LIFETIME DISTRIBUTION OF MEDICAL COST IN KOREA

Jung YH, Ko S
Korea Institute for Health and Social Affairs, Seoul, South Korea

OBJECTIVES: It has been well recognized that health-care cost is strongly dependent on age. The study aims at estimating the magnitude and distribution of lifetime medical costs. METHODS: We employ a period life table model using single year's medical expenditures from Korea National Health Insurance Corporation, population data and life tables from Statistics Korea. To estimate lifetime medical costs for male and female, 100,000 hypothetical cohorts for each sex whose mortality rate coming from life table is constructed and assigned to medical costs at each age and sex. This procedure permits us to estimate lifetime medical costs at each age and for each sex. The method used here is to conceptually convert cross-sectional costs data into a longitudinal pattern of costs, which generates profiles of medical cost from birth to death. RESULTS: The average member of the birth cohort will spend 74,150 thousand Won (98,883 PPP US$) for man and 87,868 thousand Won (117,177 PPP US$) for woman in 2007 over the course of his or her life. Total lifetime medical cost is 19 percent higher for females than males due to mainly lifetime expectancy difference. For the average life table member, half of all lifetime cost occurs after about age 65. We also estimate the distribution of lifetime medical cost by phases of life course. For a male (female), 12.7 (9.2) percent of a cohort's expenditures occurs from birth to age 15, 18.7 (14.0) percent accrues during ages 16-29, 13.2 (15.1) percent is expended during ages 30-44; 42.7 (44.0%) percent is realized during ages 65-84; 5.918 (4%) percent accrues over age 85. CONCLUSIONS: The findings of this study are similar to other studies and can be used in cost-effectiveness experiences provided by other literatures—high during infancy, low during childhood and young adulthood, then rising during middle-age and rapidly growing during the senior years.

THE COST OF ILLNESS IN KOREA (2007)

Jung YH
Korea Institute for Health and Social Affairs, Seoul, South Korea

OBJECTIVES: Illness is associated with significant economic burden on both individual and society. This study aims at measuring the cost of illness in Korea in 2007. METHODS: We estimate both direct and indirect costs of illness using a prevalence-based approach. Direct cost includes medical expenditures (inpatient, outpatient), caregiver's cost and traffic costs. As indirect costs, productivity loss representing lost workdays due to illness and lost earnings due to premature death is estimated based on human capital theory. The results are reported according to age, sex, diseases and each cost items in US Purchasing Power Parity (PPP) Dollars at 3% discount rate. The major data sources are National Health Insurance Statistical Yearbook, Annual Report on the Cause of Death Statistics, and Survey Report on Wage Structure. We also use other information such as the Korean Statistical Information System. We provide the results according to age, sex, and diseases at each cost item. RESULTS: The cost of illness of Korea in 2007 is 36,633,552 million Won (75,523 million PPP US$) based on 3% discount rate, which represents approximately 6.28% of GDP. Of this total, 47.8% (36,065 million PPP US$) is devoted to medical costs, followed by productivity loss (46.4%; 35,053 million PPP US$), caregiver's costs (3.9%; 2,962 million PPP US$), and transportation cost (1.9%; 1,444 million PPP US$). The cost of illness is higher for males (45,912 million PPP US$) than females (29,611 million PPP US$). This difference is due to the difference of productivity loss cost. However, direct cost of females is higher than that of males. We find that the cost of aged 40-49 accounts for the highest proportion (23.5%) followed by aged 50-59 (22.5%). The four major diseases incurring highest costs are as follows: neoplasms (18.76%), circulatory system diseases (13.55%), digestive system (10.53%). CONCLUSIONS: This study could provide basic information for establishing prioritizations of health policies to reduce economic burden of illness and enhance quality of life.

TRENDS IN DRUG EXPENDITURES IN SONGKHLA HOSPITAL

Kulthavaroj S. Satawongpak P
Songkhla Hospital, Songkhla, Thailand

OBJECTIVES: To assess situations and trends in overall drug expenditures and to understand factors influencing drug expenditures in Songkhla hospital. METHODS: It was across-sectional descriptive design research. Drug expenditures of fiscal year 2005-2007 at Songkhla hospital were studied. Overall drug purchase expenditures as well as their proportions including in the National drug list 2007 were figured out. The expenses of drug subgroups and drug items were ranked and sorted from highest to lowest expenditures, compared with the previous 3 years. The study also presented the cost impact of the use of new drugs available in the fiscal 3 years. The cost savings of all generic drugs instead of original drugs were estimated. RESULTS: Total drug expenditure in fiscal year 2007 was 103,64 million bath, accounted for 36.2%, 46.63%, and 41.42% of all drug expense in the fiscal year 2005-2007. CONCLUSIONS: The study indicated that forecasting and managing of rising drug expenditure remained a challenge for hospital administrators. The dynamic reimbursement environment would further complicated drug budgeting, and policy-makers of the hospital must consider factors affecting drug expenditures as well.

WHAT ARE THE TOP MOST COSTLY DISEASES FOR USA? THE ALIGNMENT OF BURDEN OF ILLNESS WITH PREVENTION AND SCREENING EXPENDITURES

Eckerslev O1, Wierzbaski R2
1Istanbul University Istanbul Medical Faculty, Istanbul, Turkey, Temple University School of Pharmacy, Philadelphia, PA, USA
2OBJECTIVES: It was the intention of the authors to generate a list of the top diseases responsible for the greatest financial expense in the United States. This listing would then inform policymakers as to the highest priority target conditions. With such information available, funding for the NIH could be accomplished based upon factual criteria rather than political clout or uninformed consensus. METHODS: The first step was a literature review to explore articles and reports which were published about the cost of illness (COI) up to December 2009. Therefore the source of the data used in this investigation was obtained from this retrospective search approach. RESULTS: With reference to total cost for disease, first was HCV with US$475.3 billion, followed by alcohol abuse and substance at US$300.6 billion, digestive diseases at US$59.6 billion, cancer at US$239.5 billion and mental disease at US$216.6 billion. CONCLUSIONS: As has been seen, the total societal costs of the diseases do not synch with the degree of attention paid to these various disease states. Several of the diseases have very powerful and well support organizations who encourage attention and clinical research support. On the other hand we hear very little about efforts against allergic chinitis or infectious and parasitic diseases.

UNIT COST OF BURMESE TRANSLATOR ACTIVITIES IN PHARMACY DEPARTMENT, SAMUTSAKHON HOSPITAL

Anuwong C
Samut Sakhon Hospital, Prathai, Thailand

OBJECTIVES: Burmese labores are major Non-Thai patients in Samut Sakhon Hospital. Culture and language barriers between Samut Sakhon pharmacist and Burmese patients may lead to many drug related problems that effect to patients safety. For this reasons, Burmese translators were worked like pharmacists assistants since May 2009. This activity may improve quality of service as increased cost. This research is aim to determine labor cost of Burmese translators at pharmacy department, Samut Sakhon Hospital. METHODS: This research is descriptive study in health-care provider prospective to determine labor cost of Burmese translators between October 1, 2009 to December 31, 2009. Unit cost of Burmese translator was calculated from labor cost multiply with estimated time in each translator activities by observation. RESULTS: The results of this study found that labor cost of Burmese translator is 0.98 bath/min, and unit cost of each activity included translating drug information for general patients costs 2.45 bath/case, while, dispensing vitamins for Burmese pregnancies which costs about 0.98 bath/case. Although giving drug information for TB and AIDs patients is 4.9 bath/case or translating the evaluating adverse drug reaction is 9.8 bath/case. The most expensive cost is teaching use special device for asthmatic patients about 14.7 bath/case. There are other assignments, for example, preparing Burmese drug leaflets or prepack medicines. Every activities are under responsibility by Thai pharmacists. CONCLUSIONS: From this study is quite similar to labor cost of Nurse assistants at Ledsin Hospital, Bangkok in 2005 (0.81 bath/min). Also, this information can be applied for other hospitals that in the similar situation. This study can help decision-maker to spend more budget to improve quality of pharmaceutical care with humanity.

HEALTH DECENTRALIZATION, GOVERNMENT HEALTH EXPENDITURE AND HEALTH OUTCOME IN CHINA

Chen Q, Li L
Peking University Beijing, China

OBJECTIVES: Since the early 1990s, decentralization has reemerged as a valued political-administrative economic goal in most developing countries. China's health-care system is also in the process of decentralization, local governments take more responsibilities of health sector, accompanied by the diminution of public role in health financing especially after the fiscal reform in 1994. This research looks at the health outcome (both the level and gradient) during the period 1991-2007 to identify the effects of these policy changes on health outcomes in China. METHODS: We borrow the micro Grossman health production model using province-level pooled cross-section and time-series data during the period 1991-2007. We first investigates the “overall” and “partial” effect of income on health, and then focus on the policy effects. Life expectancy, infant mortality, mortality, and maternal mortality are examined as health variables (level, gradient, and convergence). Medical care, public health, socioeconomic, environmental factors as well as institutional variables are considered in the production function. RESULTS: The results are coincident with theoretical expectation i.e., economic growth alone does not promote health in typical developing countries, but some channels like its impact on public health do, and also the system does matter. The decentralization of government responsibilities and reduction of public role are significant for the fall of mortality and infant mortality and both significantly affect the sigma and beta convergence of health.