



ORIGINAL RESEARCH PAPER

Pharmacology

ANALYSIS CAUSES OF DEATH AND BURDEN OF DISEASES OF VIENTIANE CAPITAL CITY OF LAO PEOPLE'S DEMOCRATIC REPUBLIC (LAOS) IN 2015.

KEYWORDS: resident, death factors, mortality rate, diseases burden

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ABSTRACT

Measuring how many people die each year and why they died is one of the most important ways to assess the effectiveness of a country's health system. There is a lack of information of cause of death and mortality rate in Laos. Therefore, there is a need to collect information about the mortality rate and to develop the relevant research. This research is the first descriptive epidemiology and health economics research of Vientiane population death surveillance data in the year 2015. Through collecting the data of household registration statistics in Vientiane Capital in 2015, including age, gender distribution and the fundamental causes of death. Using the Life Lost Years (LLYs) to evaluate the burden of death. The study shows that the death rate in Vientiane Capital city of Lao PDR was 5.09 per 1000 habitants in 2015, and the proportion of male death accounted for 54.85%, and 45.15% for female, the crude death rate among men was 1.22 times higher than among women.

INTRODUCTION

Measuring how many people die each year and why they died is one of the most important ways to assess the effectiveness of a country's health system. The leading causes of death is the most important measure to evaluate the public health and the health status of the population in a certain period, and it is also the basis for evaluating the effectiveness of social health care. It can promote the understanding of human health problems, estimate the spread and direction, the patterns of disease, finding the emergence of new infectious diseases and epidemic trend, so as to control the occurrence of infectious diseases and the factors affecting health of population. Disease prevention and control policy, collection and analysis, evaluation of interventions, and their effective are depend on the timely and accurate information on the health status of the population, especially the population incidence of death causes. From the demographic point of view, the cause of death statistics is an important part of demography. It is important to understand the death level, the composition of the cause of death, the trend of change and the related risk factors in the population of a region. The comprehensive analysis of the cause of death statistics provides important information for the evaluation of the health level of residents, the quality of health facilities, the effective of disease prevention and control policy. From 1995 National population censuses is responsible for general survey, the large scale of population survey was done in every 10 years, Before 2014, there is no death registration system in Laos, in order to obtain the national social, economic and natural features and other aspects of the demographic data. There is no death registration system in Laos till 2014, Laos began to established the death registration system. Therefore, there is a lack of information of cause of death and mortality rate in Laos. Collecting information about the mortality rate and to develop the relevant research is required. This research is the first descriptive epidemiology and health economics research of Vientiane population death surveillance data in the year 2015. Through collecting the data of household registration statistics in Vientiane Capital in 2015, including age, gender distribution and the fundamental causes of death. Using the Life Lost Years (LLYs) to evaluate the burden of death.

RESEARCH DESIGN AND METHODOLOGY

Vientiane is the capital and the largest city of Laos, on the bank of Mekong river near the border with Thailand. The estimated population of Vientiane Capital is 820,900, of them male accounted for 49.79%. The object of the investigation was the death of all permanent residents in Vientiane capital from 1st

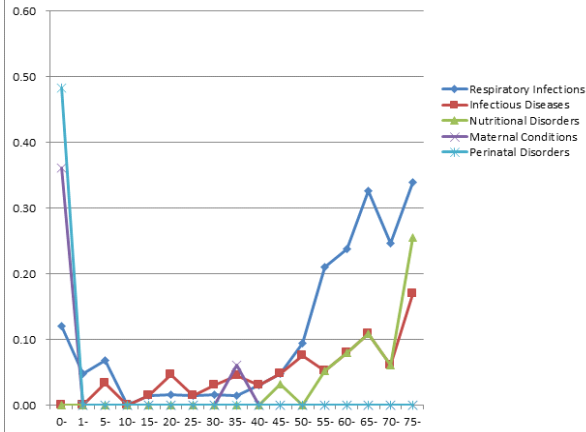
January to 31st December 2015. Through collecting the data of household registration statistics including age, gender distribution and the fundamental causes of death. Using the Life Lost Years (LLYs) to evaluate the burden of death.

RESULT

The study shows that the death rate in Vientiane Capital city of Lao PDR was 5.09 per 1000 habitants in 2015, and the proportion of male death accounted for 54.85%, and 45.15% for female, the crude death rate among men was 1.22 times higher than among women. Analysis of mortality in each age group shows 0~4 slightly higher age group mortality, then began to decline to the age group of 5~9 is the lowest mortality, the mortality rate of age group increased with age after 10~14, the mortality rate of 60~64 years old group is not constant. Life expectancy in Vientiane Capital was 67.79 years old, of which women were at the age of 68.64, and men were at the age of 66.57. According to Vientiane Capital 2015 report of death, chronic non communicable diseases are the main causes of death, reported 1314 deaths, mortality rate was 1.6/1000, the proportion of 31.47%; followed by injury with reported 686 deaths, the reported mortality was 0.84/1000, accounting for more than 16.43% cases; finally the infectious diseases, maternal and child nutrition reported 112 deaths, mortality rate of 0.14/1000, the proportion of 2.68%, in addition unknown cause of deaths were 2,063, mortality rate of 2.51/1000, the proportion of 49.41%. 52 people were reported respiratory tract infection death, mainly occurred in the age group over the age of 50, the total mortality was 63.46%, the 55~59 age accounted for 15.38%; infectious diseases were reported a total of 30 people, the first four deaths occurred in 20~24, 50~54, 35~39 and 45~49 age group, the total death 43.33%; nutritional diseases a total of 12 people, death occurred in the age group over the age of 45, total mortality was 100%; obstetric diseases total 10 deaths, group deaths occur in 0~ and 35~39 age group, the total mortality was 100%; the total death of perinatal was 8 people, the total mortality was 100% in less than 1 years old baby. The disease from high to low causes of death were cardiovascular disease (mortality rate 0.49/1000, 30.825%) and cancer (mortality rate 0.33/1000, 20.40%), diabetes (mortality rate 0.25/1000, 15.91%), respiratory diseases (mortality rate 0.14/1000, 9.06%), cerebral vascular disease mortality rate 0.12/1000, 7.61%), digestion system diseases (mortality rate 0.09/1000, 5.48%), diseases of the genitourinary system (mortality rate 0.08/1000, 4.87%), endocrine disease (mortality rate 0.06/1000, 3.50%), musculoskeletal disorders (mortality rate 0.02/1000, 1.07%), congenital anomalies (mortality rate

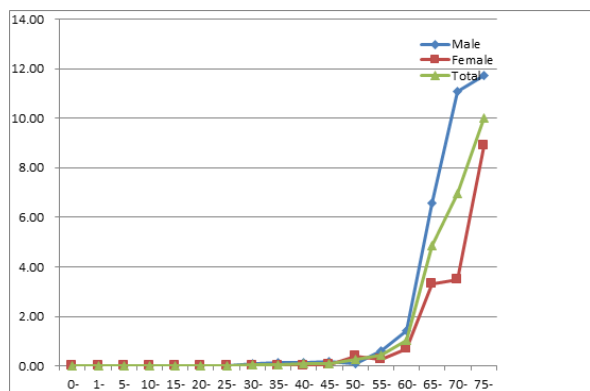
0.01/1000, 0.84%), and skin diseases (mortality rate 0.01/1000 , 0.46%).

Figure 1: Changing of mortality in each categories disease



The burden of disease study, Vientiane 2015 residents, by various diseases caused premature death and the burden of disease for 37,169 health loss, equivalent to an annual loss of 45.27 YLLS per 1000 population, 20,492 men health loss, equivalent to an annual loss of 50.1 YLLS per 1000 population, and 16,677 women health loss, equivalent to an annual loss of 40.5 YLLS per 1000 population.

Figure 2: Changing of cardiovascular disease age group mortality



DISCUSSION

Monitoring data of death-cause of population is an important basic data for public health. With the rapid development of society and economy, need of health care is increasing, The disease prevention and control is getting more and more attention from the society and the government, the level of mastery, the death population residents constitute and distribution, and then find out the key influence disease epidemic rule is scientifically formulated premise control policies and health planning disease. Therefore, through the study of the death surveillance data of Vientiane 2015 people described the death of Vientiane residents level, composition, distribution and the population to identify the disease burden was evaluated, the focus of disease seriously affect the population health and social economy, will provide a scientific basis for health decision-making and disease control. To know the death level, constitution and distribution of the whole population, and then to find out the epidemic trend of the key diseases which affect the health is the premise of the scientific development of disease control policy and health planning. Therefore, through the study of the death surveillance data of Vientiane 2015 people described the death of Vientiane residents level, composition, distribution and the population to identify the disease burden was evaluated, the focus of disease seriously affect the population health and social economy, will provide a scientific basis for health decision-making and disease control in the future.

REFERENCES

1. . WHO. World Health Report 2004: Changing History[R].WHO: Geneva, 2004
2. . <http://www.lsb.gov.la>
3. . Colin D Mathers, Alan D Lopez, Christopher J L Murray. The Burden of Disease and Mortality by Condition: Data, Methods, and Results for 2001. 2006. Global Burden of Disease and Risk Factors, ed., 241-268. New York: Oxford University Press. DOI:10.1596/978-0-8213-6262-4/Chpt-4.
4. . Schopper D, Pereira J, Torres A, et al. Estimating the burden of disease in one Swiss canton: what do disability adjusted life years tell use [J]. Intern J Epidem, 2000, 29: 871-877.
5. . Mathers CD, Vosb T, Lopez AD. Salomon J, Ezzati M (ed.) 2001. National Burden of Disease Studies: A Practical Guide. Edition 2.0 [M]. Global Program on Evidence for Health Policy. Geneva: World Health Organization.