desired attributes; people may be open to substituting ITNs for aerosols and coils.
- Within net-owning households, the youngest children are given preference for sleeping under a net and it should be easy to reinforce and expand this practice.

Main barriers to overcome are:

- Within net-owning households, pregnant women are not more likely than other women of reproductive age to sleep under a net; incentives are needed to translate knowledge of vulnerable groups into practice.
- Many nets owned are not used, so family members in net-owning households do not benefit from the protection nets/ITNs afford.
- The perceived (and real) cost of nets is still high for many households – especially among a population largely paid seasonally, mainly after the harvest and end of the rainy season.
- There is still lack of availability in some areas, especially in rural areas, in Tamale, and for households in the lowest SES segment.
- There is lack of variety in net size, shape, and color; and mismatch between features of net/ITN products available and those that consumers want.
- The relatively low education and literacy levels have imply that approaches to communication about product use and treatment be simple and clear.
- The commercial sector faces a lack of strong branding of nets.
- The commercial sector plays a very small role in supplying individual net treatment kits.
- Net treatment practices are inadequate; people need to know and act on the fact that they can convert nets to ITNs.
- Misconceptions about causes of malaria other than mosquitoes may limit the perception of ITNs as a solution to malaria.
- The idea that nets are not needed is a barrier in urban and upper SES households, where use of window screens or other insect control products is more common.