

The Challenges of Success: The Aging of Israeli Society

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Abstract

In 2001 the number of residents aged 65 and over in Israel was 639,000, or 10% of the population. The rate of increase of the elderly population is twice that of the general population, thus the predicted number of elderly for 2020 is around 1,025,000, representing a 60% increase. While this process is determined by a decline in both fertility and mortality, in Israel, immigration has also been a central factor in the process of aging. Life expectancy stands at 76.7 for men and 80.9 for women; at age 65 it is 16.4 years for men and 18.5 for women. The major factor influencing the increase in life expectancy during the past two decades has been the prevention of death among older people. Population aging, or "the demographic transition," also represents an "epidemiological transition" – from high rates of infectious and communicable diseases to high rates of chronic diseases among older people. During the past two decades, the number of disabled elderly has increased more than 2.5 times. In 2001, there were about 97,400 disabled elderly in Israel, constituting about 15% of all elderly. By the year 2010, the number of disabled elderly is expected to reach 120,100. The rate of increase of the disabled elderly population is almost double that of the total elderly population due to changes in this population's composition. However, recent research indicates that new cohorts of elderly are healthier than earlier cohorts but experience a decline in health at older ages. While advances in standard of living, medicine and technology have made this possible, a greater allocation of resources is required to prevent disability and maintain the quality of life.

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Throughout the world, population structure is changing dramatically, and the aging of society is a demographic fact. The 21st century will be marked by an unprecedented increase in the size and proportion of elderly in the population: It is expected that 25% of the population in many European countries, and 29% of the population in Japan, will be aged 65 or over by 2025. By 2050, nearly every third person in Europe will be 65 or over [1].

This projected situation raises two major concerns. First, given the greater incidence of disease and disability among the elderly, the growth in the elderly population will increase the number of those at risk of frail health. This implies an increased burden on the health system. Second, the increased proportion of elderly people in the population may significantly pressure age-related social programs, such as old-age pensions. These concerns, however, do not usually take into account other concomitant changes. For example, tomorrow's elderly will most likely differ in health and socioeconomic status from today's elderly. Changes in the socio-demographic composition and in the financial, health and functional status of the elderly population, as well as in the

availability of family and informal support systems, will define the magnitude and nature of the implications of aging. Furthermore, the aging of individuals will affect the aging of societies: That is, social institutions may change to accommodate population changes (such as changes in the retirement age). Conversely, individuals' behavior may change as a result of their increasing awareness of macro-demographic changes.

This article addresses the demography of aging in Israel. It focuses on how the age structure of Israeli society has changed over time, suggests the causes of these changes, and attempts to predict future developments.

The aging of Israeli society

At the end of 2001, Israel's residents aged 65 and over numbered 639,000. In absolute numbers, Israel's elderly population has increased sevenfold since 1955, while the general population has increased only 3.5 times. In other words, the rate of increase in the elderly population has been double that in the general population. At present, the elderly represent 9.8% of the Israeli population, compared to 3.8% in 1948, that is, the percentage of elderly in the population has almost tripled since the establishment of the State in 1948. According to projections, the number of elderly will have reached some 722,000 by 2010, and some 1,025,000 by 2020, constituting 11.8% of the population projected for 2020 [2]. In Israel as in most developed countries, not only is the percentage of the elderly growing but the elderly population is growing older. The number of people aged 80 and over is growing much faster than the number of younger elderly people. For example, it is predicted that there will be 228,700 people aged 80 and over in 2020, compared to 48,800 in 1980 (a 4.5-fold increase). In comparison, the number of people aged 65 and over is expected to increase by only three fold during the same period [Table 1].

Although Israel's population is relatively young, its rate of aging is much faster than that of Europe. The increase in the percentage of elderly in Israel during its 55 years of existence is similar to that in Europe over 100 years.

The causes of population aging in Israel

Three main factors explain population aging: the decline in fertility, the decline in mortality (longer life expectancy), and immigration. For example, the total fertility rate in Israel declined from 3.93 in 1955 to 2.89 in 2001 [2]. (The total fertility rate equals the average number of children per woman.)

An increase in life expectancy, especially life expectancy at age 65, has also affected the age structure of the population. Life

Table 1. The elderly population 1995-2002 (end of year), and forecasts for 2010 and 2020

Year	Number of elderly (in thousands)			Percentage of elderly		
	65+	75+	80+	65+ in total population	75+ among 65+	80+ among 65+
1955	85.2			4.8		
1960	106.8	32.9		5.0	30.8	
1970	204.0	58.5		6.8	28.6	
1980	338.3	108.5	48.8	8.6	32.1	14.4
1990	442.2	185.3	90.1	9.2	41.9	20.4
2000	622.9	276.1	139.0	9.8	44.3	22.3
2001	639.0	286.7	144.5	9.8	44.9	22.6
2010	722.5	333.0	190.3	9.6	46.1	26.3
2020	1,025.8	391.4	228.7	11.8	38.1	22.3
Percentage growth 1980–2020	203	261	369			

Source: Central Bureau of Statistics, Statistical Abstract, Selected Years.

expectancy in Israel is high and has increased by 12 years in less than 50 years, reaching 76.7 for men and 80.9 for women in 2000. It is noteworthy that the life expectancy of Israeli men is among the highest in the world, while that of Israeli women is low relative to other developed countries; consequently the difference in life expectancy of men and women is lower in Israel than in other countries.

Life expectancy at the age of 65 is 16.4 years for men and 18.5 for women, representing an average increase of 18% for men and women during the past 20 years, compared to an increase of only 8% in life expectancy at birth. Thus, the major factor influencing the increase in life expectancy during the past two decades has been the prevention of death among older groups in the population.

The process of aging in Israel is more complex than in other developed countries. Changes in levels of fertility and mortality alone cannot explain the rapid aging of Israeli society during the past three decades. Israel has several unique characteristics that affect changes in the population's age structure, most notably immigration. In the past, the immigrant population tended to be relatively young; this slowed the rate of aging of the overall population, although the aging of immigrants naturally contributes to the total increase in the percentage of elderly [3,4]. However, recent large-scale immigration, primarily from the former Soviet Union, has been characterized by immigrants who are older than the general non-immigrant population, contributing significantly to the increase in the number of elderly.

Despite the accelerated rate of aging, the percentage of elderly in Israel is still relatively low and is not expected to reach the high levels projected in other developed countries – in part because of Israel's relatively high fertility rates.

An important demographic feature of Israel is the ethnic diversity of its population. Approximately 94% of Israel's elderly people are Jews, while 6% are non-Jews (Moslems, Christians, and Druze). Among the Jews, only 9% were actually born in Israel, while 27% were born in Asia and Africa (Morocco, Yemen, Iraq), and 64% were born in West or East Europe [5]. The family situation and needs of elderly people from Europe are quite different from those

of elderly people from Asia and Africa. These differences are even greater among Israel's Arab population.

Selected socioeconomic and functional characteristics of the elderly

● *The dependency ratio and labor force participation*

One gross measure of the impact of the aging of the population is the extent of support available to the elderly, or the overall burden on working-age adults. Broad changes in the age structure of society are reflected in changing dependency ratios [6]. These ratios indicate the number of children and/or elderly persons per 100 persons aged 20–64, the prime ages for participation in the labor

force. Worldwide, there will be an increase in elderly dependency ratios and a decrease in children dependency ratios. In Israel, the elderly dependency ratio (persons aged 65 and over per 100 population aged 20–64) stands at 19 (that is, there are 19 people over 65 for every 100 people of prime working age), compared to 10 in 1960; it is expected to reach 22 by 2020. In contrast, the children dependency ratio (persons under age 20 per 100 population aged 20–64) will decline [Table 2]. Although children are also dependent and are major users of social resources, the decrease in their proportion in the population will not balance the increased need for resources generated by the growing proportion of elderly in the population.

However, a definition of the dependency ratio is conditional on the definition of “working age,” which may also change as the population ages. Postponement of the retirement age is likely to restrain the dramatic increase in dependency ratios. On the other

Table 2. Dependency ratios for selected years (per 100 population)

Year	Dependency ratio		Total
	Elderly	Children	
1960	9.7	85.5	95.2
1970	13.5	86.7	100.2
1980	17.4	84.5	101.9
1990	18.2	80.1	98.3
1995	19.1	74.5	93.6
2000	18.4	70.1	88.6
2001	18.4	69.5	87.9
Forecast			
2010	17.6	65.7	83.2
2020	22.0	64.1	86.1

Definition of dependency ratios:

Elderly: age 65+ divided by age 20–64

Children: age 0–19 divided by age 20–64

General: age 0–19 and 65+ divided by age 20–64

Sources: Central Bureau of Statistics, 1997 Statistical Abstract; Population Files for Selected Years; and Forecast for the Israeli Population up to 2020.

hand, the past decades have seen a decrease in the labor force participation of people aged 65 and over in most developed countries. Moreover, the labor force participation of men aged 55–64 has also decreased, due to structural changes in the market and the implementation of social policies, encouraging early retirement [7–9].

In Israel, the percentage of elderly participating in the labor force has declined: from 20% (33% among men and 17% among women) in 1961 to only 9% (15% among men and 5% among women) in 1999. Also, as in other western countries, the proportion in the labor force of men aged 55–64 is decreasing (from 80% in 1961 to 65% in 1999). In contrast, the proportion of women aged 55–64 in the labor force has almost doubled (from 17% in 1961 to 35% in 1999) [2].

Thus, the end of the 20th century saw a paradox: an increase in life expectancy alongside a decrease in the labor force participation of older adults. Although people may be spending as much as one-third of their adult lives in retirement, social structures have not kept pace with this process [10,11]. In most developed countries, political and economic pressures are urging the restraint of social security costs associated with early retirement and public pensions. Thus, policies encouraging early retirement are being reduced and the retirement age raised [12,13].

● *Economic status*

The majority of elderly families (95%) receive old-age and survivor benefits from Israel's National Insurance Institute (social security) in the form of a basic flat-rate pension. About one-third of pension recipients also receive supplemental income benefits [14] that are paid to elderly people whose only source of income is their old-age pension. These benefits are meant to ensure a minimum income at the poverty line, which is 50% of the median per capita income. The occupational pension system, which provides earning-related pensions, is relatively new and non-compulsory: only 35% of the elderly receive an occupational pension [5,15]. It should be noted, however, that the proportion of non-immigrants who receive a pension increased from 31% in 1985 to 42% in 1997. Therefore, during the past two decades, as more elderly people have retired with occupational pensions the proportion of non-immigrant income supplement recipients has declined – from 36% in 1980 to 16% in 2000. Given that new immigrants do not have other sources of income, about 95% of them are entitled to an income supplement benefit from the National Insurance Institute.

The incidence of poverty is greater among elderly families than among the population as a whole. About 25% of the elderly are poor, compared to 18% of the total population [16]. However, it is expected that in the future a greater proportion of those employed will be able to retire with an occupational pension, as well as with a higher level of pension; this should reduce the incidence of poverty. Nevertheless, many elderly people, especially women, remain economically vulnerable. Moreover, in Israel there is enormous inequality among older people.

● *Education*

There has been a marked increase in the level of education of the elderly. In 1961, for example, 34% of the elderly lacked a formal education, compared to 13% today. Furthermore, today, 26% of the elderly have a post-secondary education (13 or more years of schooling), compared to 7% in 1961. This may indicate an improvement in the socioeconomic status of the elderly. It may also have important ramifications for the kind and extent of social and health services that will be needed in the future.

● *Family support*

Having a family and good family relationships greatly affect the well-being of elderly persons. Elderly men enjoy greater access to informal support than do elderly women. Approximately 60% of the elderly are married, and twice as many elderly men as women are married [2,5]. Consistently, the proportion of elderly women who live alone is more than three times that of men. The total percentage of elderly people who live alone has increased – from 12% in 1961 to more than one-quarter today.

These findings do not necessarily indicate a lessening of family willingness to provide help and support. Most of Israel's elderly have an informal support system. The majority of them have at least one child, and the overwhelming majority of them are in close contact with their children. Research findings have not indicated a lessening of family willingness to provide help and support. Traditional expectations of familial accountability and commitment are still strong [17].

● *Disability*

Although the majority of elderly in Israel are independent, the changes that have taken place in the age, gender, and ethnic composition of Israel's elderly population have contributed to an increase in the number and proportion of disabled elderly (those who need assistance with personal care activities such as dressing, bathing and eating). During the past two decades, the number of disabled elderly has increased more than 2.5 times. In 2001, there were about 97,400 disabled elderly in Israel, constituting about 15% of all elderly. By the year 2010, the number of disabled elderly is expected to reach 120,100 – i.e., a 23% increase, compared to a 13% increase in the total elderly population [Table 3]. Thus, the rate of increase in the disabled elderly population is almost twice that of the total elderly population due to changes in this population's composition [18]. However, recent research indicates that new cohorts of elderly are healthier than earlier cohorts but experience a

Table 3. The elderly population 2001–2010: total and proportion disabled in personal care*

	2001	2010 (Forecast)	Percentage growth (2001–2010)
Elderly population	639,000	722,500	13
Of them: disabled	97,400	120,100	23
Percentage of disabled	15.2	16.6	9

* Disabled in at least one of the following activities: bathing, dressing, eating, mobility in the home, rising and sitting, getting in and out of bed.

decline in health at older ages [19]. While advances in standard of living, medicine and technology have made this possible, a greater allocation of resources is required to prevent disability and maintain the quality of life.

The majority of elderly people in Israel live or are cared for at home; only 4.1% reside in long-term care institutions. Even among the disabled elderly, 78% live at home [5,18]. It is clear that such a situation would be impossible without a great degree of family involvement. During the past decade a number of formal services, some quite innovative, were established to help families cope with the burden of care [20]. Nevertheless, these solutions are far from comprehensive and raise questions about the direction service development should take.

Conclusions

Israeli society will confront two major challenges in the 21st century. On one hand there will be a tremendous increase in the number of elderly who will probably enjoy better health, be more educated, and have different needs and expectations, including more political clout. This will create a need for more leisure-time opportunities, as well as for venues of meaningful social involvement in community life. "Social productivity" activities, and venues for employment, voluntarism, and high level adult education will have to be generated to positively accommodate the "new aged" of the future.

On the other hand, the extent to which the elderly will live lives of quality will depend largely on their functional ability. Thus, the disabled elderly will require greater investment in services and rehabilitation, and all elderly will need and benefit from preventive services and advancements in technology that not only increase life expectancy but also improve quality of life. Further research is needed to guide these policies and monitor their effectiveness.

References

1. United Nations. World Population Prospects: The 2000 Revision and World Urbanization Prospects. New York: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2002.
2. Central Bureau of Statistics. Annual Reports, Selected Years. Jerusalem. (Hebrew)
3. Brodsky J, Bergman S. The aged in Israel. In: Palmore E, ed. Developments and Research on Aging: An International Handbook. Westport, CT: Greenwood Press, 1993:165-86.
4. Habib J, Tamir Y. Jewish aged in Israel: sociodemographic and

socioeconomic status. In: Harel Z, Biegel D, Guttmann D, eds. Jewish Aged in the United States and Israel: Diversity, Programs and Services. New York: Springer, 1994:47-60.

5. Brodsky J, Shnoor Y, Be'er S, eds. The Elderly in Israel – The 2000 Statistical Abstract. Mashav – Planning for the Elderly – A National Data Base. Jerusalem: JDC-Brookdale Institute, and ESHEL, 2001.
6. Kinsella K, Velkoff VA. An Aging World 2001. Washington, DC: U.S. Census Bureau, U.S. Government Printing Office, 2001.
7. International Labor Organization. Yearbook of Labor Statistics. Geneva, 2000.
8. Walker A. Towards active ageing in Europe. *Int J Aging* 2000;2(1):49-60.
9. Organization for Economic Co-operation and Development. Maintaining Prosperity in an Ageing Society. Paris: OECD, 1998.
10. Riley MW, Kahn RL, Foner A, eds. Age and Structural Lag: Society's Failure to Provide Meaningful Opportunities in Work, Family and Leisure. New York: J. Wiley and Sons, 1994.
11. Riley MW, Riley JW. Sociological research on age: legacy and challenge. *Ageing Soc* 1999;19:123-32.
12. Organization for Economic Co-operation and Development. Reforms for an Ageing Society. Paris: OECD, 2000.
13. Habib J, Brodsky J. Changes in the perception of the elderly, and preparations for an aging world. *Gerontologia* 2000;27(1):45-55. (Hebrew)
14. National Insurance Institute. Quarterly Statistics. Jerusalem: Research and Planning Administration, 2001. (Hebrew)
15. Central Bureau of Statistics. Survey of Household Expenditures. Jerusalem, 2001. (Hebrew)
16. National Insurance Institute. Report on Poverty and Income Inequality in Israel. Jerusalem: Research and Planning Administration, 2002. (Hebrew)
17. Brodsky J, Morginstin B. Balance of familial and state responsibility for the elderly and their caregivers in Israel. In: Lechner VM, Neal MB, eds. Work and Caring for the Elderly International Perspectives. Philadelphia: Taylor and Francis, 1999:68-82.
18. Be'er S, Brodsky J. The Elderly in Israel – Population, Disability Rates and Needs Estimates for Selected Services: 1999-2010. Mashav, Planning for the Elderly – A National Data Base. Jerusalem: JDC-Brookdale Institute and ESHEL, 2001. (Hebrew)
19. Manton KG, Corder L, Stallard E. Chronic Disability Trends in Elderly United States Populations, 1982-1994. Proceedings of the National Academy of Science, Vol. 94. Washington DC, 1997.
20. Brodsky J, Habib J, Mizrahi I. Long-term Care Laws in Five Developed Countries – A Review. Publication Number WHO/NMH/CCL/00.2. Geneva: World Health Organization, 2000.

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