

Factors determining the use and non-use of long lasting insecticidal nets over time following a universal coverage campaign:

A qualitative study in mid-western Uganda

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Aim of the study

What are the key determinants which drive sustained or changing patterns of use or non-use of nets over time following mass campaign LLIN distributions?

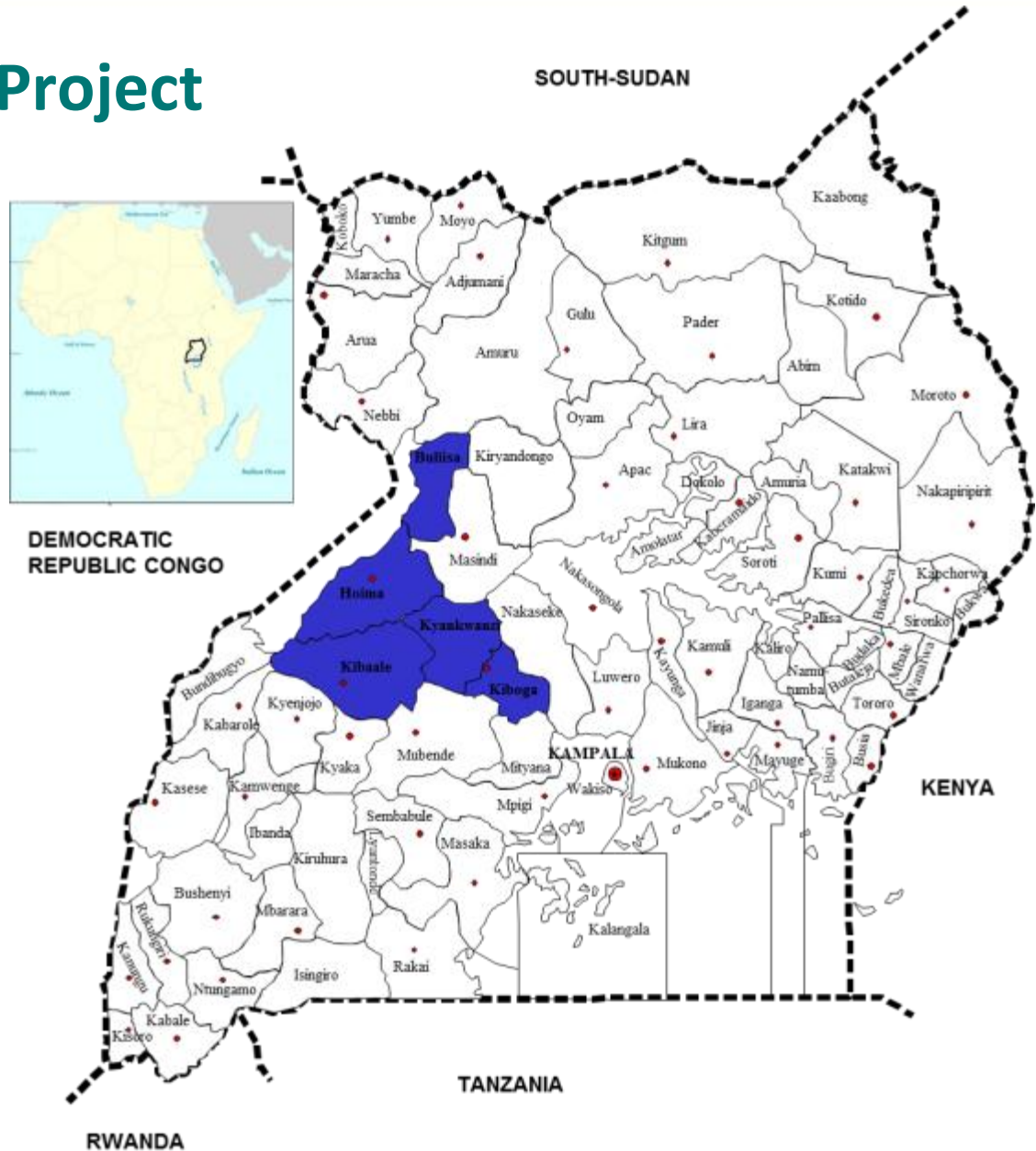
Planning appropriate sustained behaviour change communication (BCC) strategies



Pioneer Project

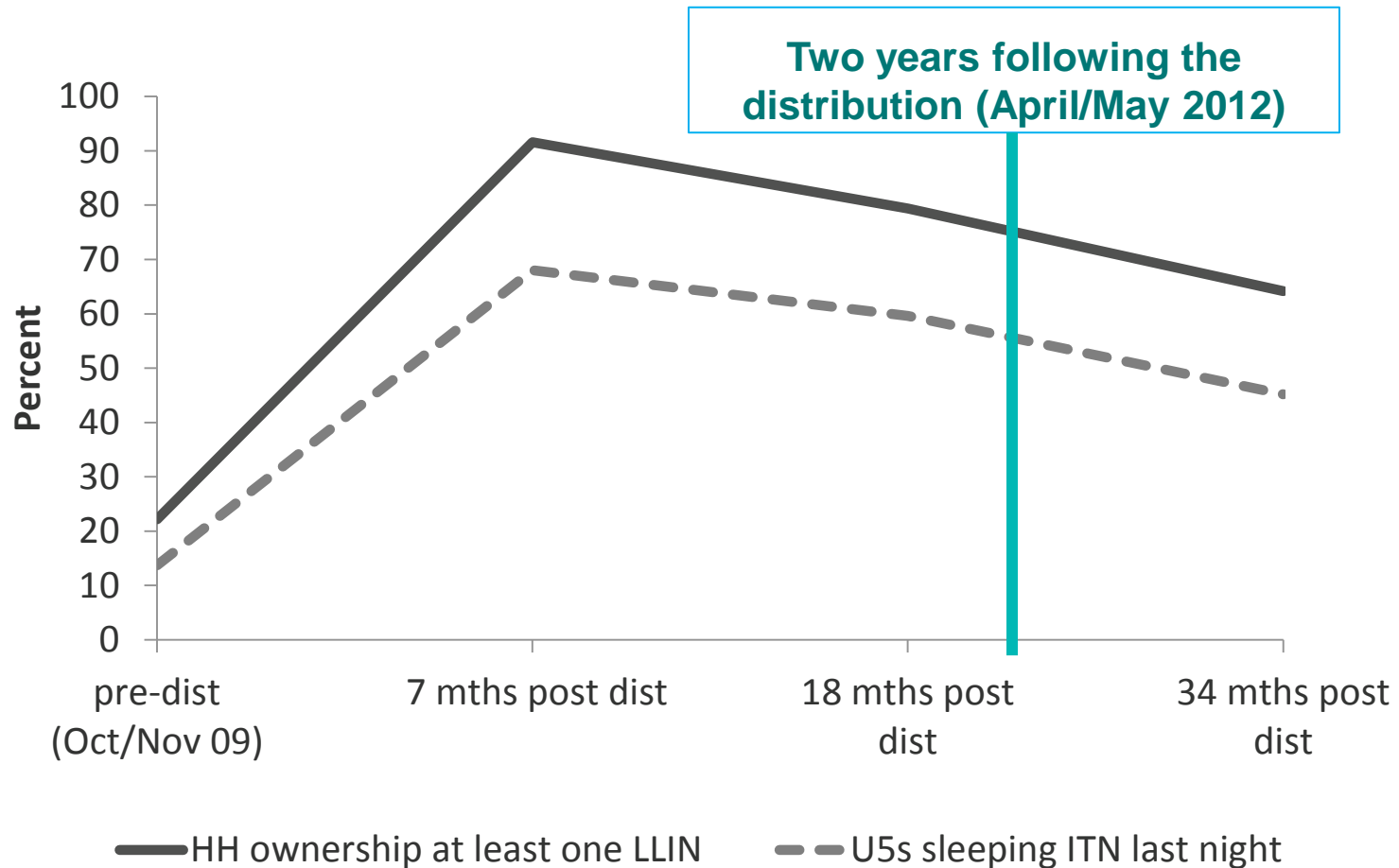
Five year project mid-western region Uganda

Increased supply and demand for malaria control interventions and commodities



LLIN coverage and use

A universal coverage campaign (UCC) distributed 583,551 LLINs in 2010



Study methods

- ❑ Three districts (Kiboga, Hoima, Buliisa): 5 villages
- ❑ Villages were purposively sampled to provide maximum variability in socio-economic, demographic and cultural settings
- ❑ Key informant interviews (KII) net recipients: 5 per village
 - 2 male household heads
 - 2 female caregivers
 - 1 village health team (VHT) member
- ❑ Collection of 'most significant change' (MSC) stories

Data analyses

- ❑ Thematic data analysis (incorporating MSC enquiry) followed the 'framework approach' (*Pope et al. 2000*)
- ❑ Selection of 'most significant' MSC stories followed a stepped, participatory process
- ❑ The stories were also analysed using a summative approach to review frequency of benefits mentioned
- ❑ Positive deviance characteristics which affected net use over the long-term were identified

Results

- ❑ Seventy-four KII were conducted
- ❑ Half of all household informants reported that, where sufficient nets were available, all family members slept under nets most of the time
- ❑ Net use more consistent amongst settled urban and rural, compared to fishing, pastoralist and refugee/immigrant communities

“In this community, all people nowadays sleep under nets - the children who are under five, youths, the old, married people, pregnant women, men and other adults. The nets are used even when fishermen are outside their home....” (VHT, Toonya village, Hoima)

Determinants (non)-use

Subjective factors

- Perceived benefits of net use
- **Past experiences with net use**
- Caregivers role
- **Social support/ influence (particularly of community leaders and household heads)**
- **Net preferences (largely relating to net material)**
- Visibility of mosquitoes and seasonal factors

Objective factors

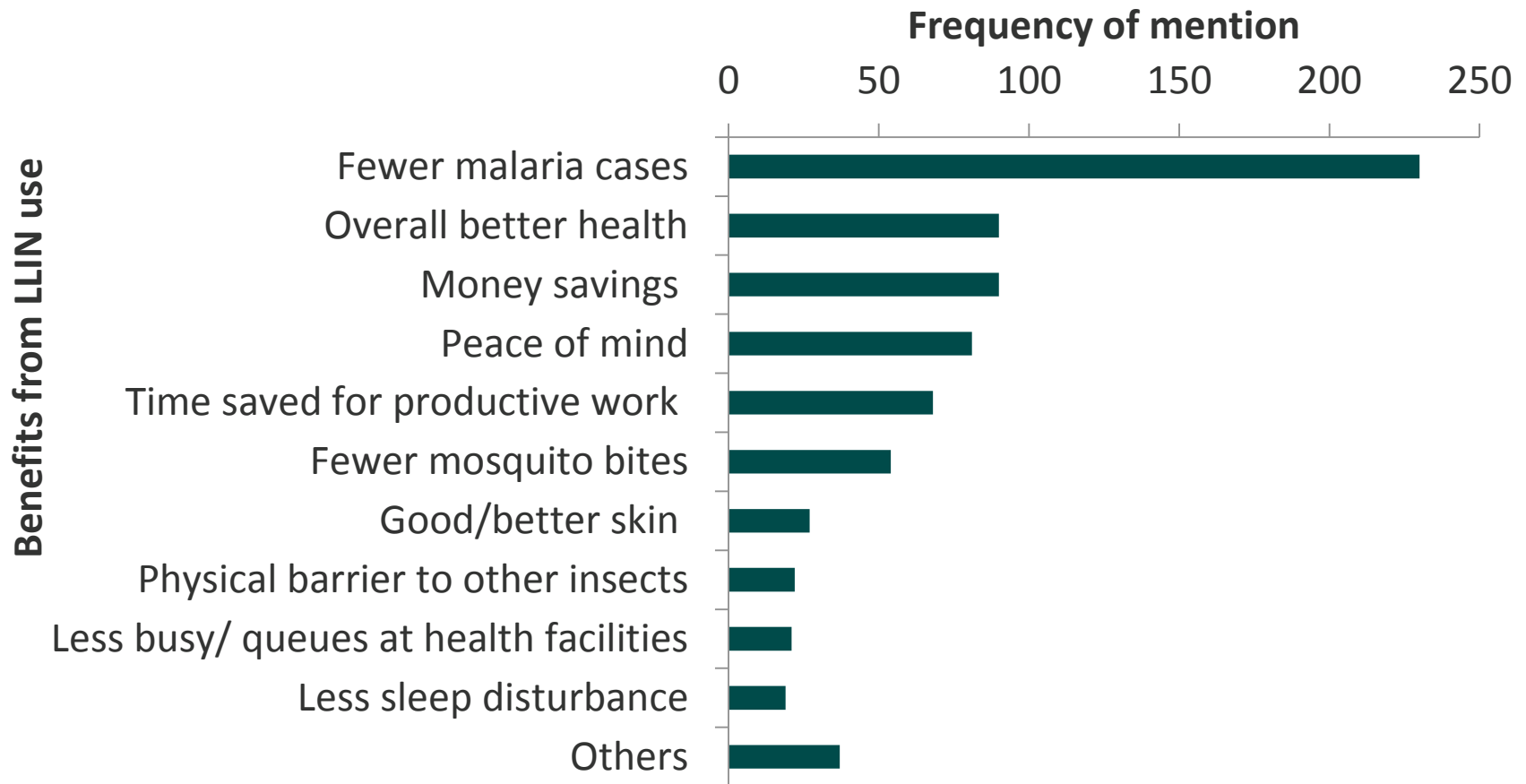
- Household/living conditions (influencing sleeping situations and net hanging/using opportunities)
- Condition of nets
- Net replacement possibilities

Perceived benefits

“This household started using the nets four years back because of the many mosquitoes in the area. We bought nets to stop these mosquito bites which had made our arms and skin look like having small swelling all over. Since that time nets have been part of us. ...we are used to these nets that we can’t sleep without them.” (Female, Biiso trading centre, Buliisa)

“The mosquitoes and insects which used to bite us or fall on us while sleeping, these days I don’t see them ... so we sleep comfortably. ...sleeping under nets has increased my time to go to my gardens and do my domestic work without being tired and stressed. Generally we are happy because we not worried of mosquitoes anymore”. (Female, Kidoma village, Hoima)

Most Significant Change: summative analyses of benefits



Role of the caregiver

“Some children sleep carelessly, others sleep and kick these nets while sleeping and so as a parent I am forced to frequently wake up at night to check whether they are still sleeping in the nets and if not I have to cover them properly.” (Female, Nyeramya village, Buliisa)



Seasonal use

Respondents from eight households reported seasonal use, which appears to be led by the fluctuating visibility of mosquitoes and therefore perceived malaria threat, as well as discomfort due to heat (*Uganda culture of net use study 2012; Sing et al. 2013*)

Use difficulties

“For some of us without beds, it has been challenging to properly use these nets because first of all, they cannot be tucked in very well since the sleeping place is on the floor.” (Female, Nyeramya village, Buliisa)”

Net condition/ replacement

“When we had just received the nets all of us were sleeping under the nets. Presently, I am the only one who sleeps under the net. The other nets got spoilt. They first got holes and we sewed them but children couldn’t handle their things carefully, [including] their nets. They got torn again and were beyond repair. We decided to remove them so they sleep without nets.”
(Male, Byerima village, Kiboga)



Willingness to buy

- ❑ None of the interviewees had replaced their nets through purchase of new LLINs regardless of SES or location
- ❑ Some had purchased untreated nets

“We have mended the nets which were eaten by the rats. ...I can also ask the government to give us more new nets because these ones are starting to get old even now”. (Male, Mpunda village, Hoima)

Changes in experiences over time

- ❑ Challenging for respondents to talk about changes *over time*
- ❑ Few changes in net use experience over time
- ❑ Nets became less potent and thus less effective, than before

“When the nets were new, they would scare away mosquitoes because of the insecticide smell but as the nets are getting old, mosquitoes come and settle on the nets until they are chased away by someone. This is an indication that the insecticide in the nets is now weak” (Male, Nyeramya village, Buliisa)

Positive deviants

- ❑ Few individuals with successful behaviors and strategies that have enabled them to find better solutions to problems than their neighbors who face the same challenges and barriers and have access to same resources (*March et al 2004*)
- ❑ Useful in identifying strategies and resources to encourage changes in health related behaviour in communities



A positive deviant migrant worker (role model)

Common characteristics of Positive deviants

- Had nets (LLINs/ non LLINs) before distribution (most likely purchased)
- Use nets all the time (nightly, all seasons)
- All household members sleep under a net
- Family members share sleeping spaces
- Have devised solutions to challenges in net use and repair
- Net use has become a habit/daily routine
- Carry a net when sleep elsewhere
- Encourage visitors to sleep under nets
- Support their neighbours to use and care for nets
- Have intention to continue to use
- Willing to buy replacement nets

Discussion

- ❑ BCC should include a focus on consistent use of nets throughout the year, and on the wider benefits of net use
- ❑ The role of the caregiver/ household head in ensuring consistent net use by all household members stands out as a key factor
- ❑ This study highlighted characteristics of ‘positive deviants’. These should be enrolled as change agents in the promotion of sustained net use, care and repair

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