

THE EFFICACY AND PHYSICAL CONDITION OF OLYSET INSECTICIDE-TREATED NETS AFTER 5 YEARS USE IN RURAL LAO PDR

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Abstract. We assessed the insecticidal efficacy of Olyset nets after 5 years of use in rural villages of Lao PDR and evaluated the relationship between the physical condition of the nets and their insecticidal effect. Our results showed that most of the Olyset nets remained effective after 5 years of use; however, there was no significant relationship between the physical condition of the nets (*ie*, presence of holes, level of stains) and the insecticidal effect. The presence of large holes in polyester nets compared to the Olyset nets suggest the Olyset nets are stronger; however, nearly half of Olyset nets had small holes or had been previously repaired. Interestingly, the insecticide concentration and knockdown (KD) rate for 3 stored nets was low compared to the other nets routinely used in the house. To maintain the effectiveness of Olyset nets in rural villages of Lao PDR and other areas, residents should be advised to repair and store the nets appropriately and avoid exposure to high temperatures and direct sunlight for long periods.

Keywords: malaria, LLINs, Olyset net, efficacy, Lao PDR

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