THE CHANGES OF PREMATURE MORTALITY IN THAILAND BETWEEN 1997 AND 2006

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ABSTRACT

The study was initiated to reconstruct cause of death from national death registration data by the modeled structure of the verbal autopsy study, and used both a standard demographic method and an indirect demographic technique to obtain more accurate data for under-registration of deaths. The three objectives of the study included monitoring progress toward premature mortality between 1997 and 2006, investigating the significant effect on the changes of mortality rates by Kitagawa’s decomposed technique (1955), and estimating the effects on the population for delaying time to death by the Cause-Delay Model (Manton et al., 1980).

The results revealed that the distribution ratio of premature mortality causes and the changes in mortality among age groups have indicated that Thailand is in the middle of industrialization and moving toward becoming a developed country, thus encountering the triple burden of premature mortality (22:57:21). The three primary causes for losses due to premature mortality have been HIV, road traffic injuries, and cerebrovascular disease from 1997 to 2006. The overall burden of premature mortality has improved slightly in age-adjusted year of life lost rate by 7.54% mainly caused by a slight decrease in premature mortality from HIV infection among the under 45 year old age group. Meanwhile, the growing mortality burden among those aged 45-59 years as a risk-target group, and the elderly at aged 60 years and over, has addressed the evolving epidemic of non-communicable diseases. The dynamic trends of specific causes of premature mortality provide important clues to the success of the ongoing health services and the need for development of interventions. Kitagawa’s decomposed technique demonstrates that the changes in mortality rates among age groups are more influential in increasing mortality rates than the changes of population structures for many specific causes of death. When the cause-delay model for delaying time to death was applied for five major chronic diseases in 2006, overall gains in life expectancy were very small due to the slow pace of changes in specific age groups for mortality rates. Also, the reduction pattern of the gain in life expectancy was found to be similar among males and females.

These results indicate that it is essential to monitor and evaluate changing disease patterns continuously during health transition. Accordingly, there is a need for development of the national health database system in an appropriate and useful direction, as well as enhancement of comprehensive knowledge and understanding in using health indicators for the accurate identification of health problems and detection changes over time.

KEY WORDS: PREMATURE MORTALITY / KITAGAWA’S DECOMPOSED TECHNIQUE / CAUSE-DELAY MODEL

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The changes of premature mortality in Thailand between 1997 and 2006

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Abstract

This study aims to analyze the factors affecting premature mortality in Thailand during the period 1997-2006. The study methodology involves using the health data from the National Population and Vital Statistics, which were analyzed using verbal autopsy studies in 1997-1998 and 2004-2005. The data were analyzed using methods including the Coale-Demeny West Model and the Kitagawa Decomposing Technique. The study found that the most significant factors affecting premature mortality were HIV infection, road accidents, and cerebrovascular diseases. The study also found that the number of premature deaths decreased by 7.5% during the study period, with the largest decrease occurring in the age group 1-44 years old due to HIV infection. The study also found that cerebrovascular diseases and road accidents were the main causes of death in this age group. The study recommended the development of a system for continuous monitoring of health issues and the development of systems and evaluation tools for continuous monitoring of health issues and the development of systems and evaluation tools for continuous monitoring of health issues.