

Study of dog population dynamics and rabies awareness in Thailand using a school-based participatory research approach

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Rationale and objective: This study explores a novel approach to collecting dog population data and raising rabies awareness in Thailand through a school-based participatory research (SBPR) method. The traditional method of conducting dog surveys in Thailand relies on government organizations performing censuses once or twice per year, which requires significant resources and can vary in data quality. The researchers developed a mobile application called 'Pupify' and enlisted high school students to collect data about owned dogs over a one-year period in four high-risk provinces (Chiang Rai, Surin, Chonburi, and Songkhla). The study had dual objectives: to gather data about dog population dynamics (such as birth rates, death rates, and vaccination status) and to evaluate whether this participatory approach could effectively raise awareness about rabies while promoting community engagement. This innovative method was intended to provide a potential alternative to conventional government surveys while simultaneously educating young people about public health and responsible dog ownership.

Summary: The study revealed both successes and significant challenges with the SBPR approach. Out of 303 initially registered high school students, only 43 (20%) completed the full year of data collection, with participation dropping substantially over time. From the 322 owned dogs reported during the study period, the researchers calculated rates of 7.5 births, 6.2 deaths, and 2.7 missing dogs per 100 dog-years, with a male-to-female ratio of approximately 1.8:1. The vaccination rate among reported dogs was 40.1%, with 12.4% being sterilized. Through qualitative interviews with 23 student participants, the researchers found relatively low levels of rabies awareness among students, despite most (91.3%) understanding that rabies was fatal. The main barriers to sustained participation included students forgetting to update data, school commitments, technical issues with the mobile application, and poor communication between researchers and participants. While the approach showed promise in raising awareness about dog care and health among participants, the high dropout rate suggested that future implementations would need better engagement strategies, possibly through popular social media platforms, to maintain long-term participation.

Outcome: The study demonstrated that while a school-based participatory approach using mobile technology shows promise for collecting dog population data and raising rabies awareness, significant challenges with participant retention and engagement need to be addressed before it can serve as a viable alternative to traditional government surveys. The research highlighted the importance of using multiple communication channels and better engagement strategies to maintain long-term participation in community-based health surveillance programs.

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Related SDGs goal: 3. Good health and well-being.

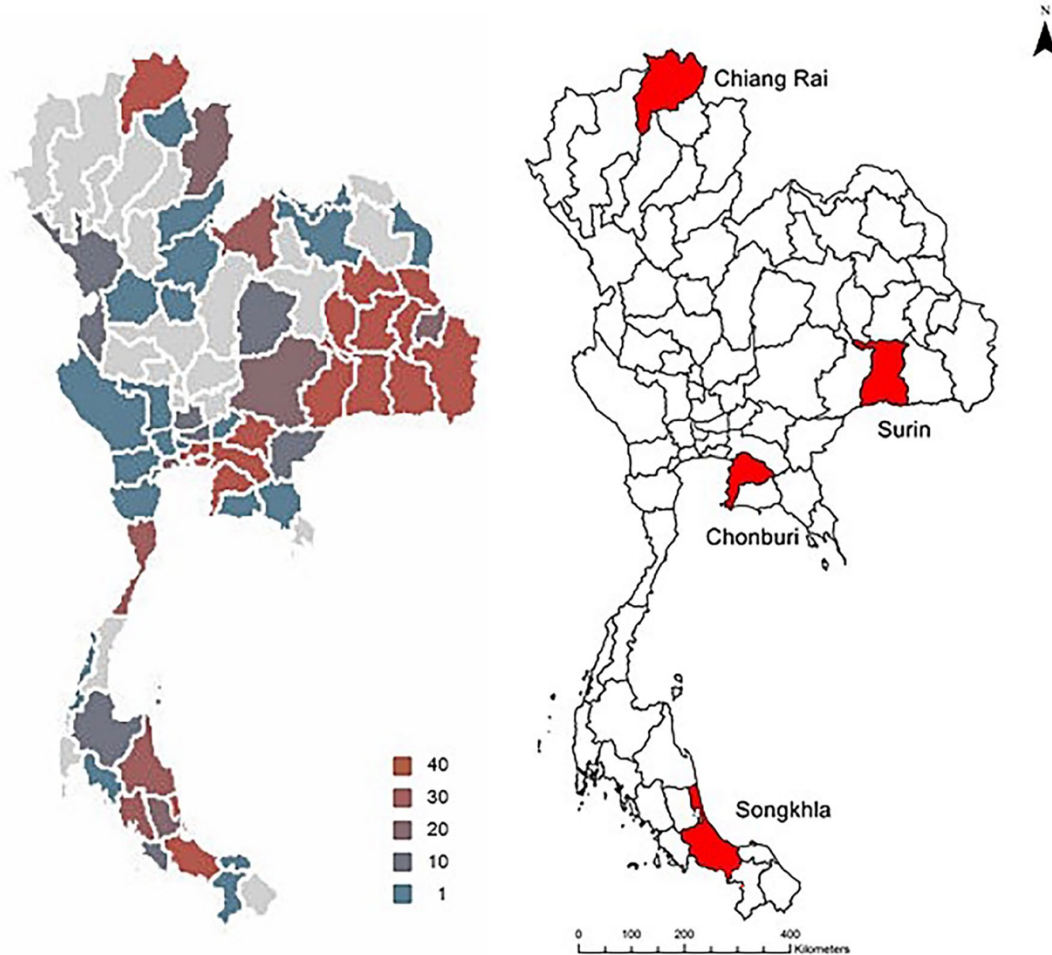


Fig. 2. Maps showing; laboratory positive detection of rabies cases in animals in 2018 (Source: Thairabies.net: <http://www.thairabies.net>!); and The four provinces included in the study: Chiang Rai, Surin, Chonburi, and Songkhla.

Graphical summary

Related publication:

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