

Opinion

Dementia in Iran: How Soon it Becomes Late!

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Based on the World Health Organization (WHO) forecast, by the year 2025 about 1.2 billion people will be at age 60 years and older, of which about three-quarters of them will reside in developing countries.¹ The ageing of a population is caused by two processes: declining birth rates, decreasing the size of younger birth cohorts, and increasing life expectancy. In Iran, population fertility expressed as number of children per fertile woman decreased from 6.7 in the early 1980s to 1.8 in 2009, while life expectancy over the same period increased with 13.1 years (Figure 1). Now, 7% of the population is aged 60 and older, but if this country continues its ageing population growth at the current rate, it is predicted that by the year 2025 11% of the population will be age 60 years and older, and in 2050 even 28%.² Such predictions are robust, as the concerned population of 60 and more in 2050 is now 20 year and older.

Dementia is a serious challenge for health and social care systems in ageing societies. The incidence of dementia is rapidly increasing and can impose a great burden and costs on ageing populations. A large proportion of demented patients live in developing countries and by 2040, will account for 71% of all cases. Current cost models indicate that the annual costs per person with dementia differ largely between developed and developing countries. However, such discrepancy can be explained by underestimation of costs in developing countries due to higher contributions of informal care costs, under-reporting, under-treatment, and lower survival of demented patients in these countries.³

This background raises issues about the current and future status of dementia in Iran. In a rough estimate, extrapolated from regional and global statistics, the number of demented people in Iran by 2009 has been reported to be more than two hundred thousand. Considering the average annual costs of \$7300 per case in Asian countries, the total amount of money needed to care for this population will be \$1,554,644,500, which equals 0.46% of Iran's total gross domestic product (GDP) during 2009. However, considering informal costs, the annual costs can reach over \$2 billion.⁴ Nevertheless, the immediate concern is the scarcity of more valid data collected systematically. The diversity of tools used to assess cognitive function in medical centers in Iran is remarkable and the most common applied test, the Mini Mental State Examination (MMSE), suffers from limitations including the inability for early detection of cognitive decline. Recently the 10/66 Dementia

Research Group validated its multidimensional and cross-cultural dementia scale in Iran and in 26 other centers worldwide. To have a better estimation and feasibility of comparison with other parts of the world, the use of such tools is recommended.⁵

Although there is no definite estimate on the prevalence of dementia in Iran, there are some clear clues implying a potential epidemic for this disease. Looking at the main recognized risk factors for the most common forms of dementia, Alzheimer's disease and vascular dementia, the majority of risk factors have substantially increased over the last decades. Besides the rise in longevity, the prevalence of hypertension, diabetes, dyslipidemia, and obesity is also increasing in Iran. Life style changes in the Iranian population have resulted in high calorie diets, less physical activity, and more smoking, all of which contribute to neurodegenerative processes.^{6,7}

To prevent the potential epidemic of dementia, in addition to a robust surveillance system, we need to commence these three actions: (1) enhancing public awareness, (2) involvement of primary health care, and (3) engagement of policy makers.

Promotion of public awareness about the significance and the increasing rate of dementia can be a double edge sword. Participation of people can put its best effect on reduction of risk factors, early detection and better care for the elderly. However, being labeled as a person with cognitive impairment is associated with great social costs from losing legal privileges to living alone in home care centers.⁸ Therefore, a change in attitudes toward dementia should precede promotion of knowledge. Since families have a pivotal role in care of the elderly, particularly those with cognitive deficits, they should be a main target for this purpose.

Primary health care (PHC) in Iran has shown a great capacity in the management of communicable diseases.⁹ However, proper function of this system in the matter of non-communicable diseases requires a major revision in priorities and resource allocation. A potential epidemic of dementia can take a great toll on the health care system and to mitigate that we need to recognize dementia as a component of PHC. Cultural and locally adjusted materials need to be prepared for training both healthcare personnel and education of the general population.

Evidence based policy making is a key for handling health issues. Indeed, lack of evidence and proper attitudes towards the application of evidence in policymaking are two main points that need to be considered for a potential epidemic of dementia.¹⁰ Financial and political investments are necessary for evidence synthesis and policy makers are better equipped to promote these issues. Accordingly, it is the responsibility of the experts to draw the attention of policy makers to this area, and again it is the responsibility of experts to supply policy makers with evidence. In this setting, formation of technical teams and network of experts is crucial for both evidence and policymaking.

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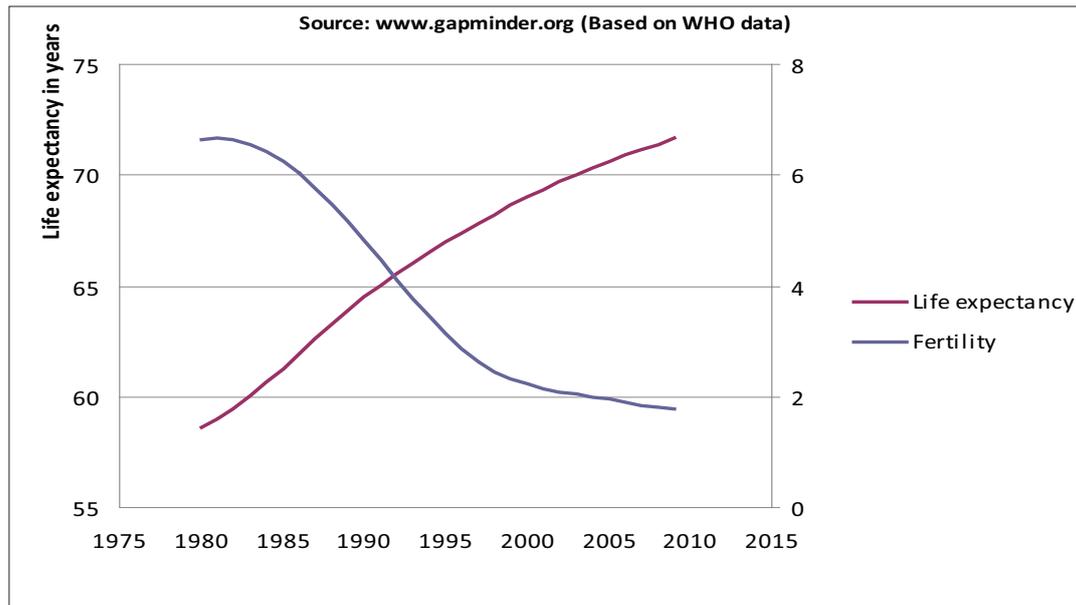


Figure 1. Time trend of life expectancy and birth rate in Iran.

It is worth adding that worldwide efforts for the prevention of dementia through modification of its risk factors have not yielded dramatic outcomes. Indeed the main risk factor for dementia is old age, which is not preventable in practice. There is circumstantial evidence for hypertension, although no strong evidence exists for blood pressure lowering therapies and their potential to lower the risks of dementia. However, the strength of evidence on prevention of cognitive decline through education, rather than pharmacologic intervention, is more promising.¹¹

The rapid demographic transition in Iran and the formation of an ageing population can be associated with adverse health issues, including an epidemic of age related disorders such as dementia. The increasing rate of dementia throughout the world and Iran is striking and mandates new strategies covering new demands.

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