

## **Smoking-Attributable Mortality among Korean Adults, 2012**

Keum Ji Jung<sup>1,2)</sup>, Young Duk Yun<sup>3)</sup>, Soo Jin Baek<sup>3)</sup>, Sun Ha Jee<sup>2)†</sup>, Il Soon Kim<sup>2)</sup>

<sup>1)</sup>Department of Public Health, Graduate School, Yonsei University

<sup>2)</sup>Department of Epidemiology and Health Promotion, Institute for Health Promotion,  
Graduate School of Public Health, Yonsei University

<sup>3)</sup>National Health Insurance Service

### **Abstract**

**Objectives:** Cigarette smoking has been widely recognized as a major risk factor for lung cancer and other diseases in Western countries. In Korea, male cigarette smoking prevalence was among the world's highest between 1980 and 1990 and smoking has also become a strong risk factor for lung cancer and cardiovascular diseases. The objective of the study was to calculate the smoking-attributable mortality in 2012 in Korea.

**Methods:** Number of smoking-attributable deaths were calculated by applying the percentages of population attributable risks (PARs) to the estimated number of deaths by diseases in 2012. In this study, PARs were obtained by using relative risks from the Korean Cancer Prevention Study and the Metabolic Syndrome Mortality Study, and population smoking prevalence surveyed in 1985 conducted by Korean Institute of Tuberculosis.

**Results:** The smoking-attributable mortality was 58,155 death in 2012. Among adult male, the smokingattributable mortality (49,704) represents 34.7% of total 2012 mortality, whereas the smoking-attributable mortality (8,451) for adult females was 7.2%. Smoking was supposed to be responsible for 41.1% of all male cancer and 33.4% of all male cardiovascular diseases, whereas smoking for 5.1% of all female cancer and 5.4% of all female cardiovascular diseases in Korea.

**Conclusions:** Smoking actually represents a remarkable burden of avoidable deaths in Korea. Smoking attributable mortality appears to continue increasing by the next 10 to 20 years.

**Keywords:** Smoking, Attributable risk, Mortality

## Effectiveness of Health Outcome in Health Plan 2020

Young-ho Jeong

The Korea Institute for Health and Social Affairs (KIHASA)  
and Korea Health Promotion Foundation, 2011

The Korean national vision of health promotion, the third Health Plan 2020, was published. It aims to provide a longer term vision and strategy for healthy life expectancy.

In this study, we derived health-adjusted life expectancy (HALE) using a measure of health-related quality of life. HALE provides an estimate of the number of expected years of life equivalent to years lived in full health. Life expectancy (LE) at birth in Korea in 2009 was 80.67 years and health-adjusted life expectancy (HALE) was 72.63 years.

The gap of LE and HALE was analyzed 8.04 years. Health-adjusted life expectancy at birth was 71.38 years for males and 73.37 years for females.

Life table analysis was applied to estimate the cause-deleted health-adjusted life expectancy. Results represented that for Korean without diabetes, life expectancy was 81.08 years and health-adjusted life expectancy was 73.21 years. When the cardiovascular disease was deleted, life expectancy was 78.78 years for males, 84.74 for females and health-adjusted life expectancy was 73.69 years for males, 75.56 for females.

To analyze the health-adjusted life expectancy, the multi-state simulation was used. The HALE at age 30 years for men with obesity ( $BMI \geq 30$ ) was 5.05 years less than for man with normal weight. HALE estimated for women at age 30 years with normal weight compared to obesity would extend by 3.61 years. The Life expectancy at age 40 years for smoking men was 6.41 years less than for nonsmoking men. The Life expectancy at age 60 years for smoking men was 4.97 years less than for nonsmoking men.

The lifetime years with cancer at age 40 years were 6.64, 6.34 years for males and females. At age 60, the estimated lifetime years with cancer were 5.70 and those without cancer were 14.19 for men.

The life expectancy of the Korean was remarkably stretched in a short period of time, but the healthy life with good quality was not followed. The prevalence of chronic health conditions increases with age. These show a task that needs to be tackled by the policy-makers