

Scope and Extent of Alternative Use of Bed Nets within the Arsi Zone in Ethiopia



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Alternative Use:

The use of bed nets for purposes other than for sleeping under to prevent malaria



Background

- A small number of studies have reported on alternative use of bed nets:
 - Baum et al., 2007—Ethiopia
 - Minakawa et al., 2008—Kenya
 - Atkins et al., 2009—Solomon Islands
 - Iwashita et al., 2010—Kenya
 - Lover et al., 2011—Timor-Leste
- One study concluded that alternative use may hinder malaria prevention efforts:
 - Minakawa et al., 2008
- None of the studies provide generalizable findings.
- They provide insufficient evidence for designing SBCC programs.

Background

- C-Change conducted a study in May 2011 to
 - systematically assess the scope and extent of alternative use
 - develop methods for future formative studies
- The study
 - examined alternative use within the context of their intended use
 - used mixed methods
 - implemented a more rigorous sampling strategy
 - collect data relevant for SBCC program design

Context

One zone in the Oromia Region where C-Change is scaling up SBCC activities

Intervention:
Free_LLIN
distribution plus
SBCC commun-
ication

Comparison:
Free LLIN
distribution,
standard
programming, and
future scale up



Study Objectives

Prevalence of
Alternative
Use

Barriers and
Facilitators

Recommendations
for Improvement

Study Methods

Target groups

- Women of reproductive age
- Health extension workers
- Community leaders

Study design

- Cross sectional
- Intervention and comparison groups

Sampling strategy

- Stratified two-stage cluster sampling for quantitative component
- Purposive sampling for group interviews

Data collection methods

- Household observation and survey
- Group interviews

Results

Bed Net Distribution and Retention

	Intervention (%) N=138	Comparison (%) N=140
1 Bed net	34.1	66.4
2 Bed nets	42.8	31.4
3 Bed nets	22.5	2.1
4 Bed nets	0.7	—
	Intervention (Mean) N=138	Comparison (Mean) N=140
Average # received	1.90	1.36
Average # owned	1.86	1.42

Results

Household Bed Net Use for Malaria Prevention

	Intervention (%) N=129	Comparison (%) N=134
At least one bed net removed from packaging	93.8	87.4
At least one net hung for sleeping	48.1	20.7
At least one person who slept under a net the previous night	45.7	19.4

Results

Household Bed Net Use for Alternative Purposes

	Intervention (%) N=129	Comparison (%) N=135
Alternative use (whole or partial bed nets)	37.2	56.3
• use of whole bed nets only	13.2	48.1
• use of partial bed nets only	20.2	5.2
• use of both whole bed nets and partial bed nets	3.9	3.0

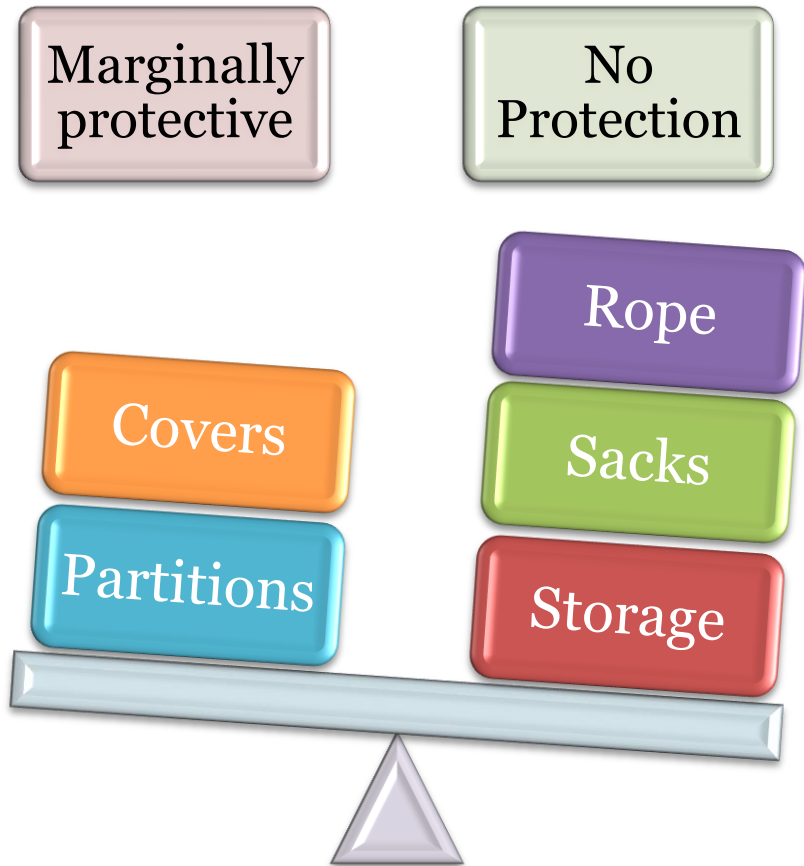
Results

door
window
wall
bedding
transport
cover
grain
curtain
partition
sack
goods
rope
tablecloth



Door Curtain

Results



Results

- Barriers and facilitators to intended use
 - Low perceived malaria susceptibility during dry season

“The malaria starts in the month of October when the corn matures and the weather gets humid. We mostly use it at this time.”
 - Difficulty using nets

“We sleep on the bed by putting the net under the mattress that is how we use it as you can see. We start to renew our house because it gets old. It can not hold a nail so it is not convenient to secure a nail and hang.”
 - Perceived net efficacy

“It prevents mosquito bite that cause malaria.”

Results

- Barriers and facilitators for alternative use
 - Social norms

“It is children who don’t know about the rules and may use it that way, not other people.”
 - Low perceived malaria susceptibility during dry season

“...People are not using the net assuming that mosquito does not breed this time; most of the community use it as a blanket.”

Limitations

Survey was conducted in May, during time considered low malaria season by respondents.

Findings are not generalizable to other zones.

Purposive sampling in comparison communities may have inflated results on alternative use.

Conclusions

- C-Change intervention efforts appear to be having a positive influence.
- Some alternative uses provide protection against malaria.
- Perceived malaria severity appears to contribute to both intended and alternative use.



Implications

- Refining existing SBCC strategies may be sufficient when alternative use is low or moderate.
- High levels of alternative use are likely to require a change in communication strategy.
- Data on barriers and facilitators are essential for both SBCC strategy refinement and change.