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The status of men's health in Asia

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ABSTRACT

Objectives. This study aims to compare health status and its risk factors between men and women who are from countries of different income status in Asia.

Method. We have included 47 Asian countries and 2 regions in this study. Life expectancy, mortality rate from communicable disease, non-communicable disease and injuries, the prevalence of non-communicable diseases risk factors and their trends were extracted from the WHO and respective governmental database. Subgroup analysis was performed based on country income groups.

Results. Overall, men have shorter life expectancy and higher mortality rates compared to women. Men from higher-income countries lived longer compared to men from lower-income countries. There is a wide variation of male life expectancy in upper and lower middle income countries. The mean systolic blood pressure, fasting blood glucose and body mass index in Asia have also increased over the years.

Conclusion. This study confirms that Asian men have poorer health compared to women besides the growing concerns on NCD risk factors. The findings from this study calls for a concerted effort to find solutions in addressing men's health problems in Asia.

Introduction

Men are known to have a shorter life expectancy and higher mortality compared to women (Lynch, 2013; Wang et al., 2013; White and Holmes, 2006; White et al., 2014). This could be attributed to men indulging in higher risk-taking behaviors, reluctance to seek help for prevention and during illness and the lack of male-focused health system (Addis and Mahalik, 2003; Byrnes et al., 1999; Cordier and Wilson, 2013; Lynch, 2013; Tan et al., 2007; White and Holmes, 2006). In addition, men's health reports from Australia, Canada and Europe found significant variations in men's health status within and across different countries (AIHW, 2013; Bilsker et al., 2010; EC, 2011), which could be due to the differences in genetic as well as socio-economic factors. (NCIN and Cancer Research UK, 2009; White et al., 2011).

Asia is rapidly developing both economically and socially. In recent years, more Asian countries are achieving a higher bracket in terms of socioeconomic status, and many are adopting a lifestyle similar to western countries (Tong et al., 2011; Wassener, 2013). However, communicable and non-communicable diseases are on the rise in Asia (Wassener, 2013). While people from higher-income countries are achieving better health status, countries from the middle- and lower-income group continue to face higher disease burden, possibly attributed to financial constraints (Orach, 2009; WHO, 2000). The changing disease pattern and rising healthcare cost have a huge impact on overall population health, particularly in men, who have poorer health than women to begin with (Doyal, 1995; Rahman and Liu, 2000).

The recently published *Asian Men's Health Report* found that men's health status is poorer compared to women and it varies across different countries and regions in Asia (Tan et al., 2013). This study summarized the key findings from the report and aimed to explain the variation in men's health status across Asia based on country income status. We hope our findings will serve as the first step toward identifying and addressing gaps in men's health in Asia.

Materials and methods

Selection of countries in Asia

We obtained the lists of member countries in Asia from the WHO and CIA databases (CIA, 2013; WHO, 2013a). Although Hong Kong and Taiwan were not part of the databases, we decided to include them in view of their unique men's health status and they were not included in the data from China. The final list comprised 47 countries and two regions.

Health indicators

The population health indicators included in this study were as follows: life expectancy at birth; mortality rate attributed to communicable diseases, non-

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0091-7435/

Table 1
List of diseases under each cause of death category.

Causes of death	
Communicable diseases	Tuberculosis, STD, HIV, diarrhoeal diseases, childhood-cluster diseases, meningitis, Hepatitis B and C, malaria, tropical-cluster diseases, leprosy, dengue, Japanese encephalitis, trachoma, intestinal nematode infections, lower and upper respiratory infections and otitis media
Non-communicable diseases	Malignant neoplasms, diabetes mellitus, endocrine disorders, neuropsychiatric conditions, sense organ diseases, cardiovascular diseases, respiratory diseases, digestive diseases, genitourinary diseases, skin diseases, musculoskeletal diseases, congenital anomalies and oral conditions
Injuries	Road traffic accidents, poisonings, fall, fires, drownings, other unintentional injuries, self-inflicted injuries, violence and war

communicable diseases and injuries (Table 1); the prevalence of risk factors for non-communicable diseases (alcohol, current smokers, physical inactivity, obesity, high cholesterol, raised blood pressure and blood glucose); and the trend of cardiovascular disease (CVD) risk factors between 1980 and 2009 (mean systolic blood pressure, mean fasting blood glucose level, mean total cholesterol level and mean body mass index (BMI)).

Data extraction

We used the World Health Organization (WHO) Global Health Observatory Data Repository as the key reference source in this paper (WHO, 2013b). It contains the most comprehensive and updated data comparing health status between men and women across a range of medical conditions and countries in Asia. As for Hong Kong and Taiwan, we used the regional government databases as they were not included in the WHO database (Republic of China (Taiwan), 2011; The Government of Hong Kong Special Administrative Region, 2011).

Data analysis

Microsoft Excel 2010 and Statistical Package for Social Science 21 were used to analyze the data. Age-standardized mortality rate was used as it allows comparison between countries after adjusting for the population age. Subgroup analysis was performed based on sex and income groups (gross national income per capita: low < USD 1,035; lower middle USD 1,035–USD 4,085; upper middle USD 4,085–USD 12,615; high > USD 12,615) (The World Bank, 2013). The comparisons of the overall prevalence of the CVD risk factors between continents (Asia, Europe, USA and world) and between income groups were made. They were calculated based on the average prevalence of all the countries in the respective continents and income groups. Similarly, the mean systolic blood pressure, fasting blood glucose, total cholesterol and BMI in Asia were calculated based on the average values of the 47 countries over the 30-year duration.

Results

Life expectancy at birth

Men have shorter life expectancy compared to women across all countries and regions in Asia except for Kuwait and Qatar (Fig. 1). We found that men from higher-income countries lived longer than those from the lower-income group. However, the life expectancy of men from upper and lower middle income countries varied widely.

Mortality attributed to communicable, non-communicable diseases and injuries

Regardless of the type of disease (communicable, non-communicable diseases or injuries), men have a higher mortality rate compared to

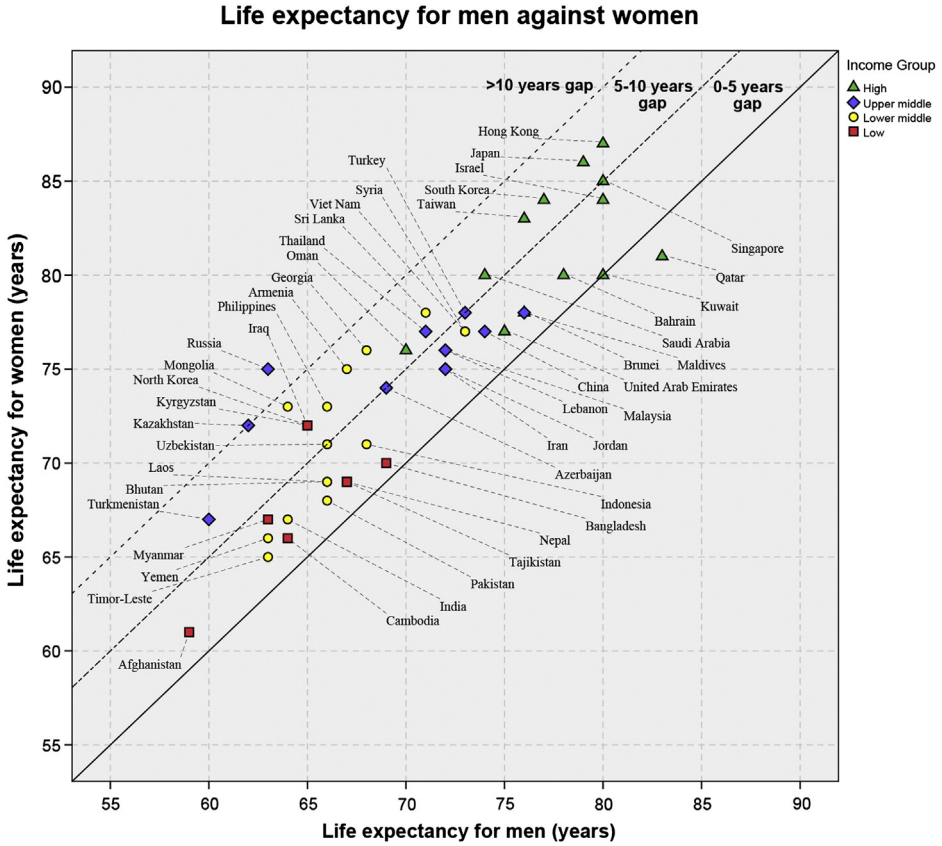

Fig. 1. Comparison of life expectancy between men and women across different income groups in Asia (2011).