

Contents

	Page
Abstract	iii
Acknowledgements	v
Contents	vi
List of Tables	viii
List of Figures	ix
Chapter	
1. Introduction	
1.1 Introduction	1
1.2 Objectives	3
1.3 Literature Reviews	3
1.4 Plan of Thesis	5
2. Methodology	
2.1 Population and Sample	6
2.2 Study Design and Data Source	6
2.3 Variables and Conceptual Framework	6
2.4 Data Management	7
2.5 Statistical Methods	8

3. Preliminary Data Analysis	
3.1 Variables of interest	10
3.2 Distributions of Determinants	11
3.3 Incidence rate of Determinants	12
4. Statistical Modeling	
4.1 Modeling Fitted	16
4.2 Confidence interval	19
4.3 Distribution of incidence rate of liver cancer in Songkhla province 1989-2007 classified by districts adjusted for the another factor	21
5. Conclusions and Discussions	
5.1 Conclusions	23
5.2 Discussions	23
5.3 Limitation and Future Research	24
References	25
Appendix	29
Vitae	40

List of Tables

Table	Page
Table 1.1 The incidence rate of liver cancer in different regions, estimated for the years 2002-2007	2
Table 3.1 Variables and their role and data type	10
Table 3.2 Frequency distribution of liver cancer patient separated by determinants	11
Table 4.1 Coefficients, standard error and p-value from Poisson model	18

Prince of Songkla University
Pattani Campus

List of Figures

Figures	Page
Figure 2.1 Schematic diagram of variables of interest	7
Figure 3.1 Incidences rates of liver cancer separated by gender	12
Figure 3.2 Overall annual male and female of incidence rate for each topography	13
Figure 3.3 Distribution of incidence rate and years classified by Age group	14
Figure 3.4 Schematic maps of liver cancer incidence classified by districts	15
Figure 4.1 Diagnostic plots of residuals for Poisson model, top panel shows observed counts versus fitted values while bottom panel shows normal-quantile plots	17
Figure 4.2 Confidence intervals for district and gender of incidence rates/100,000 adjusted for the other factors	19
Figure 4.3 Confidence intervals for year and topography of incidence rates/100,000 adjusted for the other factors	20
Figure 4.4 Confidence intervals for age group and religion of incidence rates/100,000 adjusted for the another factor	21
Figure 4.5 Schematic maps of liver cancer incidence rate adjusted for another factor	22