

Changing Perceptions of ITNs in Relation to Other Insect Control Methods in Africa

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Background

People often cite cost as a barrier to owning an ITN. Yet many people spend money on other commercial mosquito control products, in particular aerosols and coils. From a public health point of view, limited household resources should be directed toward ITNs because ITNs are more effective at preventing malaria.

Consumers consider a number of attributes when deciding which mosquito control products to buy. Understanding consumer perceptions helps inform promotional strategies, and monitoring change over time indicates whether past promotion has been successful. We asked survey respondents in Nigeria, Senegal, and Zambia to rate products on a set of attributes in 2000 and again in 2004. Initial perceptions of mosquito control methods varied widely by country, and there have been notable changes in each country since 2000.

Methodology

Sample

- Household survey in Nigeria, Senegal, and Zambia, in 2000 and 2004

Respondents

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

Respondents were asked which mosquito control products (coils, aerosols, untreated nets and treated nets) they thought of when each of a list of nine mosquito control product attributes was named.

- Kills mosquitoes
- Is a modern solution to mosquito problems
- Keeps mosquitoes away while sleeping
- Kills insects other than mosquitoes
- Is safe to use around children
- Is good value for the money
- Is a long-term solution to mosquito problems
- Is a high quality product
- Reduces malaria

Results

The results show that people now have a much more positive image of ITNs than in 2000, and that they distinguish between untreated nets and ITNs. However, ITNs must compete with aerosols in attributes that people value and generally do not associate with ITNs, such as killing other insects besides mosquitoes.

ITNs vs. nets

In 2000, awareness of ITNs was low, so respondents were only asked about nets with no specification of treatment status. In 2004, respondents were asked to respond separately regarding treated and untreated nets. We found that people now view untreated nets as very different from ITNs, with ITNs superior to untreated nets on nearly every attribute in every country (see Figures 1-3). The exception was in Nigeria, where respondents considered untreated nets safer to use around children.

ITNs vs. coils and aerosols

In 2004, over three-fourths of the respondents in Nigeria and Senegal and over two-fifths of those in Zambia reported using coils and/or aerosols during the year before the survey. In 2004, respondents in Senegal and Zambia showed a definitive preference for ITNs over coils and aerosols on all attributes except for killing mosquitoes and killing other insects.

Nigeria has a more favorable view of aerosols than Senegal and Zambia do. In 2000, Nigerian respondents ranked aerosols highest on eight out of nine attributes but in 2004, aerosols were only highest on four out of nine, with ITNs surpassing aerosols on four others. In Senegal and Zambia - where aerosols are used much less frequently - aerosols only outranked ITNs on killing insects other than mosquitoes in 2004 (see Figures 4 and 5). In 2000, nets outranked aerosols on all attributes except for killing mosquitoes and killing other insects and, in Senegal, being a high quality/effective product.

ITNs ranked much higher than coils on all attributes in 2004. Nets compared much less favorably to coils both in 2000 and 2004. Coils were most associated with keeping mosquitoes away while sleeping, and least associated with being a high quality product or a long-term solution to mosquito problems (see Figures 1-3).

Conclusions

Surveys in Nigeria, Senegal and Zambia found fairly high use of aerosols and coils for mosquito control - products that are purchased from commercial sources. At the same time, ITNs are considered superior to coils and aerosols on many desired attributes, which suggests that consumers may be open to substituting ITNs for these other products. The larger initial investment required to purchase an ITN may be a deterrent for those with limited incomes, but this could be overcome by emphasizing that ITNs are more durable and can result in long-term savings. One area where consumers clearly consider aerosols to out-perform ITNs is killing mosquitoes and other insects. Since ITNs do kill other insects, promotional strategies should also link ITNs with this desired characteristic.

Figure 1: Perceived value of mosquito control products in Nigeria

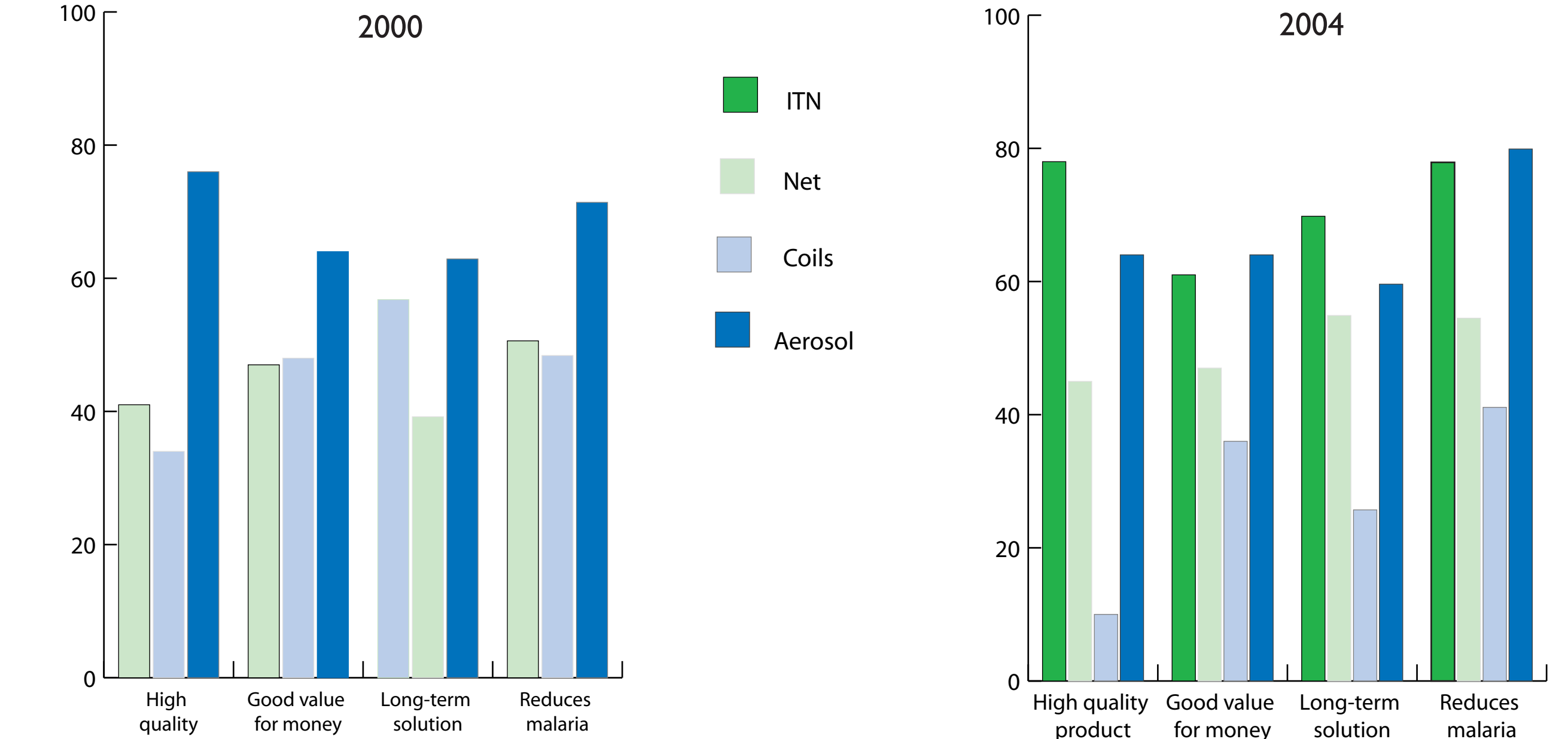


Figure 2: Perceived value of mosquito control products in Senegal

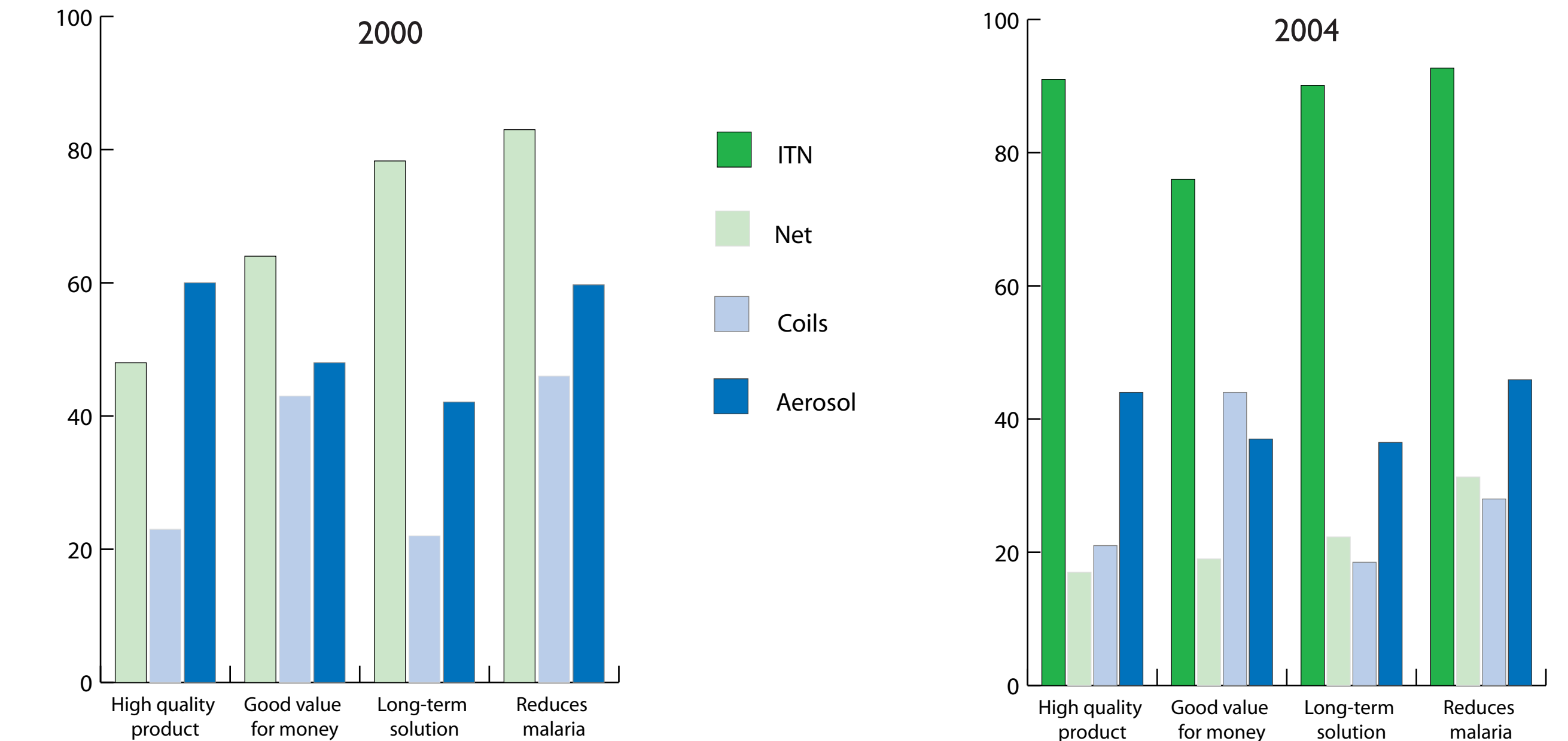


Figure 3: Perceived value of mosquito control products in Zambia

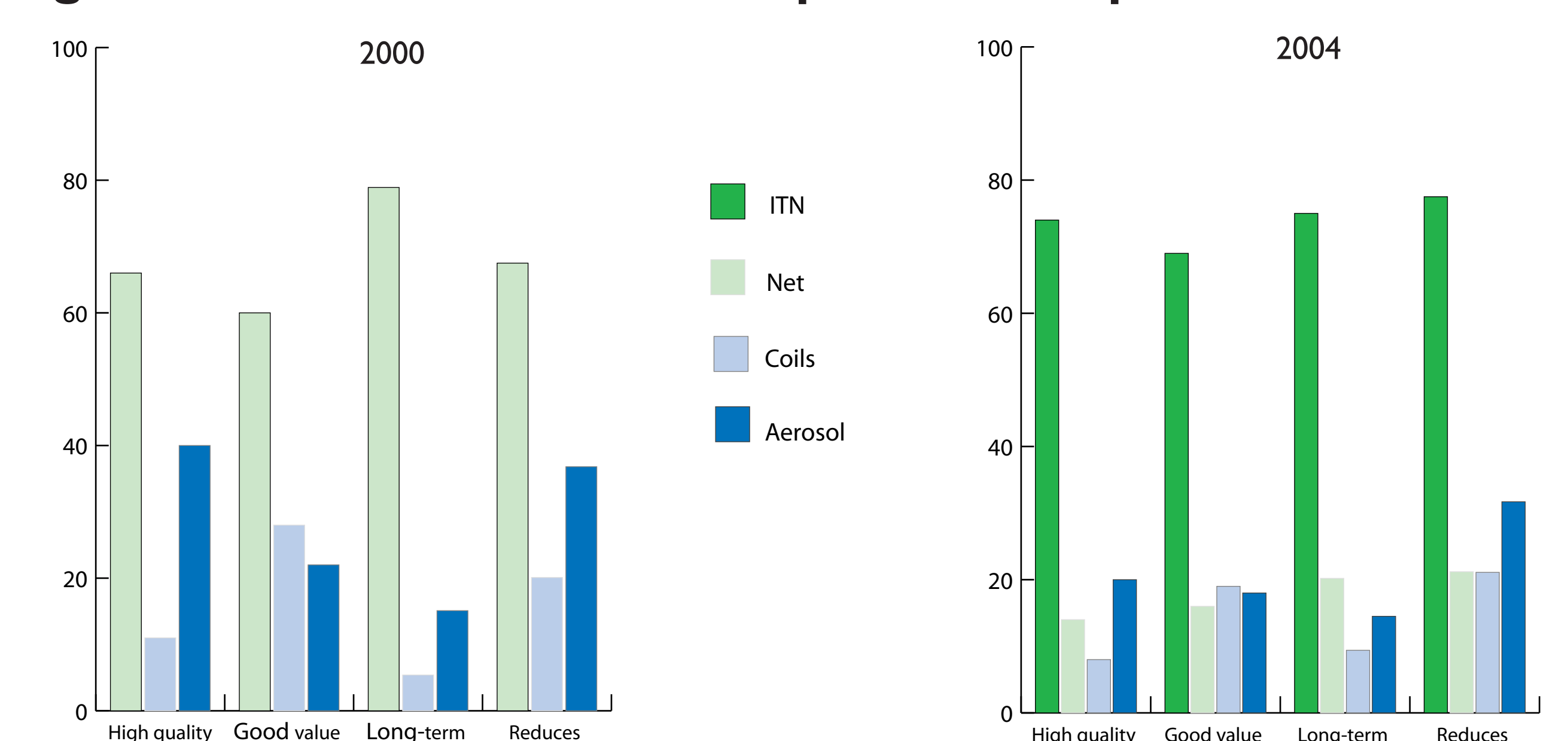


Figure 4: Perceived Effectiveness at Killing Mosquitoes - 2004

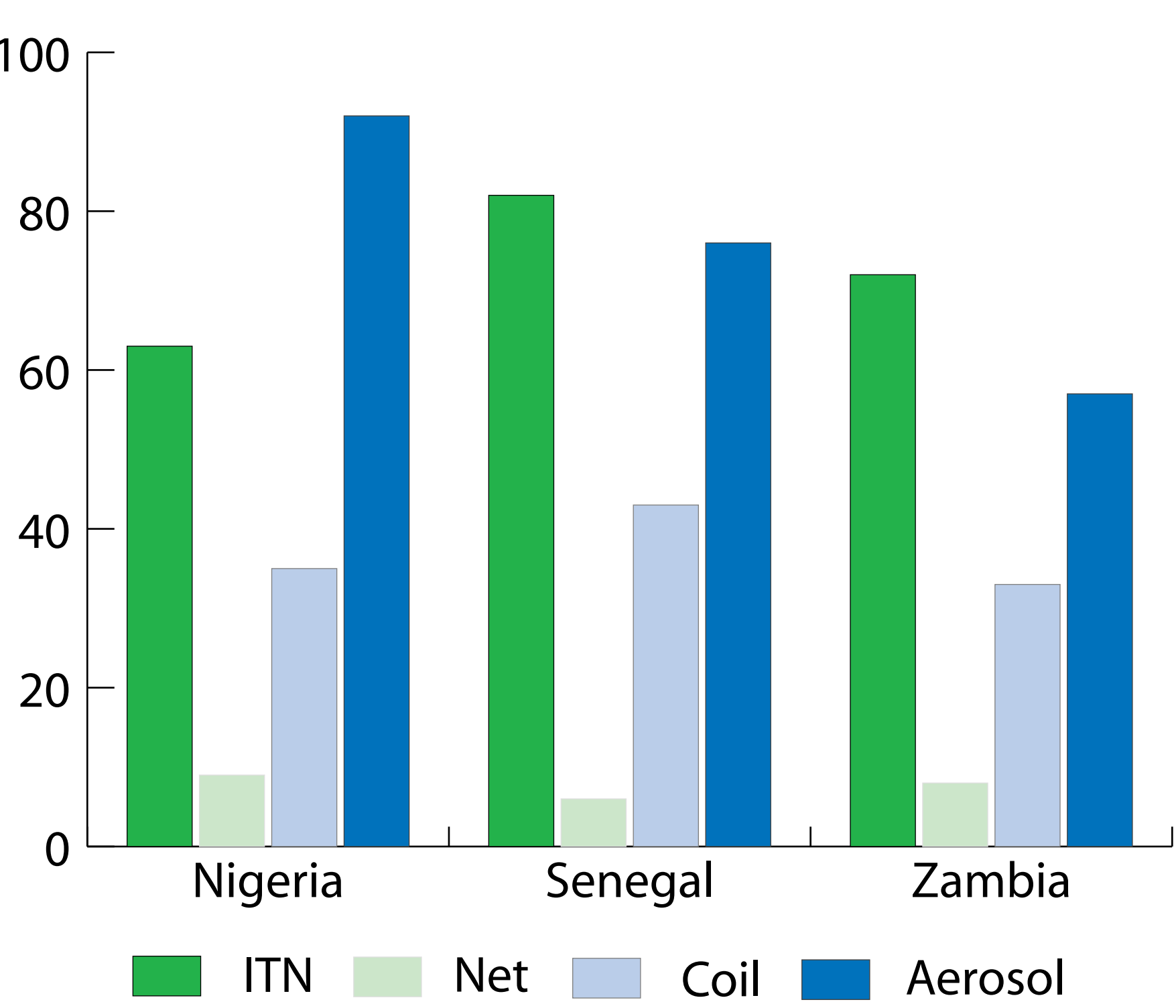
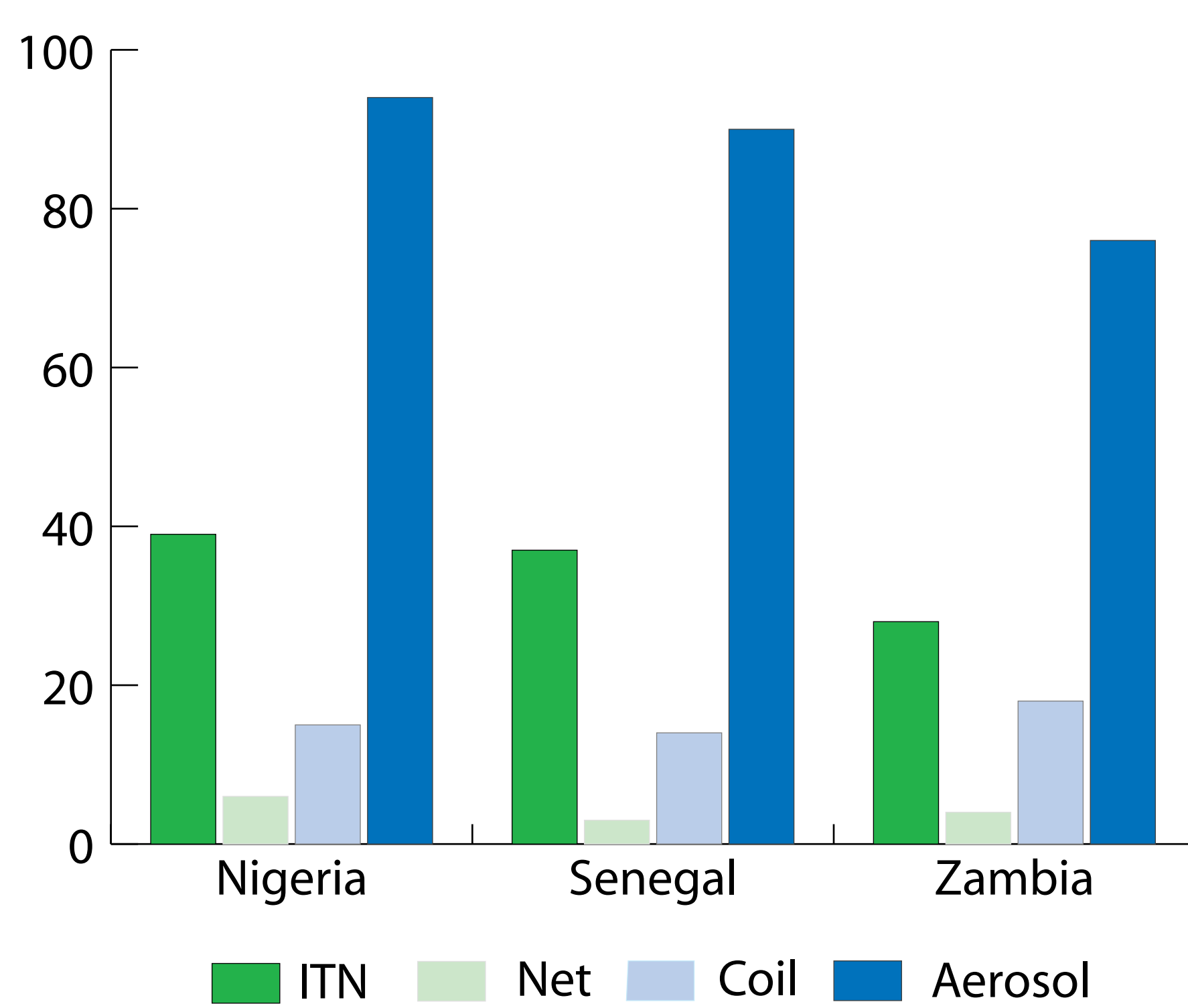


Figure 5: Perceived Effectiveness at Killing Insects - 2004



An Insecticide Treated Net Can Save Your Life ... and Your Money.

Method	Initial Cost	1 Year Cost	5 Year Cost	Comments
Insecticide Treated Bed Net				
Insect Spray				
Mosquito Coil				
Sunday to Sunday Medicine				
No Prevention				
Other				

Buy an ITN and Start Saving Today!



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