

Porntip Dumrongpattama 2009: The Application of Geographic Information System in the Study of Suicide Risk and Surveillance Areas. Master of Arts (Social Development), Major Field: Social Development, Interdisciplinary Graduate Program. Thesis Advisor: Associate Professor Sirikorn Kanjanasuntorn, M.S. 177 pages.

The purpose of this research was three folds. Firstly, it aimed to construct the database consisting of both spatial and attribute data for the areas of suicide risk and surveillance by applying the geographic information system, secondly, to study Thailand's suicide risk areas, and thirdly, to study the suicide surveillance area particularly in Changwat Chiang Mai which had the highest number of people who committed suicide. The data were derived from the National Statistical Office's 2007 base map showing provincial, district and sub-district boundaries, and suicide data from death certificates processed by the Bureau of Policy and Strategy of the Ministry of Public Health for the years 2003 to 2007.

Research findings indicated that from 2003 to 2007 there were 20,091 people who committed suicide, more males than females of the ratio 3:1; living as a couple (40.51%), followed by single person (39.14%); mostly 30-39 years of age followed by 20-29 years of age; worked as employees (35.47%) followed by engaging in agriculture (33.92%); suicide rates per 100,000 population were between 2003-2007 were 7.13%, 6.93%, 6.31%, 5.77%, and 5.95%, respectively. The provinces that people committed suicides and their domicile had the same suicide risk area were Lamphun, Chiang Mai, and Chiang Rai. Suicide surveillance in Chiang Mai revealed 1,431 cases; more males than females of the ratio 4:1; most of the people who committed suicide lived as a couple (41.02) followed by single person (35.15%); mostly 30-39 years of age followed by 40-49 years old. Most of those who committed suicide in Chiang Mai were engaged as employees (54.79%) followed by engaging in agriculture (20.61%). The months with the highest number of suicide were June (10.41) followed closely by August (10.20%). Suicide rates for 2003-2007 classified by their domicile were 21.44, 18.95, 17.45, 15.09, and 14.42, respectively. The five districts with the highest numbers of suicide in the five year period were Amphoe Mueang Chiang Mai, Amphoe Phang, Amphoe San Kam Phaeng, Amphoe Doi Sa Ket, Amphoe Mae Taeng, respectively. The sub-district with the highest numbers of suicide was Tambon Si Dong Yen in Amphoe Chai Prakan.

From the research findings mentioned above it is therefore recommended that in-depth analysis at the sub-district level covering the past five to ten years should be undertaken. Also, a quantitative research of other suicide risk factors in areas with high suicide risk should be done to uncover the causes of suicide so that the findings could be utilized for suicide surveillance in those areas more effectively.

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