Background

In the past five years there has been a large increase in the number of households in Africa owning a mosquito net. Nets, particularly insecticide-treated nets (ITNs), have been promoted to protect those most susceptible to severe malaria during the first few postnatal years. However, increased ownership of mosquito nets will reduce mortality morbidity and mortality only if the nets are used and the most vulnerable household members sleep under them. To what extent are nets that are owned actually used?

Methodology

Household survey  • 2000 & 2004 – Nigeria, Senegal, Zambia
• 2003 – Mal
• 2004 – Ghana, Ethiopia
• 2005 – Uganda

Sample

• Women aged 15-49 who were mothers’ guardians of children under five years of age.
• 60% from urban center; 40% from rural areas up to 200km away

The survey enumerated household members and collected information on age, gender and pregnancy status. The graphs below show which members in net-owning households slept under a net the night prior to the survey. Baby nets are included for children less than two years old. The analysis was conducted only among net-owning households.

Results

Net use by household members

• In all countries, vulnerable household members were most likely to be under the net: children under five and especially those under two and pregnant women (see Figure 1). The exception was Ethiopia, where fewer pregnant women than non-pregnant women of reproductive age slept under a net.

• Adult males and children 5-14 are least likely to be under the net.

• There were no gender differences in childnet use.

• Under-fives, net use was highest for those in the 0-2 age group and dropped off in most countries by age three and four (see Figure 2).

• Nets cover 2-3 people in all countries except Nigeria, where fewer than 1 people. Across countries, the mean number of people under a net is greater in rural than urban households.

• In all countries except Senegal, a sizable minority of nets that are owned are not being used (see Figure 3).

Description of sample

Household net allocation patterns were generally good and in 2004 they were even better, with higher levels of net use by vulnerable groups.

• In Nigeria, the percent of under-fives and pregnant women under a net in net-owning households dropped off dramatically from 2000 to 2004. Among households owning a net, which household members were most and least likely to sleep under it? How many family members sleep under a net and what are the most common groupings under a net?

Conclusion

Contrary to a popular belief that men are most likely to use household nets, our data show that the most vulnerable groups — children under five and pregnant women — are most likely to sleep under the net. ITN promotion programs need only periodically to reinforce messages about who should use the net, rather than make this a priority message. Programs need to find out why people do not use the nets they own and to devise ways to increase nightly use.

**Figure 1:** Percent of household members who slept under a net the prior night, among net-owning households.

**Figure 2:** Percent of under-fives (in net-owning households) sleeping under a net, by year.

**Figure 3:** Percent of nets used the prior night.