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## Research Summary

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**Title** Access to and use of mosquito bed nets for malaria prevention in Vanuatu

### Abstract

**Background:** The Vanuatu Ministry of Health and its partners have implemented the Vanuatu National Malaria and Other Vector Borne Diseases Control Programme progressively since 2008. While free long-lasting insecticidal net (LLIN) distribution campaigns have been a core element of this program, community utilisation patterns remain unknown. This study investigated community access to, utilisation, care and disposal of LLINs across the five malaria endemic provinces of Vanuatu.

**Methods:** A population based cross-sectional survey was undertaken encompassing randomly selected households and villages across 12 health zones. The semi structured questionnaire containing open and close ended questions was administered to household representatives recording information relating to household characteristics, LLINs ownership, utilisation, care and disposal.

**Results:** The survey covered 1,841 households in 132 villages. Across Vanuatu's malaria endemic provinces, 92.07% of households reported to have at least one LLIN. Sufficient LLINs to cover household members (defined as one LLIN per two people) were found in 76.21% of households; with an average of 2.83 LLINs per household. On the night preceding the survey, 68.41% of household members slept under an LLIN. Demographically, children under five (64.76%) and pregnant women (60%) had the lowest LLINs utilisation rate. Women were also statistically less likely to have slept under an LLIN than their male counterparts, 65.25% compared with 71.75% ( $P < 0.0001$ ). Further, results revealed diverse cleaning, repurposing and disposal practices. Older LLINs are commonly put to alternate use however findings also indicate more than 20,923 LLINs are incorrectly disposed of annually across Vanuatu's malaria endemic provinces.

**Discussion:** The relative high level of LLIN ownership and utilisation across Vanuatu's malaria endemic provinces is a testament to the ongoing work of the Ministry of Health and its partners. However ongoing community engagement and research efforts are needed to understand and overcome age-based, gendered and environmental concerns raised by findings.