

## Predictors of swimming ability of primary school children in rural communities in Thailand

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Drowning is a leading cause of childhood deaths in Asian countries. Children in primary school have a higher rate of fatal drowning; these commonly occur in natural water bodies near their residences. The Thai National Injury Survey in 2004 reported a higher rate of drowning death in rural settings. Swimming ability is recommended to decrease drowning risk. There is a lack of information on factors contributing to a child's swimming ability.

This study aims to ascertain the swimming ability of primary school children and to identify potential factors associated with greater swimming ability. A cross-sectional household survey was conducted during August–September 2009 in a rural school district of Chiang Rai province. The questions consisted of demographic data of guardians and their children, and swimming ability was defined as being able to move at least 25 meters in open water without assistance. A total of 633 questionnaires obtained from guardians of primary school children were analyzed.

The results revealed that less than one-fifth (18%) of the school children (age 6–12 years old) could swim. Multiple logistic regression showed that children who can swim are more likely to have attended swimming lessons (OR=23.95; 95%CI=12.21-46.98); be 10–12 years of age (OR=4.15; 95%CI=2.35-7.30); be male (OR=2.82; 95%CI=1.67-4.77); have experienced a nonfatal drowning (OR=2.14; 95%CI=1.10-4.12); or be the child of a guardian who can swim (OR=2.10; 95%CI=1.25-3.44). The results highlight the need to provide swimming lessons targeting all children beginning in the younger age groups. Local resources in natural water sites may provide a place for safe swimming lessons in rural areas.

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