Psychosocial and social marketing determinants of intention to own and use mosquito nets in southern Ethiopia

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Overview

Background
Study objectives
Results
Summary
Programmatic recommendations
• About a third of the Ethiopian population is at risk for malaria infections

• Young children are the most vulnerable

• Use of Insecticide Treated Nets (ITNs) is the primary mode of malaria prevention in Ethiopia
Background

• PSI’s malaria prevention program in southern Ethiopia (SNNPR) targets households with children under five

• The following social marketing activities were launched in 2006
  – Distribution of ITNs
  – Implementation of generic and branded ITN & malaria messages
Background

- PSI’s social marketing programs are guided by the PERForM Framework

- PERForM (a PERformance Framework for social Marketing) proposes that the following factors influence ITN ownership and use
  - social marketing activities
  - population characteristics
  - opportunity, ability and motivation (psychosocial) variables
PERForM: a PERformance Framework for social Marketing

HEALTH STATUS

BEHAVIOR

AT RISK/NEED

OPPORTUNITY

ABILITY

MOTIVATION

Availability
Brand Appeal
Social Noms
Knowledge
Social Support
Self Efficacy
Attitudes
Intentions
Subjective Norms
Beliefs
Outcome Expectations
Threat (Risk assessment)

POPOPULATION CHARACTERISTICS

PRODUCT
PLACE
PRICE
PROMOTION

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Background

• Existing research has identified SES and malaria knowledge as determinants of ITN use

• Few studies have examined the role of psychosocial or social marketing variables
Study objectives

• To identify social marketing, population characteristics and psychosocial determinants of intention to own and use ITNs
Methods

• Relevant psychosocial determinants were identified based on OAM variables in PERForM and input from program staff

• A questionnaire was develop to measure the different elements in PERForM

• Multi-item scales were develop to measure psychosocial variables
Methods

- Data were collected within six months after the launch of PSI’s social marketing activities.
- A cross sectional survey was conducted in 1206 households in southern Ethiopia.
- A three stage sampling strategy was used.
- Caregivers of children under five were interviewed about household net ownership and use.
Methods

Logistic regression analysis was used to examine the relationship between intention to own (n=667) and intention to use ITNs (n=1209) and the following predictors:

- Population characteristics (age, religion, marital status, ethnicity, region, SES, education and mosquito net awareness)

- Psychosocial determinants (relevant OAM variables from PERForM)

- Social marketing variables (exposure to branded ITN advertisements, recall of generic and branded messages and intensity of generic messages)
The following psychosocial variables were included in the analysis:

### Opportunity
- Perceived ITN availability
- ITN attributes
- Brand preference
- Social norms for ITN use

### Ability
- ITN & Malaria knowledge
- ITN use self-efficacy

### Motivation
- Perceived social support for ITN use
- Perceived control for ITN use
- Social capital
- ITN attitude
- Perceived susceptibility to malaria
- ITN response efficacy
Results

- 87% have heard of Malaria
- 72% have heard of ITNs
- 40% have at least one mosquito net
- 70% of those who don’t currently own a net intend to own in the next 6 months
- 80% intend to use an ITN in the next six months
# Results

<table>
<thead>
<tr>
<th>Determinants</th>
<th>Own</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITN Knowledge</td>
<td>X</td>
<td></td>
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<tr>
<td>Positive attitude about ITN use</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Low perceived negative ITN attributes</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Positive response efficacy</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>High perceived malaria susceptibility</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Recalled more generic ITN messages</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Received generic ITN &amp; Malaria messages from multiple channels (e.g. radio, community worker, branded vehicle)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Muslim</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

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Summary

- High perceived malaria susceptibility predicted both ITN ownership and use

- High ITN knowledge, low perceived negative ITN attributes and positive outcome expectations predicted intention to own mosquito nets

- Positive attitudes about using ITNs, higher recall of malaria messages, receiving malaria & ITN messages through multiple sources and being Muslim predicted intention to use ITNs
Recommendations

• **To increase ownership and use**
  – Develop communication materials that increase perceived malaria susceptibility

• **To increase net ownership**
  – Develop communication materials that increase knowledge about ITNs and convey positive ITN attributes and response efficacy

• **To increase net use**
  – Develop communication materials to foster positive attitudes about ITN use
  – Use multiple channels for generic malaria & ITN messages
  – Use multiple generic malaria messages
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