

Chapter 5

Conclusion and Discussion

This chapter includes summary of findings, discussion, strength, limitations, suggestions and conclusion.

5.1 Summary of finding

During 2000 to 2009, 1,441,347 ill-defined deaths were reported. Of these, 721,495 (50.1%) were females. The overall ill-defined death rate per 100,000 population was 222.7. Ill-defined death rate in males was 226.1 per 100,000 population and in females was 219.5 per 100,000 population. Males aged 60 years and over had the highest ill-defined mortality rate (1,724.6 per 100,000 population) whereas the lowest mortality rate was found in females aged 10-19 years (6.5 per 100,000 population). The highest mortality rate was found in year 2000 (237.4 per 100,000 population) and lowest in year 2003 (192.4 per 100,000 population). Gender-age group, year, region and place of death were statistically significantly associated with ill-defined death rate. Age group in 0-9 to 50-59 years had lower ill-defined death rates than the average rate for both sexes whereas age group 60 and over had higher death rate than the average rate. An increasing trend was found in age-group 10-19 until aged 60 years and over for both sexes. Ill-defined mortality rate in Bangkok (119.2 per 100,000 population) was lower than of other regions. Death rate in the North was higher than the average death rate. Ill-defined death rates in year 2000 was higher than average whereas death rates in 2009 were lower than average. Ill-defined death rate outside hospital was higher than average.

The schematic map created from 95% confidence show that ill- defined was reported of most provinces in the North and few provinces in the Central, the Northeast and the South.

5.2 Discussions

Ill-defined death rate in this study dropped from 41% in 2000 to 38% in 2009. A slightly decreasing trend of ill-defined death rate found in this study is also consistent with result from Sri Lanka (Mathers et al, 2005). However, ill-defined death rate in Thailand is higher than all developed countries, such as England and Wales (Griffiths and Brock, 2003), Australia, United States, Canada, Sweden , and Japan (Siejel, 2011). It is also higher than and most whereas in developing countries, such as the Philippines, Spain, Republic of Korea (Mathers et al, 2005), Brazil (Lima-Costa et al, 2010), and Russia (Gavrilova et al, 2005). This indicated that the reported causes of deaths in Thailand were not accurate. Thailand is in the group of countries with the highest percent of deaths from ill-defined (Mathers et al, 2005).

In this study, gender-age group, region, year and place of death were associated with ill-defined death rate. Decreasing trend of ill-defined deaths in this study was consistent with the study by Junior et al (2011). This is because of the improvement of national database system.

In this study, an increasing trend of ill-defined death rates in age group 10-19 until aged 60 years and over for both sexes are in line with finding reported by Abulfatin and Hamadeh (2010), Bradshaw et al (2010) and Gavrilova et al (2008). The highest ill-defined death rate was found in aged 60 years and over for both males and females

which consistent with the studies conducted by Gavrilova et al (2008), Walsh et al, (2008), Bradshaw et al (2010), D'Amico et al (1999), and Abulfatih and Hamadeh (2010). The rise in mortality from ill-defined causes in elderly possibly attributes to increasing in the use of senility.

In Russia ill-defined death rates was highest in working age group (20-59 years) (Gavrilova et al, 2008). Females in age group 10-19 years had the lowest ill-defined death rates whereas Gavrilova et al found highest in aged less than 1 year in Russia (Gavrilova et al, 2008).

Ill-defined death rate in Bangkok, the capital in Thailand, was lower than of other regions. This finding is consistent with a study of trend of mortality from ill-defined causes in the Northeast region of Brazil, 1979-2009 conducted by Junior et al (2011). The ill-defined death rates differed region by region which agrees with the finding by Schwartz et al, (1992). The higher ill-defined rates in most provinces in the North suggested that improving cause of death in that provinces are needed.

In this study, ill-defined deaths occurred outside hospital higher than in hospital which consistent with the study conducted by Tangcharoensathien et al (2006), Sutra et al (2012), Bradshaw et al (2010), and Abulfatih and Hamadeh (2010). Bangkok had the lowest ill-defined death rate. This can be explain that ill-defined codes were less used in urban place which most of death occurred in-hospital.

A slightly decreasing trend of ill-defined death in Thailand was found this indicated that the reliability and accuracy of cause of death remain a significant problem in

Thailand. Therefore, the utility of the mortality data still has huge limitations. Death certificate data in Thailand need to be improved in order to increase the utilization of these data of the policy makers to make decision for public health planning.

5.3 Suggestions and future research

Further research for analysis of ill-defined cause should be focus on correcting number of deaths of ill-defined and other causes before estimating death rates. Death certificate data in Thailand need to validate by other reliable data sources such as verbal autopsy before making any decision for setting up public health policies.

For the majority of death outside hospital (approximately two-third), registered causes are misclassification due to causes of death given by head of village. Further research should be focusing on validation of registration deaths outside hospital by using the verbal autopsy data.