

Thesis Title The Effectiveness of Current Population  
Surveillance Models

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## ABSTRACT

The study of "The Effectiveness of Current Population Surveillance Models" was an experimental research. The objective of this study was to develop a surveillance form and the testing of it's effectiveness in each of population surveillance models. There were three models of population surveillance;

1. Self-Surveillance or S-Model employed by a member of the household.
2. Volunteer-Surveillance or V-Model employed by selected and existing health volunteers in the village.
3. Interview-Surveillance or I-Model employed by trained interviewers. This Model was used as standard model for comparison.

The population and sample of this study obtained by means of non-probability or purposive sampling technique. The pre-survey and reviews of existing data from the Provincial Health Office and District Office fo Rayong Province to find out the dynamicity of population, social and development situations as well as geographical

setting of the communities which effect by the Eastern Seaboard Development Program. Chaak-Loog-Yah village of Huay-Pong sub-district was selected as experimental location because of the total number of 310 was considered households appropriate with population size and dynamicity effected by the new industrialization produce several relevances with the study objectives and research design.

The tool for data collection was the "Current Population Surveillance Form" which was designe and revise after twice of pre-test of it's format, sequencing, simplicity, and reliability of conveying right information of all items to be surviellanced.

The data collection was employed by;

1. a qualify member of each household for S-Model.
2. existed health volunteers for V-Model.
3. trained interviewers for I-Model.

The data analysis was done by coputer and applied percentage and Chi-Square test for statistical values. The Effectiveness of Current Surveillance Models were judged by correct. Scores derived from the right recording of population characteristxics. When compare with Standard Model or I-Model. The relationships of factors related to the effectiveness of surviellance were the differential of higher and lower percentages which devided into 3 levels as follows;

High effective equivalent to the correct score of 100 percent.

Medium effective equivalent to the correct score of 99.9-90.0 percent.

Low effective equivalent to the correct of 89.0-70.0 percent.

The study revealed that:

1. Volunteer-Surveillance Model presented higher effectiveness than Self-Surveillance Model in term of "Number of Population"
2. Self-Surveillance Model produced higher effectiveness than Volunteer-Surveillance Model in terms of qualitative or population characteristics.
3. The factors related to the effectiveness of Self-Surveillance or S-Model were;
  - 3.1 Educational levels: the samples which contained higher educational level presented higher effectiveness than those of diploma or equivalent, secondary school, and compulsory levels, accordingly.
  - 3.2 Age: The group of 10-19 years of age presented higher effectiveness than those of age groups 40-49, 60 and over, 20-29, and 50-59 year old accordingly.

3.3 Sex: The Group of female presented higher effectiveness than male.

3.4 Occupation: The group of students presented the higher effectiveness than the group of unemployed, agriculture, government official, and employees, accordingly.

3.5 Marital status: The group of separated status, presented higher effectiveness than those of divorced, widows, single, and married status accordingly.

3.6 Motivation of recording population data: Money presented to be the most favorable one compare with materials and didn't expected any reward all. The official letter and announcement of the village headman also influence the population data recording.

3.7 Awareness of the importance of population data: The higher the awareness level produced the higher effectiveness surveillance level compare with the medium and lower awareness.

Recommendations:

1. This study was done in a specific location which may bring about some limitation in terms of geographical setting, way of life of population, and population characteristics.
2. Time span for population surveillance should be flexible enough depends on research objectives and purposes of population data application as well as patterns of population changes.
3. The comparative study with population registration system may be needed or combined more than one population surveillance models together for results.
4. The pictures and descriptions of each item should be modified to the local perception and usage. Local languages and color photographs or printed could be replaced black and white cartoon or drawing pictures.
5. Before applying any population surveillance models it was necessary to propagate population awareness in terms of knowledge, importance of population changes affected individual, family, and community development in order to draw cooperation commitment of presenting population facts.
6. Rounds of data collection by interviewers should better be done at least twice; the first day and the last day, of a 30 days surveillance period in order to compare population changes during the surveillance.