COUNTRY REPORT – ISRAEL

APRIL 2017 - DRAFT

CONTENTS

NEW RESEARCH

MORTALITY RATES BY CAUSE OF DEATH[1]

The Central Bureau of Statistics published a report in 2016 with detailed tables of mortality by cause of death in 2014.

The most common cause of death in Israel in 2014 was malignant neoplasms (cancer), followed by heart disease.

- Mortality rates from heart disease and cerebrovascular disease have declined by more than 80% since the mid-1970s.
- Mortality rates from malignant neoplasms (cancer), ischemic heart disease, and cerebrovascular disease in Israel are low relative to most OECD countries.
- Mortality rates from tracheal, bronchial, and pulmonary cancers (the most common types of cancer among men in Israel), are very low relative to the OECD countries. The prevalence of breast cancer mortality, which is the most common type of cancer among women in Israel, is very high relative to OECD countries.
- Mortality rates from diabetes, infectious diseases, and kidney diseases in Israel are very high relative to OECD countries.

ISRAEL'S MORTALITY ATLAS 2009-2013[2]

This publication, also from 2016, presents information about the standardized mortality rate according to selected causes of death and according to counties and districts between the years 2009 and 2013, on average.

The analysis of the information was carried out by the information division at the Ministry of Health. The data are based on cause of death files that were compiled in the central Bureau of Statistics according to the basic cause of death that was denoted in the Bureau and the International Code of Diagnoses ICD-10, based on a Standard Mortality Ratio (SMR).

On average in the years 2009-2013 there were 40,000 deaths per year.

Standardized death rate – total mortality: statistically significant higher than the national average death rate was found in the Southern region by 4%, in the Tel-Aviv region by 3% and in the Haifa

[1] http://www.cbs.gov.il/reader/cw_usr_view_SHTML?ID=593
[2] http://www.health.gov.il/PublicationsFiles/DeathAT2009_2013.pdf
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region by 2%, and lower than the national average was found in the Jerusalem region and the coastal plain.

DOES IMMIGRATION AFFECT MORTALITY? A STUDY OF THE EFFECTS OF IMMIGRATION FROM THE FORMER SOVIET UNION TO ISRAEL[3]

This is an analysis of a massive wave of immigration in the 1990s and its possible effects on mortality improvements, presented at the meeting of the MWG in St Petersburg in May 2016. As in similar studies in other countries, the immigrants appear to show significantly lower mortality than the general population of the source country. This would indicate that caution is needed when looking at sub-populations with a high proportion of immigrants.

RESEARCH IN PROGRESS

MORTALITY PROJECTIONS

In 2017, a Mortality Research Committee was set up by the Israel Association of Actuaries at the initiative of the Government Actuary, in order to advise on projected mortality improvements. Current improvement factors for insurance and pension reserving as based on models from the CMI which are no longer in use. The Committee has 12 members, including actuaries involved in insurance, pensions and the academic field, as well as the Government Actuary, the Chief Actuary of the National Insurance Institute, and a senior demographer from the Central Bureau of Statistics. The Committee is investigating different models, both in use and proposed, and expects to present its recommendations in mid-2017.

[3] http://www.actuaries.org/CTTEES_TFM/Documents/StPetersburg-May2016/Documents_appended_to_Minutes/21.1_Immigration_and_mortality_2016-05-28.pdf
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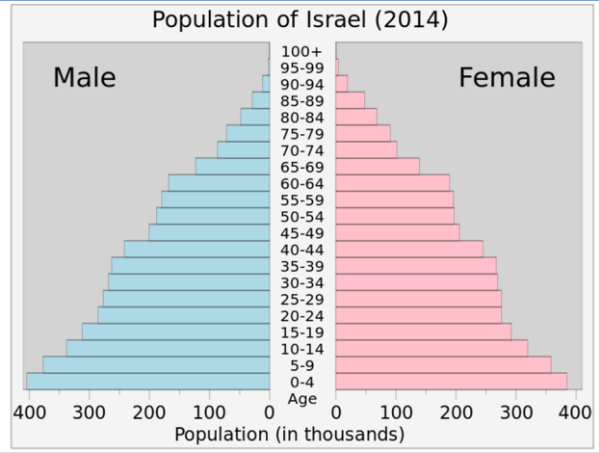
COUNTRY BACKGROUND

POPULATION

DEMOGRAPHICS

Basic Information	
Current population	8,585,000 (Sept 2016)[4]
Current period life expectancy	
- **At birth**	Male 80.3, Female 84.1 (2014)[5]
- **At 65**	Male 19.3, Female 21.5 (2014)
Population Pyramid	 Source: [6]

As at September 2016, 74.8% of the population are Jews (about 6,419,000 individuals), 20.8% are Arab (about 1,786,000 individuals), while the remaining 4.4% (about 380,000 individuals) are defined as "others" (including family members of Jewish immigrants who are not registered at the Ministry of Interior as Jews, non-Arab Christians, non-Arab Muslims and residents who do not have an ethnic or religious classification).

Israel's annual population growth rate stood at 2.0% in 2015, more than three times faster than the OECD average of around 0.6%. With an average of 3 children per woman, Israel also has the highest fertility rate in the OECD by a considerable margin, and much higher than the OECD average of 1.7.

POPULATION MORTALITY TABLES

Population mortality data is provided by the Central Bureau of Statistics and updated annually on a rolling five-year basis[7]. Life tables are available for the total population and for Jewish and Arab residents separately.

[4] https://en.wikipedia.org/wiki/Demographics_of_Israel
[5] www.mortality.org
[6] https://en.wikipedia.org/wiki/Demographics_of_Israel
[7] http://www.cbs.gov.il/webpub/pub/text_page_eng.html?publ=35&CYear=2014&CMonth=1

POPULATION MORTALITY IMPROVEMENTS

No official estimates are published. From time to time, the Central Bureau of Statistics publishes population estimates going forward 50 years, subdivided by age groups and ethnic or religious affiliation. These estimates are based on forecast mortality, fertility and migration, and are intended to assist government bodies in their long-term planning. Mortality estimates are based on accepted mortality projection models.

PROTECTION INSURANCE

MARKET BACKGROUND

The first life insurance companies were set up during the period of the British Mandate (1920-1948). Israeli companies market most of the products common in Europe, mainly to individuals but also as group life cover. An unusual feature of Israeli life insurance policies is automatic linkage to the Consumer Price Index of premiums, sums assured, and where relevant surrender values. This was first introduced in the 1960s due to relatively high inflation.

The major product line is "managers' insurance", which actually a life insurance contract taken out by an employer on the life of an employee (not necessarily at managerial level) in order to provide benefits at retirement as well as on premature death and in case of disability. Similar plans are also available for the self-employed. These plans compete with pension funds (most of which are open to all: employer-managed funds exist only for a very few large employers), which in principle offer similar benefits.

The death benefit under an insurance plan is most commonly a lump-sum benefit (predetermined by the employee, with or without the savings element accumulated at time of death), but there are also plans which give a monthly benefit for the remainder of the policy term. Death benefits under pension funds are in the form of a monthly benefit to dependants.

The premiums under "managers' insurance", or the contributions to pension funds, are based on salary, which effectively limits the benefits available. Anyone wishing to enhance either protection or savings in addition can take out a "personal" insurance plan, which offers similar benefits but without the tax advantages of salary-linked plans.

In addition, all residents are entitled to National Insurance Benefits which include retirement, dependant and disability benefits, but in most cases the amounts granted are relatively small.

Most individual insurance plans undergo underwriting – by questionnaire, laboratory tests or medical examination, depending on age at entry and sums requested. For pension funds there is usually a qualifying period of one to five years for pre-existing conditions, or alternatively there may be an underwriting process as in insurance.

MORTALITY TABLES

There are no standard tables for insurance products. All insurance plans must be approved by the Commissioner of Capital Markets, Insurance and Savings ("the Commissioner").

Pension fund benefits are valued according to tables produced by the Commissioner – see below.

MORTALITY IMPROVEMENTS

For protection products, future improvements in mortality are not taken into account.

RETAIL LONGEVITY PROTECTION

MARKET BACKGROUND

The previous section set out the various levels of pension benefits: a small state pension from National Insurance, retirement benefits from "managers' insurance" or a pension fund, and additional personal savings which can also be used to purchase an annuity.

Many insurance plans sold by insurance companies include a guaranteed annuity option (GAO) to convert the accumulated savings at retirement to an annuity at a fixed rate (which depends on the year of retirement, but cannot be changed by the company). The investment risk after retirement is borne by the policyholder, but the longevity risk falls on the company. GAOs issued in the past offered a range of options including annuities with different guaranteed terms, and last-survivor annuities. For policies issued since 2001, GAOs only apply to single-life annuities payable for 20 years certain and thereafter for the lifetime of the annuitant, in order to reduce the uncertainty involved in guaranteeing such rates from young entry ages. Since 2013, guaranteed option rates are only granted to lives aged 60 and above.

Pension funds also offer a variety of pension benefits, but since they are effectively mutual funds, both the investment risk and the longevity risk fall on the members of the fund, and any long-term changes will lead to an overall increase or reduction of the benefits.

MORTALITY TABLES

GAOs sold by insurance companies until 2001 were calculated on the a(55) tables for annuitants published by the CMI, with a minor age adjustment. By the 1990s, this adjustment was totally inadequate. Since 2001, reserves are calculated on a basis mandated by the Commissioner. Annuity prices and GAO conversion factors are calculated by each company, but clearly have to be in line with reserving practice.

In 2007 and 2013[8], the Commissioner published mortality tables for use in reserving, which were based on pension fund experience with an assumed downward adjustment for insurance company annuitants. In 2015-6, the Government Actuary conducted an experience study based for the first

[8] http://mof.gov.il/hon/documents/%D7%94%D7%A1%D7%93%D7%A8%D7%94-%D7%95%D7%97%D7%A7%D7%99%D7%A7%D7%94/insurance/memos/2013-1-2.pdf

time on annuitants of insurance companies (previously, the number of annuitants was insufficient to produce reliable tables). The results are expected to be published in 2017.

Mortality tables for pension funds, based on experience of active, disabled and retired members of the funds, are produced by the Government Actuary and revised from time to time[9]. Here also a new circular is expected in 2017.

MORTALITY IMPROVEMENTS

Since 2001, there is a regulatory requirement for pension funds and insurance companies to incorporate mortality improvements in their reserving bases. The current reserving basis is based on the "α – f" methodology published by the CMI in 1999, using observed improvements in Israel population mortality. Factors were produced on this basis in 2007 and revised in 2013. For males, separate factors were developed for lives born in the "golden cohort" period (1929-1945).

The revised circulars to be issued in 2017 will include directives on mortality improvements, based on the work of the Mortality Research Committee of the ILAA mentioned above.

RELEVANT ORGANISATIONS

DETAILS ON GOVERNMENT STATISTICS DEPARTMENT

Israel Central Bureau of Statistics

66 Kanfei Nesharim Street, Jerusalem, Israel

http://www.cbs.gov.il/reader/?MIval=cw_usr_view_Folder&ID=141

ACTUARIAL SOCIETY OF THE COUNTRY

Israel Association of Actuaries

POB 3663 Ramat Gan 52136, Israel

http://www.actuaries.org.il/

office@actuaries.org.il

INSURANCE REGULATOR

Commissioner of Capital Markets, Insurance and Savings

1 Kaplan Street, Jerusalem, Israel

http://mof.gov.il/about/Positions/Pages/CommissionerOfTheCapitalMarketInsuranceAndSavings.aspx

[9] http://mof.gov.il/hon/documents/%D7%94%D7%A1%D7%93%D7%A8%D7%94-%D7%95%D7%97%D7%A7%D7%99%D7%A7%D7%94/pension/memos/2013-3-1.pdf