Institute of Policy Studies

Health of Older Persons and Healthcare Considerations

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Trends in Epidemiology

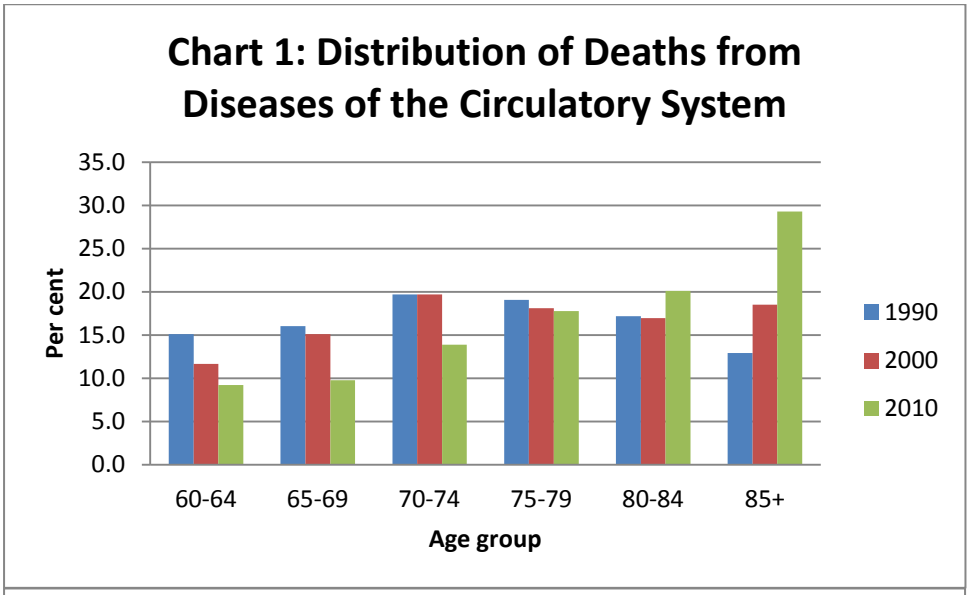
According to Omran's epidemiologic transition model, diseases experienced by a population changes from those that are infectious to those that are degenerative as society progresses over time (1971, 516–517).

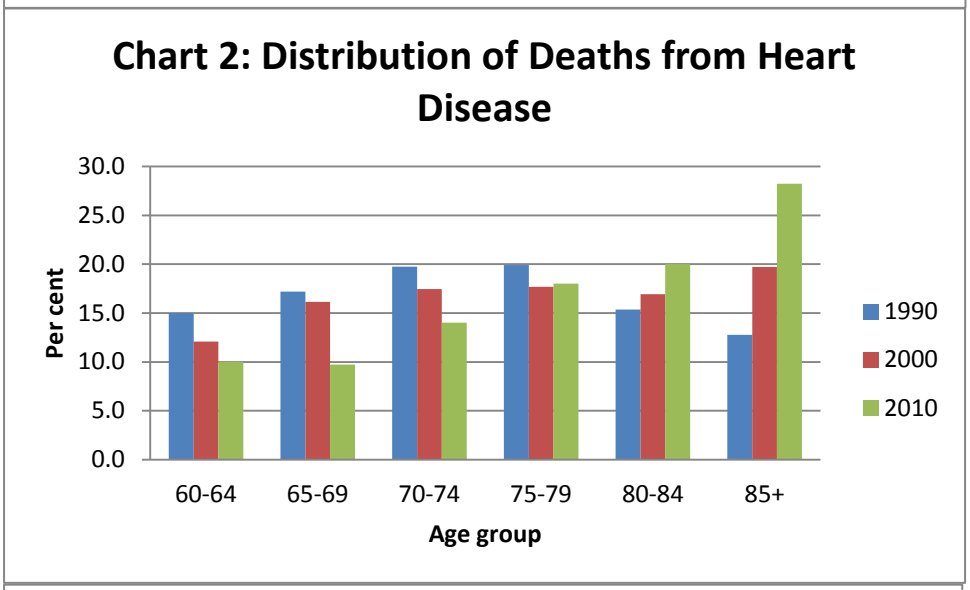
Omran's epidemiological model consists of four stages: Stage 1 is characterised by pestilence and famine; Stage 2 by receding pandemics; Stage 3 by degenerative and man-made diseases; and Stage 4 by delayed degenerative diseases and emerging infections (1971, 516–17).

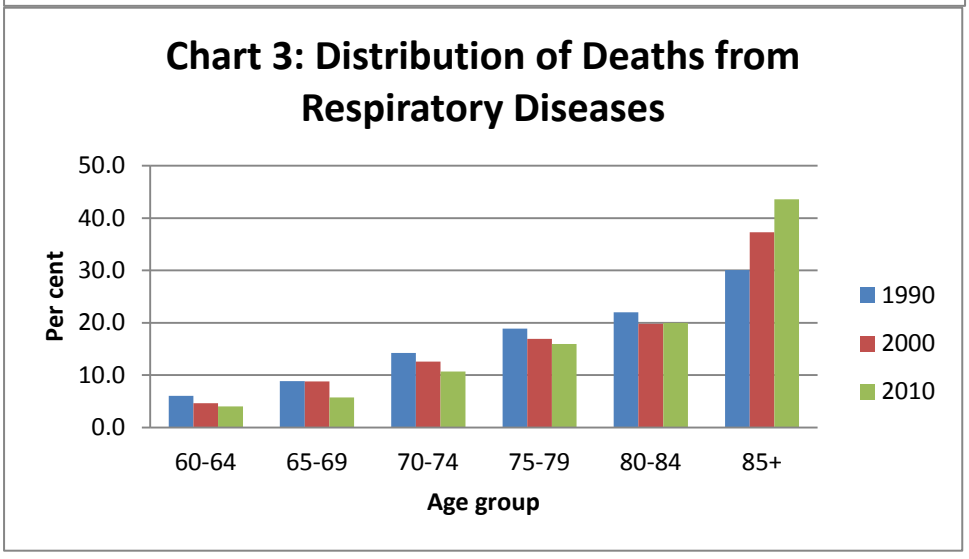
Singapore appears to be in the fourth stage of the model. Characteristics of the fourth stage of the model are: (1) rapidly declining deaths rates are concentrated mostly in advanced ages; and (2) the age distribution of deaths by degenerative diseases is shifted progressively towards older ages. In this fourth stage, major degenerative causes of death that prevailed during the third stage of the model remains as the major killers, but the risk of dying from these diseases is redistributed to older ages (Olshansky and Ault, 360–61).

According to the Ministry of Health (MOH), degenerative diseases such as heart diseases, cardiovascular diseases (CVD) and pneumonia were the principal causes of death apart from cancer in 2010. They caused 23.5, 8.4 and 15.7 per cent of total deaths in 2010 respectively (MOH, 2012).

Charts 1 to 3 show the causes of death across different age groups from 1990 to 2010. All three charts show increasingly more proportions of people in the older age groups dying of degenerative diseases from 1990 to 2010.







Source: Registrar-General of Births and Deaths. 1990, 2000, 2010. Report on Registration of Births and Deaths. Singapore: Registry of Births and Deaths.

Performance of Activities of Daily Living

According to the information from the Singapore Census of Population 2000 and 2010, the physical mobility status of the elderly appeared to have improved. There was a decrease in the proportion of those aged 65 years and above who were non-ambulant, from 3.3 per cent in 2000 to 2.4 per cent in 2010. Similarly, there was also a decrease in the proportion of those aged 80 years and above who were non-ambulant, from 7.6 per cent in 2000 to 6.5 per cent in 2010.

A study by the National University Health System (NUHS) of the National University of Singapore, on 412 people aged 75 years and above, found that people are more physically fit than they used to be. Only one in four of those aged over 80 years needed assistance in their daily activities as compared to two in three people in a study done 15 years ago (Basu, 2012).

The study also found "a marked decline in physical and cognitive abilities when a person crosses 80 years" (Basu, 2012). One in 10 of those in their late 70s could not perform essential activities of daily living, as compared to one in four of those aged 80 and above (Basu, 2012). About 44 per cent of those aged between 75 and 79 were unable to perform at least one ADL as compared to 62 per cent for those aged above 80 years (Basu, 2012). Cognitive impairment also rose from 28 per cent for those aged in their late 70s to 44 per cent in those aged above 80 years (Basu, 2012). Further research could examine healthy life years in Singapore using the disability adjusted life years (DALY) and the Sullivan health expectancy[1].

Discussion

In Singapore, people are dying of degenerative diseases at older ages, and a person's physical and cognitive functions decrease significantly after 80 years of age. There is a possibility that improvements in healthcare and quality of life can delay the onset of disease in older persons, thereby shortening the suffering from physical disabilities before death. Further, research by Seshamani and Gray (2004, 558) suggested that the concentration of healthcare costs in hospitals was more noticeable for people in the last year of life, in particular for those aged 85 years and over.

Resources allocated for the aged could be channelled more towards step-down care. Professor Phua Kai Hong, an expert on healthcare policy, suggested that Singapore's current financing scheme for the intermediate and long term care (ILTC) sector will not be sufficient in enabling Singaporeans to meet basic costs for such services by 2030 (Tan, 2012).

MOH will be reviewing the Eldershield[2] scheme next year (Tan, 2012). Among other proposed measures, the MOH would absorb the goods and services tax of healthcare services for all subsidised ILTC patients and increase cash payouts, while the qualifying

[1] DALY and the Sullivan health expectancy aim to calculate the number of life years free from morbidity and disability.

[2] The Eldershield scheme was launched in 2002 as a severe disability insurance scheme that provides basic financial protection to those who need long-term care. Singapore residents with Medisave accounts are covered under the Eldershield from the age of 40 unless they opt out.

income for the Interim Disability Assistance Programme for the elderly will also be increased for low-income disabled elderly unable to join Eldershield at its inception" (Tan. 2012).

Trends in epidemiology, the health status of the population, and medical advancements have to be considered in the provision of effective healthcare. Hence, healthcare measures have to be assessed periodically to cater to the actual demands of the population for the present and the future.

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Related Article:

Yap, Mui Teng and Chua Chun Ser. Redefining Ageing**.** 2012, August. *IPS Update*. http://www.spp.nus.edu.sg/ips/docs/enewsletter/Aug2012/MT%20ChunSer_Redefining%20Ageing_130812.pdf

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