

User acceptance of a spatial repellent for mosquito control: Blinded longitudinal evidence from the AEGIS trial in Busia, western Kenya.

Moureen Ekisa, Lucy Baker, Julius I. Odero, Prisca A. Oria, Sheila Ekodir, Jane Ikapesi, Eric Ochomo, Albert Casella, April Monroe, Steve Harvey



In Search of Better Health

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Introduction

Social science study assumptions:

- Epi/ento efficacy is not sufficient for new product adoption.
- End-users must view new product as safe, effective, beneficial, good fit for everyday life.

Study objective:

Assess perceived efficacy, user preferences, social acceptability of SR over 2 years.

Methods: Sampling

- Modified Trials of Improved Practices (TIPs).
- 12 HLC clusters in Teso South, Busia County.
- 30 households – roughly equal intervention/control – were purposively selected for extended commitment.
- The study team remained blinded to the assignment.
- We did a random sample as we were unaware of the study arm assignments.
- Independent statistician drew a random sample: 12 clusters (6 intervention, 6 control)

Methods: Semi-structured in-depth interviews

- Semi-structured IDIs over 2 years – input on acceptability: installation, use, replacement
- 5 IDIs per participant: 1 week + 2, 6, 12 & 18 months after installation.
- Ateso, Swahili



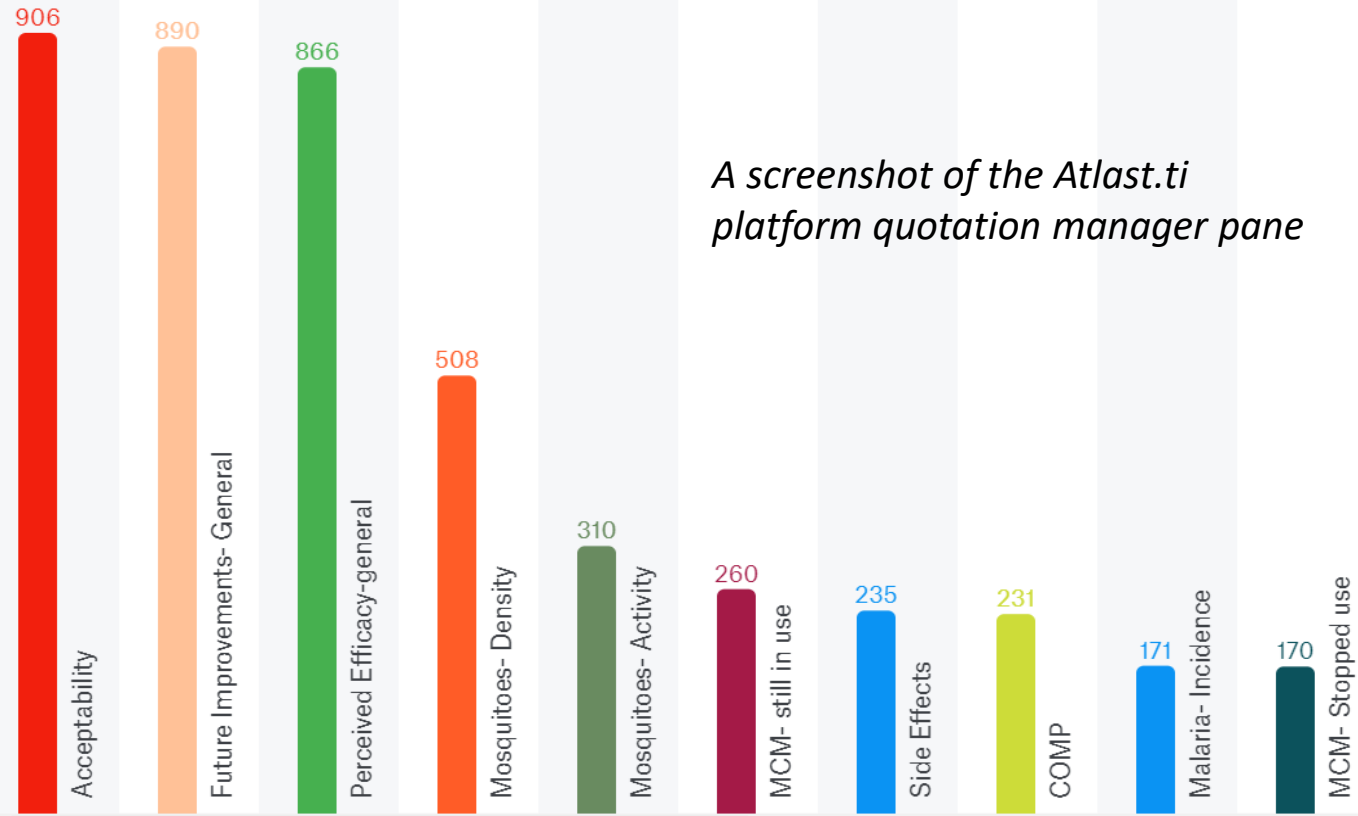
Team member conducting a TIPs interview with a participant

Methods: Observations

- Variables checked: product installation state, physical condition, location of missing products.
- Observed only two structures in the participant's compound.
- Data was collected on tablets.

Methods: Analysis

↓ Chart ▾ Filter Save as View



A screenshot of the Atlast.ti platform quotation manager pane

Interviews were audio-recorded, transcribed, translated to English, and coded thematically with ATLAS.ti platform. Quotes underwent longitudinal analysis using data reduction tables in MS Excel.

Results: Installation issues

- Tape left marks on walls, and products fell frequently.
- Products in the kitchen were covered with soot and smoke.
- Some products had come off the hook and were hanging on a single hook.



Results: Alternative uses of hooks



- Participants normally hang items on their walls.
- Does this affect SR efficacy?

Results: Acceptability & perceived efficacy

- Current results include all interviews; will explore differences between intervention & control participants after unblinding
- Participants gave positive feedback about the products. They protect against mosquitoes without requiring daily setup, unlike nets.
- Many people said they observed a reduction in mosquito density and activities, and some stopped using nets because the SR is effective.
- However, some reported decreased efficacy in subsequent replacements.

Results: Future improvements, & distribution channels.

- One thing people didn't like about the product is the changing after 28 days. they want longer-lasting products with more *dawa* for 3, 6, or 12 months.
- Fewer products on walls.
- Some want biodegradable products due to environmental concerns.
- Size, shape, or color doesn't matter as long as they work.
- Install products in more locations like bathrooms, schools, and hospitals.
- Suggested distribution channels: CHVs as during study, Village elders as with ITNs, Pick up from nearby distribution point.

Summary

- The study examined end-users' preferences and perceptions of the product's feasibility, efficacy, and acceptability.
- Feedback was mostly positive, with a request for the product to last longer.
- Manufacturers can improve product acceptability by using these insights to tailor products to users' preferences.
- More analysis will follow after unblinding.

Acknowledgments



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