

## Gender Differences in Health Status among Older Singaporeans<sup>1</sup>

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## Introduction

In this paper we examine gender differences in health status among older adults in Singapore using three different measures of health status; self reported health, the presence of chronic illness, and functional disability. Although there have been a myriad of studies on gender and health, most of these studies focus exclusively either on “young” women of child-bearing age or women below retirement age. Less is known about gender differentials in health status among older adults. The bulk of research on gender and older adult health, with important exceptions, is based on American and British data and these studies report women having a higher prevalence of chronic conditions compared to men, assessing their own health less positively than men, reporting more often the presence of disability than men of the same age (and this difference increases with age), and spending a greater duration of time with a disability (Arber and Ginn, 1993; Hall and Canning, 1988; Manton, 1988; Martin, Meltzer and Elliot, 1988; Verbrugge, 1985; Verbrugge, 1989; Zhang, Sasaki and Kesteloot, 1995). Currently, several pioneering studies have begun investigating whether gender differences in health at older ages as observed in Britain and US can be generalized to Asian countries, for example Zimmer, Natividad, Ofstedal et al. 2001; Strauss, Gertler, Rahman, et al. 1993; Zimmer, Liu, Hermalin et al. 1998; Zimmer, Martin, and Chang 2002). We contribute to the literature by providing evidence from Singapore, the fastest aging country in Asia.

The study of gender differences in health in old age is important for many reasons. Older age is often associated with deterioration in health status and an increase in problems with physical functioning, chronic disease, and cognitive functioning, and women are typically assumed to experience a greater share of such problems. Women make up the bulk of the older population given their longer life expectancy compared to men and therefore assessing their health status has important implications for the type and extent of health care service provision in any country. Asia is in a particularly interesting predicament given that the majority of the world’s aged population will reside in Asia in the next 30 years time. Population ageing in Asia is now among the fastest in the world and the numbers of persons aged 60 and over is expected to triple by the year 2030 (Hermalin and Myers 2001; United Nations 2002). Within this age group, the proportion of oldest-old (80 and above) is expected to double and it is among this group that the prevalence of health problems is greatest. Whether similar gender differences in health status exist in developing countries, and the size and determinants of these gender differentials in health status, are important empirical questions given the aging of Asia’s population and the need for Asian countries to fashion adequate and appropriate health care systems.

## Data and Methods

We use cross-sectional data from the 1999 survey of *Transitions in Health, Wealth, and Welfare of Elderly Singaporeans: 1995-1999*. Our sample size for this analysis consists of 1977 respondents, aged 59 and above. We conduct multivariate logistic regressions using three different health measures as dependent variables; self reported (perceived)

health, reporting at least one chronic condition, and reporting at least one functional disability (ADL, IADL, or mobility limitation).

**Self reported health or perceived health** is the respondent's subjective assessment of his or her general health. Response categories included very good, good, not too good (minor illness, general weakness, etc.), poor, and don't know. We collapsed the response categories into good health (very good and good) and poor health (not too good and poor). Individuals who responded "Don't Know" were excluded from the analysis.

**Reporting at least one chronic condition.** This variable is constructed using responses to the following question. "Has the doctor ever said you have or had any of the following conditions?"

- Stroke
- High blood pressure or hypertension
- Diabetes or high blood sugar
- Cancer or malignant tumor (excl skin cancer)
- Chronic lung disease such as bronchitis, emphysema, asthma, TB
- Heart attack, coronary heart disease, angina, congestive heart failure or other heart problems
- Arthrities or rheumatism
- Permanent loss of memory or loss of mental ability
- Kidney problem
- Cataract or glaucoma

If the respondent reported 'yes' to any of these chronic health disorders, they are given a score of 1 on the chronic disorder item and 0, otherwise.

**Reporting at least one functional disability** is a measure of difficulty with any of the following: basic activities of daily living (BADL), mobility, and/or instrumental activities of daily living (IADLs); The questionnaire consisted of the following 10 items and respondents were asked whether they had any difficulty with these activities. Respondents who reported one or more of these limitations were coded as having a functional disability (coded: yes=1; not= 0).

**Basic activity of daily living (BADL)**

- Bathing, feeding, toileting
- Crouching or squatting
- Using fingers to grasp a handle

**Mobility**

- Using transport to get to places that are beyond walking distance
- Lifting or carrying something as heavy as a 5kg bag of rice
- Walking 200-300 metres
- Going up and down the stairs (about 1-2 flights)

### **Instrumental activities of daily living (IADL)**

- Preparing own meals
- Shopping for groceries/ personal needs
- Managing own money
- Doing light housework like cleaning dishes, straightening up, light cleaning

### **Findings**

In our bivariate analyses we found significant gender differences for each type of health measure with females having a significantly higher propensity to report poorer health status compared to males. Females are 1.4 times more likely to report poor self assessed health and 1.7 times more likely more likely to report a functional disability compared to their male counterparts.

In our multivariate analysis we control for a variety of demographic and socioeconomic characteristics, health risk behaviors, and social networking variables. We find that that controlling for socioeconomic, demographic, health risk behaviours, and social networking variables renders gender differences in self assessed health and reporting at least one chronic condition not significant. However, gender differences remain significant (albeit reduced) in the case of reporting at least one functional disability. Thus, while gender differences in self-assessed health and chronic illness can be explained by the independent variables in our models, our models do not explain gender differences in functional disability. We are currently exploring interesting gender differences in the effects of various covariates in our analysis. We do this by running separate regressions for males and females. Among our preliminary results we find that married women are less likely to be in good health compared to married men. In addition, health risks behaviours appear to be more important for women than men.

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