ISRAEL CENTER FOR DISEASE CONTROL (ICDC)
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HIGHLIGHTS OF HEALTH IN ISRAEL 2016



MINISTRY OF HEALTH

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2016

ISRAEL CENTER FOR DISEASE CONTROL (ICDC)

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Israel Center for Disease Control (ICDC)

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Opening Messages

Message from the Director General

Message from the Director General, Ministry of Health

It is a great pleasure to introduce this publication: "Highlights of Health in Israel 2016", which presents updated data summarizing the principal health issues of the Israeli population and its main sub-groups.

The trends presented here indicate significant improvements in the health status of the population, as reflected in the increase in life expectancy in all population groups and the declining trends in infant mortality, cardiovascular and infectious diseases. On the other hand, the data highlights areas of concern such as the rising trend in Type 1 diabetes in children, particularly in the Arab population, and the increasing trends in obesity. We hope that future publications will witness the closing of health gaps between population sub-groups, and the adoption of healthier lifestyles.

I have no doubt that the information contained in this volume will be of great value to researchers, students and members of the health professions in Israel and abroad, as well as to the general public. I wish to thank the Israel Center for Disease Control for this important and informative publication on the health of the population of Israel.

Sincerely,

Moshe Bar Siman Tov

Director-General, Israel Ministry of Health

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Introduction

Introduction

This publication is the second in the "Highlights of Health in Israel" series, which provides an updated summary of the main elements of the health status of the Israeli population as presented in the comprehensive volume, "Health 2013", published in Hebrew in February 2014.

The information presented in "Highlights of Health in Israel 2016" includes data on health indicators such as fertility rates, life expectancy and infant mortality; on morbidity and mortality from chronic and infectious diseases; on injuries and suicidality; on risk factors for chronic diseases; and on behaviors and lifestyles associated with individual and population health. Also included in this edition are important data on end-stage renal disease from the National Registry of Renal Replacement Therapy (Dialysis and Kidney Transplants).

In recent years we have witnessed the steady improvement in life expectancy in all population groups and a continuing decline in infant mortality, cancer mortality and cardiovascular mortality. Obesity, however, is still on the rise, as is hypertension and high blood cholesterol; smoking rates are declining in the Jewish population but not in the Arab population; and rates of physical activity have shown no real improvement. Health disparities continue to exist between population groups, and these still need to be addressed by the health system in the years ahead.

My sincere thanks to all who contributed to "Highlights of Health in Israel 2016".
I believe this publication will serve as an important reference, both in Israel and abroad.

Prof. Tamy Shohat

Director, Israel Center for Disease Control
Israel Ministry of Health



Chapter 1:

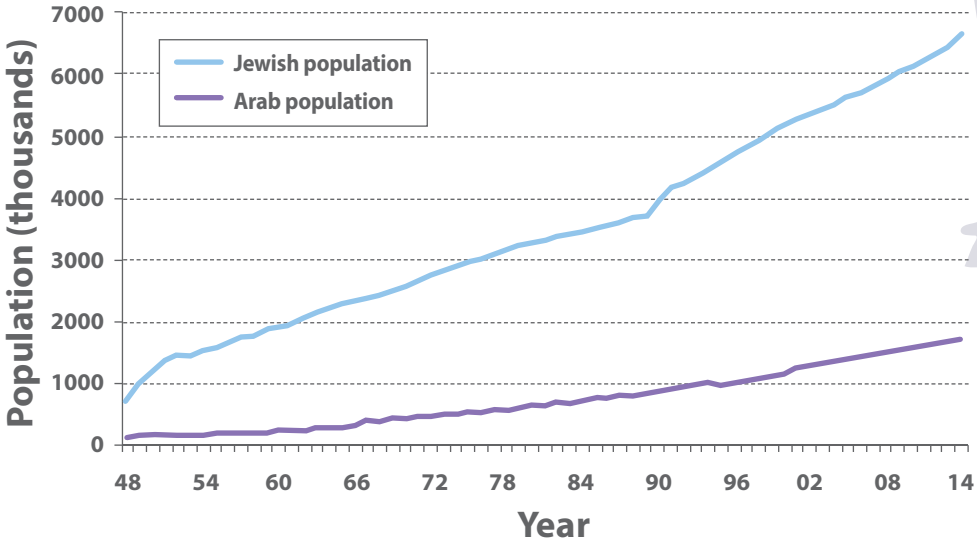
Health Indicators

1.1 Demographic Indicators

Size of Population

At the end of 2014, the official population of Israel numbered 8,296,900: 6,291,200 Jews (75.0%), 1,720,300 Arabs (20.7%) and 357,500 "others" (non-Arab Christians and citizens not classified by religion) (4.3%)[1].

Figure 1.1: Population growth in Israel, 1948-2014[1]



Population Growth

Since the establishment of the State of Israel in 1948, the population has increased by a factor of 9.5 (by 8.7 in the Jewish population and by 11.0 in the Arab population) *(Figure 1.1)*[1].



Ethnic origin

- According to 2014 population figures, 75% of the Jewish population were Israeli-born, and 25% were born abroad.
- With respect to ethnic origin (defined as father's country of birth), 31.3% of the Jewish population are of European or American origin, 14.5% are of African origin (mostly north-African) and 11.0% are of Asian origin (mostly western Asia). 43.1% are of Israeli origin (second generation or beyond).
- In the Arab population, 84.5% are Muslims, 7.6% are Christian and 7.9% are Druze[1].

Age trends

The population of Israel is aging rapidly. The proportion of children aged 0-4 declined from 14.2% in 1955 to 10.3% in 2014. Conversely, the proportion of persons aged 65 and older increased, from 4.7% in 1955 to 10.7% in 2014[1].

Figure 1.2: Jewish population by age and gender, Israel 2014[1]

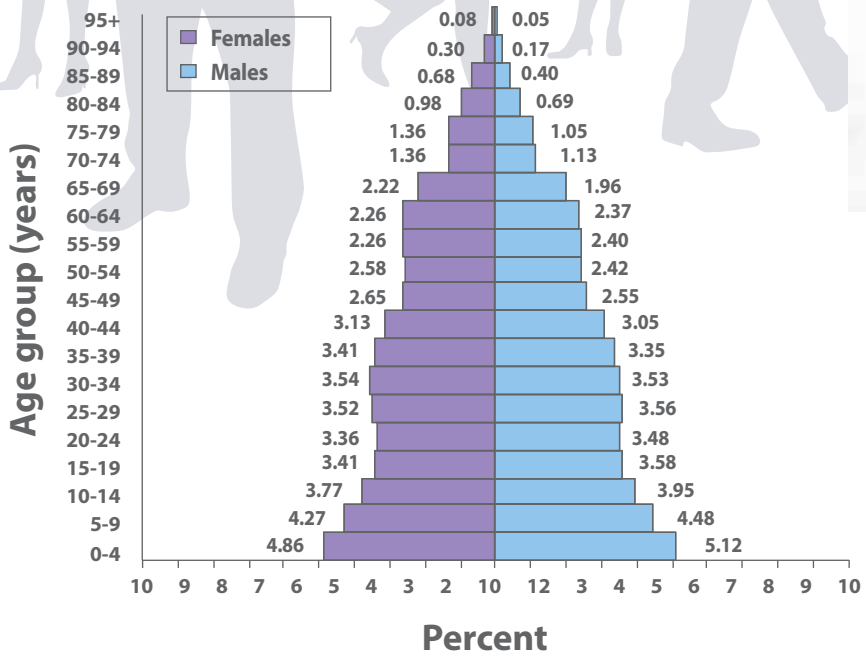
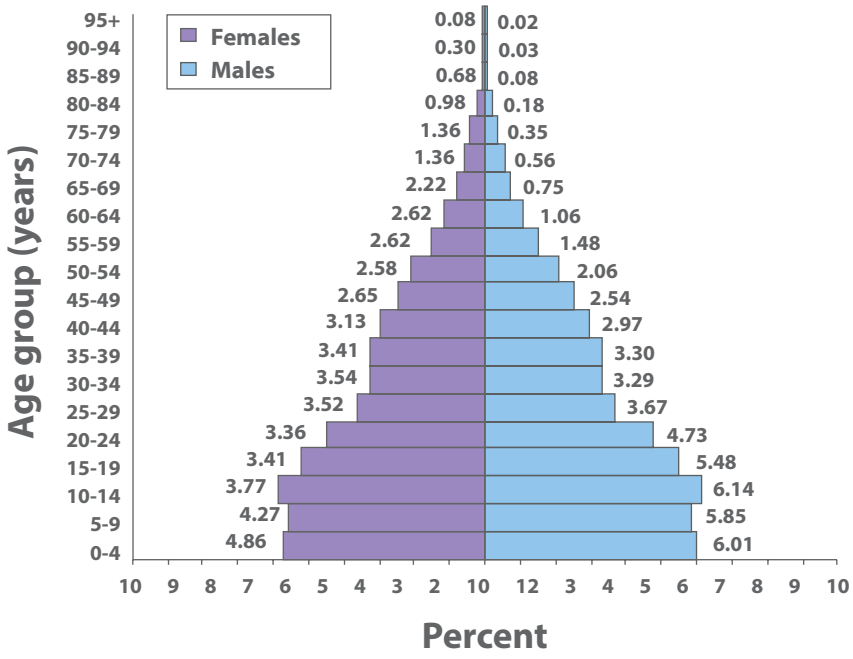


Figure 1.3: Arab population by age and gender, Israel 2014[1]





Age and gender distribution

Israel's population is relatively young. 28.2% of the population of Israel in 2014 were under age 15. In contrast, in the OECD countries, this age group comprised 18.1% of the population. Conversely, the population of Israel aged 65 and above comprised 10.7% of the total population in 2014, as compared with 16.0% in the OECD countries[1-3].

The Arab population in Israel is younger than the Jewish population: 35.1% of the Arab population in 2014 were under age 15 as compared with 26.4% of the Jewish population; and 4.3% were aged 65 and over, as compared with 12.4% of the Jewish population *(Figures 1.2,1.3)*[1].

Socio-economic indicators

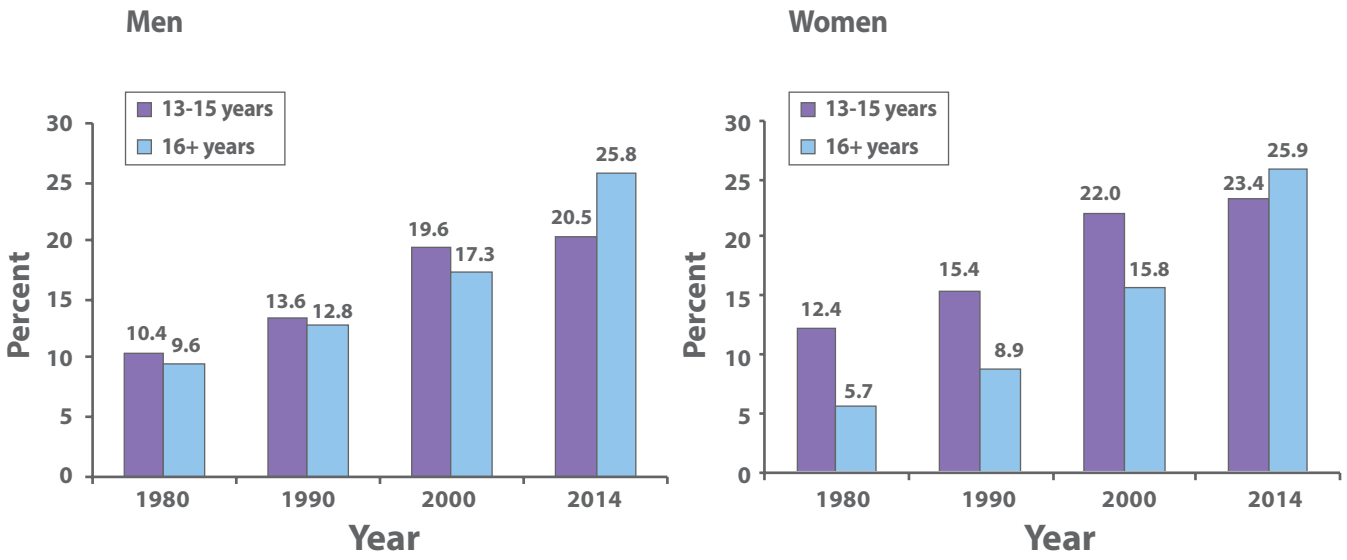


Educational level

The educational level of the Israeli population is rising steadily. In both the Jewish and the Arab populations, the proportion with high-school education only has decreased, and the proportion with post-high school education has increased.

In 2014, 46.3% of men and 49.3% of women in Israel had post-high school education *(Figure 1.4)*[1].

Figure 1.4: Post-secondary education by years of education and gender, selected years



Migrants

At the end of 2015, there were an estimated 183,000 migrant laborers residing in Israel, of whom approximately 104,000 had entered the country with work visas and approximately 79,000 who entered with tourist status. In addition, there were approximately 43,000 refugees, mainly from Eritrea and Sudan, who had illegally crossed the southern border of Israel[4].

Unemployment

The unemployment rate in Israel in 2014 was 5.9%[1].

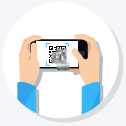
Poverty

According to the 2014 "Poverty Report" published by the National Insurance Institute in December, 2015:

- 444,900 families in Israel (18.8% of all families) were living under the poverty line (13.6% of Jewish families and 52.6% of Arab families).
- 25.1% of single-parent families and 23.1% of senior families (ages 65+) were living under the poverty line[5].

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1. Central Bureau of Statistics (CBS). Statistical Abstract of Israel, 2015. Publication 66, Jerusalem 2015.
2. OECD. http://stats.oecd.org/
3. OECD (2016), Young population (indicator). doi: 10.1787/3d774f19-en (Accessed 26 September 2016)
4. CBS Press Communication, July 2016. http://www.cbs.gov.il/reader/newhodaot/hodaa_template.html?hodaa=201620232
5. National Insurance Institute. Poverty and socio-economic inequality: Annual Report 2014. Jerusalem, 2015. *(Hebrew)*



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1.2 Fertility

Total fertility rates

Total fertility rate is defined as "the average number of children a woman would have assuming that current age-specific birth rates remain constant throughout her childbearing years."
The total fertility rate in Israel in 2014 was 3.1. In Jewish women, the total fertility rate was 3.1, in Muslims, 3.4, in Druze, 2.2, and in Arab Christians, 2.2[1].

Trends

Since 2000, the total fertility rate has risen by 16% in Jewish women. In other population groups, however, total fertility rates have declined: by 27% in Muslim women, by 23% in Druze women and by 7% in Arab Christian women. This represents a continuation of the declining trends in total fertility observed in these population groups since the 1960's *(Figure 1.5)*.

Figure 1.5: Total fertility rates in Israel by population group, 1960-2014[1]

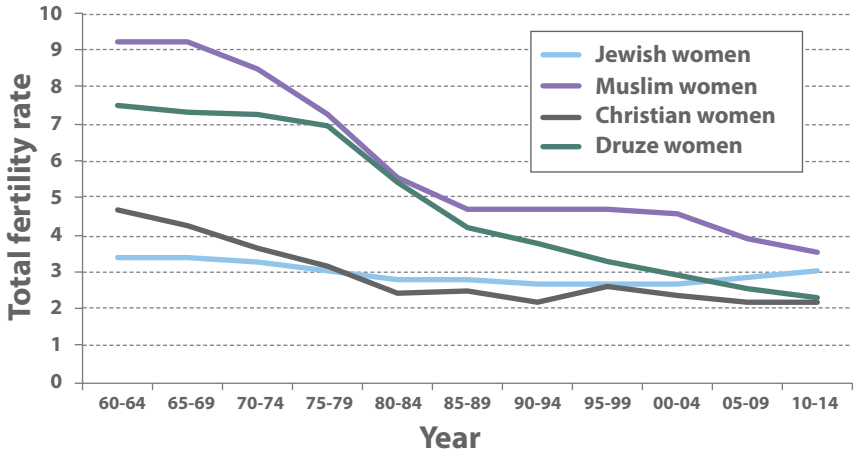
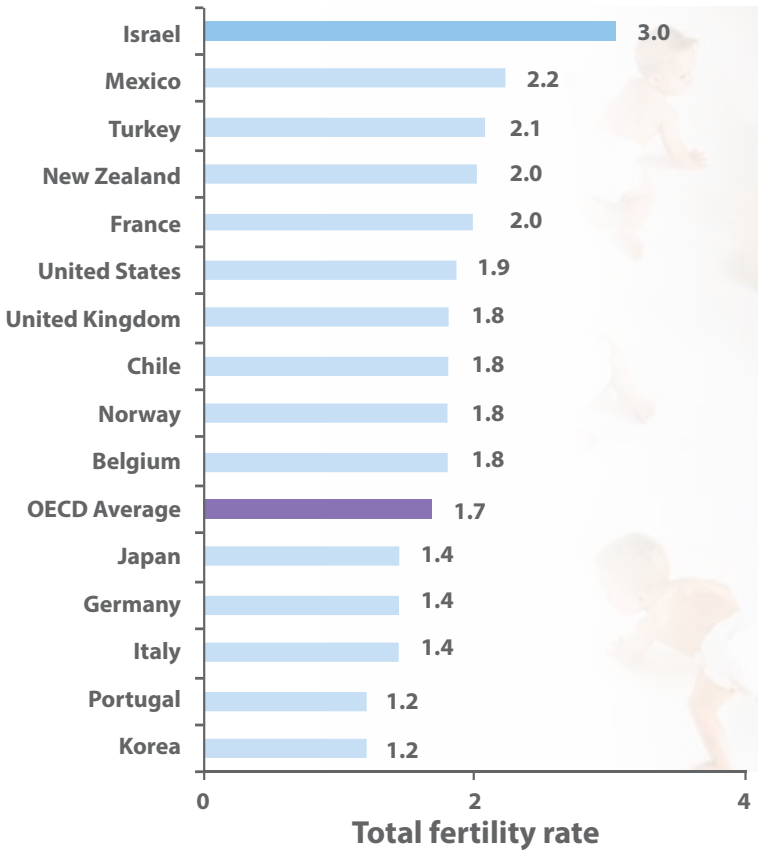


Figure 1.6: Total fertility rates in Israel and selected OECD countries, 2013[2]



The total fertility rate is higher in Israel than in other OECD countries *(Figure 1.6)*.



In-vitro fertilization (IVF)

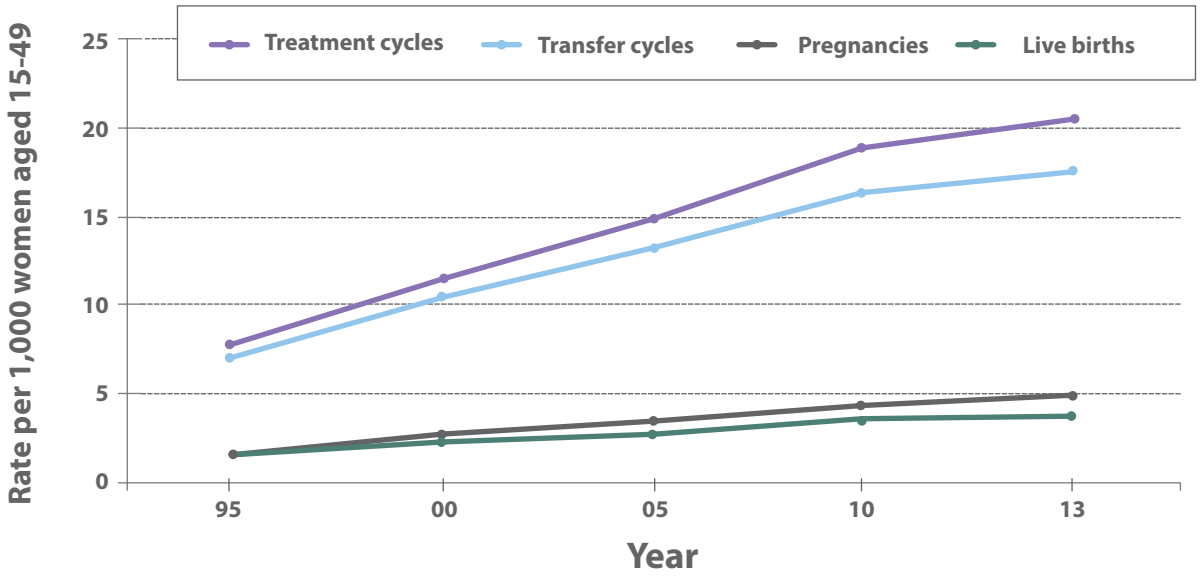


During the past decades, the trend of in-vitro fertilizations continuously increased in Israel. Between 1995 and 2013, the number of treatment cycles increased by a factor of 3.7, from 10,689 to 39,174.

In 2013, 7,312 children were born following in-vitro fertilization (4.3% of all births). The IVF success rate (i.e. the number of pregnancies per treatment cycle) was 24.5%.

Rates of IVF treatments (per 1,000 women aged 15-49) increased by 166% between 1995 and 2013, from 7.7 to 20.5. Rates of live births (per 1,000 women aged 15-49) more than doubled during this period, from 1.5 to 3.8 *(Figure 1.7)*[3].

Figure 1.7: IVF treatments in Israel, 1995-2013[3]



Maternal mortality

Between 2010-2013 there was an annual average of 8 deaths of women from pregnancy-related causes. The average annual maternal mortality rate was 4.7 per 100,000 live births[4].

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1. Central Bureau of Statistics (CBS). Statistical Abstract of Israel, 2015. Publication 66, Jerusalem 2015.
2. OECD (2016), Demographic References. OECD Health Statistics (database). http://stats.oecd.org/index.aspx?queryid=30116#
3. Ministry of Health, Division of Health Information. Statistical data on IVF treatments in Israel, 1986-2013. http://www.health.gov.il/PublicationsFiles/IVF1986_2013.pdf
4. Central Bureau of Statistics (CBS). Causes of Death Database, 1980-2013.



2 3

1.3 Life Expectancy

Life expectancy at birth

In 2014, the average life expectancy at birth in Israel was 80.3 years for men and 84.1 years for women.
Average life expectancy at birth was 81.1 for Jewish men, 84.5 for Jewish women, 76.9 for Arab men and 81.2 for Arab women[1].

Figure 1.8: Life expectancy at birth in Israel by population group and gender, 1975-2014[1]



Trends

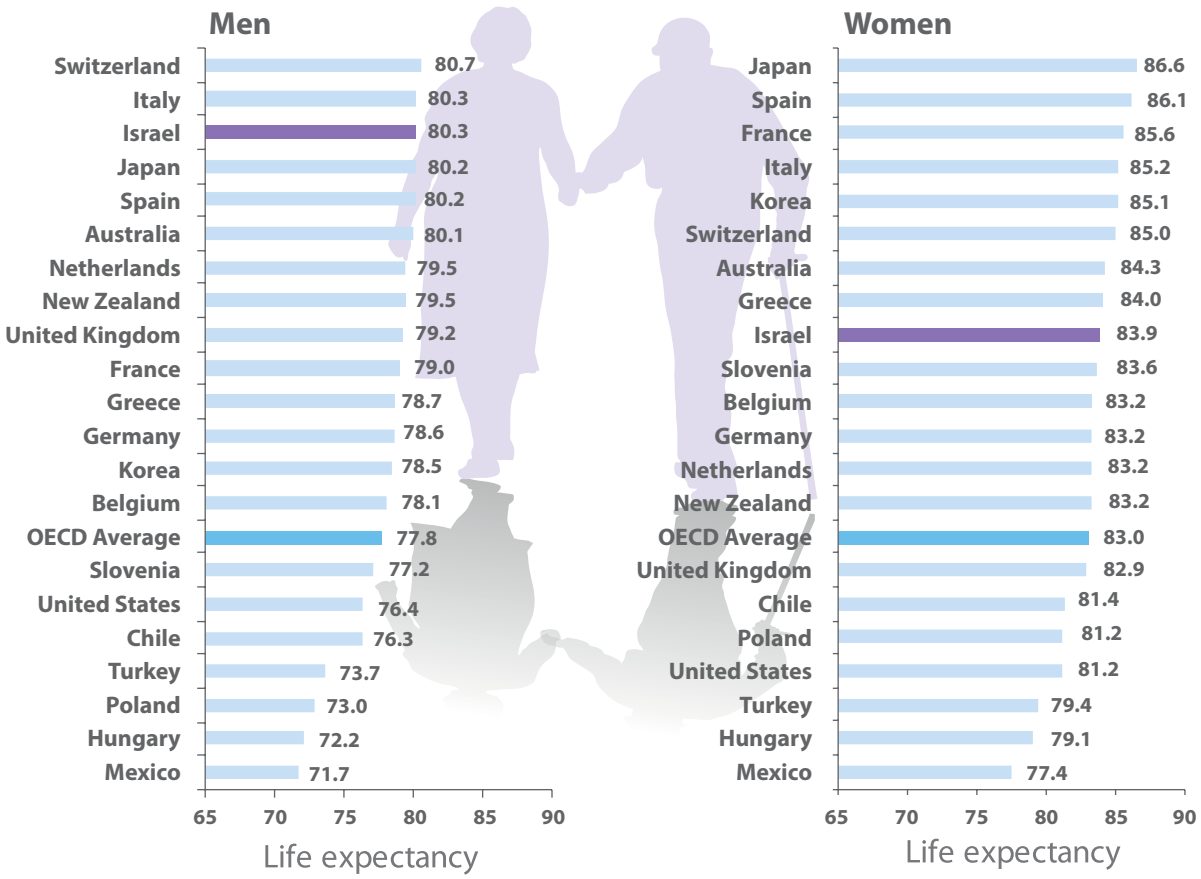
- Between 1975 and 2014, average life expectancy at birth increased by almost 10 years, in both men and women. The percentage increase was 14% in Jewish men and Arab women, and 13% in Jewish women and Arab men.
- Life expectancy increased by 10 years in the Jewish population, in both men and women. A similar increase in life expectancy occurred in Arab women (9.7 years increase). In Arab men, life expectancy increased by 8.7 years (Figure 1.8).
- The gap between Jews and Arabs in life expectancy at birth has not narrowed over the past decades, and may even have widened. Between 1975 and 2014, the average difference in life expectancy between Jews and Arabs was 2.6 years in men and 3.1 years in women (Figure 1.8).
- In men, the life expectancy gap was 2 years in 1990, 2.5 years in 2000, 3.7 years in 2010 and 4 years in 2014.
- In women, the life expectancy gap was 3 years in 1990, 3.3 years in 2000, 2.6 years in 2010 and 3.3 years in 2014[1].



International comparison

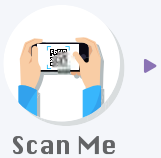
- Life expectancy of men in Israel is relatively high, in comparison with the other OECD member countries. For women in Israel, life expectancy is slightly above the average of the OECD countries *(Figure 1.9)*[2].
- The life expectancy advantage for women (compared with men) in Israel is smaller (3.6 years in 2013) than in most of the OECD countries (5.2 years, on average).

Figure 1.9: Life expectancy at birth in Israel and selected OECD countries, by gender, 2013[2]



References

1. Central Bureau of Statistics (CBS). Statistical Abstract of Israel, 2015. Publication 66, Jerusalem 2015.
2. OECD (2016), "Health status", OECD Health Statistics (database). DOI: http://dx.doi.org/10.1787/data-00540-en (Accessed 27 September 2016)



1.4 Infant Mortality

General

- In 2014, there were 542 infant deaths in Israel[1].
- The overall infant mortality rate in 2014 was 3.1 per 1,000 live births. In Jews and others the rate was 2.2 and in Arabs, 6.0 per 1,000 live births[1].
- The main causes of mortality in infants under the age of 12 months are prematurity and congenital malformations[2].

Figure 1.10: Infant mortality rate in Israel, 1955-2014[1]



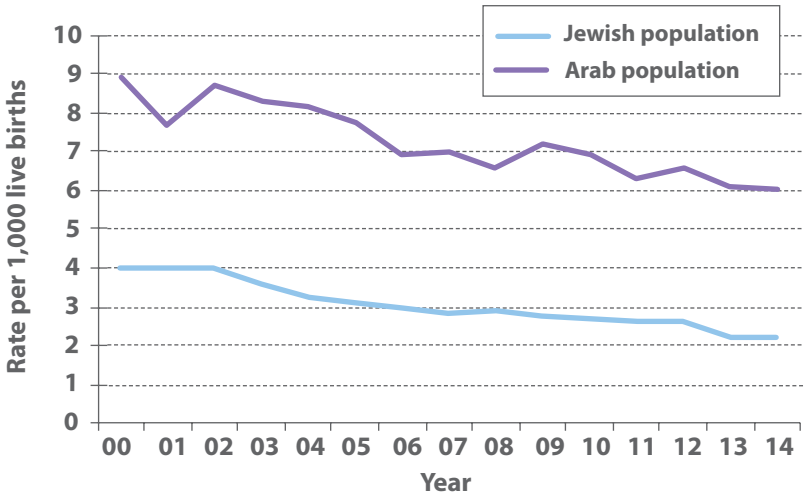
Trends in Infant Mortality (1)

Infant mortality rates (IMR's) in Israel have been decreasing steadily over the past 6 decades. Between 2000-2013 the overall IMR in Israel declined by approximately 43% *(Figure 1.10)*[1].

Trends in Infant Mortality (2)

In the Jewish population, the infant mortality rate declined by 45.4% between the years 2000-2014, and in the Arab population, by 32.5%. Infant mortality rates in 2014 were 2.7 times higher in the Arab population than in the Jewish population *(Figure 1.11)*[1].

Figure 1.11: Infant mortality rate in Israel by population group, 2000-2014[1]



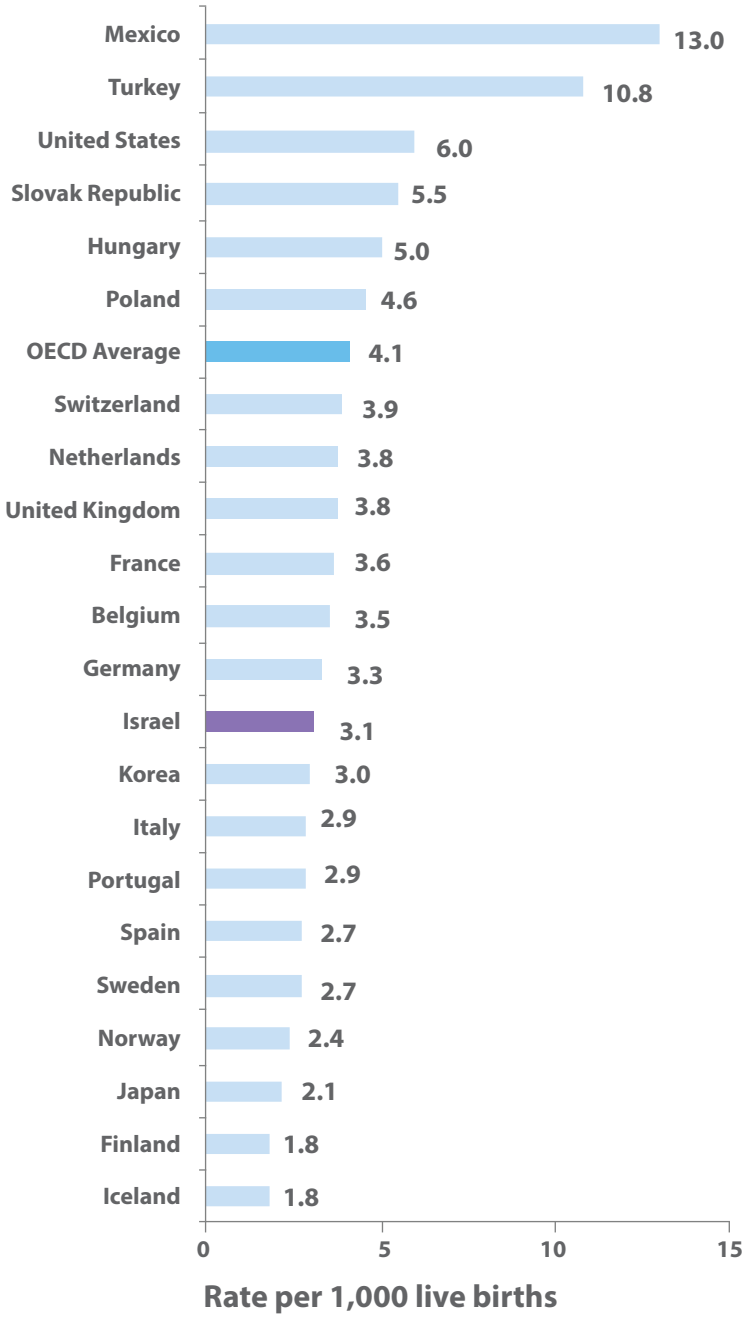
Risk factors

- Infant mortality rates are higher in the Arab population than in the Jewish population, in all geographical districts.
- The highest infant mortality rates were observed in infants of mothers under age 20 and over age 40, among both Jews and Arabs.
- Infant mortality rates were twice as high among infants of mothers with less than 12 years of education, as compared to mothers with 13 or more years of education[2].

Infant mortality rates by age at death

In 2011, the neonatal (age 0-27 days) mortality rate was 2.24 per 1,000 live births, and the post-neonatal (age 28-365 days) mortality rate was 1.27 per 1,000 live births[2].

Figure 1.12: Infant mortality rates in Israel and selected OECD countries, 2013[3]



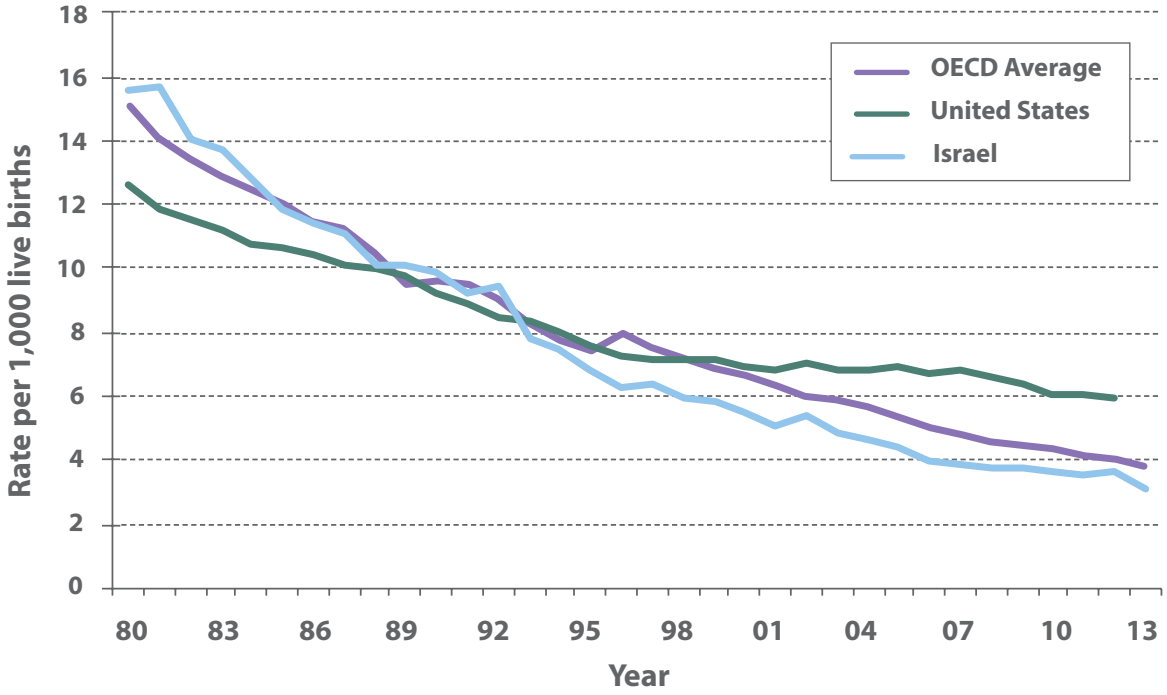


International comparisons

The overall infant mortality rate in Israel in 2013 was lower than the average infant mortality rate in OECD member states *(Figure 1.12)*[3].

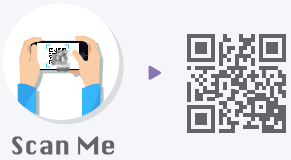
Similar declining trends in infant mortality are evident in Israel and the European Union. In the United States, there has been a more gradual decline *(Figure 1.13)*.

Figure 1.13: Trends in Infant mortality: Israel, the United States and OECD countries, 1980-2013[3]



References

1. Central Bureau of Statistics (CBS). Statistical Abstract of Israel, 2015. Publication 66, Jerusalem 2015.
2. Infant and Perinatal Mortality report 2008-2011.
3. OECD (2016) "Health status", OECD Health Statistics (database).
   DOI: http://stats.oecd.org/index.aspx?queryid=30116#



1.5 Leading Causes of Death

The leading causes of death in Israel in 2013 were cancer (25.8% of all deaths), heart disease (15.9%), stroke (5.6%), diabetes (5.6%) and infectious diseases (5.2%) *(Figure 1.14)*. The main difference between men and women was in the ranking of external causes of death, which was the third leading cause in men (5.7% of all deaths) and the seventh in women (2.8% of all deaths) *(Figure 1.15)*[1].

Figure 1.14: Leading causes of death in Israel 2013[1]

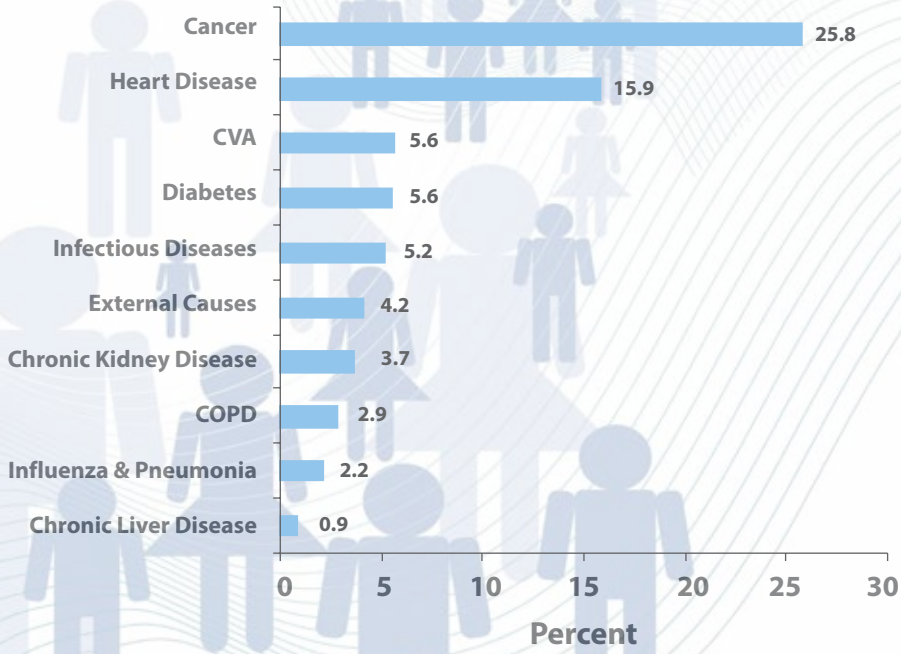
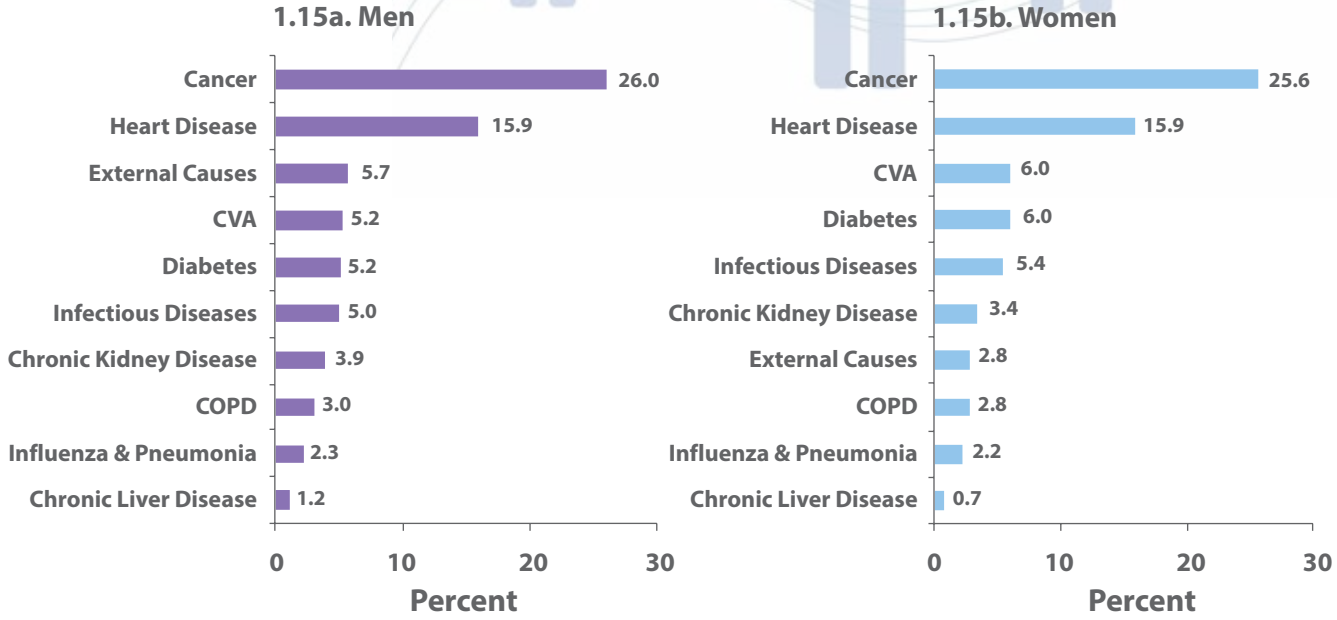


Figure 1.15: Leading causes of death in Israel 2013, by gender[1]

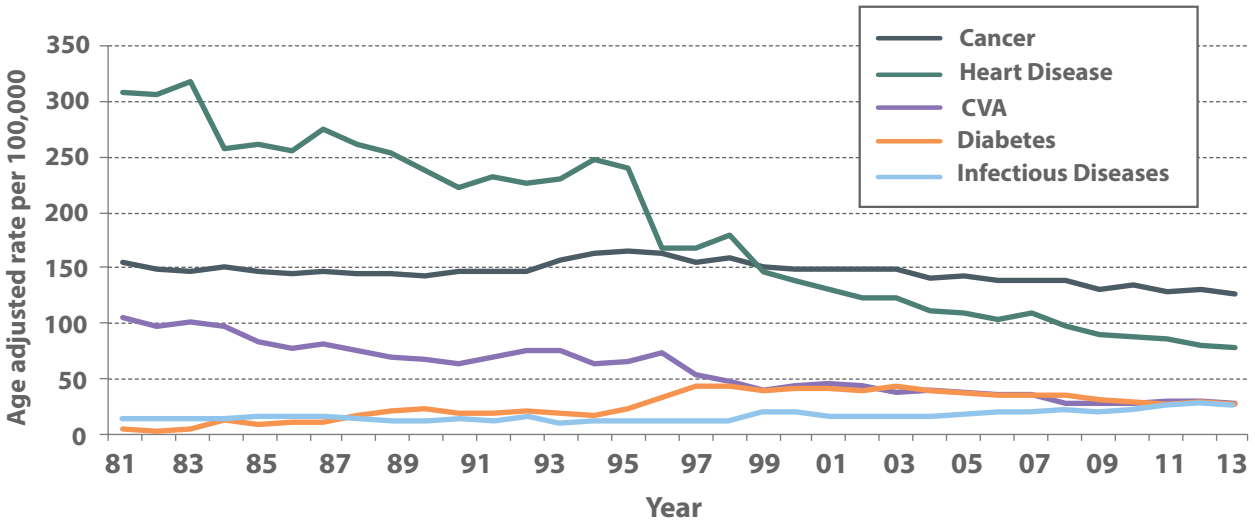


Trends in Leading Causes of Death

Between 1980-2013, mortality from heart disease declined markedly, while cancer mortality rates remained relatively constant (despite increasing incidence), with a slight decrease from 2004 onwards. Cancer mortality rates have exceeded mortality from heart disease since 1999. Between 1980-1999, mortality rates from CVA decreased, while diabetes mortality rates increased. From 1999 on, CVA and diabetes mortality rates were similar and stable. Mortality rates from infectious diseases remained constant between 1980-1998, and increased from 1999 onwards *(Figure 1.16)*[1].

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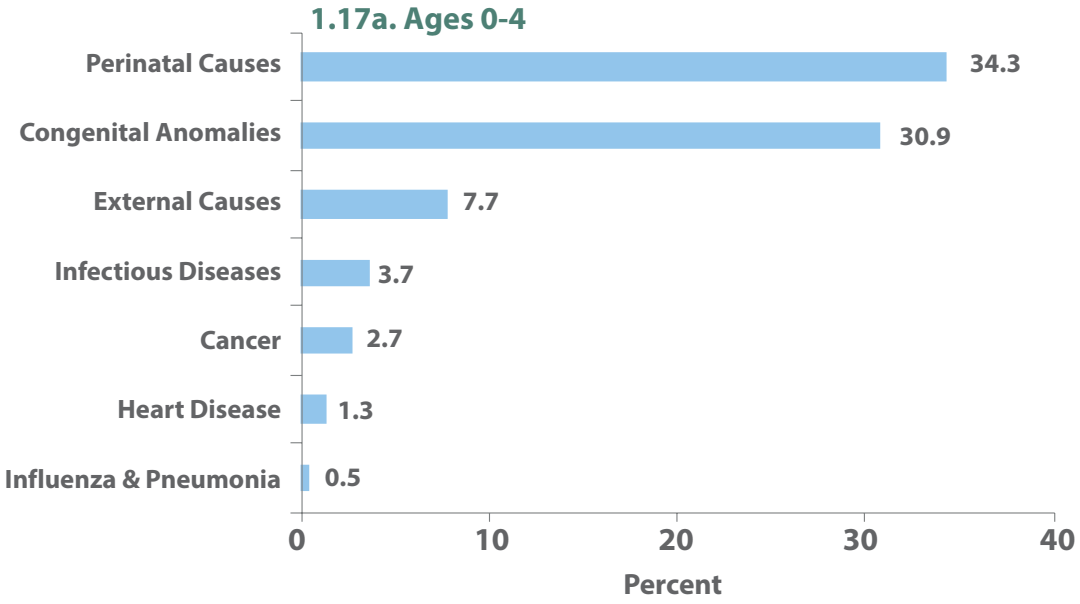
Figure 1.16: Trends in leading causes of death in Israel, 1980-2013 (age adjusted rates per 100,000)[1]



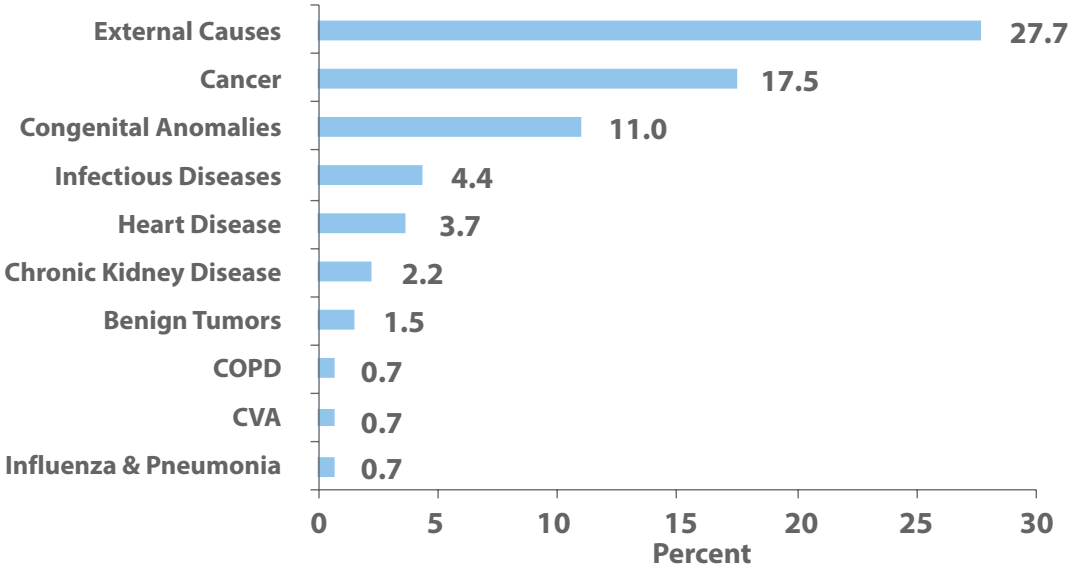
Leading causes of death by age

- The leading causes of death in children aged 0-4 years were perinatal causes (34.3%) and congenital anomalies (30.9%) (Figure 1.17a).
- In children aged 5-14, the leading causes of death were external injuries (27.7%) and cancer (17.5%) (Figure 1.17b).
- Among adolescents and young adults aged 15-24, 53.1% of deaths were due to external injuries and 11.9% were due to cancer (Figure 1.17c).
- The leading causes of death in adults aged 25-44 were cancer (28.2%) and external injuries (28.0%) (Figure 1.17d).
- Among adults aged 45-64, the leading causes of death were cancer (42.7%) and heart disease (10.4%) (Figure 1.17e).
- The leading causes of death in older adults aged 65-74 were cancer (39.7%) and heart disease (12.6%) (Figure 1.17f).
- In the oldest age group (75+), cancer accounted for 19.6% of all deaths, and heart disease accounted for 18.9% (Figure 1.17g).

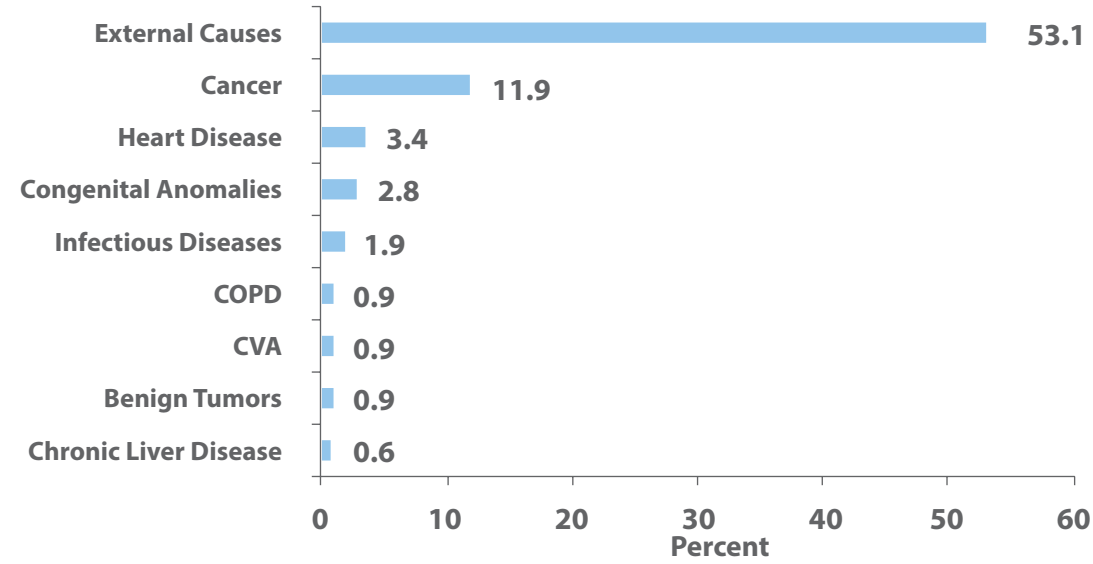
Figure 1.17: Leading causes of death in Israel 2013, by age [1]



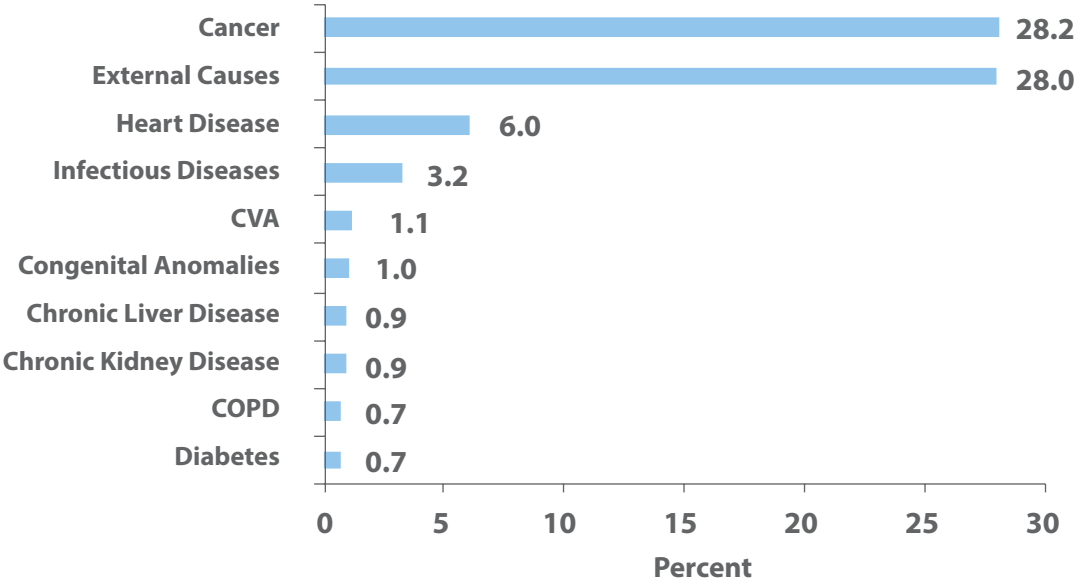
1.17b. Ages 5-14



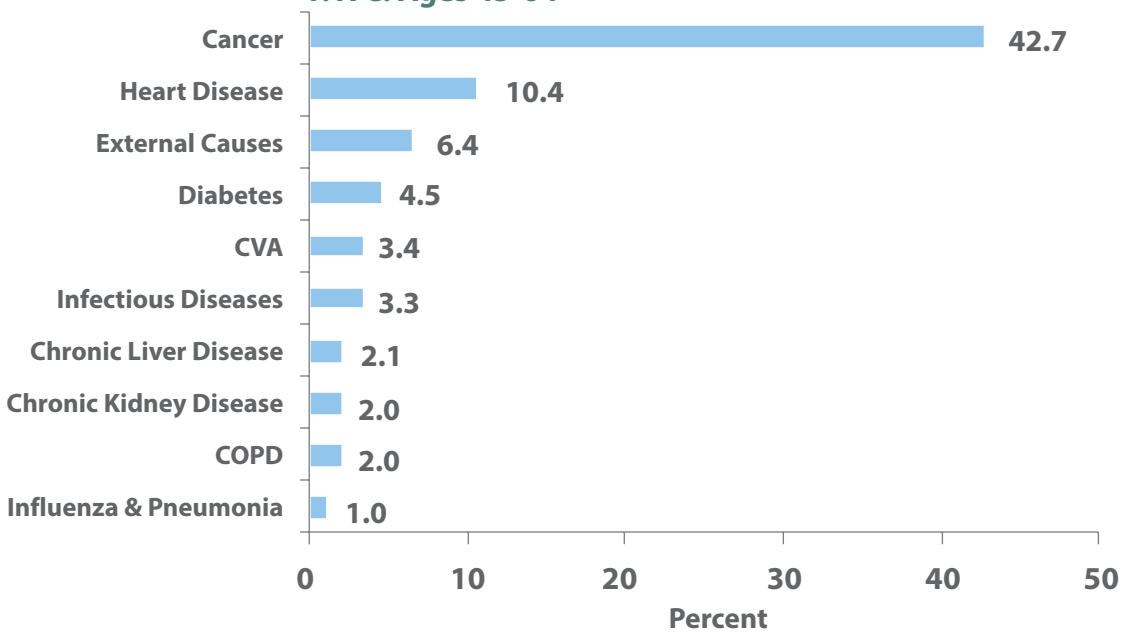
1.17c. Ages 15-24



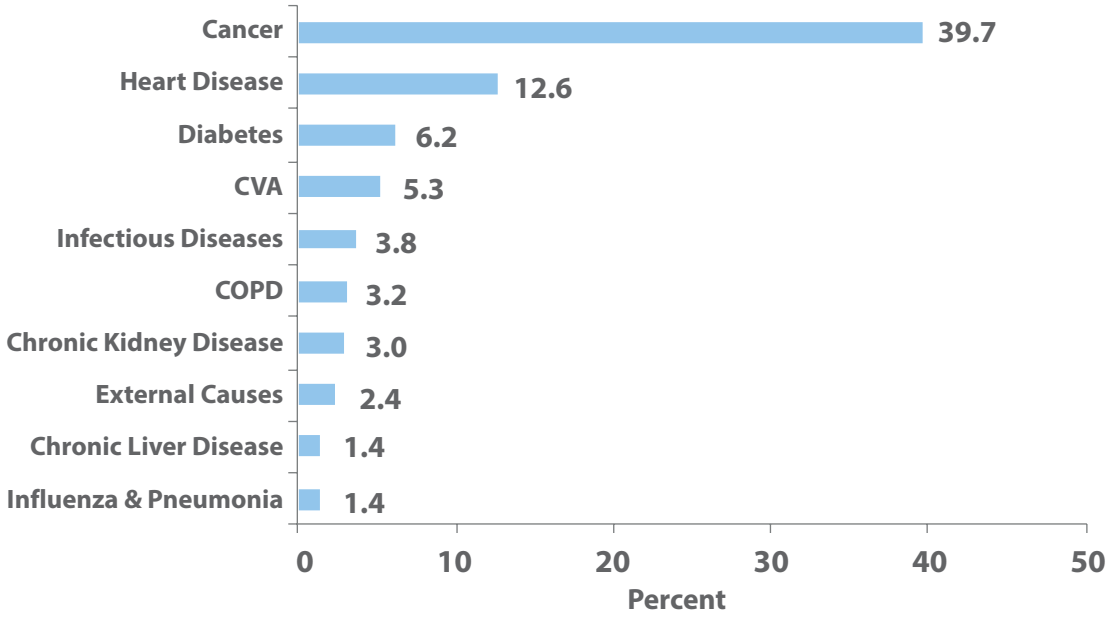
1.17d. Ages 25-44



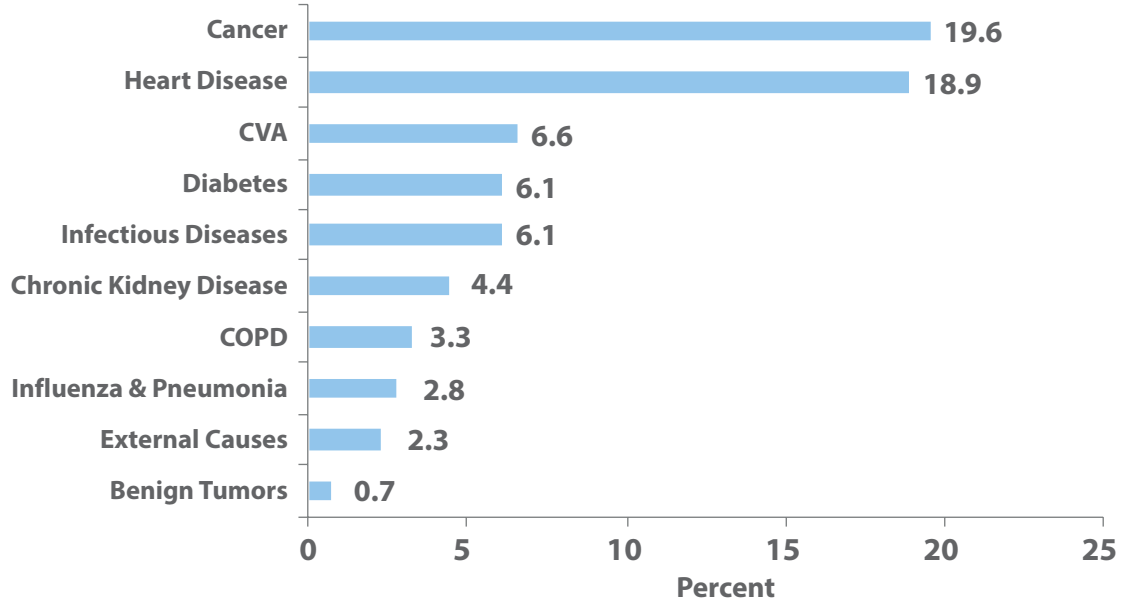
1.17e. Ages 45-64



1.17f. Ages 65-74



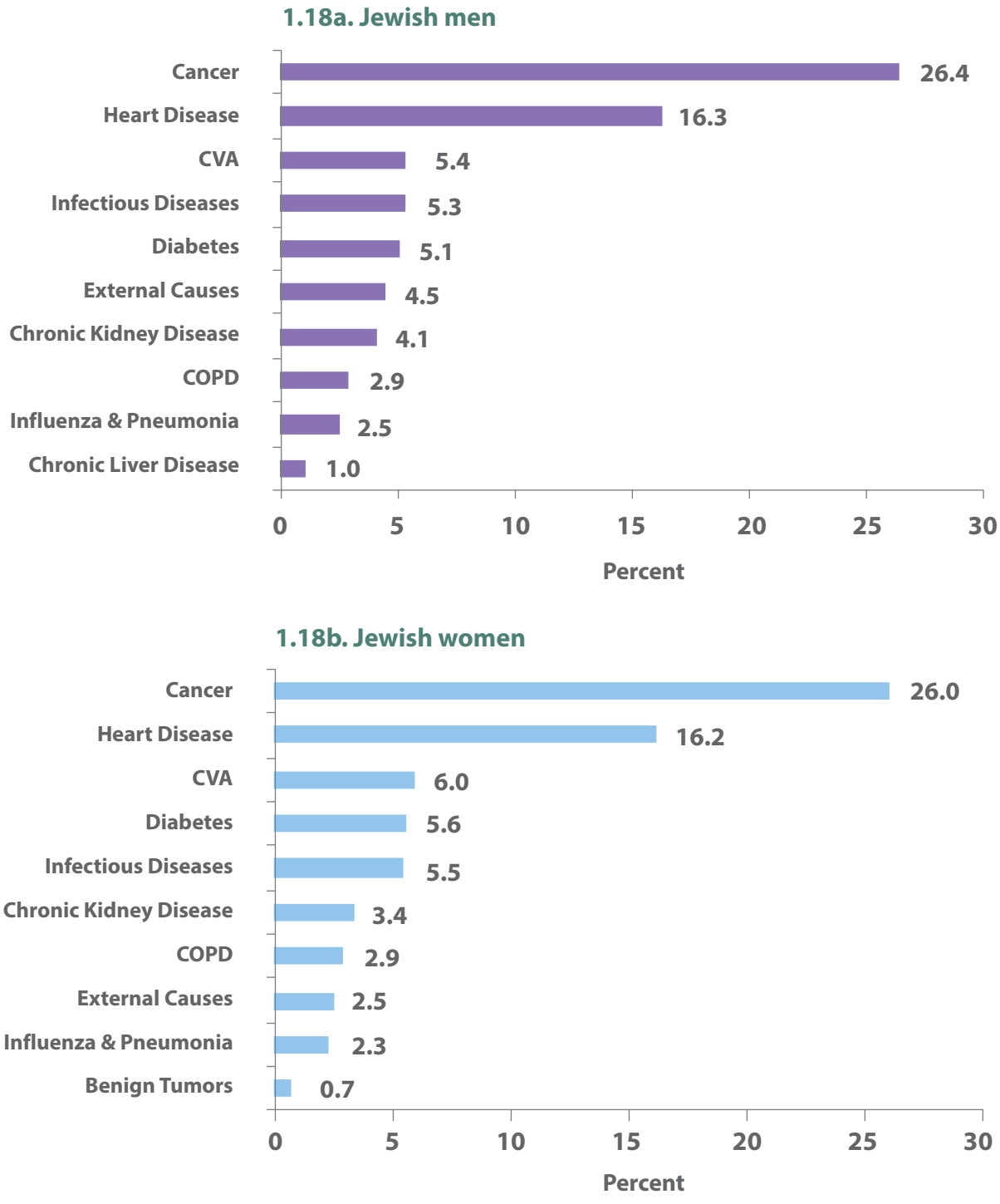
1.17g. Ages 75+



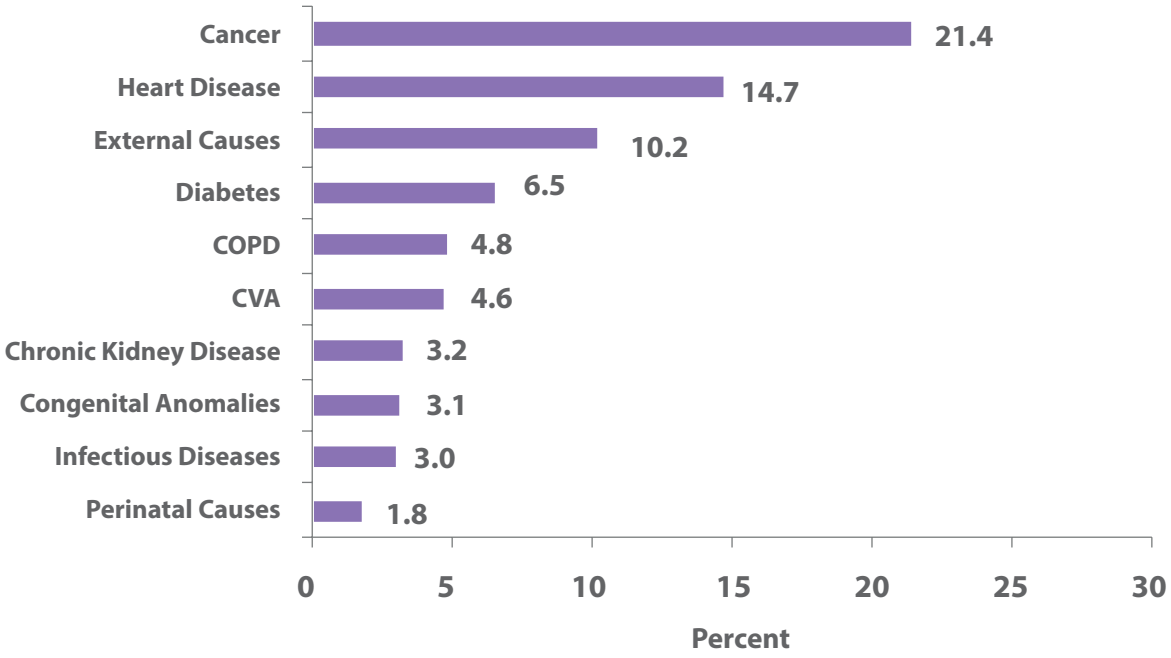
Leading causes of death by gender and population group

In 2013, cancer was the leading cause of death, followed by heart disease, in all population groups *(Figure 1.18)*. CVA was the third leading cause of death in the Jewish population, among both men and women (Figures 1.18a and 1.18b). In Arab men, external causes were ranked as the third leading cause of death, followed by diabetes and COPD *(Figure 1.18c)*. In Arab women, diabetes was ranked as the third leading cause of death, followed by CVA and infectious diseases *(Figure 1.18d)*.

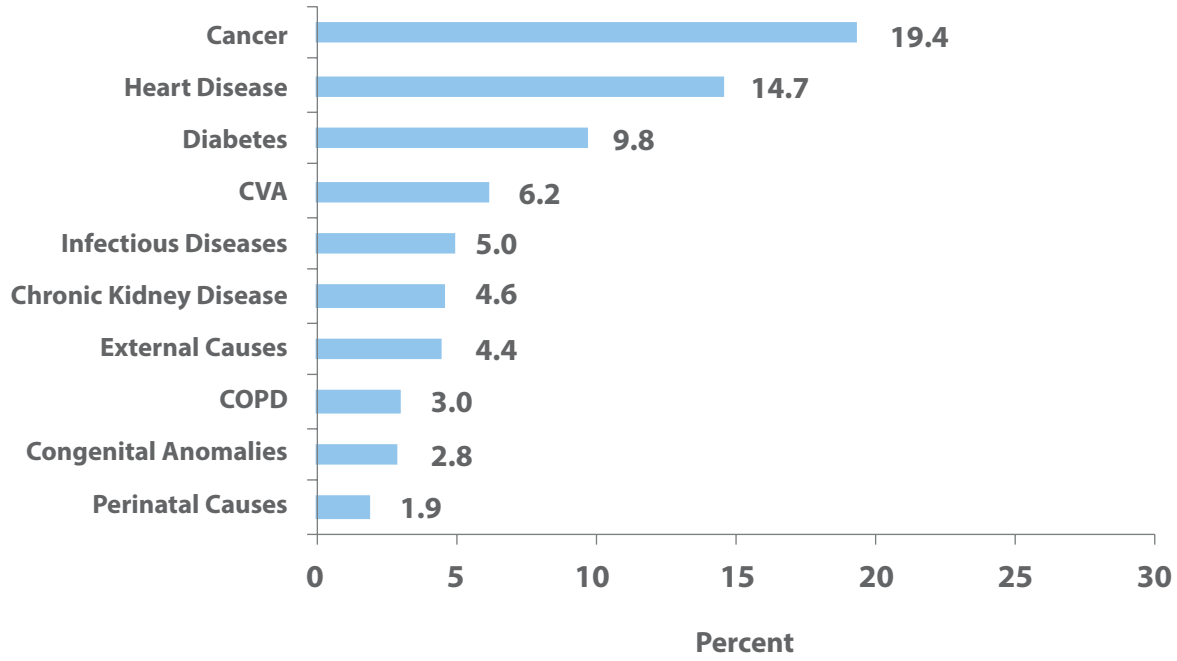
Figure 1.18: Leading causes of death in Israel 2013, by gender and population group[1]



1.18c. Arab men



1.18d. Arab women



References

1. Central Bureau of Statistics (CBS). Causes of Death Database, 1980-2013.

1.6 Vaccination Coverage in Children

General



- Despite high national average immunization coverage for most vaccinations (over 90% in children reaching age two years in 2012)[1], periodic outbreaks of vaccine-preventable diseases such as measles and pertussis indicate that specific subpopulations are under-immunized.
- The statistics available for vaccination coverage in children have traditionally been based on the population of children registered at family health centers (well-baby clinics). Since infants not registered at family health centers are not included, under-immunization in certain populations may be missed.
- In order to improve vaccination surveillance, the Israel Ministry of Health has launched a national immunization registry. As of 2015, all well-baby clinics are connected to the national birth registry which includes all births occurring in the population.
- This important registry will enable researchers and health providers to access up-to-date information on the true immunization status of the general population as well as sub-populations at risk of under-vaccination.

International comparison

Reported vaccination coverage in Israel against polio, measles, rubella and pertussis is similar to the coverage reported in other member states of the OECD, and ranges between 93%-96%[2].

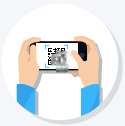
Supplemental polio vaccination – the "Two drops" campaign

Since 2005, when Israel was officially recognized as free of polio, children in Israel routinely receive 4 doses of polio vaccine (IPV) in the first year of life, and a booster dose at age 7. In August 2013, as part of routine environmental monitoring, wild polio virus was found in the sewage system of a number of locations in the south of Israel. No cases of polio were reported. Starting October, 2013, the Ministry of Health conducted a national vaccination campaign consisting of the administration of a single supplemental dose of bivalent bOPV vaccine (oral), to all children born after 1.1.2004 who had already received at least one dose of IPV[1]. In 2015, Israel was once more declared by the WHO to be free of the polio virus[3].



References

1. Data courtesy of the Division of Epidemiology, Israel Ministry of Health.
2. OECD 2016. OECD.stat (database).
   http://www.oecd-ilibrary.org/social-issues-migration-health/data/oecd-health-statistics/oecd-health-data-health-care-utilisation_data-00542-en
3. Israel Ministry of Health official website:
   http://www.health.gov.il/English/Topics/Vaccination/two_drops/Pages/default.aspx



2 3



Chapter 2:

Infectious Diseases

2.1 Notifiable Infectious Diseases

General



Infectious diseases are currently the fifth leading cause of death in Israel. In 2013, 5.2% of all mortality was attributed to infectious diseases.

The Israeli health system is required by law to report all cases of a defined list of infectious diseases. Periodic publications reporting on updated trends in incidence and mortality due to notifiable infectious diseases are prepared by the Israel Center for Disease Control.

The data on incidence of infectious diseases presented in this chapter are based on the reports of the Epidemiology Division of the Israel Ministry of Health, with the exception of data on the incidence of HIV/AIDS and tuberculosis, which are reported by the Department of Tuberculosis and AIDS.

Mortality data are based on the "Cause of Death" file of the Israel Central Bureau of Statistics.

Selected infectious diseases: trends in incidence[1]

Gastrointestinal diseases

Shigellosis

Following an increase in the incidence of shigellosis in the 1970's and 1980's, there was a decline in rates, with outbreaks occurring approximately once every other year. In 2014 the overall incidence rate in the population was 57.3 per 100,000 *(Figure 2.1)*. The highest rates (420.9 per 100,000) were observed at ages 1-4 years.

Figure 2.1: Incidence of Shigellosis in Israel, 1970-2014[1]

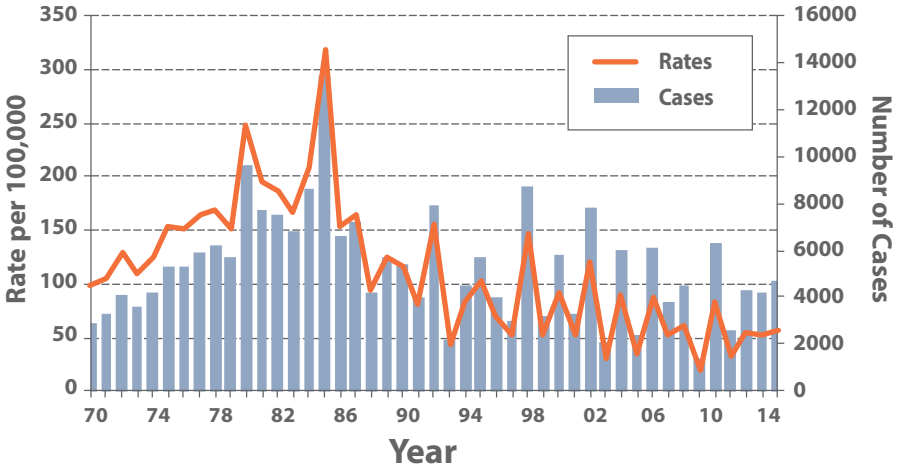
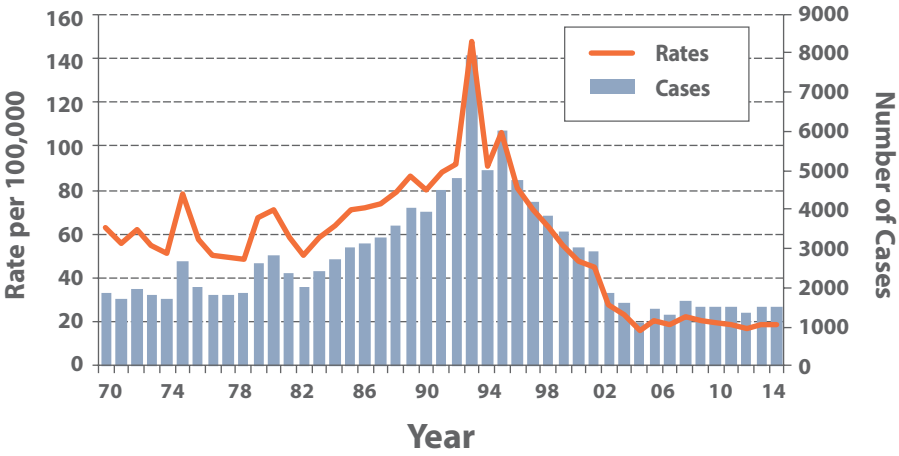


Figure 2.2: Incidence of Salmonellosis in Israel, 1970-2014[1]



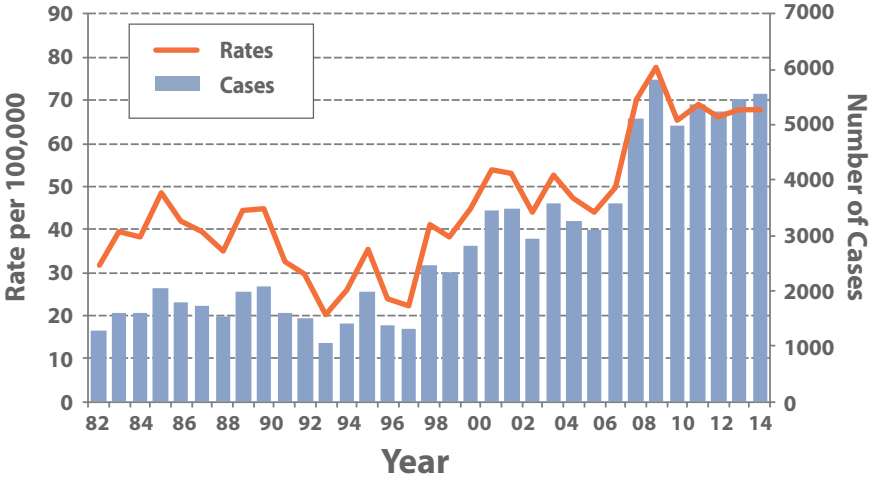
Salmonellosis

From the early 1980's a gradual increase was observed in salmonellosis incidence rates. In 1994 and 1996 two outbreaks occurred, and thereafter, the incidence declined, and rates stabilized in the 2000's. In 2014, the overall rate was 18.6 per 100,000 *(Figure 2.2)*. The highest rates were observed in infants under 1 year (152.0 per 100,000) and in children aged 1-4 years (87.1 per 100,000).

Campylobacteriosis

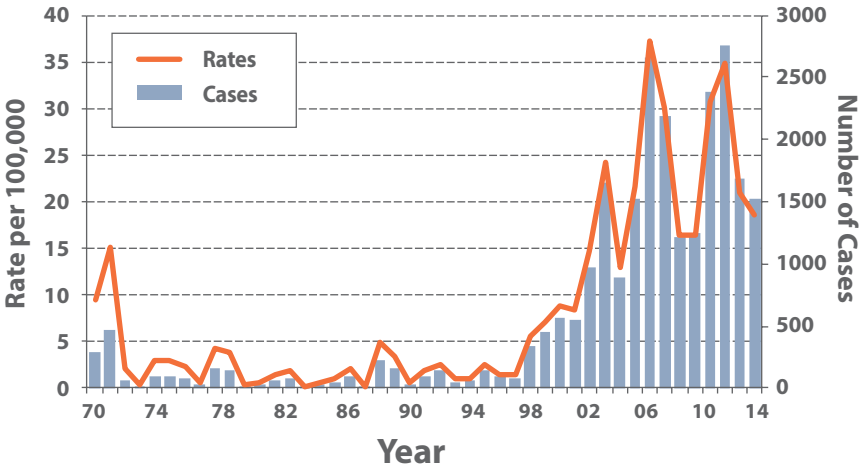
Since the end of the 1990's, an increasing trend in the incidence of campylobacteriosis was observed, peaking in 2009. Since 2010, rates have stabilized. In 2014, the overall rate was 67.9 per 100,000 *(Figure 2.3)*.

Figure 2.3 Incidence of Campylobacteriosis in Israel, 1982-2014[1]



Pertussis

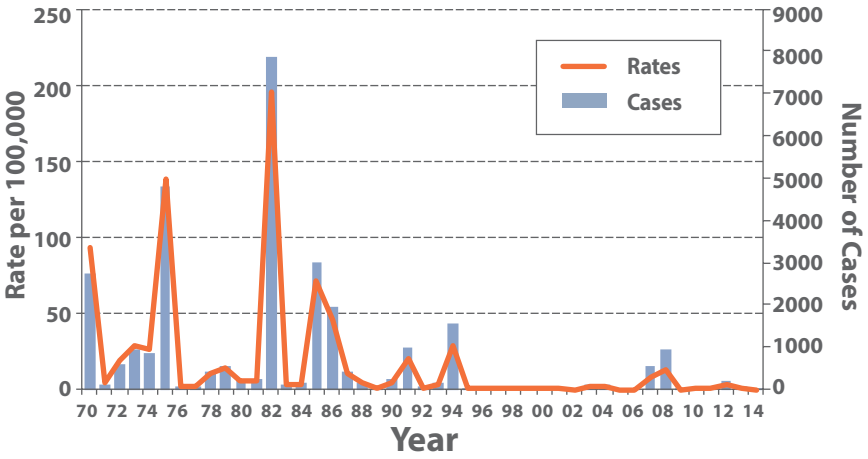
Figure 2.4: Incidence of Pertussis in Israel, 1970-2014[1]



During the 70's, 80's and 90's, incidence rates of pertussis were generally low, with local outbreaks. During the 2000's, a renewed outbreak of pertussis was observed, with peak incidence rates in 2004, 2007 and 2012 *(Figure 2.4)*.
The highest incidence rates were generally found in infants aged less than 1 year. During the past decade, a dramatic increase in incidence was found among ages 10-14, which lessened from 2008 onwards.

Measles

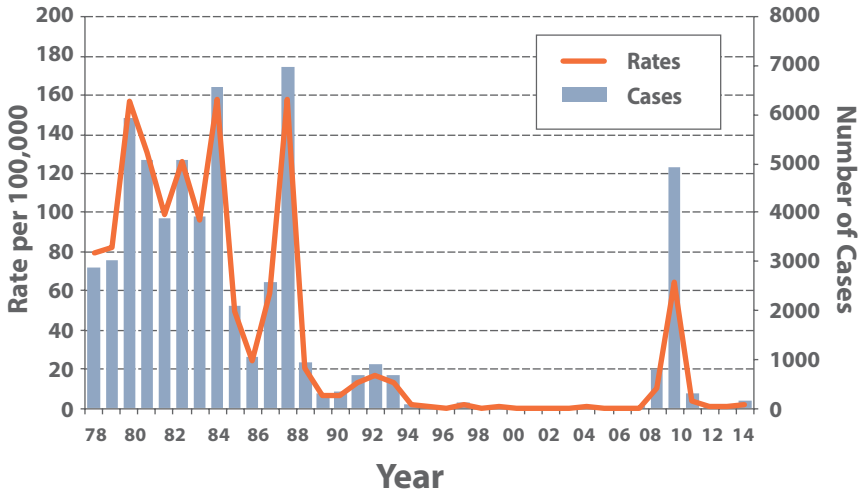
Figure 2.5: Incidence of Measles in Israel, 1970-2014[1]



Between1970-1995, there was a series of outbreaks of measles, the largest occurring in 1982. Since 1995, rates have been very low, with the exception of an outbreak occurring in 2007-2008. In 2014, the overall rate was 0.1 per 100,000 *(Figure 2.5)*.
Until 1995, the highest rates were found among children aged 1-4 years.
In the 2007-2008 outbreak, the highest rates were among infants aged less than 1 year.

Mumps

Figure 2.6: Incidence of Mumps in Israel, 1977-2014[1]

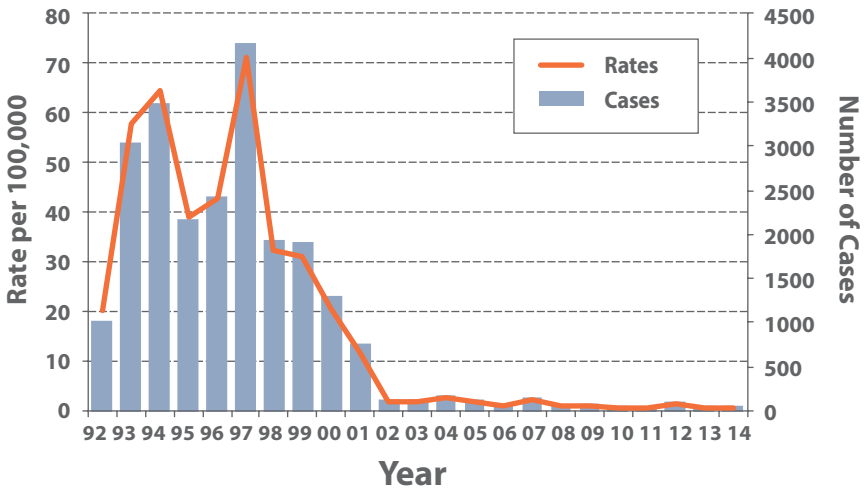


Since the mid-1980's, there has been a declining trend in the incidence of mumps (with the exception of outbreaks). Between 1995-2008, rates were very low. In 2010, following an outbreak that started in 2009, the rate increased to 64.6 per 100,000. Thereafter, incidence rates decreased again to very low rates *(Figure 2.6)*.
Unlike during the 1970's and the 1980's, when most of mumps morbidity was observed among ages 1-4 years, most of the morbidity in the 2009-2010 outbreak occurred among ages 10-14 years.

Viral hepatitis A

Following the inclusion of the vaccine in the vaccination schedule in 1999 (for infants born in 1998 and thereafter), incidence rates declined from 35.1 per 100,000 in 1999 to 0.6 per 100,000 in 2014 *(Figure 2.7)*.
While in 2004-2006 the highest incidence rates were found among ages 5-9 years, in 2007-2009 the highest rates were found among ages 10-14 years and in 2011-2014, among ages 15-44 years.

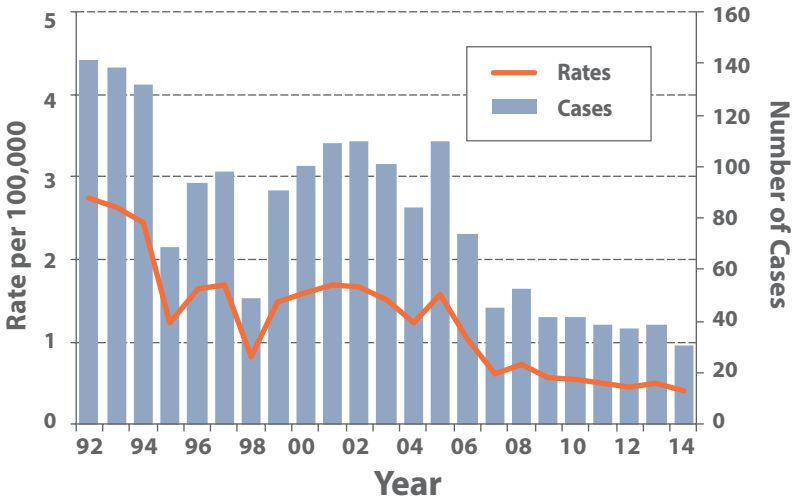
Figure 2.7: Incidence of Viral hepatitis A in Israel, 1992-2014[1]



Viral hepatitis B

Since 1992 the vaccine has been included in the routine vaccination schedule for infants. Incidence rates declined from 2.8 per 100,000 in 1992 to 0.4 per 100,000 in 2014 *(Figure 2.8)*.

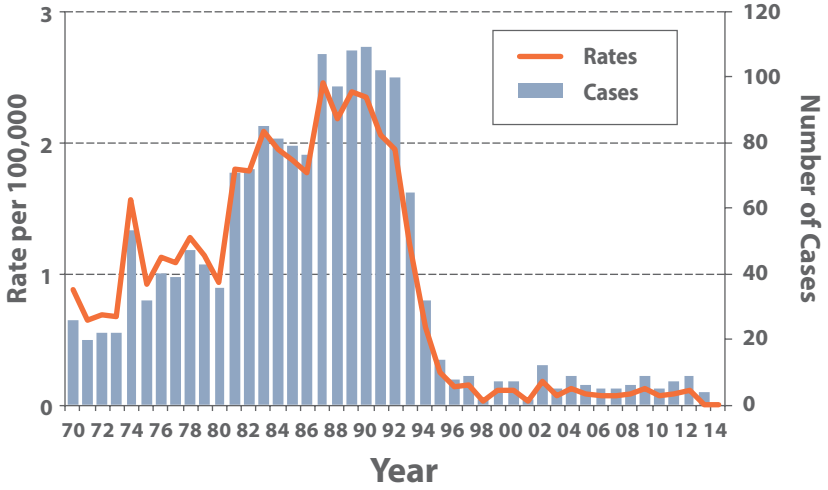
Figure 2.8: Incidence of Viral hepatitis B in Israel, 1992-2014[1]



Haemophilus b meningitis

Following the inclusion of the vaccine in the vaccination schedule in 1994, incidence rates declined sharply. From 1995 onward, only sporadic cases have occurred. In 2014, no cases were reported *(Figure 2.9)*.

Figure 2.9: Incidence of Haemophilus b meningitis in Israel, 1970-2014[1]

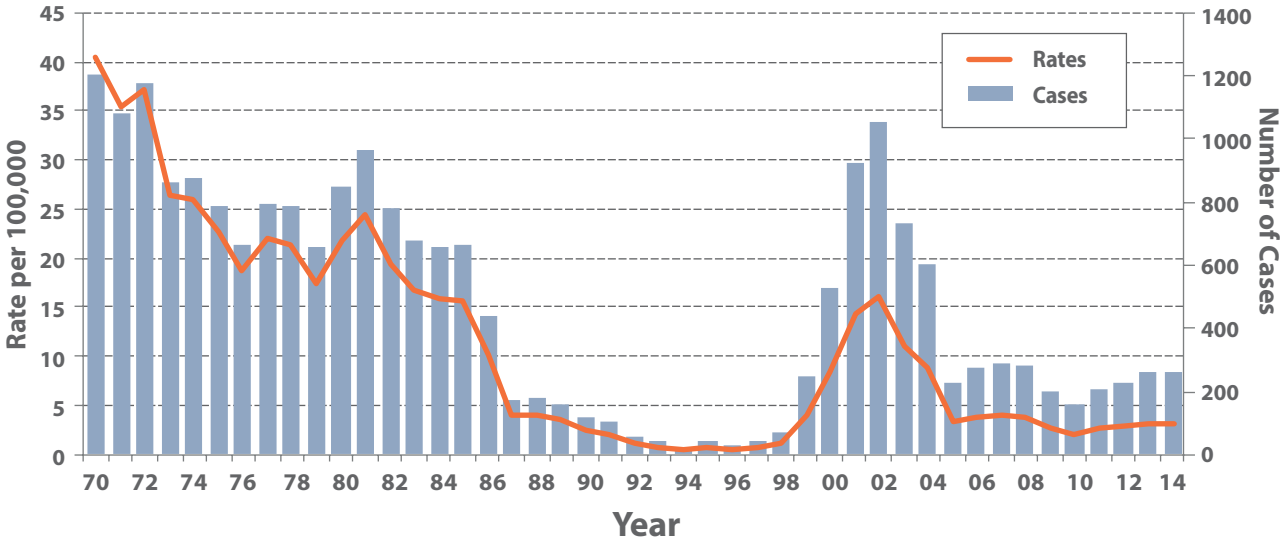


Sexually transmitted diseases

Gonorrhea

Since 1970, the incidence of gonorrhea has declined, and in 1993-1997 rates stabilized and were very low. During 1998-2002, rates increased again, and thereafter declined. A slight increase was observed from 2010 to 2014, when the incidence rate was 3.2 per 100,000 *(Figure 2.10)*.

Figure 2.10: Incidence of Gonorrhea in Israel, 1970-2014[1]



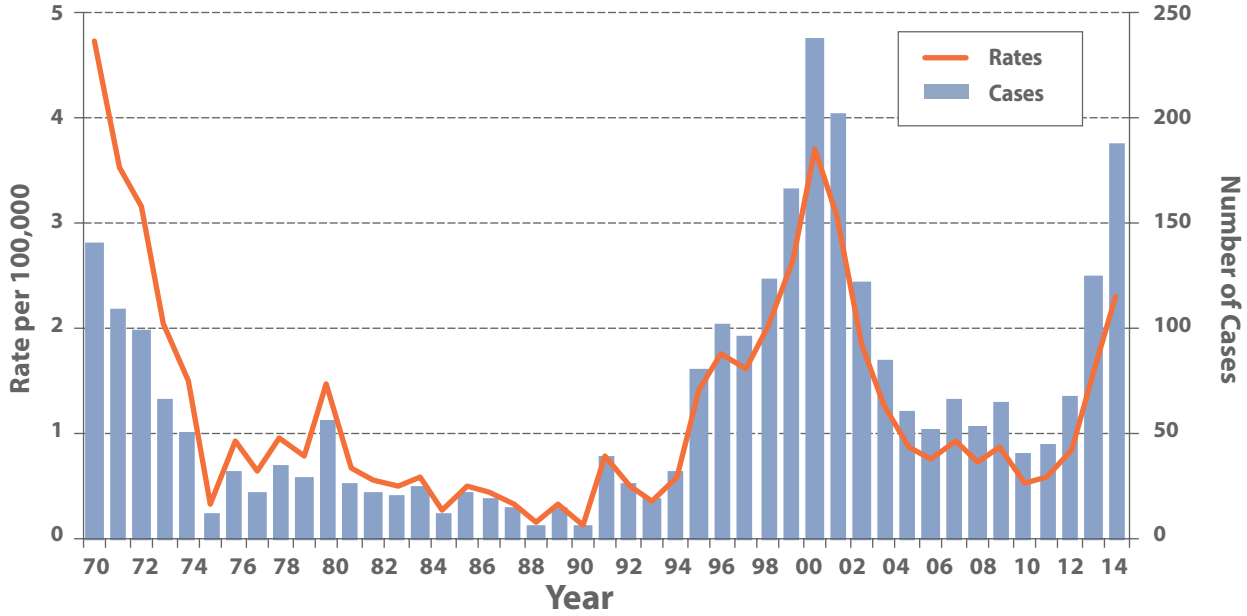




Primary and Secondary Syphilis

During the early 1970's, incidence rates decreased and remained low until the mid-1990's. During 1996-2001 rates increased, and thereafter declined. Between 2012 and 2014 rates increased again, reaching 2.3 per 100,000 in 2014 *(Figure 2.11)*.

Figure 2.11: Incidence of Primary and Secondary Syphilis in Israel, 1970-2014[1]



Late syphilis

In the 1970's and 1980's rates were relatively low. In the 1990's the rates increased, following waves of immigration from endemic countries and screening of women at childbearing ages. Since 2008, rates have declined, and remained stable between 2011-2014, approximately at 2.0 per 100,000 *(Figure 2.12)*.



Figure 2.12: Incidence of late Syphilis in Israel, 1970-2014[1]

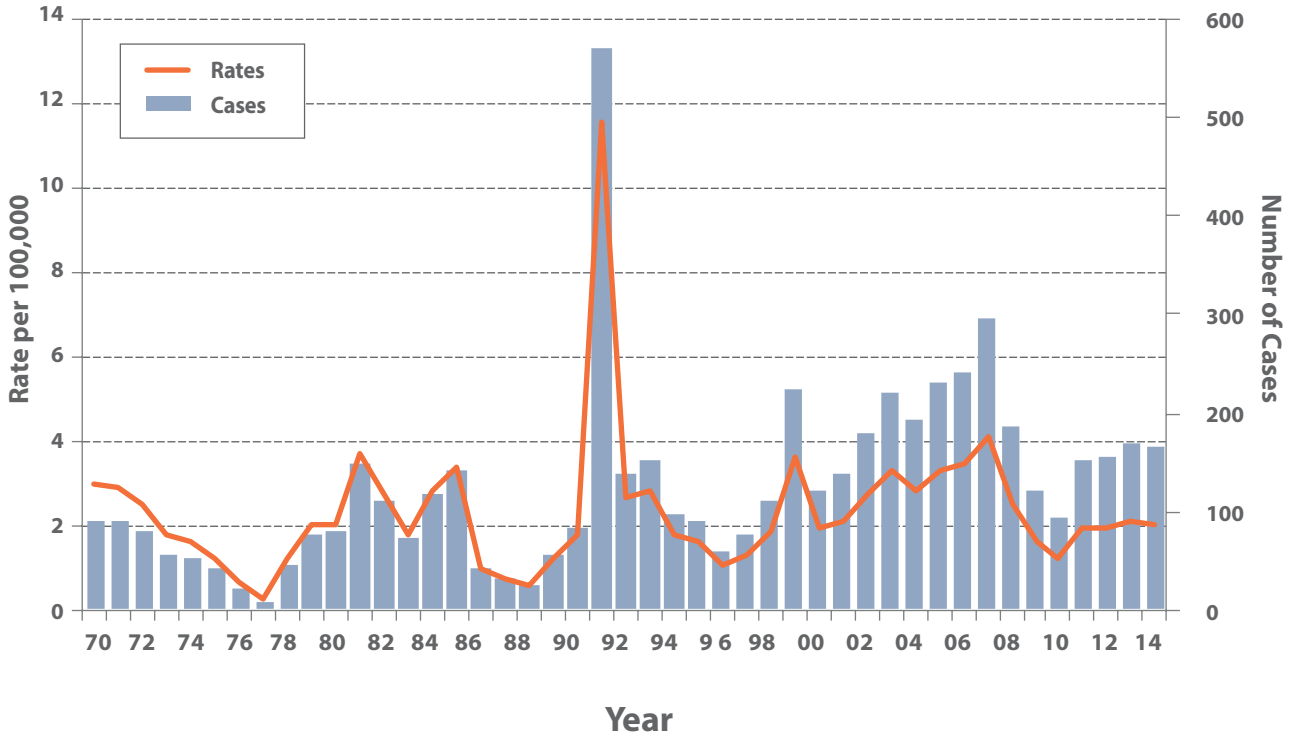
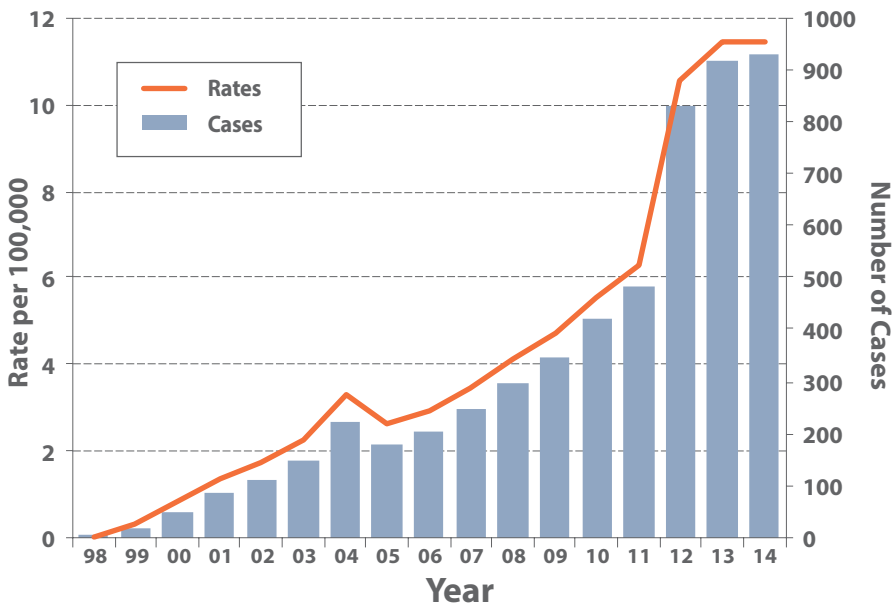


Figure 2.13: Incidence of Chlamidia trachomatis in genital tract in Israel, 1998-2014[1]

Chlamidia trachomatis in the genital tract

Since 1998 an increasing trend has been observed in the number of cases reported. In 2014, 936 cases were reported and the incidence rate reached a peak of 11.4 per 100,000 *(Figure 2.13)*.



HIV/AIDS[2]

In 2015, 412 new cases of HIV/AIDS were reported. The incidence rate of HIV/AIDS in 2015 was 4.8 new cases per 100,000, which is lower than in most Western European and North American countries. Between 2000-2015, incidence rates of HIV/AIDS were relatively stable, with a peak occurring in 2001, and a relative increase of approximately 33% occurring between 2003-2012, followed by a subsequent decline between 2012-2015 *(Figure 2.14)*.





Figure 2.14: Incidence of HIV/AIDS in Israel, 2000-2015[2]







Other diseases

Tuberculosis[2]

From the beginning of the 1970's there was a decreasing trend in incidence, from 14.4 per 100,000 in 1970 to 4.8 per 100,000 in 1990. In 1985 and 1991 there were peaks in incidence, following waves of immigration from endemic countries. During the 1990's rates increased, and declined again during the first decade of the 2000's. In 2013, the rate was 3.8 per 100,000 *(Figure 2.15)*.

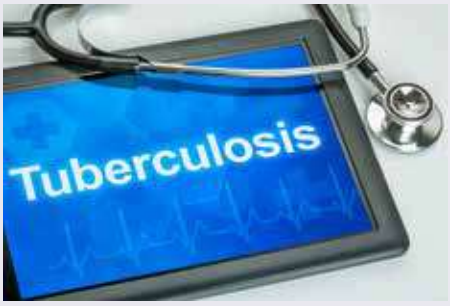


Figure 2.15: Incidence of Tuberculosis in Israel, 1970-2013[2]

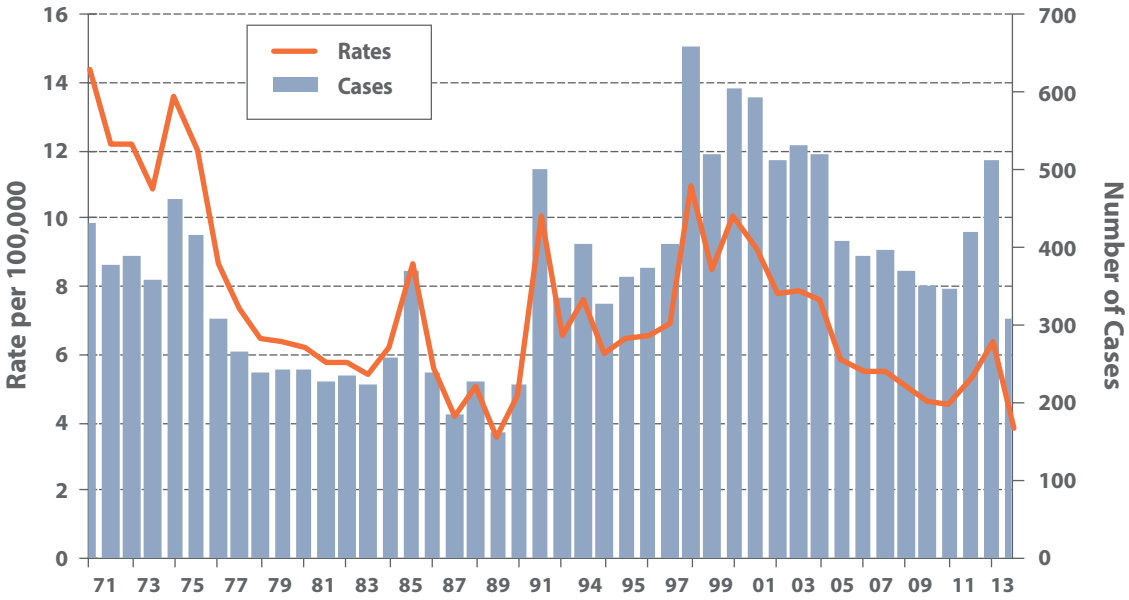
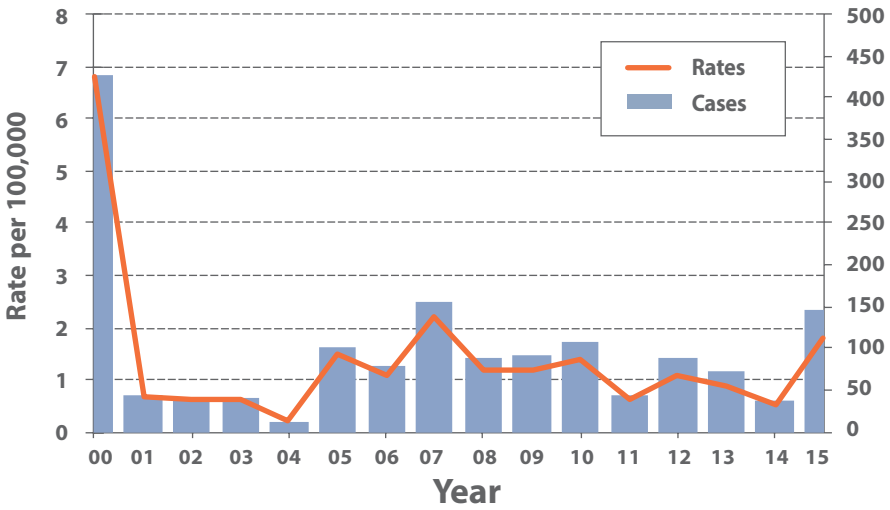


Figure 2.16: Incidence of West Nile fever in Israel, 2000-2015[1]



West Nile fever

Following an outbreak in 2000, West Nile fever was added to the list of notifiable infectious diseases, and a rate of 6.8 per 100,000 was reported. During 2010-2014 incidence rates were consistently low (an average of 0.9 per 100,000). In 2015 a higher rate of 1.8 per 100,000 was reported *(Figure 2.16)*.

MORTALITY[3]

In 2013, there were 2,150 deaths due to infectious diseases, comprising 5.2% of all deaths.

There were 920 additional deaths due to pneumonia and influenza, comprising 2.2% of all deaths.

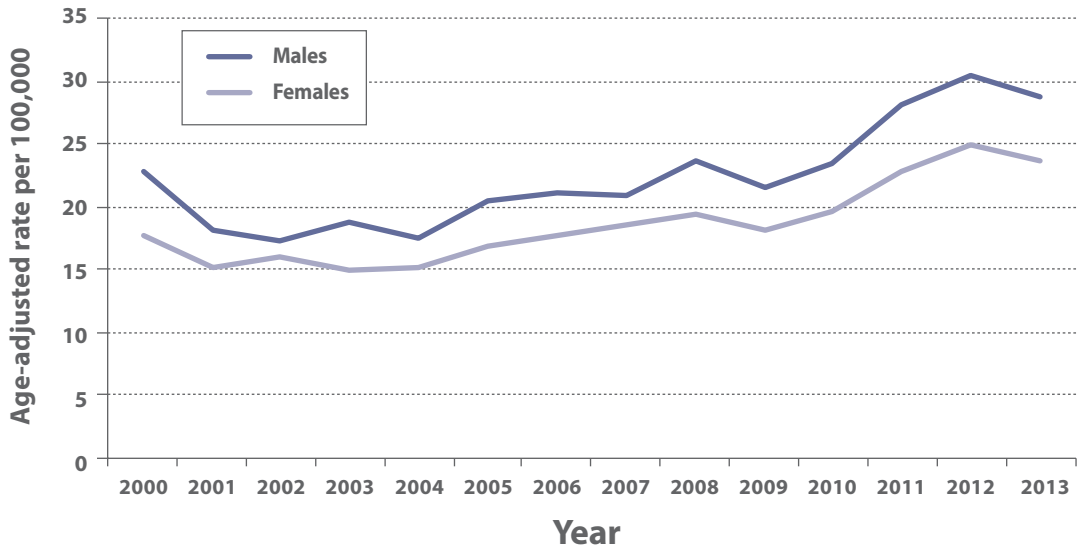
The highest mortality rates from all infectious diseases and from pneumonia and influenza were among ages 75 years and over (76.4% and 82.6% of all cases, respectively)[3].

Mortality Trends



Between 2001-2008, mortality rates due to infectious diseases increased by approximately 31% in males and 27% in females. Between 2009-2012 a further increase was observed in mortality rates, of approximately 46% in males and 38% in females. Between 2012 and 2013, mortality rates decreased slightly. Mortality rates are consistently higher among males than females *(Figure 2.17)*.

Figure 2.17: Mortality from Infectious diseases in Israel by gender, 2000-2013[3]



INTERNATIONAL COMPARISON

Figure 2.18: Mortality from infectious diseases in Israel and other OECD countries, by gender, 2013 or the nearest year available[4]



Compared to all other OECD countries, age-adjusted mortality rates due to infectious diseases are highest in Israeli women, and among the highest in Israeli men[4].

References

1. Data courtesy of the Division of Epidemiology, Israel Ministry of Health.
2. Data courtesy of the Department of Tuberculosis and AIDS, Israel Ministry of Health.
3. Central Bureau of Statistics (CBS). Causes of Death Database, 1980-2013.
4. OECD (2016) "Health status", OECD Health Statistics (database).
   doi: http://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_STAT



Scan Me

2.2 Influenza Surveillance

Surveillance of seasonal influenza in Israel by the ICDC



Influenza surveillance in Israel is carried out by the Israel Center for Disease Control (ICDC), and is based on laboratory and clinical surveillance.

Laboratory surveillance is based on a sentinel network of outpatient clinics distributed throughout Israel, which supplies nasopharyngeal specimens of patients with influenza-like illness. The specimens are tested for presence of influenza viruses.

Clinical surveillance is based on patient visits to community clinics and to hospital emergency rooms.

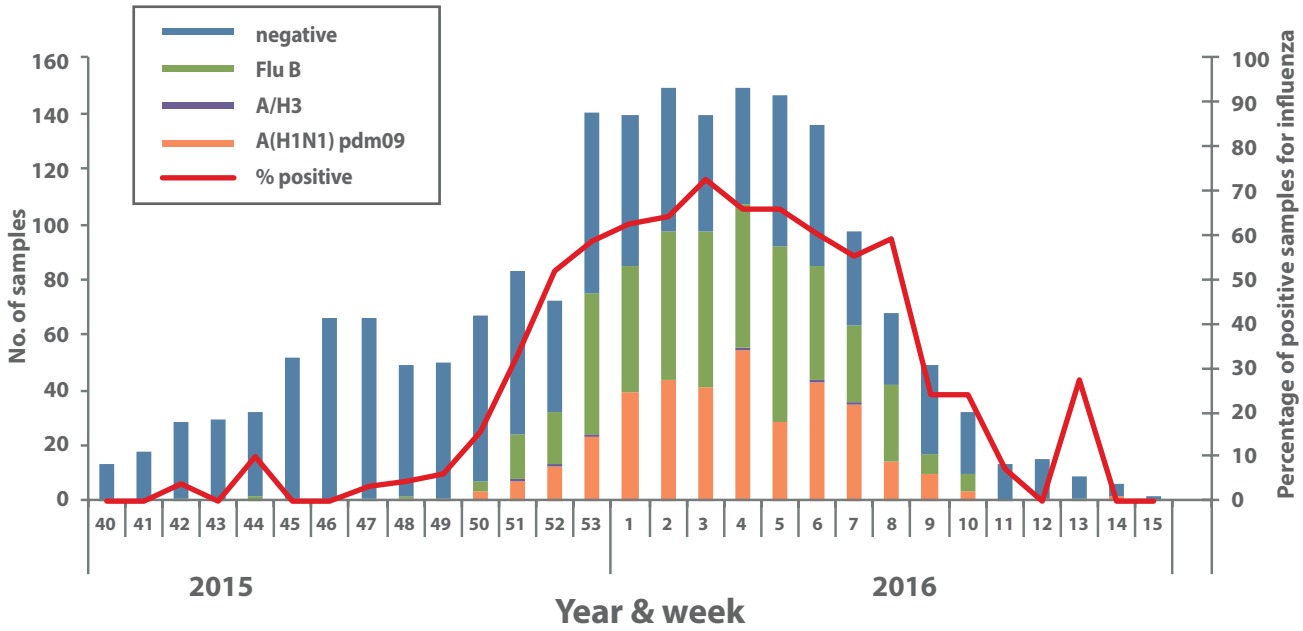
Weekly surveillance reports and annual summary reports based on analysis of the clinical and laboratory data are published in Hebrew and English, on the website of the ICDC[1].



During the 2015-2016 influenza season (September 2015-April 2016):

- 20.9% of the eligible population was immunized against influenza. The immunization rate in ages 65 and over was approximately 66%.
- The percentage of samples found positive for influenza by the sentinel network peaked in epidemiological week 3, 2016 (mid-January), and reached 72% *(Figure 2.19)*.
- 56.5% of the samples found positive for influenza were for type B, and 43.5% were positive for type A, 98% of which were for A(H1N1)pdm09.

Figure 2.19: Positive influenza samples as a percentage of total samples collected by sentinel network, 2015-2016[1]



References

1. Israel Center for Disease Control. Surveillance of Seasonal Influenza.
http://www.health.gov.il/English/MinistryUnits/ICDC/Infectious_diseases/Flu/Pages/default.aspx



Scan Me



Chapter 3:

Chronic Diseases

3.1 Cancer

DATA FROM THE NATIONAL CANCER REGISTRY

Incidence 2013

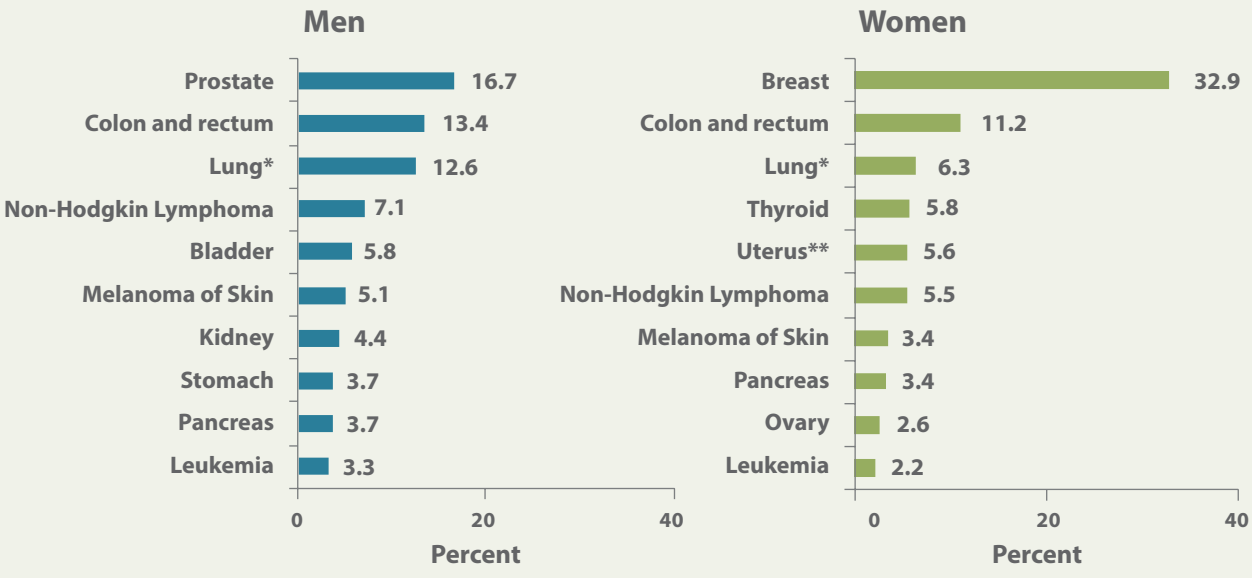
- In 2013, 26,595 new cases of invasive cancer (all sites) were reported to the Israel National Cancer Registry[1].
- Age adjusted incidence rates per 100,000 were 253.6 in men and 269.8 in women.

  The age adjusted incidence rates (per 100,000) were 254.7 in Jewish men, 280.4 in Jewish women, 217.3 in Arab men and 194.7 in Arab women.

- In men, the most commonly occurring cancers were prostate, colorectal and lung cancer *(Figure 3.1)*.
- In Jewish men, prostate cancer was the most common (20.9% of all newly diagnosed cases), while in Arab men lung cancer was the most frequently occurring cancer (19.7% of all cases).
- In women, the most commonly occurring cancer was breast cancer (32.9% and 34% of all new cases in Jewish and Arab women, respectively), followed by colorectal and lung cancer *(Figure 3.1)*[1].



Figure 3.1: Incidence of leading cancer sites in Israel, by gender, 2013 (percent of all new cases)[1]



*Trachea, Lung and Bronchus **Corpus Uteri and Uterus unspecified

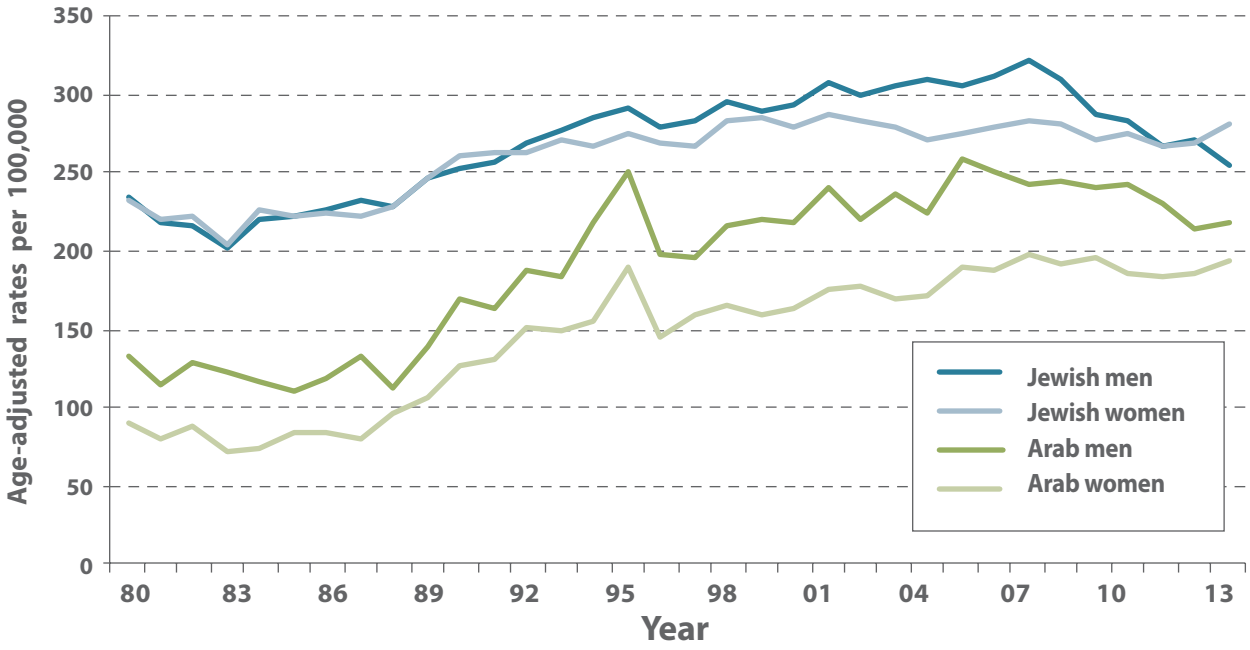
Incidence by age

- In 2013, the leading malignancies among ages 0-19 were leukemia (20.1%), cancer of brain and central nervous system (13.8%) and non-Hodgkin lymphoma (13.4%).
- Among ages 20-44, the leading malignancies were breast cancer (23.5%), thyroid cancer (15.1%) and non-Hodgkin lymphoma (7.8%).
- Among ages 45-64, the leading malignancies were breast cancer (24.4%), colorectal cancer (11.5%) and lung cancer (9.1%).
- Among ages 65 and over, the leading malignancies were colorectal cancer (14.3%), breast cancer (13.2%) and lung cancer (11.0%)[1].



Trends in incidence

Figure 3.2: Incidence of cancer (all sites) in Israel, by gender and population group,1980-2013[1]

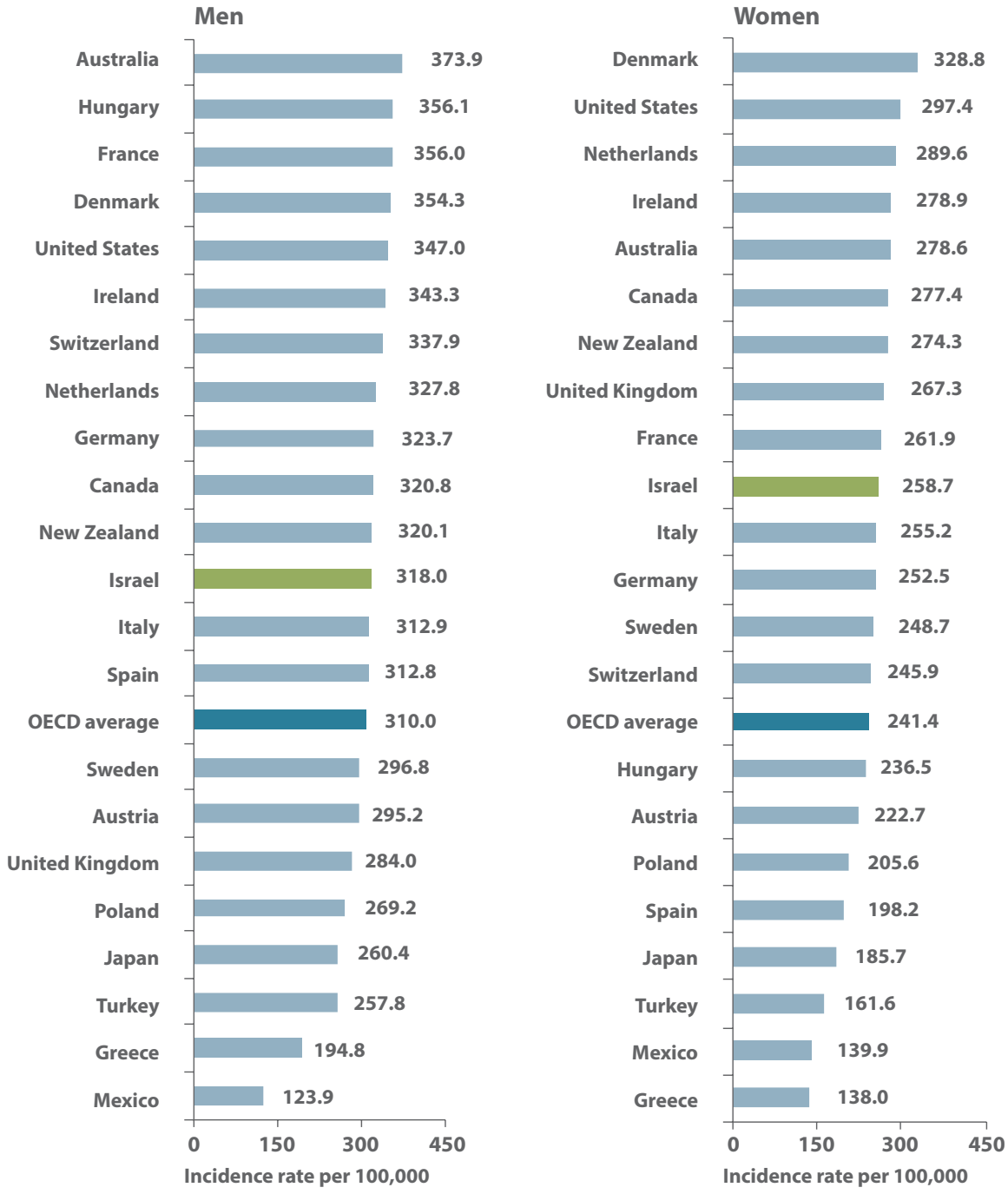


Trends in incidence (all sites)

Over the past 30 years, incidence rates of cancer (all sites) increased overall by approximately 19% in the Jewish population and by 94% in the Arab population.
Among Jewish men, cancer incidence rates peaked in 2007, and since then have declined by approximately 20%.
In Jewish women, cancer rates have been stable during the past decade.
Among Arab men, incidence rates peaked in 2005, and since then have declined by approximately 13%.
In Arab women, incidence rates have continued to rise, and during the past decade increased by 15% *(Figure 3.2)*[1].

INTERNATIONAL COMPARISON

Figure 3.3: Incidence rates of cancer (all sites) in Israel and other OECD countries, by gender, 2012[2]



Cancer incidence rates in Israel are higher than the OECD average, in both men and women.

MORTALITY

All mortality data were extracted from the National Cause of Death database[3] of the Central Bureau of Statistics (CBS).

Mortality - all

Cancer is the leading cause of death in Israel, and in 2013 was responsible for 25.8% of all deaths.

In 2013, there were 10,698 deaths from cancer: 5,322 in men and 5,376 in women.

Age-adjusted mortality rates per 100,000 were 141.9 in Jewish men, 117.6 in Jewish women, 134.5 in Arab men and 88.6 in Arab women.

The leading causes of cancer mortality in 2013 were lung cancer (17.3% of all deaths), colorectal cancer (12.8% of all deaths) and breast cancer (10.0% of all deaths).

Mortality - by gender and population group

In 2013, the leading causes of cancer deaths in both Jewish and Arab men were lung cancer (21.4% and 39.0% of all cancer deaths respectively), colorectal cancer (13.0% and 11.1% respectively) and pancreatic cancer (8.3% and 6.6% respectively).

The leading causes of cancer deaths in both Jewish and Arab women were breast cancer (19.1% and 26.0% of all cancer deaths respectively), colorectal cancer (13.0% and 11.1% respectively) and lung cancer (11.7% and 6.9% respectively).

Trends in cancer mortality (all sites)

Between 1980-2013, age-adjusted cancer mortality rates declined overall by nearly 20% in the Jewish population.

In Arab men, age-adjusted cancer mortality rates increased to a peak in 2008 and subsequently declined by almost 24% between 2008-2013. In Arab women, cancer mortality rates have been relatively stable since the mid-1990's *(Figure 3.4)*[3].

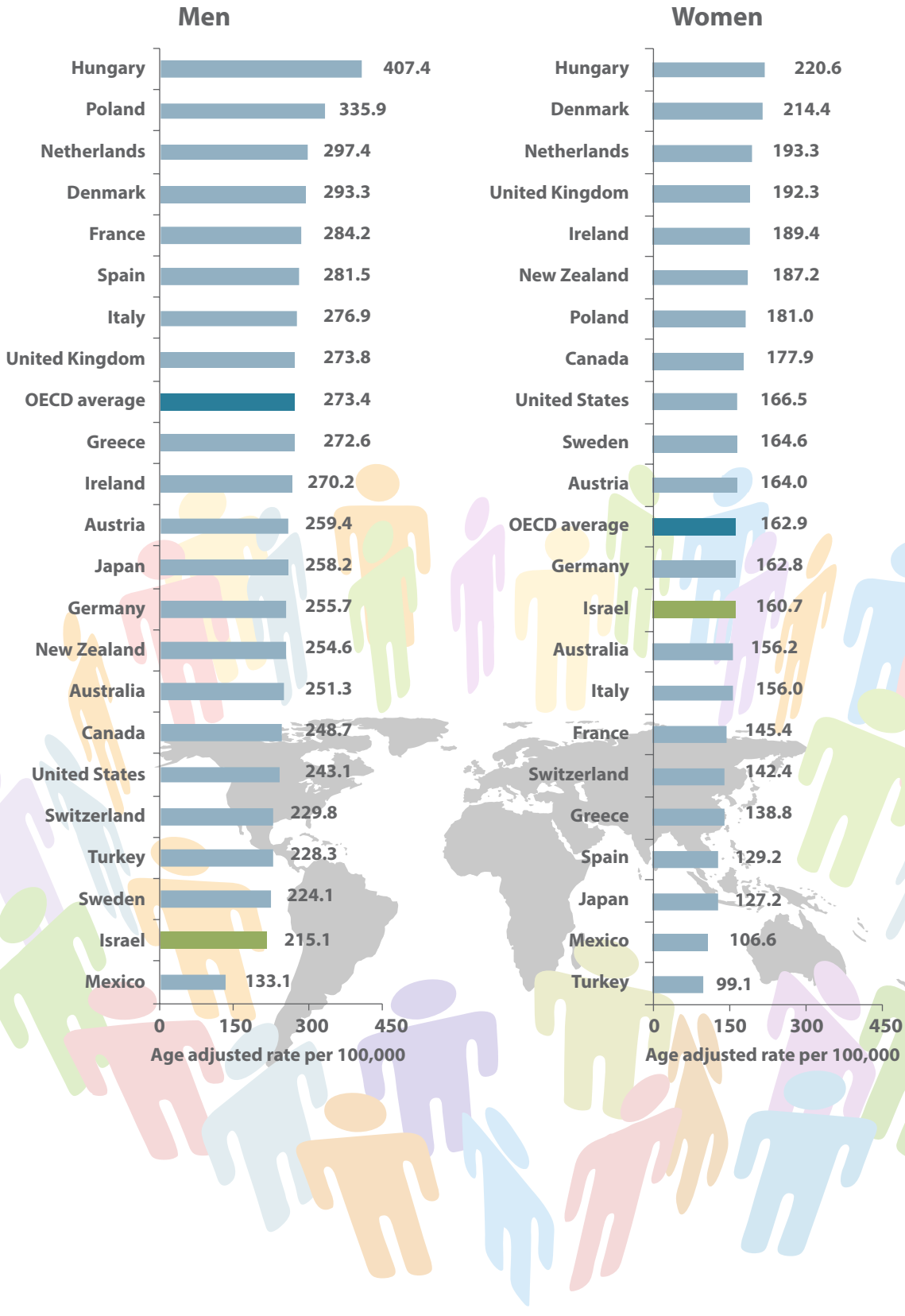
Figure 3.4: Mortality from cancer (all sites) in Israel, by gender and population group, 1980-2013[3]



INTERNATIONAL COMPARISON

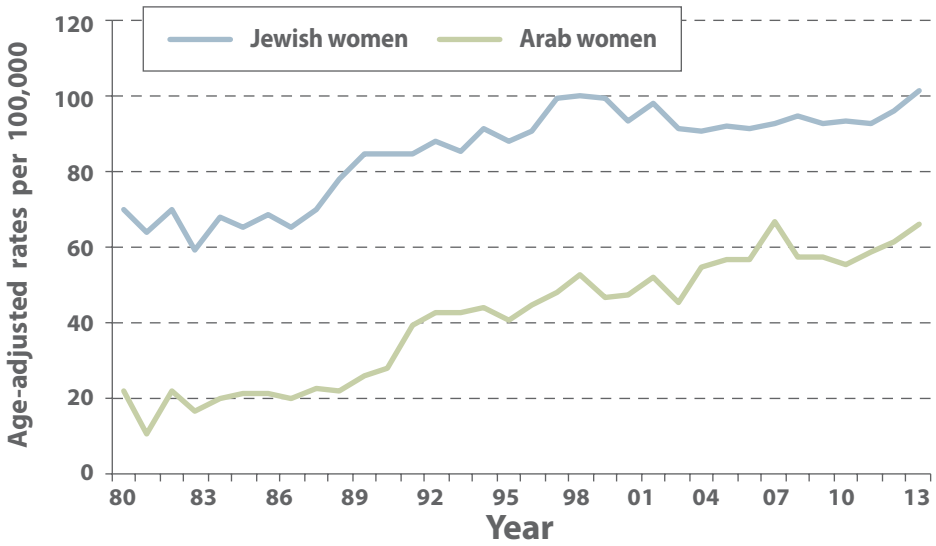
Cancer mortality rates in Israeli men are low compared to men in OECD countries. In Israeli women however, cancer mortality rates are close to the average mortality rate in OECD countries.

Figure 3.5: Mortality from cancer (all sites) in Israel and other OECD countries, by gender, 2013 or the nearest year available[2]



BREAST CANCER

Figure 3.6: Incidence of breast cancer in Israel, by population group, 1980-2013[1]



Incidence (1)

Breast cancer is the most frequently occurring cancer in women in Israel. In 2013, 4,695 new cases of invasive breast cancer were reported[1].



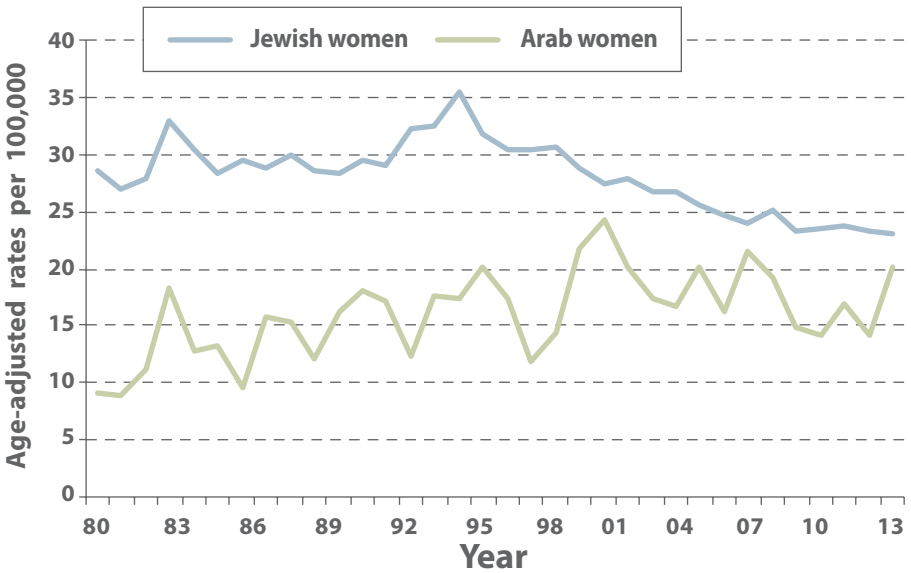
Incidence (2)

Age-adjusted incidence rates are higher in Jewish women than in Arab women. Over the past 30 years, breast cancer incidence rates have increased by approximately 45% in Jewish women, and by 300% in Arab women. During the first decade of the millennium, incidence rates stabilized in Jewish women; however, during the last few years these rates have started to increase. In Arab women, incidence rates continue to increase steadily *(Figure 3.6)*.

Screening

- In the early 1990's the Israel Cancer Association in collaboration with the Ministry of Health and the healthcare funds initiated the National Breast Cancer Screening Program. Through this program, the healthcare funds invite women aged 50-74 to undergo mammography screening once every two years[4].
- According to INHIS-3, the National Health Survey conducted by the ICDC in 2014, 83.2% of women aged 50-74 had attended mammography screening for breast cancer in the 2 years preceding the survey[5].

Figure 3.7: Mortality from breast cancer in Israel, by population group, 1980-2013[3]



Mortality

In Jewish women, age-adjusted breast cancer mortality rates declined overall by approximately 20% between 1980-2013, and have stabilized in recent years.
In Arab women, there was a two-fold increase in mortality rates between 1980-2013, however, rates have been stable since the beginning of the 1990's *(Figure 3.7)*.

COLORECTAL CANCER

Colorectal cancer is the second most frequently occurring cancer in Israel. In 2013, 3,248 new cases of invasive colorectal cancer were reported: 1,651 in men and 1,597 in women.



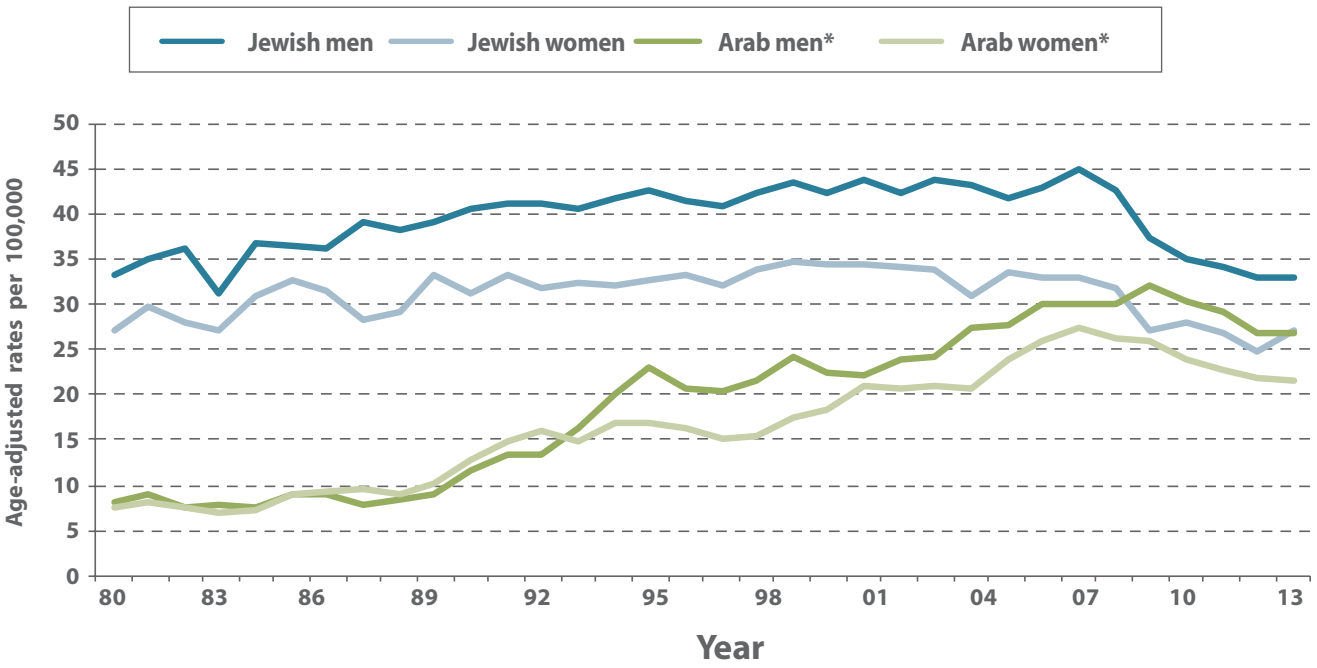


Incidence

In Jewish men, incidence rates of colorectal cancer increased steadily, peaking in 2007 and thereafter declining. In Jewish women, rates increased gradually until the late 1990's, and were stable for a number of years. Since 2006, rates have been gradually decreasing.

In Arab men, incidence rates of colorectal cancer increased approximately 3-fold in the 3 decades between 1980-2009, and a decreasing trend has been observed during the last few years. In Arab women, rates increased considerably until 2007, and thereafter started to decline. The incidence gaps between Jews and Arabs and between men and women in both population groups have narrowed considerably *(Figure 3.8)*.

Figure 3.8: Incidence of colorectal cancer in Israel, by gender and population group, 1980-2013[1]

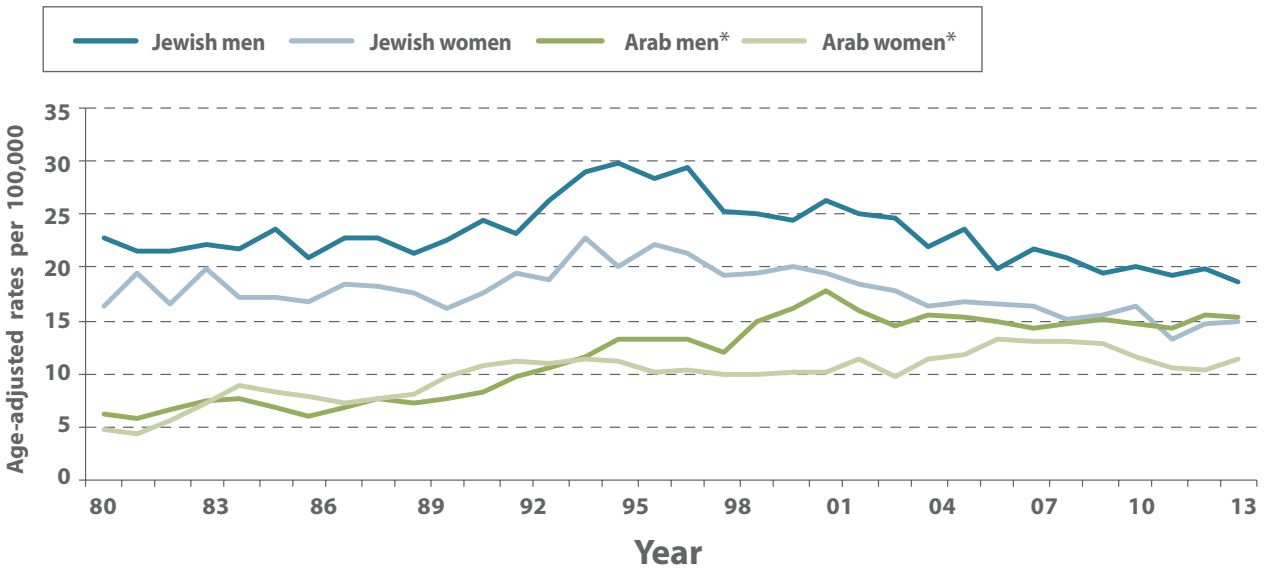


* Rates in the Arab population are presented as 3-year moving averages due to small annual numbers of cases.

Mortality

In the Jewish population, colorectal cancer mortality rates peaked in the mid-1990's and have since declined steadily, by approximately 30% in men and 40% in women. In Arab men, mortality rates increased by 180% between 1980-2001 and since then have declined by about 14%. In Arab women, mortality rates increased by 180% between 1980 and 2006, and since then have shown a declining trend.
Mortality rates in the Jewish population have been consistently higher in men than women. In the Arab population, mortality rates have been higher in men than women since the mid-1990's *(Figure 3.9)*[3].

Figure 3.9: Mortality from colorectal cancer in Israel, by gender and population group, 1980-2013[3]



* Rates in the Arab population are presented as 3-year moving averages due to small annual numbers of cases.

Screening for colorectal cancer

Since 2000, a national screening program for the early detection of colorectal cancer has been implemented, whereby all Israeli adults aged 50-74 are invited to perform fecal occult blood (FOB) testing each year. In high risk individuals, including those with a family history of colon cancer, colonoscopy testing is recommended every 3-5 years[4].

PROSTATE CANCER

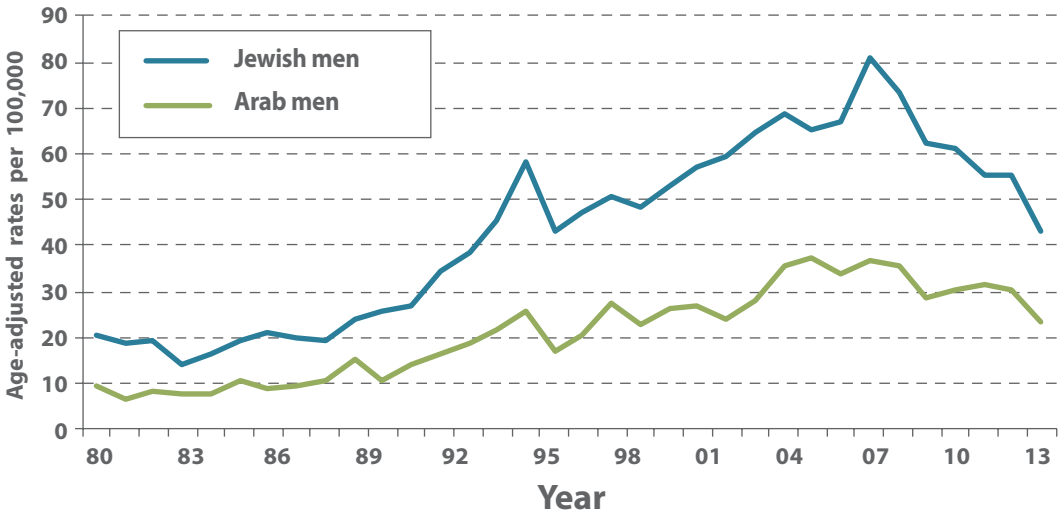
Incidence



Prostate cancer is the most frequently occurring cancer among men in Israel. In 2013, 2,057 new cases of prostate cancer were reported.

Incidence rates have been consistently higher in Jewish than in Arab men. After a steady increase in incidence rates of prostate cancer in both Jewish and Arab men, rates have declined since 2008, in both population groups *(Figure 3.10)*[1].

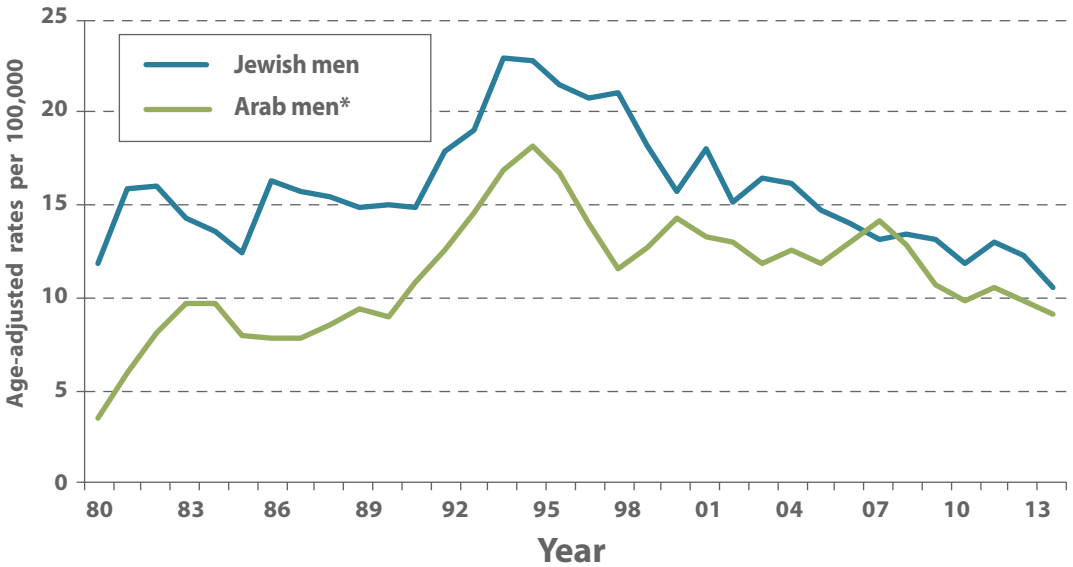
Figure 3.10: Incidence of prostate cancer in Israel, by population group, 1980-2013[1]



Mortality

In the Jewish population, prostate cancer mortality rates have declined steadily since the mid-1990's. In the Arab population, mortality rates declined from the mid-1990's, increased slightly between 2005-2007, and continued to decline thereafter *(Figure 3.11)*[3].

Figure 3.11: Mortality from prostate cancer in Israel, by population group, 1980-2013[3]



* Rates in the Arab population are presented as 3-year moving averages due to small annual numbers of cases.

LUNG CANCER

Lung cancer is the most frequently occurring cancer among Arab men in Israel (20.6% of all cancers), and the third most frequently occurring cancer in Jewish men (11.5%) and in Jewish women (6.6%). In Arab women, lung cancer was ranked 6th in incidence in 2013 (3.5% of all cancers)[1].

Incidence and mortality rates are considerably higher in men than in women *(Figures 3.12, 3.13)*. The highest incidence and mortality rates are in Arab men, and the lowest, in Arab women[1,3].



Figure 3.12: Incidence of lung cancer in Israel, by gender and population group, 1980-2013[1]



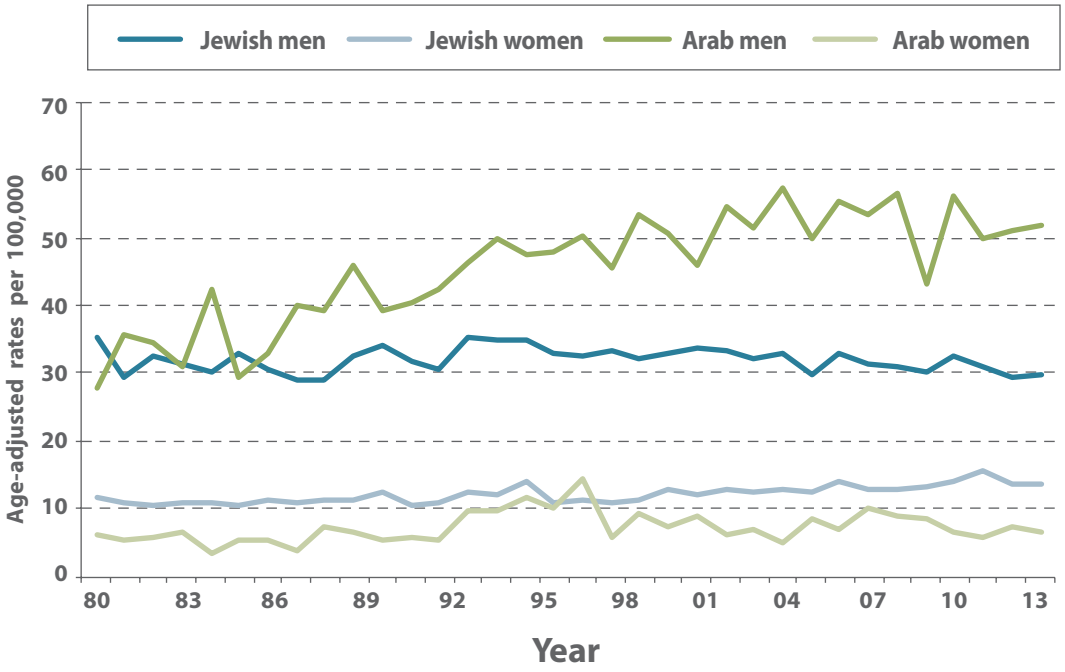
Incidence in men

During the past 30 years, incidence rates of lung cancer have been stable in Jewish men. In Arab men, rates doubled between the years 1980-1995, and remained relatively stable from 1995 onwards. Since the mid-1990's, lung cancer incidence rates have been about 60% higher in Arab men than in Jewish men[1].

Incidence in women

In Jewish women, the incidence of lung cancer increased steadily during the past 30 years, by approximately 73%. In Arab women, rates doubled between 1980-2013, however, they remain consistently lower than in Jewish women *(Figure 3.12)*[1].

Figure 3.13: Mortality from lung cancer in Israel, by gender and population group, 1980-2013[3]



Mortality in men

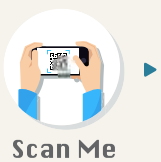
Between 1980-2013, mortality rates from lung cancer in Jewish men declined by approximately 18%. In Arab men, mortality rates increased by 85% during the same period. Since the mid-1980's, lung cancer mortality has been higher among Arab men than Jewish men. In 2013, mortality rates in Arab men were 1.7 times higher than in Jewish men.
In 2009, a lower mortality rate was observed among Arab men *(Figure 3.13)*[3].

Mortality in women

In Jewish women, mortality rates increased by approximately 18% between 1980-2013.
In Arab women, rates increased to a peak in 1997 and subsequently dropped, maintaining relatively stable rates with a small peak in 2007. For most of the period, mortality rates were higher in Jewish women than in Arab women *(Figure 3.13)*[3].

References

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1 2 4

3.2 Heart Disease

Findings from the ACSIS 2013 National Survey

Background

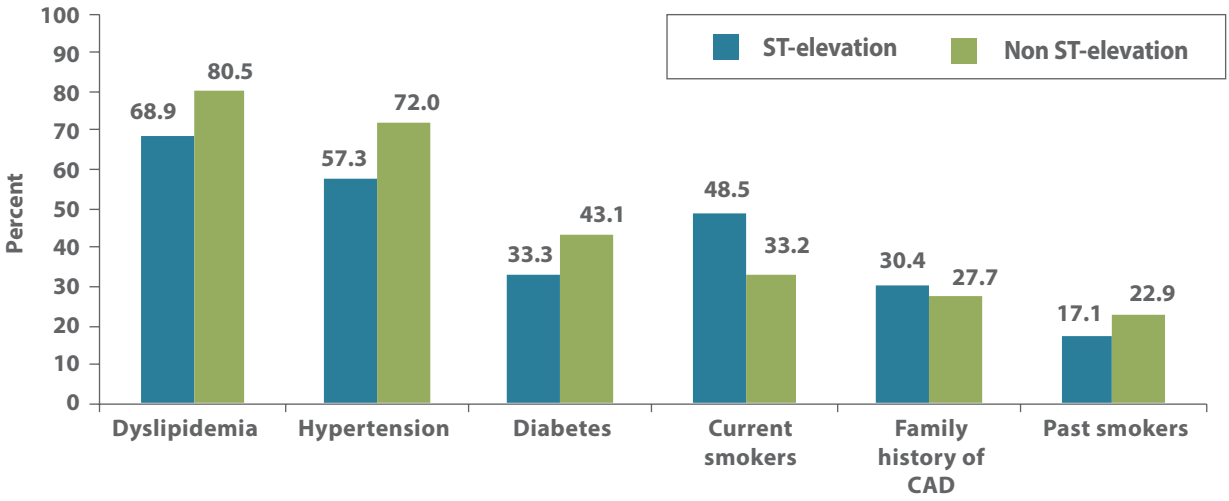
ACSIS surveys have been conducted periodically since 2000, among all patients hospitalized with Acute Coronary Syndrome, ACS (i.e. acute myocardial infarction or unstable angina pectoris), in cardiology departments and in cardiac intensive care units in all Israeli hospitals. The surveys include data on the prevalence of risk factors among patients, medical treatments, patient survival and other outcomes.

Age

In the ACSIS 2013 National Survey[1], the average age of male patients was 62.3 years and the average age of female patients was 69.7 years. 61.4% of male patients were aged ≤65, as compared to 37.3% of female patients.

Patients with ST elevation were younger (mean age 61.6) than those with no ST elevation (mean age 65.3).

Figure 3.14: Risk factors among patients with and without ST elevation. ACSIS National Survey 2013[1]



Risk factors

The most common risk factor was dyslipidemia, both in patients with ST elevation (68.9%) and in those with no ST elevation (80.5%) *(Figure 3.14)*.



Trends in management and outcome of patients hospitalized with ACS, 2000-2013

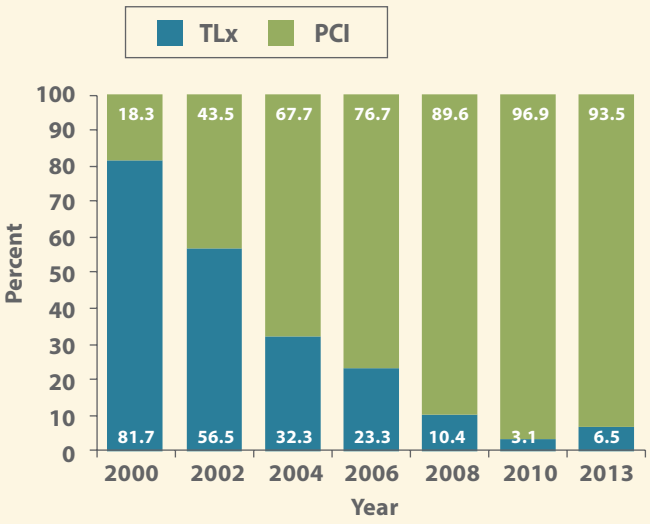
Between 2000-2013, a 41% increase was reported in the use of primary reperfusion among patients hospitalized with ACS (Figure 3.15). The use of thrombolysis (TLx) declined markedly in favor of primary percutaneous coronary intervention (PCI) (Figure 3.16).
30-day mortality in patients hospitalized with ACS declined by 37% in women and by 54% in men[1].

Figure 3.15: Use of primary reperfusion*. ACSIS National Surveys, 2000-2013[1]



*in patients with ST elevation

Figure 3.16: Type of primary reperfusion*. ACSIS National Surveys, 2000-2013[1]



*in patients with ST elevation

Self-reported coronary heart disease: Survey Data

In the **INHIS-3 National Health Survey**[2] conducted in 2014-2015, 4.7% of respondents aged 21 and above reported having been diagnosed with coronary heart disease by a physician.

The prevalence of coronary heart disease was considerably higher among men than women (6.3% and 3.1% respectively). The overall rates were similar in the Jewish and Arab populations.

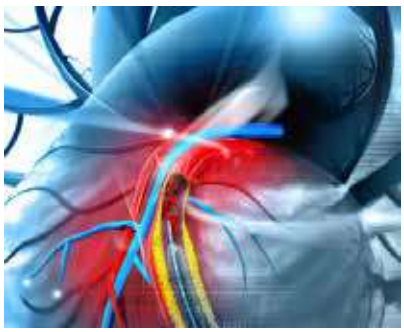


National Data: Surgical interventions and Mortality

Surgical interventions

Data from the national registry of heart procedures indicates that between 2006-2014, a 28% decline was observed in the rate of coronary artery bypass grafts (CABG) performed in Israel.

Between 2008-2014, the rate of interventional catheterizations (PTCA) performed decreased by approximately 18% and the rate of diagnostic catheterizations performed declined by approximately 9%[3].





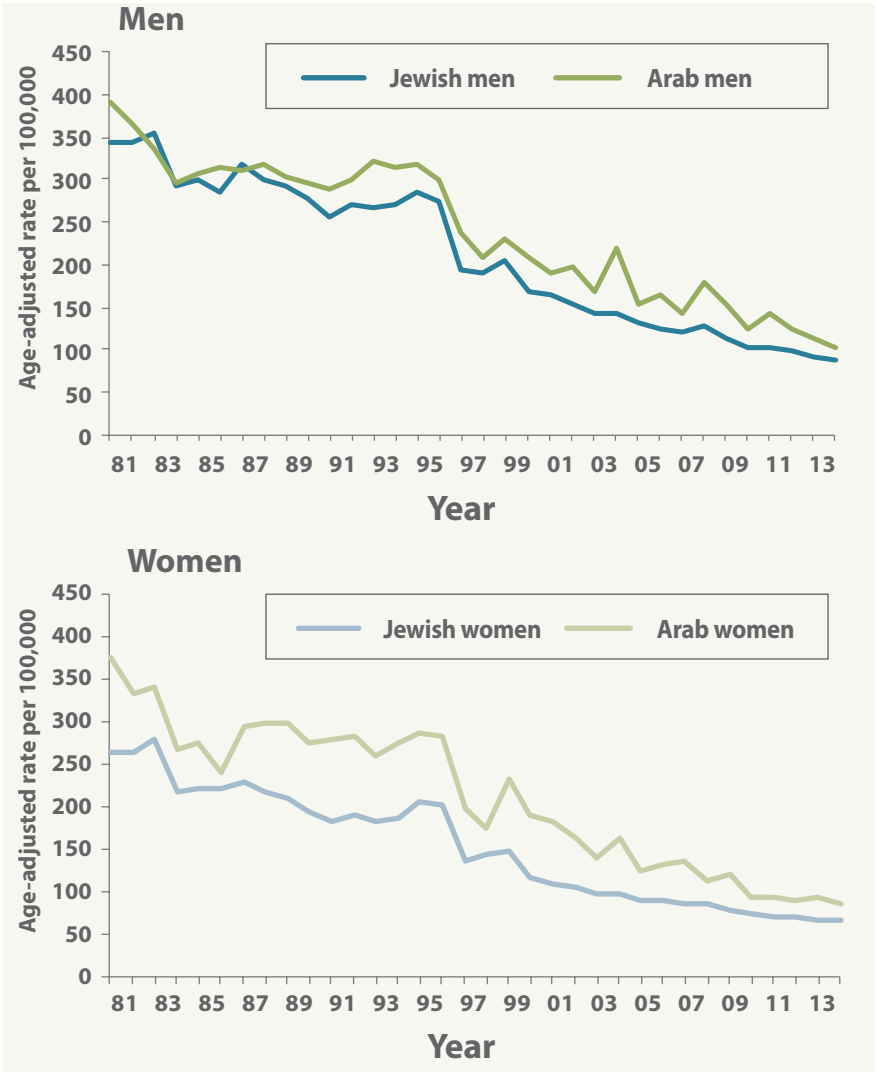
Mortality

Heart disease is the second leading cause of death (following cancer) in the general population, and the leading cause of death in persons aged 75 or above. The majority of heart disease deaths are caused by ischemic heart disease.

Between 1980-2013, the age-adjusted mortality rates due to all heart disease declined by 74% in both men and women (Figure 3.17)[4].

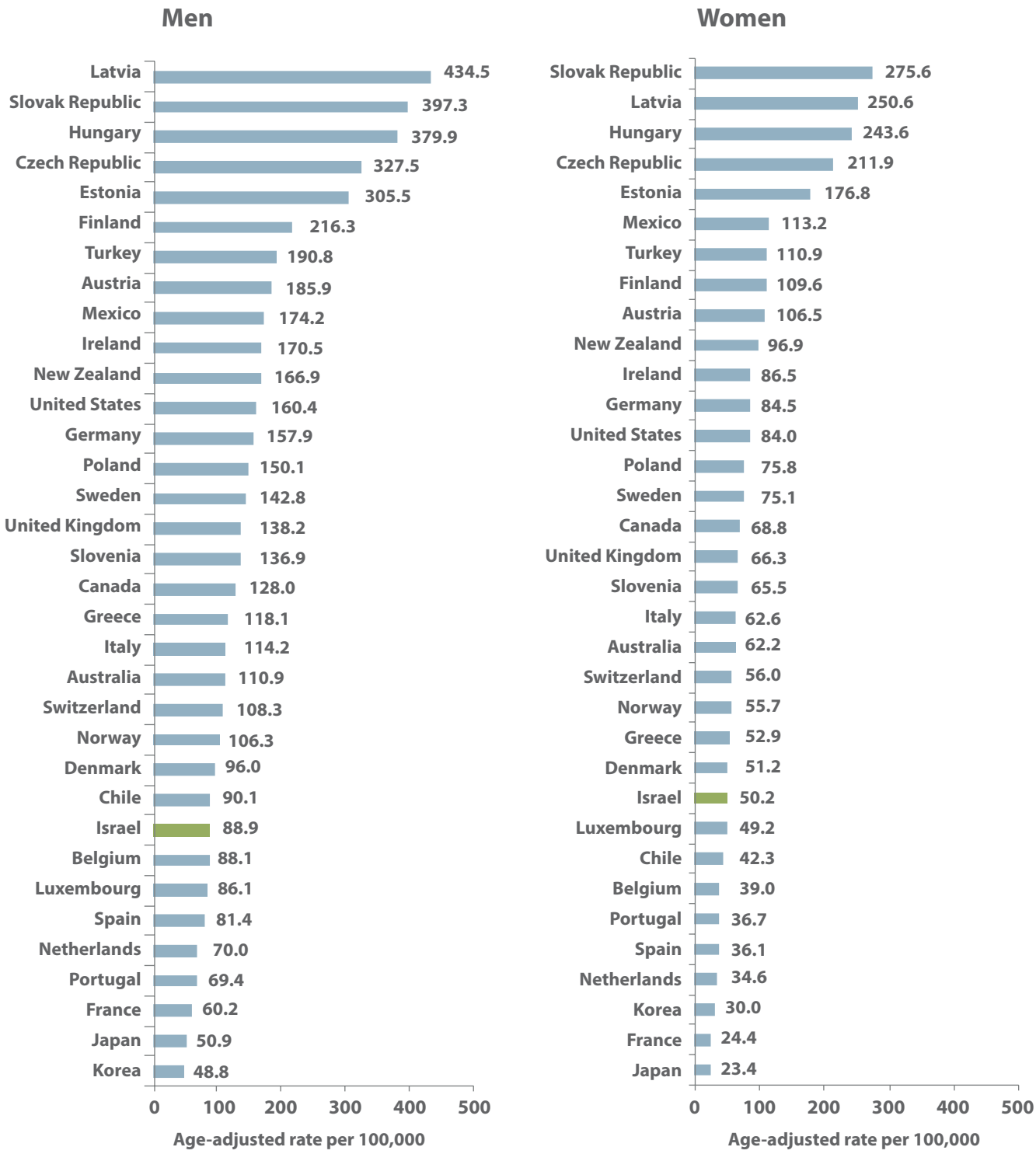
In 2013, age-standardized rates of all heart disease mortality were 15% higher in Arab men than in Jewish men, and 27% higher in Arab women than in Jewish women.

Figure 3.17: Mortality from all heart disease in Israel, by gender and population group, 1980-2013[4]



INTERNATIONAL COMPARISON

Figure 3.18: Mortality from ischemic heart disease in Israel and OECD countries, by gender, 2013 (or the nearest year available)[5]



In both men and women, ischemic heart disease mortality rates are lower in Israel than in most OECD countries *(Figure 3.18)*.

References

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2 3 3 5

3.3 Stroke



General

Stroke (also known as cerebrovascular accident or CVA) is the third leading cause of death in Israel[1].
Hypertension, the leading risk factor for stroke, is prevalent in Israel among older adults, both men and women *(see Chap.4.1)*.

FINDINGS FROM THE NASIS 2013 NATIONAL SURVEY OF ACUTE STROKE

Background

The National Acute Stroke Israeli Survey (NASIS) has been conducted every three years since 2004, during a two-month period, by the Israel Neurological Association and in cooperation with the Center for Disease Control (ICDC). The surveys include all patients hospitalized with acute stroke in neurological and internal medicine departments, in 28 hospitals in Israel[2].

Risk factors

In the NASIS 2013 survey, data were collected regarding the main risk factors for stroke: hypertension, high blood cholesterol levels, smoking, atrial fibrillation, heart failure, peripheral vascular disease, prior stroke, and history of myocardial infarction, angina pectoris, coronary artery bypass graft (CABG) and /or percutaneous transluminal coronary angioplasty catheterization (PTCA).

The most common risk factor in both male and female patients was **hypertension** (77.9% in men and 79.5% in women). In addition, high prevalence rates of diabetes and high levels of blood cholesterol were found in both men and women.

The prevalence of most risk factors was higher among male than female patients[2].









Age, gender and type of event

In the NASIS 2013 national survey, the average age of patients hospitalized with ischemic stroke was 69.3 years in men and 74.3 years in women.

The average age of patients hospitalized with intra-cerebral hemorrhage was 68.0 years in men and 71.2 years in women.

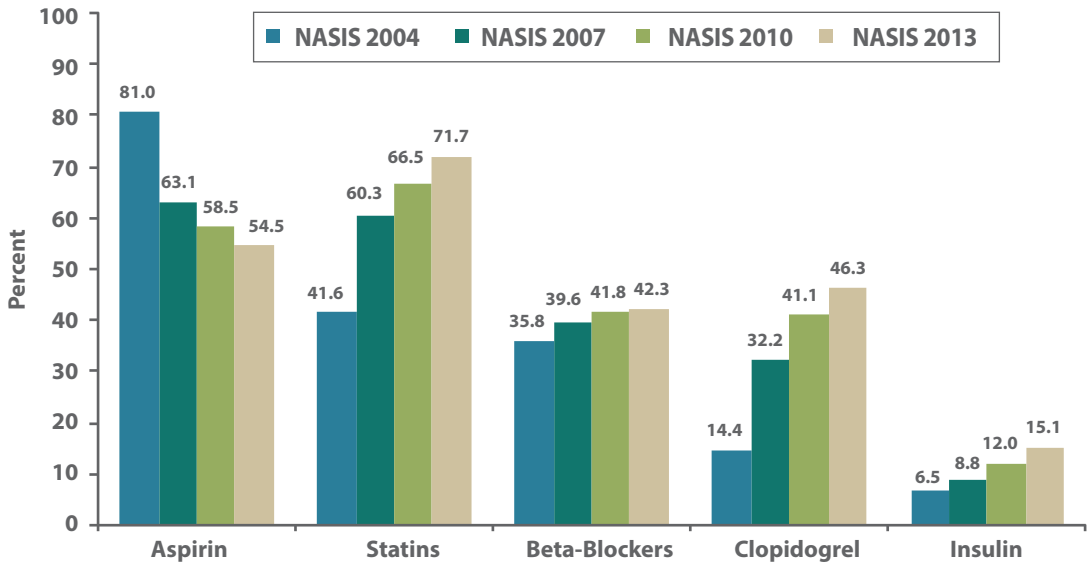
The average age of patients hospitalized with transient ischemic attack (TIA) was 66.6 years in men and 70.1 years in women[2].

Trends in management of acute stroke: NASIS national surveys

In a comparison of NASIS national surveys conducted in 2004, 2007, 2010 and 2013, the frequency of any vascular imaging in acute patients increased by 88%, from 35% of patients in 2004 to 65.9% in 2013.

The proportion of patients with ischemic events who received clopidogrel and statins at discharge increased markedly between the surveys of 2004-2013. There was a decrease in the use of aspirin, from 81% of patients with ischemic events in 2004 to 34.5% in 2013 *(Figure 3.19)*[2].

Figure 3.19: Selected medications at discharge among patients with ischemic events, NASIS 2004, 2007, 2010 and 2013[2]







Self-reported stroke: INHIS-3 National Health Survey

In the INHIS-3 national population survey of 2014-2015[3], 1.6% of respondents aged 21 and above reported having been diagnosed with stroke by a physician. The rate was 2.0% in men and 1.3% in women.

The rates of self-reported physician-diagnosed stroke were higher among Jewish women than Arab women. In men, rates were similar in Jews and Arabs.

Rates were higher among men than women in all age groups.

The National Stroke Registry

In 2014, a National Stroke Registry was established by the Israel Center for Disease Control (ICDC). The registry includes quarterly reports of all cases of stroke or TIA hospitalized in all general hospitals in Israel (25 hospitals), demographic and clinical data on the patients, and details of tests, medications and procedures performed during hospitalization.

FINDINGS FROM THE NATIONAL STROKE REGISTRY

- In 2015, 17,857 people with acute stroke or TIA were reported to the national stroke registry.
- The incidence rate was 333.1 per 100,000 population aged 18 and above.
- The age-adjusted incidence rate was higher in men (398.9 per 100,000) than in women (276.1 per 100,000).
- Approximately 93% of all cases were diagnosed with an ischemic cerebrovascular event (ischemic stroke or TIA) and about 7% were diagnosed with intra-cerebral hemorrhage.
- For patients with ischemic stroke, 30-day survival was 90% and 1-year survival was 77%.
- For patients with intra-cerebral hemorrhage, 30-day survival was 71% and 1-year survival was 57%.

Mortality

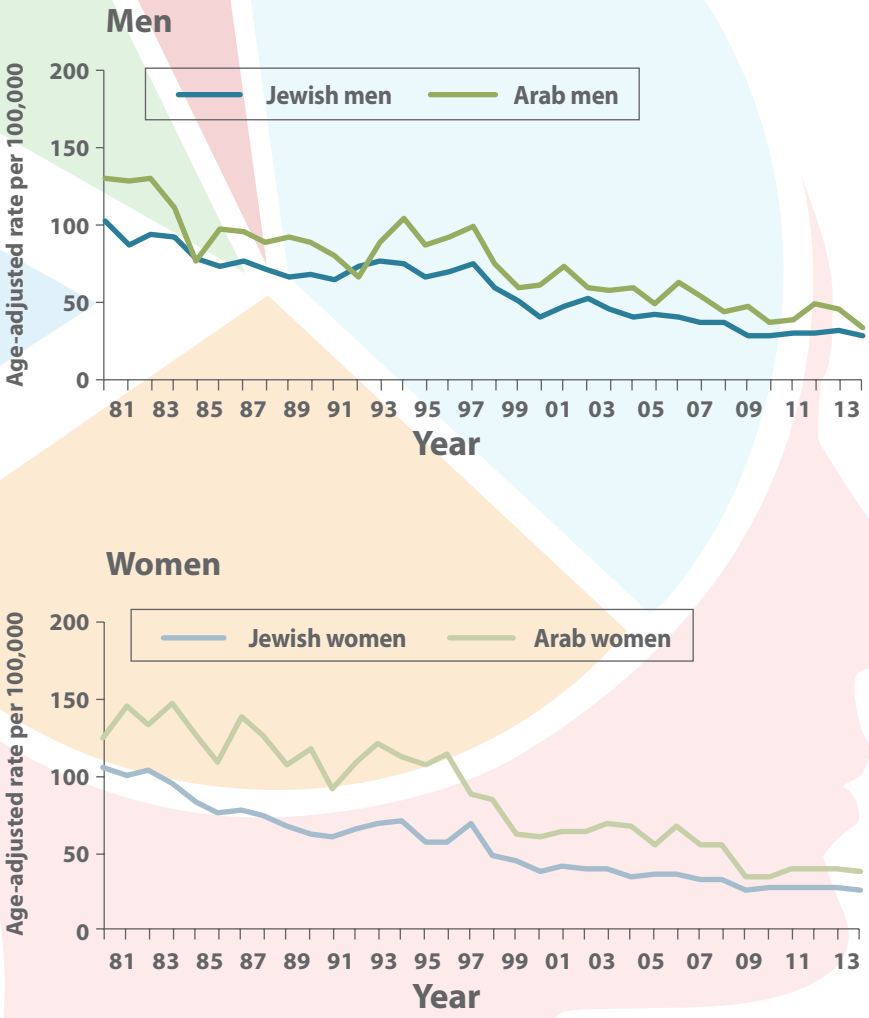
Stroke is the third leading cause of death in Israel, and in 2013 accounted for 5.6% of all deaths.

In both men and women, age-adjusted rates of mortality due to stroke are higher in the Arab population than in the Jewish population.

Trends

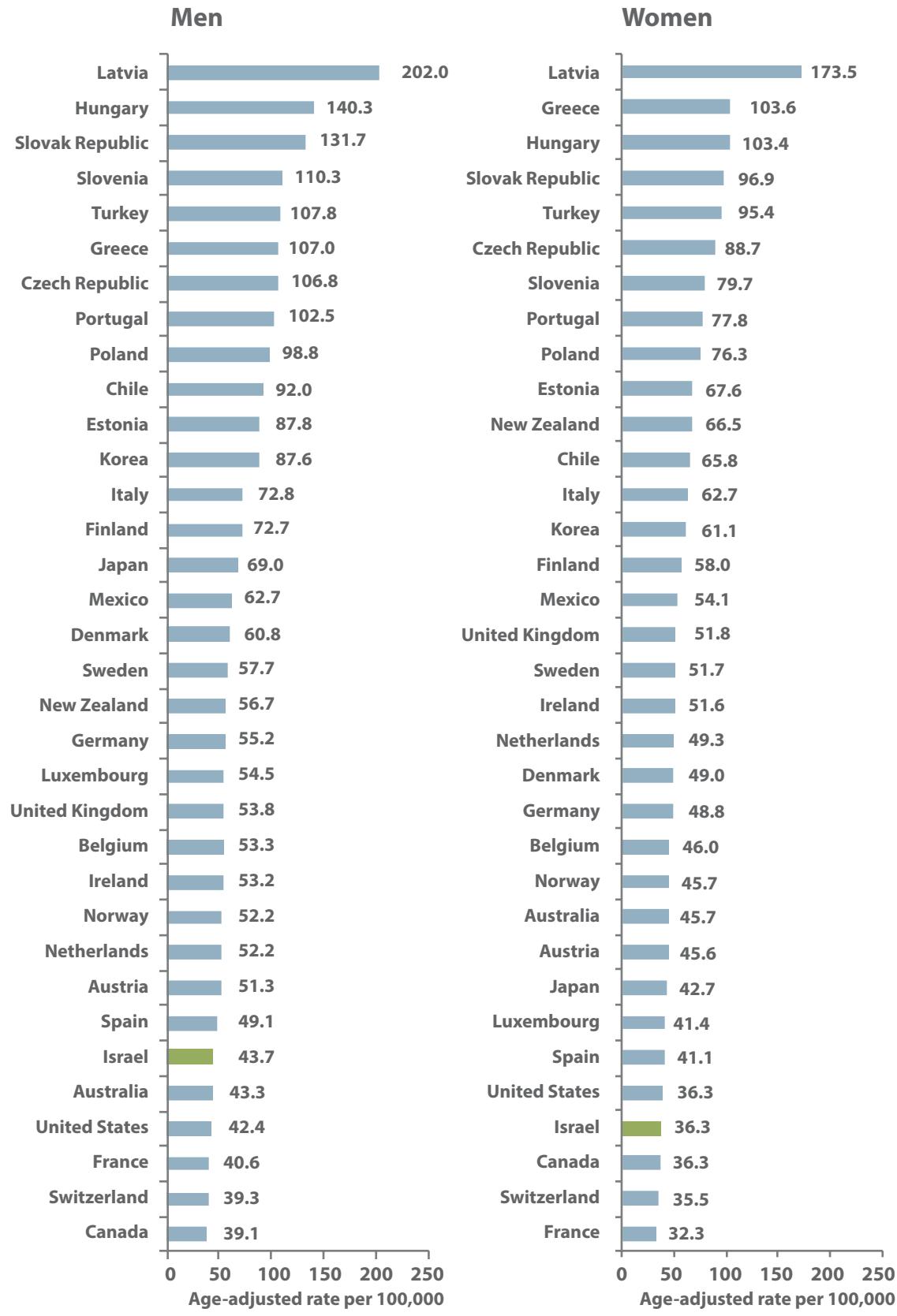
Between 1980-2013, stroke mortality rates declined by approximately 71% in Jewish men, by 76% in Jewish women, by 73% in Arab men and by 70% in Arab women *(Figure 3.20)*[1].

Figure 3.20: Mortality from stroke in Israel, by gender and population group, 1980-2013[1]



INTERNATIONAL COMPARISON

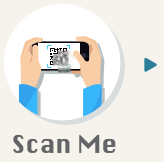
Figure 3.21: Mortality from stroke in Israel and other OECD countries, by gender, 2013 or the nearest year available[4]



In both men and women, stroke mortality rates are lower in Israel than in most OECD countries *(Figure 3.21)*[4].

References

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2 3 4

3.4 Diabetes

General



The worldwide increase in the incidence of diabetes is evident also in Israel.

Diabetes is today the fourth leading cause of death in Israel. In 2013, 5.0% of deaths in men and 5.9% of deaths in women were attributed to diabetes[1].

DIABETES TYPE 1 (AGES 0-17): FINDINGS FROM THE NATIONAL REGISTRY

Incidence of Type 1 diabetes

- A national registry of Type 1 diabetes mellitus in children aged 0-17 was established in 1997, as a joint project of the Israel Pediatric Endocrine Society and the Israel Center for Disease Control.
- In 2013, 371 new cases of type 1 diabetes were reported to the diabetes registry. The incidence rate was 14.0 per 100,000.
- The incidence of diabetes was 14.2 per 100,000 in boys and 13.8 per 100,000 in girls.
- The highest incidence rate was among children aged 10-14.
- The incidence rates in 2013 were 13.9 per 100,000 in the Jewish population and 14.2 per 100,000 in the Arab population[2].

Figure 3.22: Incidence of type I diabetes in Israel, in children and youth aged 0-17, by population group, 1997-2013[2]



Trends in Type 1 diabetes in children



Between 1997-2013, the overall incidence rate of type 1 diabetes in ages 0-17 in Israel increased by over 70%: from 8 to 14 per 100,000[2]. The increase during the first decade may be explained, in part, by the process of increased case-reporting and completion of data during the first years after establishment of the registry. Since 2007, the trend has stabilized in the Jewish population, while in the Arab population the increasing trend continues. Incidence rates in the Arab population are now similar to those in the Jewish population *(Figure 3.22)*.

DIABETES TYPE 2: FINDINGS FROM THE INHIS-3 NATIONAL HEALTH SURVEY 2014-2015[3]

Prevalence of diabetes type 2

- In the INHIS-3 National Health Survey, 8.8% of men and 8.1% of women aged 21 and over reported that they had been diagnosed with diabetes by a physician.
- From age 55 and over, the reported prevalence of diabetes was higher in men than in women.
- In the 65+ age group, diabetes was reported by 27.3% of men and 20.5% of women.
- In the Jewish population, the rates of diabetes were 8.6% in men and 7.5% in women. In the Arab population, rates were 10.0% in men and 10.6% in women *(Figure 3.23)*.

Figure 3.23: Physician diagnosed diabetes in Israel, by gender and population group. INHIS-3 (2014-2015)[3]

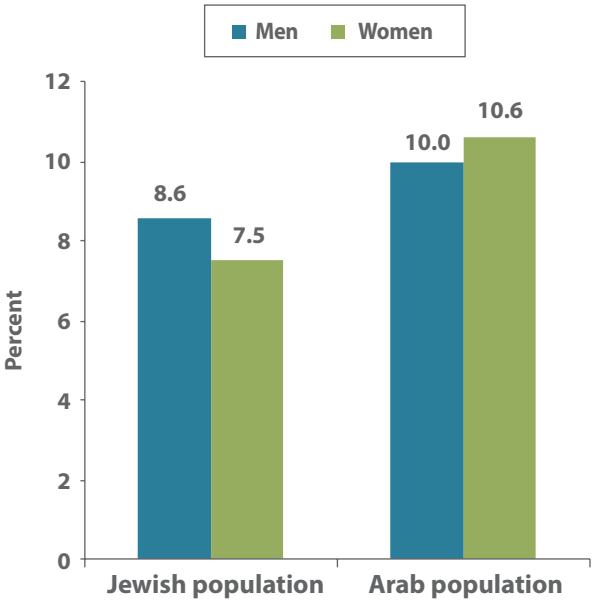
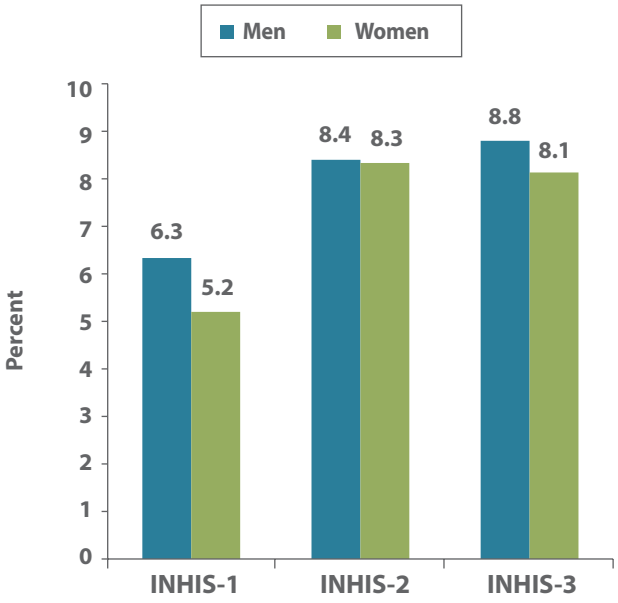


Figure 3.24: Physician diagnosed diabetes in Israel, by gender. INHIS-1 (2003-2004), INHIS-2 (2007-2010) and INHIS-3 (2014-2015) [3]



Trends

A comparison of data from the three INHIS national surveys conducted between the years 2003-2004 and 2014-2015 indicated that the reported prevalence of physician-diagnosed diabetes increased by 39.7% in men and 55.8% in women *(Figure 3.24)*.

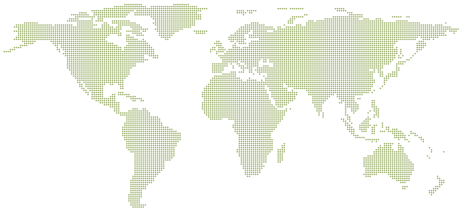


Data from the National Diabetes Registry

According to the National Diabetes Registry, established in 2014, the prevalence of diabetes in Israelis aged 2 years and above in 2013, based on data reported by the four HMOs in Israel, was 6.3 percent: 6.4 in males and 6.2 in females.

International Comparison: diabetes prevalence

The age-adjusted prevalence of diabetes in Israel in 2013 was ranked in an intermediate position with regard to other OECD countries[5].

















Mortality

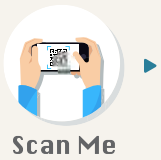
In 2013, 2,314 deaths in Israel were attributed to diabetes. Age-adjusted diabetes mortality rates in 2013 were 1.7 times higher in Arab men than in Jewish men and 2.4 times higher in Arab women than in Jewish women[1].

Figure 3.25: Mortality from diabetes in Israel, by gender and population group, 1980-2013[1]



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2 3 4 5

3.5 End-stage renal disease (ESRD)

General



ESRD is the final stage of chronic kidney disease, in which renal replacement therapy is required to sustain life.

In addition to the disability and suffering incurred by the patient and his/her family, renal insufficiency is a major burden on the health system. The National Health Insurance Law of 1995 defined end-stage renal disease as one of the "Severe Diseases" which are financed separately due to the high cost of their treatment.

During recent decades, dialysis has become the standard therapy for ESRD. As in many western countries, Israel has a national dialysis registry, including all patients undergoing dialysis or kidney transplants. Since 2006, this National Registry of Renal Replacement Therapy, has been administered by the Israel Center for Disease Control (ICDC).

According to the National Registry of Renal Replacement Therapy, at the end of 2014, 6,280 patients were being treated by dialysis in Israel.[1]

Data from the National Registry of Renal Replacement Therapy[1]

Incidence of renal replacement therapy (RRT)

In 2014, there were 1,669 new cases of RRT in Israel – 1,053 among men and 616 among women. The incidence rate was 20.3 per 100,000 – 25.9 per 100,000 in men and 14.9 per 100,000 in women.

Incidence of RRT in Israel - Trends

Between 1990-2014, incidence rates of RRT in Israel increased by approximately 80%. Rates were relatively stable during the early 21ST century; after a slight decrease between 2011-2013, incidence increased between 2013-2014 *(Figure 3.26)*.

Figure 3.26: Incidence of renal replacement therapy in Israel, 1990-2014 (Rates per 100,000 and number of cases)[1]

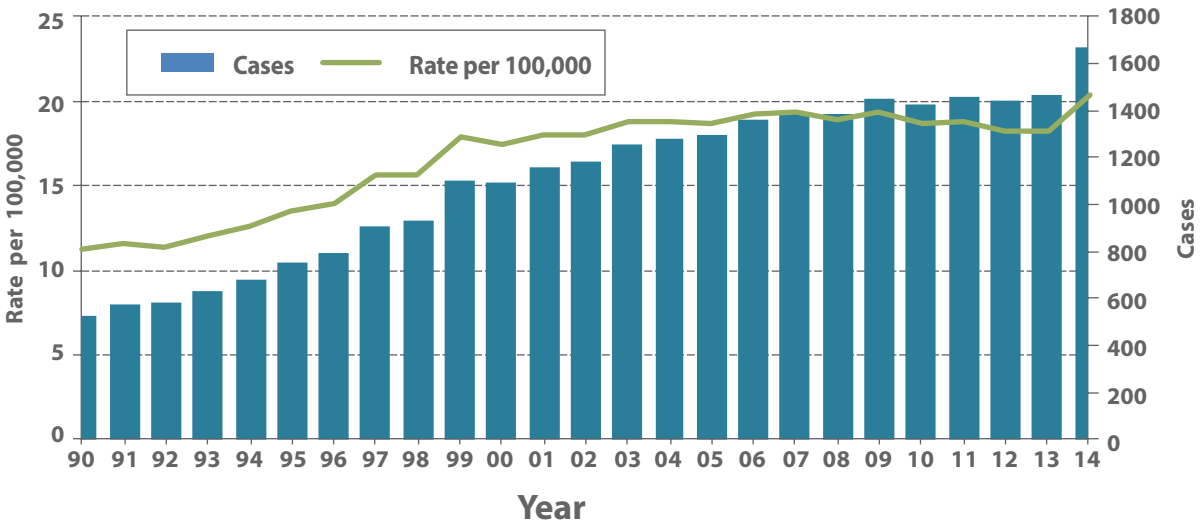
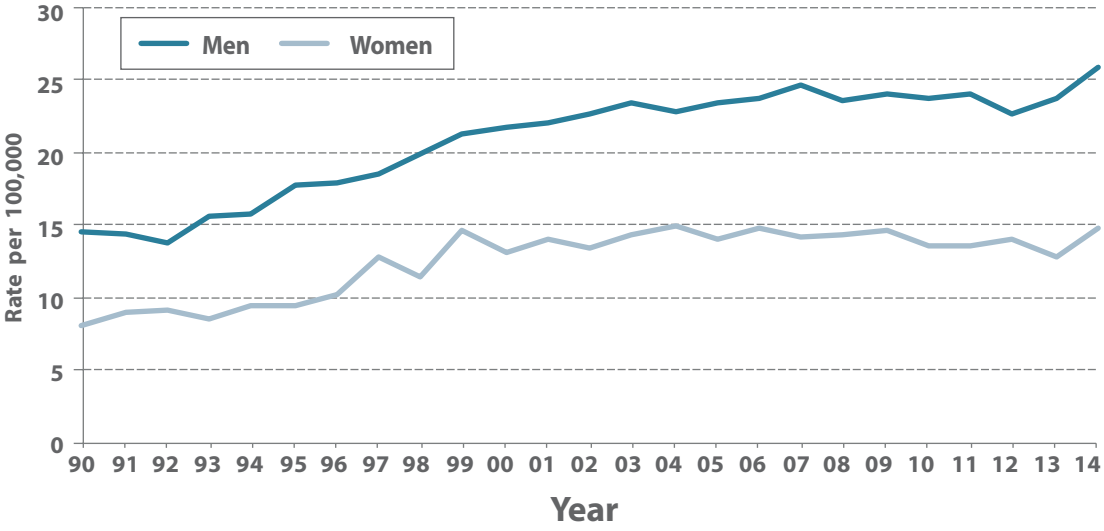


Figure 3.27: Incidence of renal replacement therapy in Israel, 1990-2014, by gender (Rates per 100,000)[1]



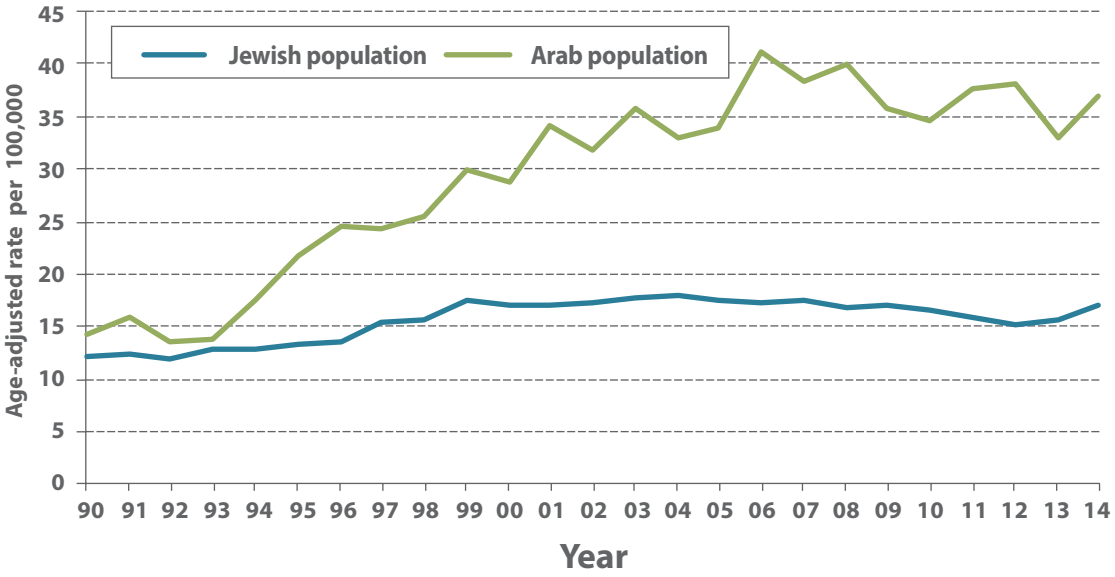
Incidence of RRT in Israel by gender

Incidence rates of RRT are considerably higher among men compared to women (1.67 times higher on average). Rates have increased during the years in both men and women. Among men, after a slight decrease in 2011-2012, incidence rates have increased again since 2012. Among women, a similar pattern of a decrease in incidence rates with a following increase, was observed a year later *(Figure 3.27)*.

Incidence of RRT in Israel by population group

Age-adjusted incidence rates of RRT in Israel are higher among the Arab population. In the early 1990's, rates were slightly higher, however the gap between the Jewish and the Arab populations has widened with time, and between 2001-2014, incidence rates of RRT in Israel were approximately twice as high in the Arab compared to the Jewish population *(Figure 3.28)*.

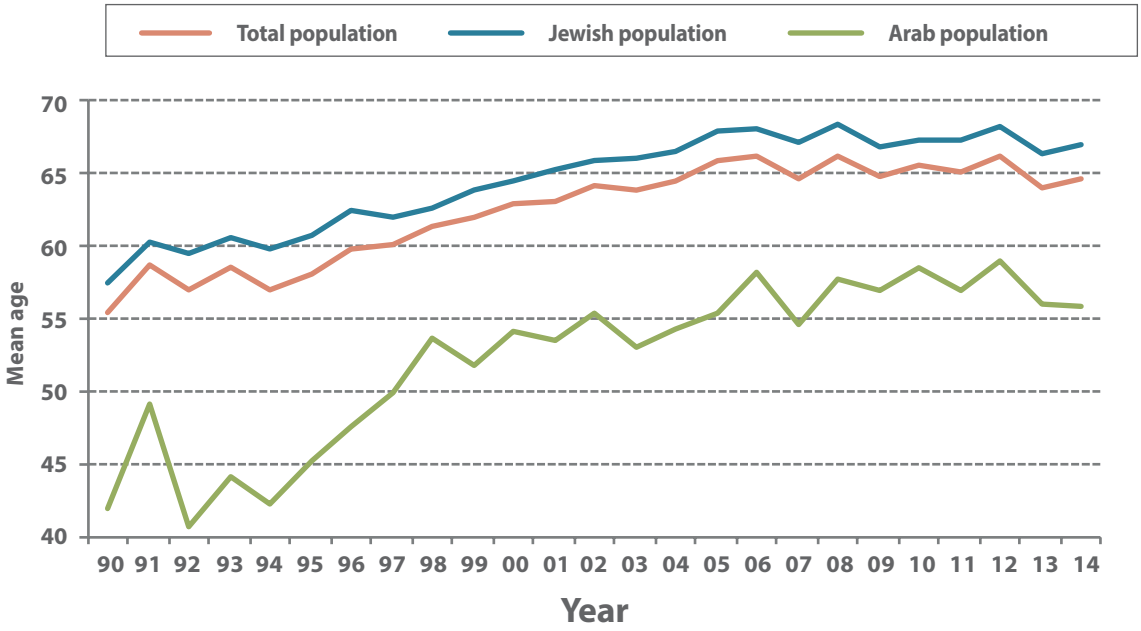
Figure 3.28: Incidence of renal replacement therapy in Israel, 1990-2014, by population group[1]



Incidence of RRT in Israel 2014 by age, gender and population group

In 2014, the mean age at the beginning of dialysis treatment was 64.6 (±17.4) years, and was similar in men and women – 65.1 years vs. 65.4 in men and women respectively. In the Arab population, the mean age at the beginning of treatment was markedly younger compared with the Jewish population – 55.9 years vs. 67.0 years, respectively.

Figure 3.29: Mean age at the beginning of RRT in Israel, 1990-2014, by population group



Age at first treatment by population group - Trends

The mean age at the beginning of RRT in Israel increased between 1990 and the early 21ST century, and remained relatively stable from 2005 onwards, in both the Jewish and the Arab populations.

In the early 1990's, Arab patients were younger at first dialysis treatment, compared with the Jewish population. The age gap between the two population groups has narrowed somewhat with time, but is still substantial *(Figure 3.29)*.

Kidney transplants

Between 2000-2015, 263 kidney transplants were performed on average in Israel each year. In 2015, 348 kidney transplants were performed. Kidney transplant was most common in young adults aged 20-44 (34.3% of all transplants). Overall, 44.7% of transplant recipients were under the age of 45, and 82.4% were under the age of 65.

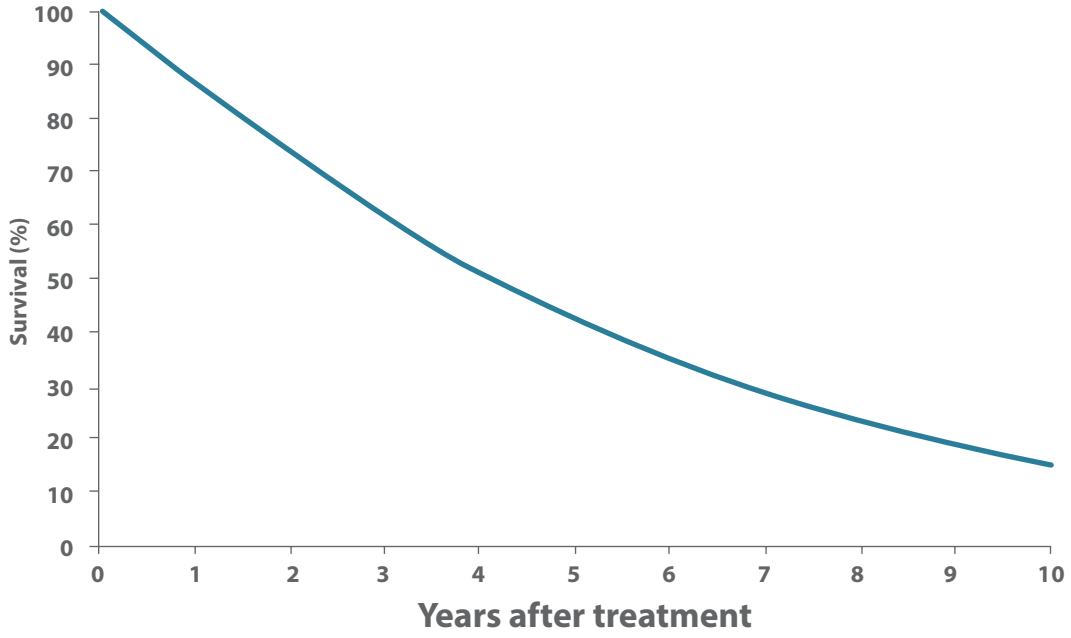
In 2015, 3,519 people in Israel were living with a functioning kidney transplant.



Survival

Between 1990-2014, a total of 18,315 patients started dialysis treatment in Israel. 86.6% survived the first year of dialysis treatment, 73.0% survived two years, 61.3% survived 3 years, and about half of all patients (50.8%) survived four years of treatment. The survival rate after ten years of dialysis treatment was 15% *(Figure 3.30)*[2].

Figure 3.30: Ten-year survival after dialysis treatment in Israel, 1990-2014[2]



References

1. Israel Center for Disease Control (ICDC). Data from the National Registry of Renal Replacement Therapy.
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Chapter 4:

Risk Factors for Chronic Diseases

4.1 Hypertension



General

Hypertension is one of the main risk factors for morbidity and mortality from cardiovascular diseases. Preventive measures include lifestyle factors such as healthy nutrition, exercise and not smoking.



FINDINGS FROM THE INHIS-3 NATIONAL HEALTH SURVEY 2014-2015

Hypertension in the population

In the INHIS-3 national health survey conducted by the Israel Center for Disease Control, 20.6% of the respondents (ages 21 and over) reported that they had been diagnosed with hypertension by a physician[1].



Gender and population group

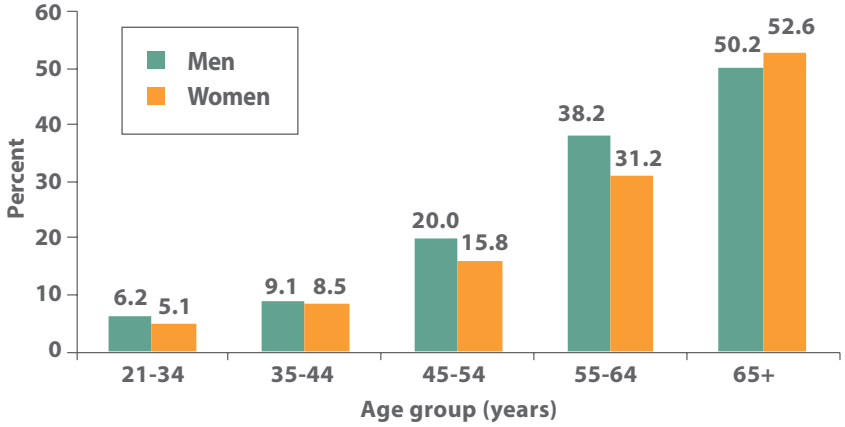
- 20.8% of men and 20.4% of women reported that they had been diagnosed with hypertension by a physician.
- In the Jewish population, 22.1% of men and 20.6% of women reported physician-diagnosed hypertension.
- In the Arab population, 15.0% of men and 19.3% of women reported physician-diagnosed hypertension.



Age and Gender

Among both men and women, the prevalence of hypertension increased steadily with age. Between the ages 55-64 and 65+, rates increased by 31% in men and by 69% in women. Rates of hypertension in people under age 65 were higher in men. Among those aged 65 and over, rates of hypertension were higher in women *(Figure 4.1)*.

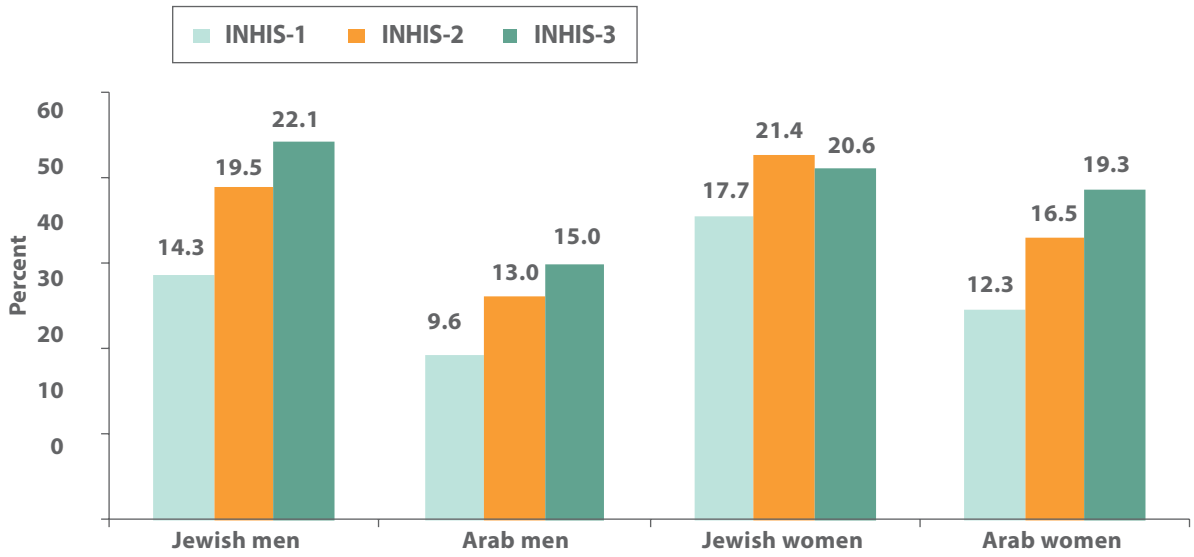
Figure 4.1: Physician-diagnosed hypertension in Israel, by age and gender, INHIS-3, 2014-2015[1]



Trends in Hypertension

The prevalence of hypertension in the population is on the rise. Rates of reported physician-diagnosed hypertension increased overall by 34% in the decade between the first INHIS survey of 2003-2004 and the recent 2014-2015 survey. In Jewish men, rates increased by 55%, in Jewish women by 16%, in Arab men by 56% and in Arab women by 57%. Jewish women were the only group demonstrating a small decline in the prevalence of hypertension between the second and third survey *(Figure 4.2)*.

Figure 4.2: Trends in physician-diagnosed hypertension in Israel, by gender and population group. INHIS-1 (2003-2004), INHIS-2 (2007-2010), INHIS-3 (2014-2015)[1]



References

1. Israel Center for Disease Control (ICDC). Israel National Health Interview Survey 2014-2015 (INHIS-3). Selected data, 2016 (Hebrew). doi:http://www.health.gov.il/PublicationsFiles/INHIS_3main_findings.pdf

Scan Me

4.2 High blood lipids

FINDINGS FROM THE INHIS-3 NATIONAL HEALTH SURVEY 2014-2015

High cholesterol and triglycerides in the population

In the INHIS-3 national health survey conducted in 2014-2015, 25.7% of respondents reported that they had been diagnosed by a physician as having high blood cholesterol, and 14.7% reported having been diagnosed with high blood triglycerides[1].



Gender and population group

- 26.3% of men and 25.2% of women reported that they had been diagnosed as having high blood cholesterol (hypercholesterolemia).
- 17.8% of men and 11.7% of women reported that they had been diagnosed as having high blood triglycerides.
- The prevalence of reported high blood cholesterol was higher in the Jewish population (27.4% in men and 26.2% in women) than in the Arab population (21.6% in men and 20.0% in women).
- The prevalence of reported high triglycerides in the Arab population was 19.1% in men and 14.0% in women: these rates are somewhat higher than the rates in the Jewish population (17.6% in men and 11.3% in women).

Age

- Rates of high blood cholesterol and triglycerides increased steadily with age.
- 43.6% of men and 52.1% of women aged 65 and over reported having high blood cholesterol. 26.3% of men and 22.7% of women aged 65 and over reported high blood triglycerides[1].

Figure 4.3: Physician-diagnosed high blood cholesterol in Israel, by age and gender, INHIS-3, 2014-2015[1]

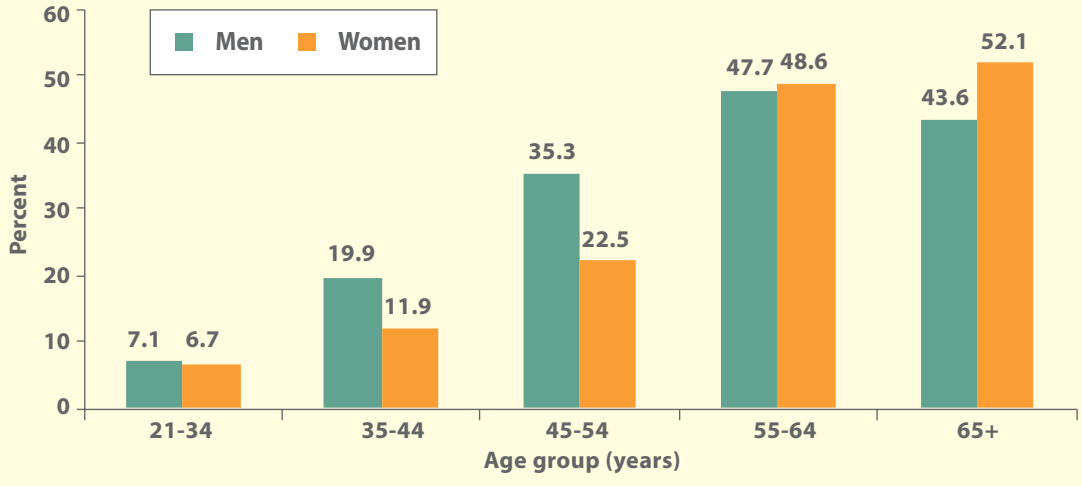
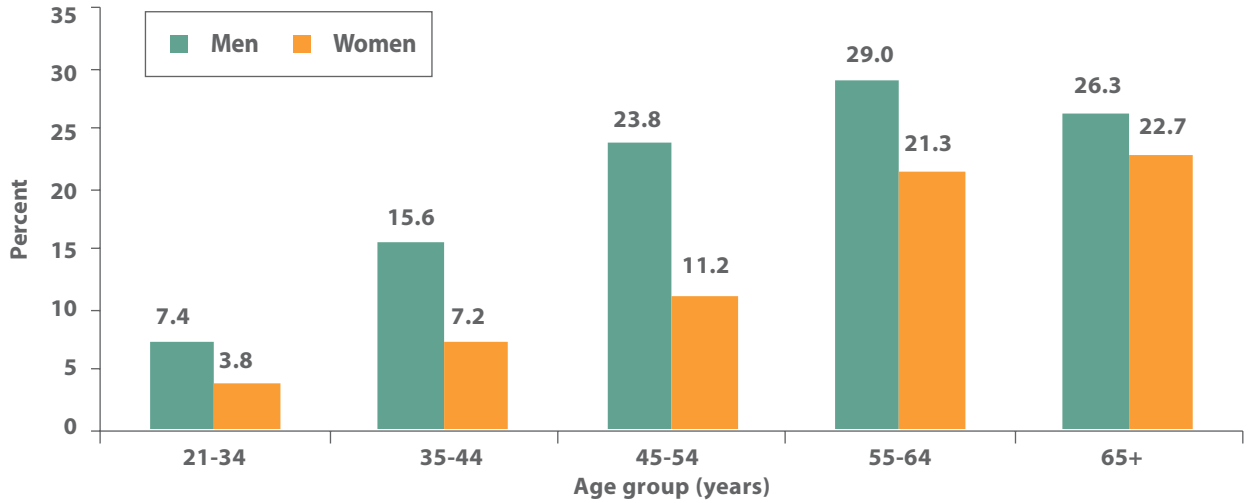


Figure 4.4: Physician-diagnosed high blood triglycerides in Israel, by age and gender, INHIS-3, 2014-2015[1]



TRENDS IN HIGH BLOOD LIPIDS

Rates of reported high blood cholesterol increased between the second INHIS survey of 2007-2010 and the INHIS-3 survey, by 28% in Jewish men, by 6% in Jewish women, by 38% in Arab men and by 49% in Arab women *(Figure 4.5)*.

Rates of reported high levels of blood triglycerides also increased between the two surveys, by 76% in Jewish men, by 22% in Jewish women, by 44% in Arab men and by 40% in Arab women *(Figure 4.6)*.



Figure 4.5: Trends in physician-diagnosed high blood cholesterol in Israel, by gender and population group, INHIS-2 and INHIS-3[1,2]

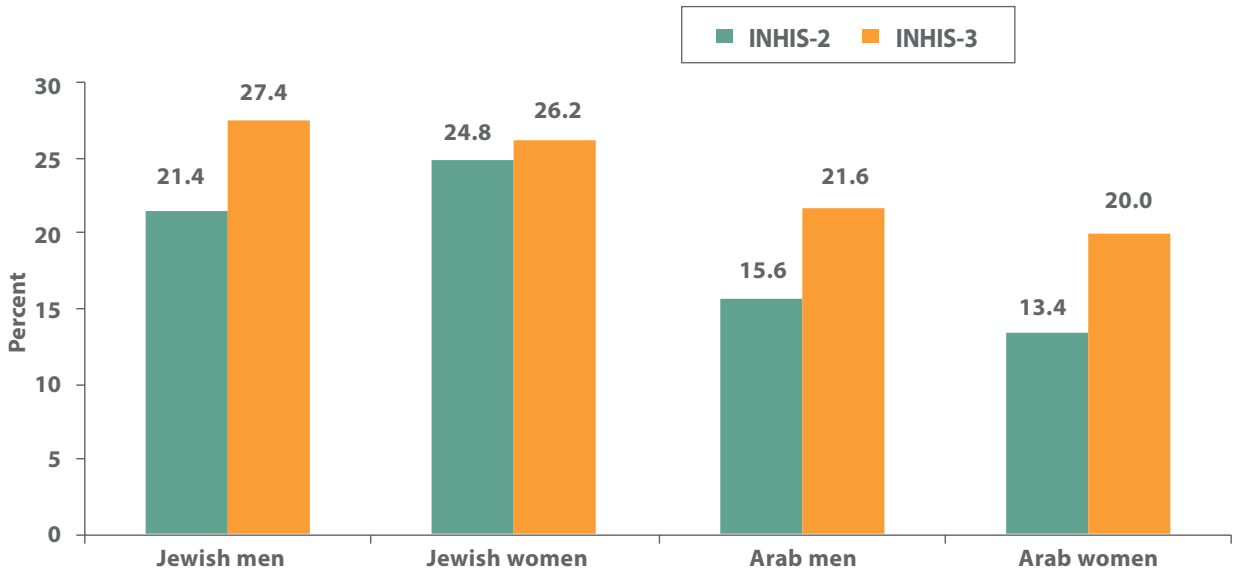
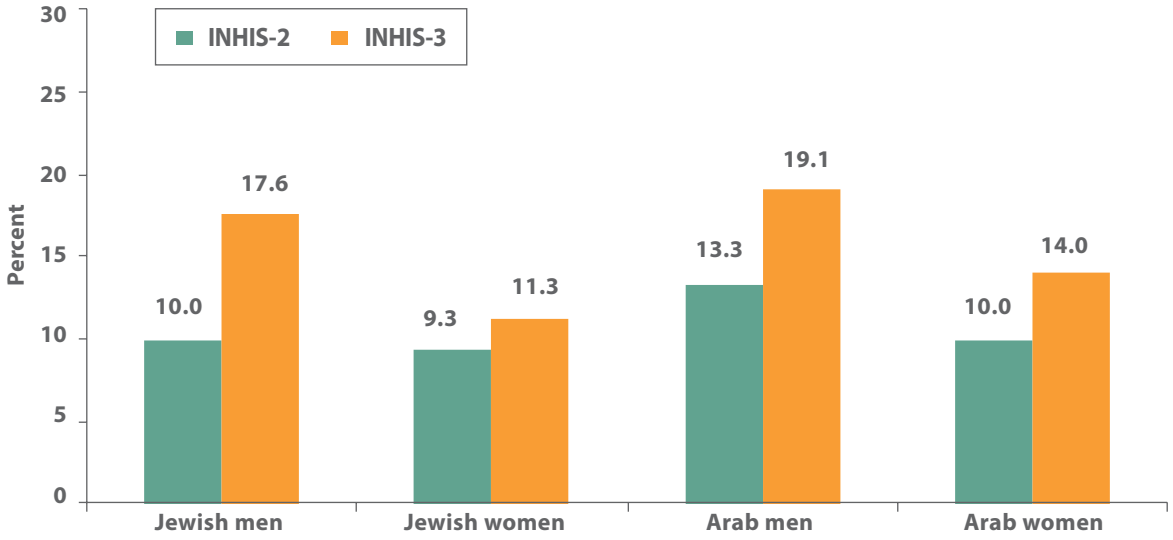


Figure 4.6: Trends in physician-diagnosed high levels of blood triglycerides in Israel, by gender and population group, INHIS-2 and INHIS-3[1,2]



References

1. Israel Center for Disease Control (ICDC). Israel National Health Interview Survey 2014-2015 (INHIS-3). Selected data, 2016 (Hebrew). doi:http://www.health.gov.il/PublicationsFiles/INHIS_3main_findings.pdf
2. Israel Center for Disease Control (ICDC). Israel National Health Interview Survey 2007-2010 (INHIS-2). Selected Findings. Publication 331, 2012.



4.3 Overweight and Obesity



General

Overweight and obesity are major risk factors for a number of chronic diseases, including diabetes, cardiovascular diseases and cancer.



Findings from the INHIS-3 National Health Survey 2014-2015

Overweight and obesity in the adult population

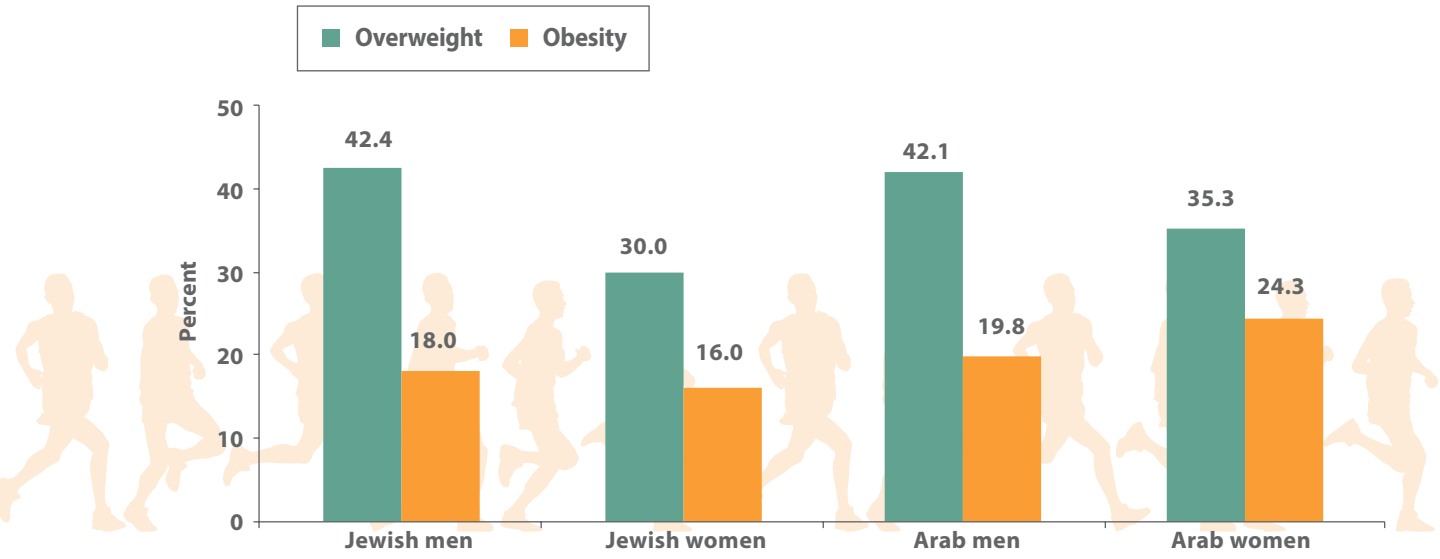
In the INHIS-3 national health survey conducted by the Israel Center for Disease Control (ICDC), 36.7% of the population were found to be overweight (25≤BMI<30), and 17.8% were found to be obese (BMI≥30) (based on self-reported weight and height)[1].

Overweight and obesity by gender and population group

Overweight: A higher proportion of men were found to be overweight than women, in both the Jewish and the Arab populations.
Obesity: Overall, obesity was found in 18.3% of men and 17.4% of women. Rates of obesity were higher in the Arab population (19.8% in men and 24.3% in women) than in the Jewish population (18.0% in men and 16.0% in women) *(Figure 4.7)*[1].



Figure 4.7: Overweight (25≤BMI<30) and obesity (BMI≥30) in the adult population in Israel, by gender and population group, INHIS-3, 2014-2015[1]



Overweight and obesity by age

Ages 21-34: Overweight and obesity were more prevalent among men than women; overweight was more prevalent in the Arab population; obesity rates were slightly higher in Arab women than Jewish women and in Jewish men than Arab men *(Figure 4.8a)*.

Ages 35-49: Overweight was prevalent particularly in men (close to 50% among Arab men and 46% in Jewish men). Rates of obesity were more than twice as high in Arab women (27.9%) as in Jewish women (12.8%) *(Figure 4.8b)*.

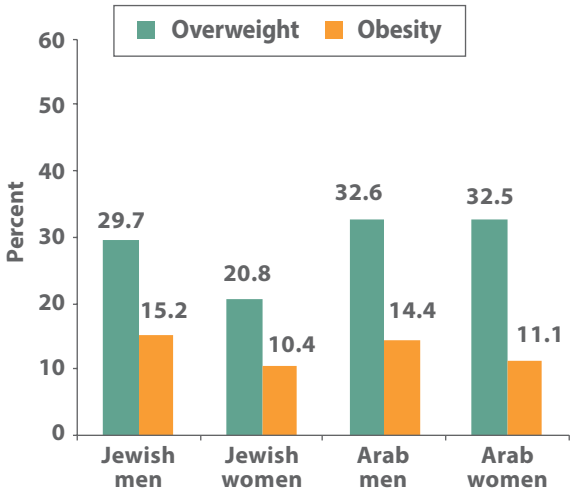
Ages 50-64: Close to half of men aged 50-64 were classified as overweight (49.2% of Jewish men and 47.3% of Arab men). In Arab women, the rate of overweight was close to 40%. Obesity was found in approximately 20% of Jewish men and women; and rates were higher in the Arab population, reaching 40% in Arab women *(Figure 4.8c)*.

Ages 65 and over: Rates of overweight approached 50% in both Jewish and Arab men. Rates of obesity were higher in women than men, reaching 48.3% among Arab women *(Figure 4.8d)*.

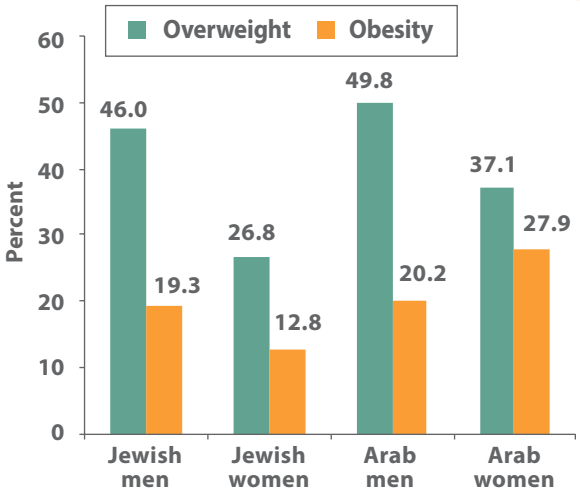


Figure 4.8: Overweight (25≤BMI<30) and obesity (BMI≥30) in the adult population in Israel, by age, gender and population group, INHIS-3, 2014-2015[1]

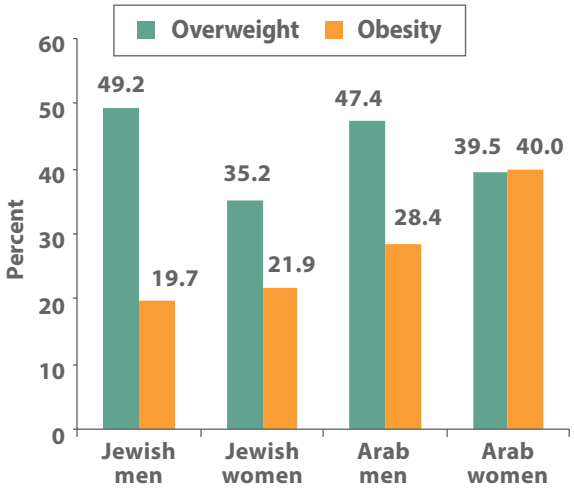
4.8a 21-34 years



4.8b 35-49 years



4.8c 50-64 years



4.8d 65 years and over

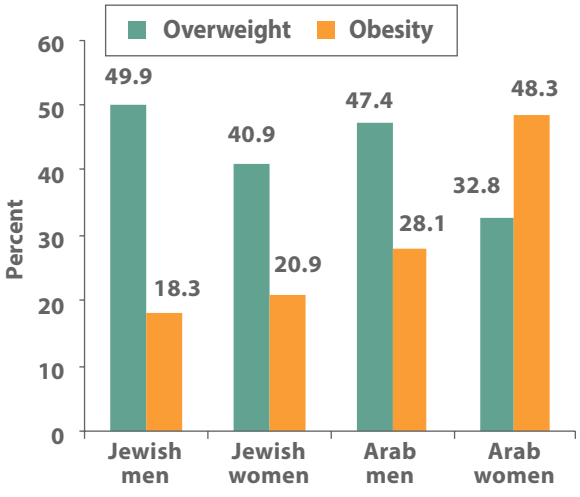
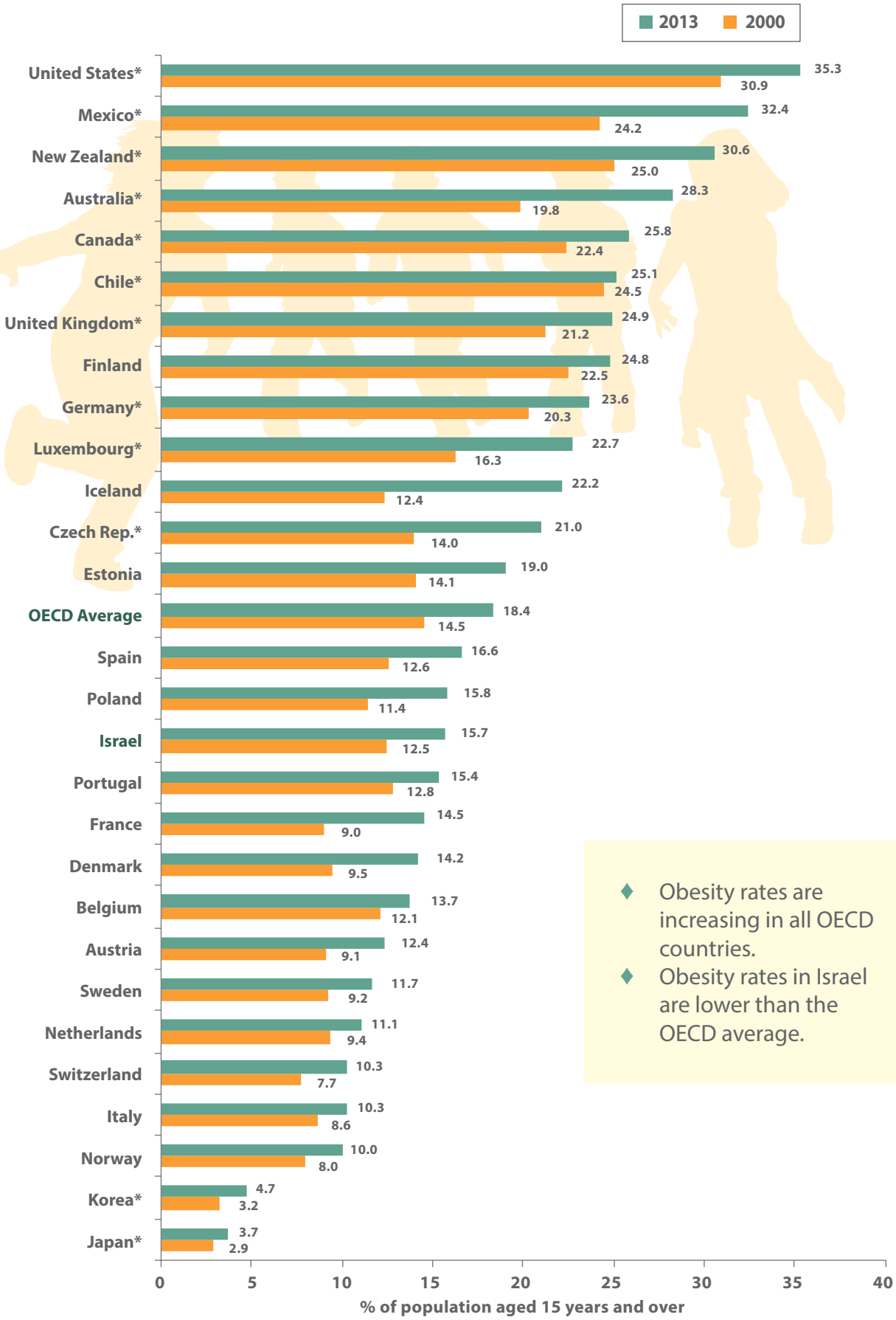


Figure 4.9: Obesity among ages 15 years and over in OECD countries, 2000 and 2013 (or nearest year)[2]

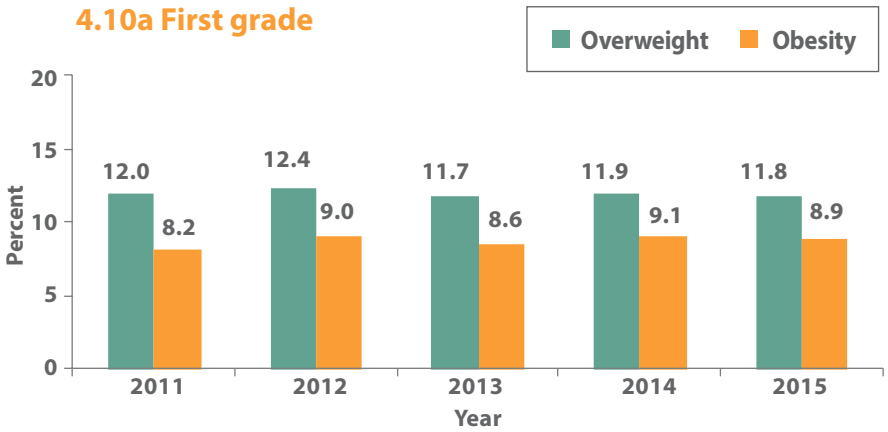


- Obesity rates are increasing in all OECD countries.
- Obesity rates in Israel are lower than the OECD average.

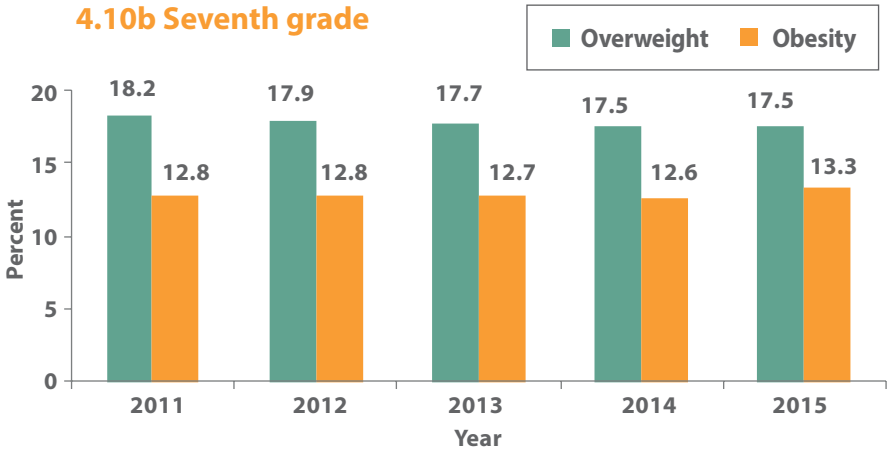
*Data are based on measurements rather than self-reported height and weight.

Figure 4.10: Overweight (85%≤BMI <97%) and obesity (BMI≥ 97%) among first and seventh grade children in Israel, 2011-2015[3]

4.10a First grade



4.10b Seventh grade



Overweight and obesity in children (2)

In Arab* children (data not shown), rates of overweight and obesity were higher than the national average in both first and seventh grade children. The difference was most prominent in the seventh grade, with overweight rate of 19.8% in Arab children, compared with the 17.5% national average, and obesity rate of 18.6% in Arab children, compared with the 13.3% national average[3].

*Not including the Arab Bedouin of the Negev.



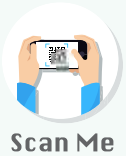
Overweight and obesity in children (1)

According to data collected by the school health services of the Ministry of Health, approximately 12% of children in first grade and approximately 18% in 7th grade are overweight. Approximately 9% of first graders and 13% of 7th graders are classified as obese.
In first-grade children, rates of overweight and obesity have remained relatively stable during the last 5 years. In 7th grade children, a slight increase in obesity rates was apparent in 2015 *(Figure 4.10)*[3].



References

1. Israel Center for Disease Control (ICDC). Israel National Health Interview Survey 2014-2015 (INHIS-3). Selected data, 2016 (Hebrew).
   doi: http://www.health.gov.il/PublicationsFiles/INHIS_3main_findings.pdf
2. OECD Health Statistics 2015, http://dx.doi.org/10.1787/health-data-en
3. Data courtesy of Department of Maternal, Child and Adolescent Health, Israel Ministry of Health.



1 2



Chapter 5:

Behaviors and Lifestyle

5.1 Smoking

Smoking in the adult population in Israel

In the INHIS-3 National Health Survey that was conducted by the ICDC in 2014-2015, the prevalence of smoking among adults in Israel (aged 21 and over) was 19.7%: 26.0% in men and 13.6% in women. Smoking rates were 22.1% in Jewish men, 15.0% in Jewish women, 43.9% in Arab men and 6.7% in Arab women[1]. These rates are lower than those found in the INHIS-2 survey conducted in 2007-2010, among all population groups excluding Arab women *(Figure 5.1)*[2].

Smoking rates by age and population group

In Jewish men, the highest smoking rates were among ages 21-34 (29.0%). Subsequently, rates decreased with age.

In Arab men, the highest rate was in the 35-44 age group (47.2%). Rates were high (over 40%) in all age groups, with a decline observed only in men aged 65 and over (32.2%).

From age 35, rates of smoking were more than twice as high in Arab men than in Jewish men.
In both Jewish and Arab women, rates were highest in the 55-64 age group. Rates of smoking were considerably higher in Jewish women than in Arab women, in all age groups, but the gap narrowed at ages 65+ *(Figure 5.2)*[1].

Trends

In the past 35 years, a declining trend has been observed in smoking rates in the Jewish population, among both men and women.

In the Arab population rates have not declined significantly in men. In women, rates have been relatively stable during the past decades *(Figure 5.3)*[3].

Figure 5.1: Smoking prevalence among adults in Israel by gender and population group. INHIS-3 (2014-2015) and INHIS-2 (2007-2010) [1,2]

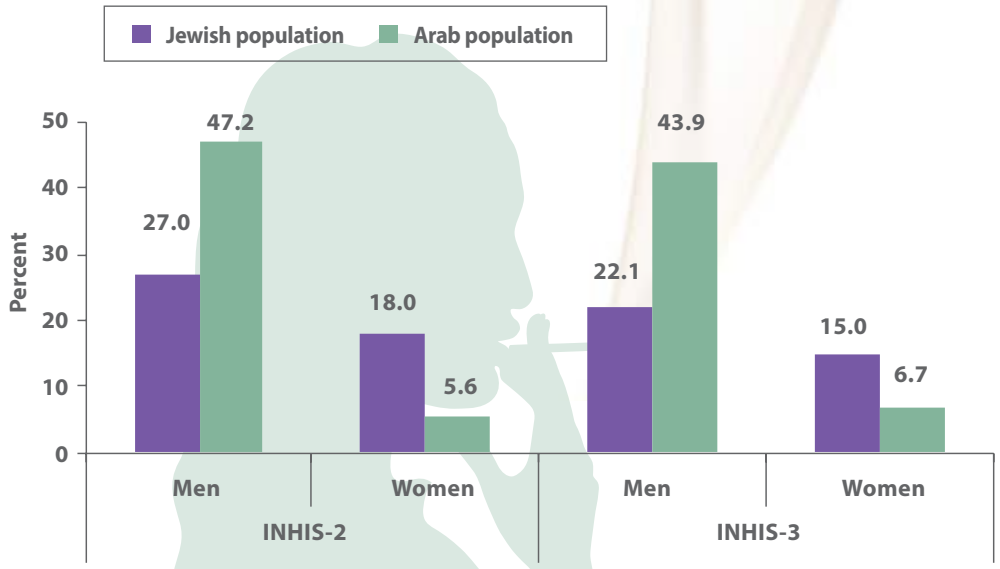


Figure 5.2: Smoking rates among adults in Israel by age group. INHIS-3, 2014-2015[1]

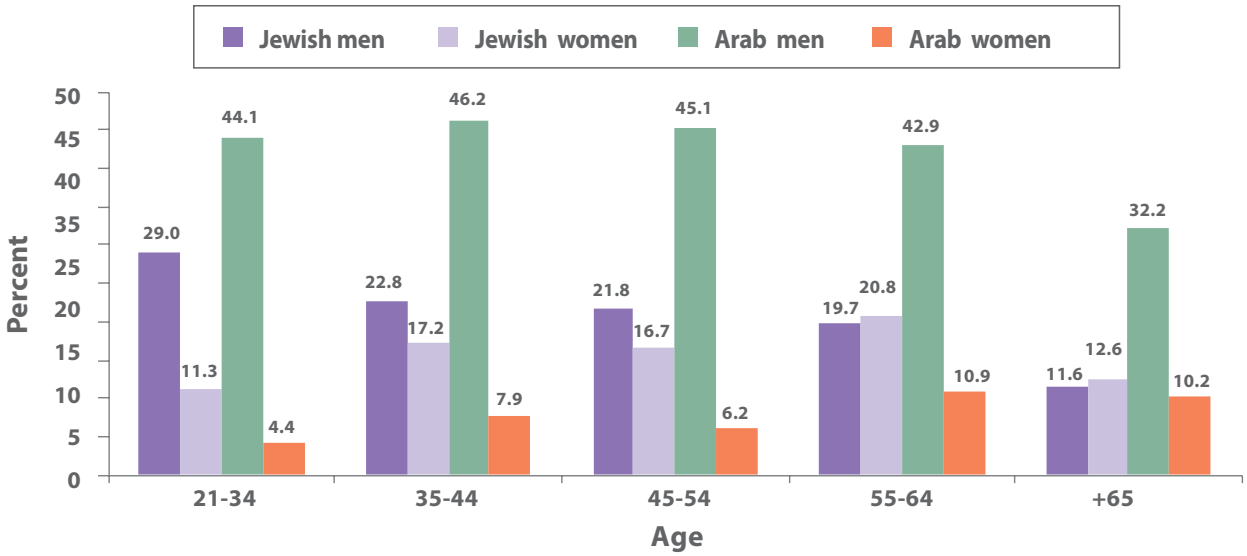
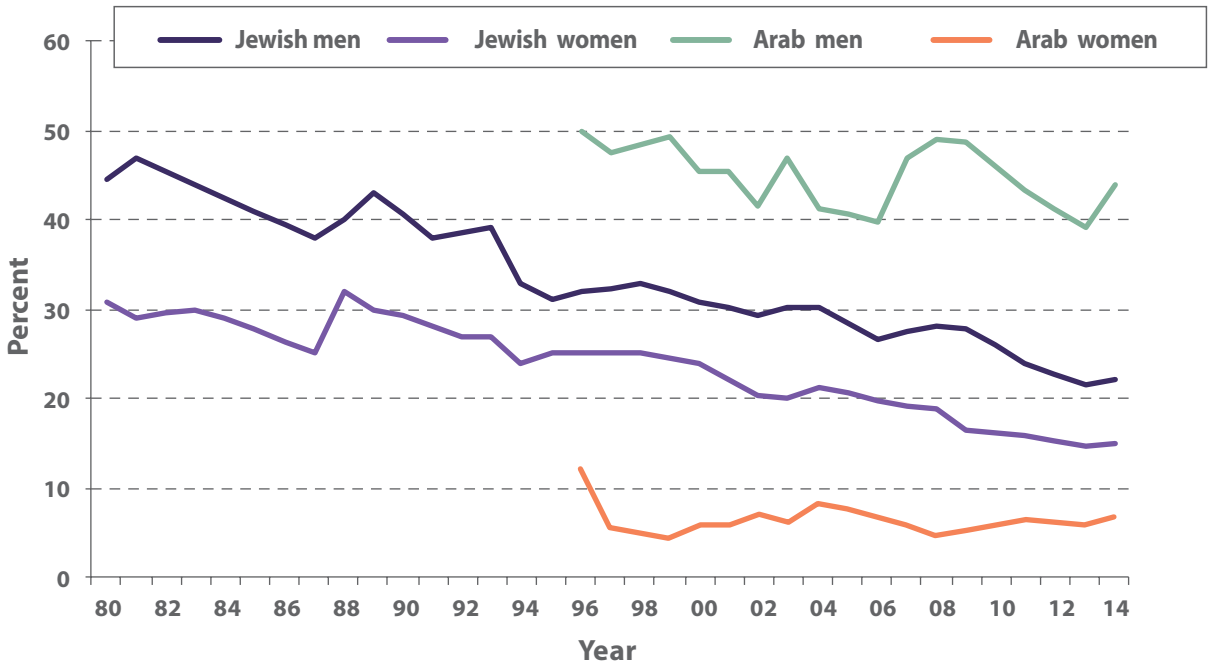


Figure 5.3: Smoking trends among adults in Israel by population group and gender[3]



** Data on smoking in the Arab population are available from 1996 on.*

Number of cigarettes consumed

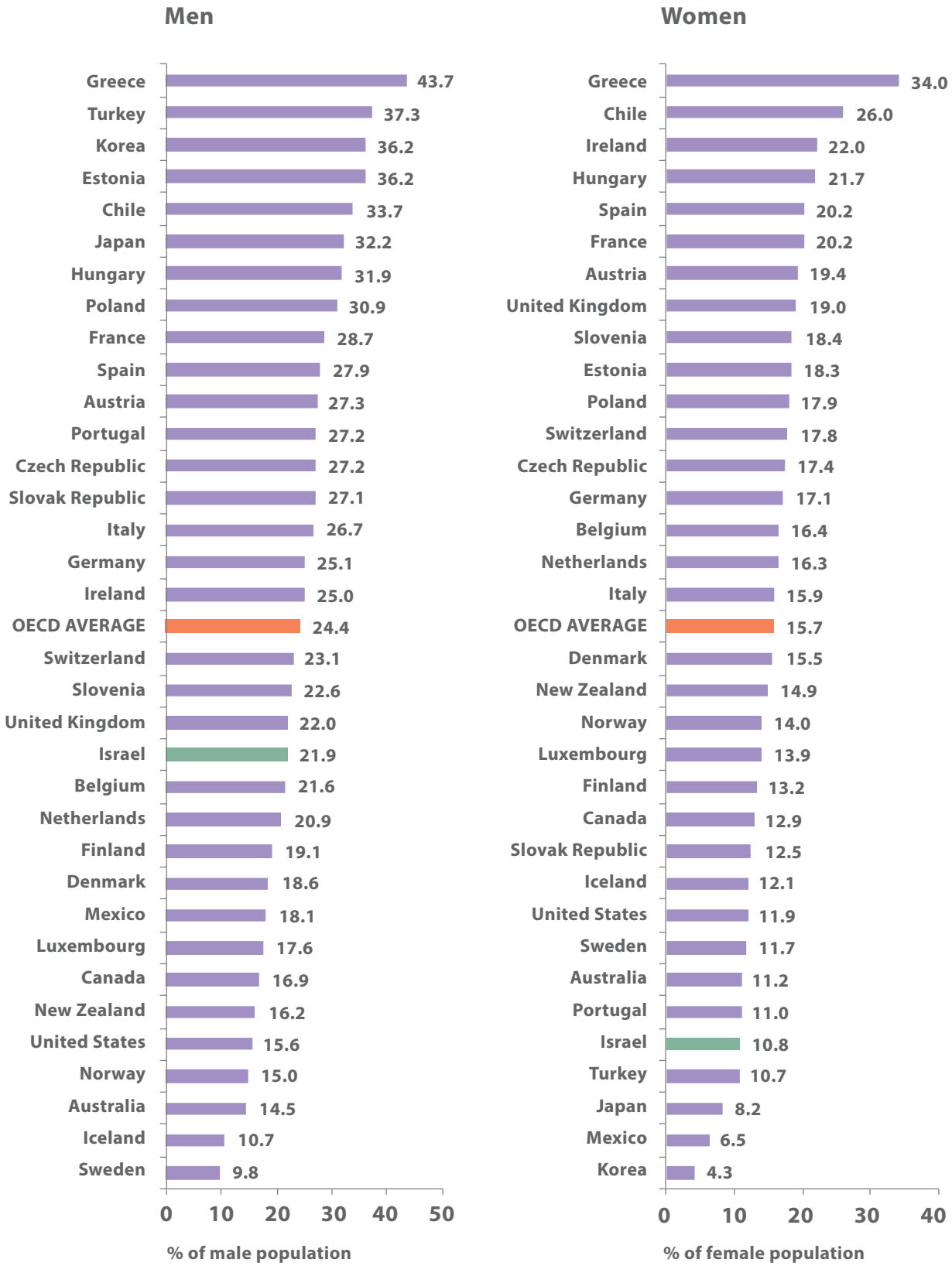
According to the findings of the INHIS-3 national health survey, the average daily consumption of cigarettes among smokers was 16.4 for men and 11.5 for women. Arab men smokers consumed more cigarettes (18.2 per day, on average) than Jewish men (14.8 per day)[1].



INTERNATIONAL COMPARISON

Daily smoking rates in Israel are lower than the OECD average – by approximately 10% in men and by 31% in women *(Figure 5.4)*[4].

Figure 5.4: Daily smoking in Israel and other OECD countries, among adults aged 15 years and over by gender, 2013 or nearest year available[4]



Exposure to environmental tobacco smoke (ETS)



The INHIS-3 survey of 2014-2015 reported that almost 37% of non-smokers are exposed to ETS at least twice a week (at home, in the workplace, in public and in other places), and **18.4% of non-smokers reported daily exposure to ETS[1].**

Exposure to ETS by place of exposure and gender

Despite the laws that prohibit smoking in the workplace, 17.5% of non-smoking men reported exposure to ETS at work at least once a week, and 10.2% reported daily work-place exposure.
Almost 15% of non-smoking women reported exposure to ETS at home on a daily basis.

Exposure to ETS by population group

Rates of exposure to ETS were more than twice as high in the Arab population as in the Jewish population. Over 50% of non-smokers in the Arab population are exposed to ETS once or twice a week, and approximately one third are exposed every day *(Figure 5.5)*.

Daily exposure to ETS at work and at home by gender and population group



Daily exposure to ETS at work was highest among Arab men (18.7%), and daily exposure at home was highest in Arab women (30.9%). Among Jewish men, the prevalence of daily exposure to ETS at work was 7.6%, and among Jewish women, the prevalence of daily exposure to ETS at home was 6.2% *(Figure 5.6)*.

Figure 5.5: Exposure to environmental tobacco smoke among non-smoking adults in Israel by gender and population group. INHIS-3, 2014-2015[1]

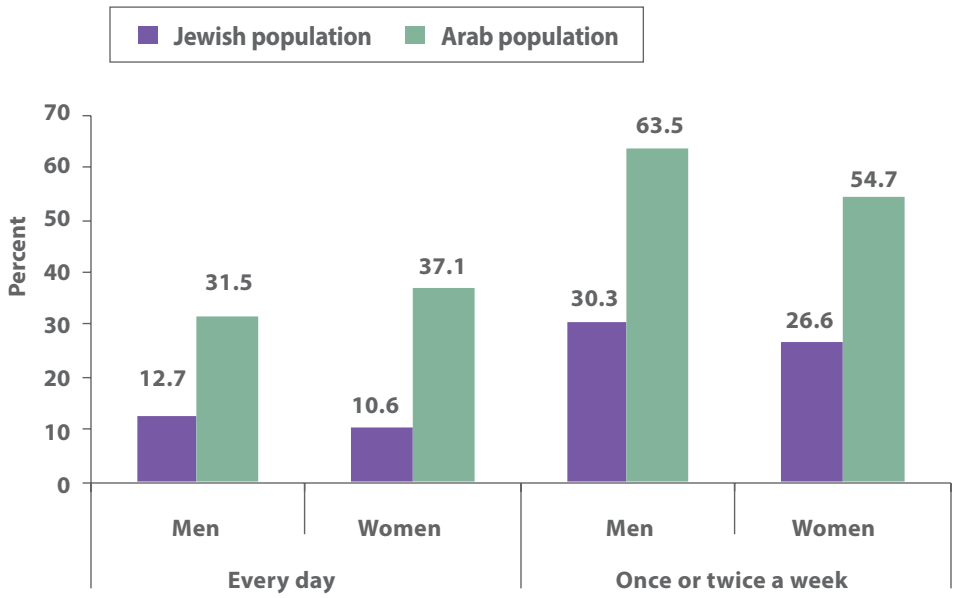
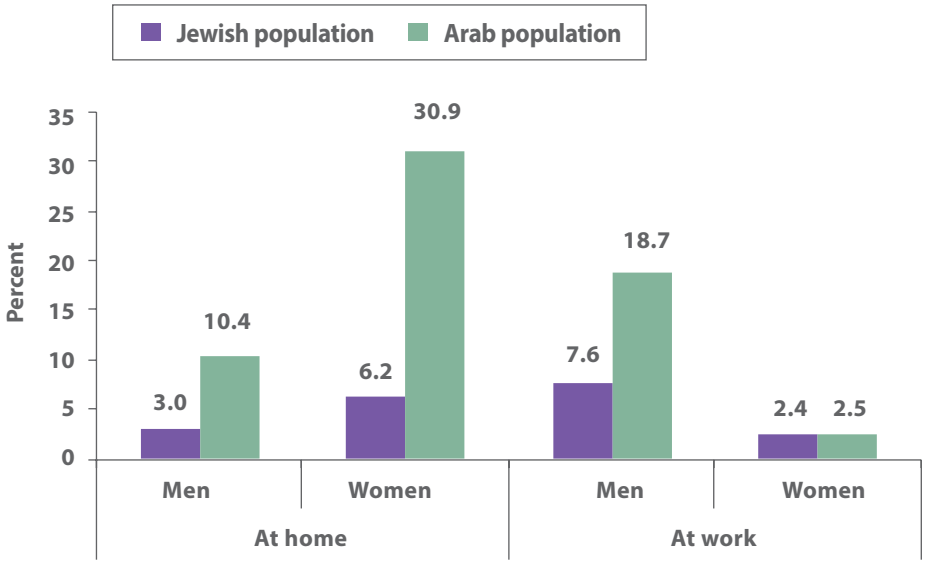


Figure 5.6: Daily exposure to environmental tobacco smoke among non-smoking adults in Israel by gender, population group and place of exposure. INHIS-3, 2014-2015[1]



Smoking in young adults



In Israel, there is compulsory, post-high school military service of 3 years for men and 2 years for women. Among military inductees aged 18, rates of smoking in 2012 were 30.6% in men and 23.3% in women *(Figure 5.7)*[3].

Among soldiers discharged from their compulsory military service, rates of smoking were stable between the years 2000-2009, around 41% in men and 37% in women. From 2010 onwards the rates declined, and in 2012 the prevalence of smoking was 29.3% and 25.9% among male and female veterans, respectively *(Figure 5.8)*[3].

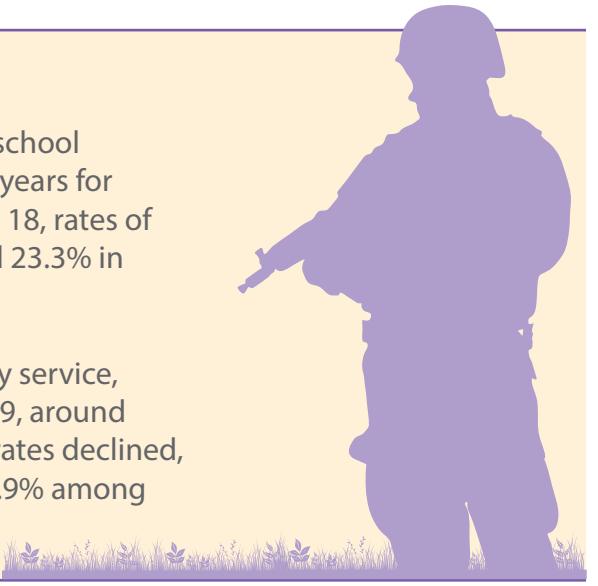
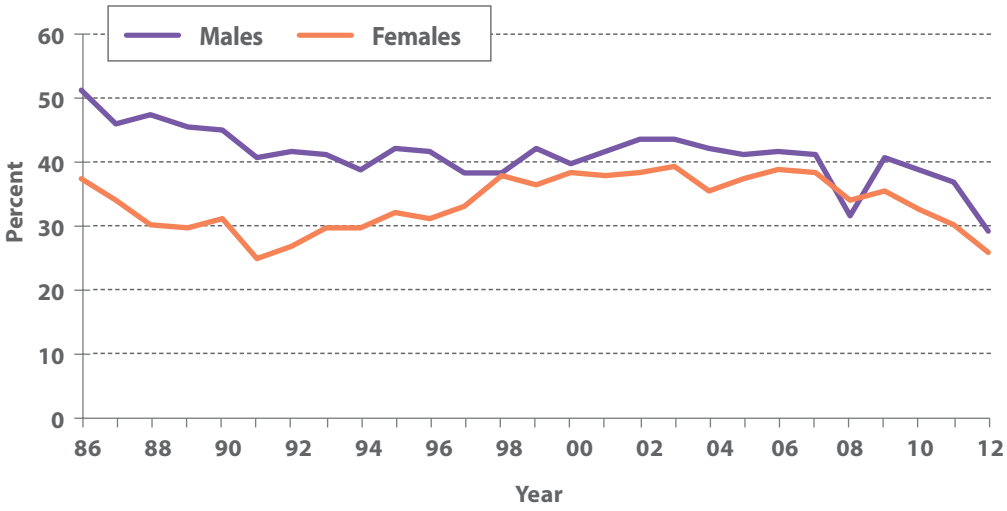


Figure 5.7: Smoking rates among military inductees aged 18, Israel 2012[3]



Figure 5.8: Smoking rates among soldiers discharged from compulsory military service, Israel 2012[3]



Smoking among adolescents in Israel





The most recent national data on smoking in adolescents are from the **Health Behaviors in School-Aged Children (HBSC)** survey conducted in 2014 on a national sample of 6th, 8th and 10th grade students[5].

Smoking cigarettes or other tobacco products at least once weekly was reported by 12.1% of male students and 4.1% of female students, while daily smoking was reported by 7.6% of male students and 2.8% of female students.

The highest rates of smoking were consistently found among Arab males.

Among Jewish students, smoking rates were relatively low in grade 6 and increased steadily with age. Among Arab male students, smoking rates were relatively high at all ages (and highest in grade 10 students). In Arab female students, smoking rates increased with age and rates were highest in 10th graders *(Figure 5.9)*.

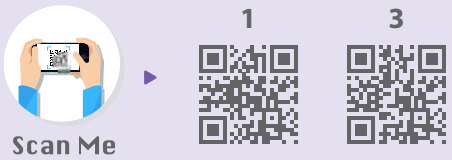
In the 8 years elapsing between the 2006 HBSC survey and the 2014 survey, rates of smoking at least once weekly increased by approximately 12% in Jewish males and 77% in Arab males. Among Jewish females, rates decreased by approximately 30% and in Arab females, rates of weekly smoking have more than doubled.

Figure 5.9: Smoking (at least once a week) in Israel among youth (6th, 8th and 10th grade) by gender and population group, HBSC survey, 2014[5]



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4. OECD (2017). Daily smokers (indicator). doi: 10.1787/1ff488c2-en
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5.2 Physical Activity

"Healthy Israel 2020"

The Healthy Israel 2020 initiative was created by the Ministry of Health to define Israeli policy in the areas of disease prevention and health promotion[1].

In 2010, the subcommittee for physical activity published its recommendations (based on recommendations of international bodies).

The recommendation for children and youth is to engage in moderate or vigorous-intensity physical activity lasting at least 60 minutes, on all days of the week.

The recommendation for adults is 150 minutes weekly of moderate-intensity aerobic physical activity, or 75 minutes of vigorous-intensity aerobic physical activity, or a combination of the two. In addition, muscle strengthening activity is required at least twice a week.

Physical activity among adults according to WHO recommendations INHIS-3 National Health Survey 2014-2015



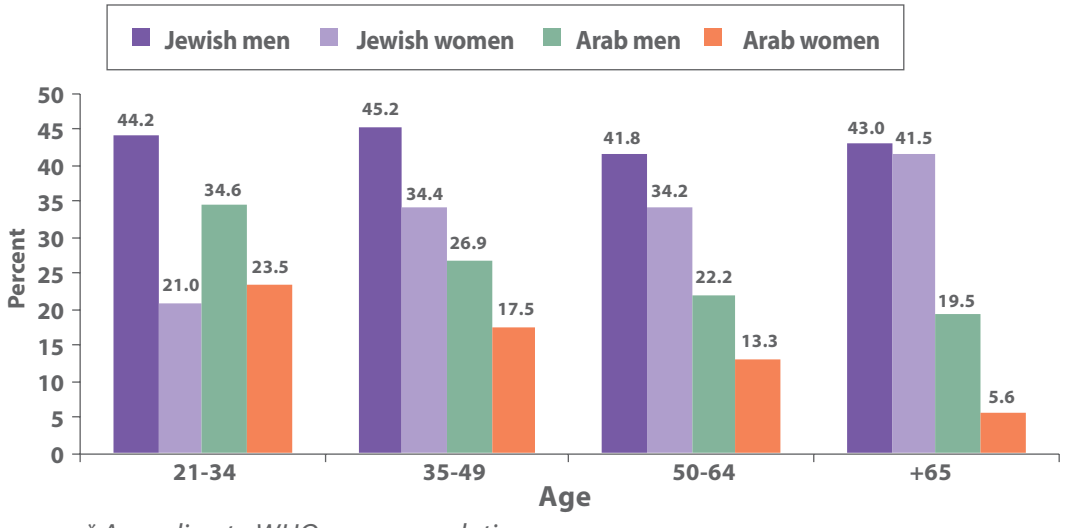
In the INHIS-3 national health survey, 35.2% of respondents aged 21 and above reported engaging in regular physical activity according to the WHO recommendations. The rates were 41.0% in men and 29.6% in women.

Physical activity in accordance with the recommendations was reported by 43.7% of Jewish men, 31.9% of Jewish women, 28.7% of Arab men and 18.1% of Arab women.

In the Jewish population, physical activity rates in men were similar across all age groups, with the highest rate (45.2%) seen in those aged 35-49 years. In women, rates increased with age and reached 41.5% in those aged 65 years and above, compared with 21.0% in ages 21-34.

In the Arab population, rates of physical activity decreased with age in both men and women; from 34.6% to 19.5% in men and from 23.5% to 5.6% in women *(Figure 5.10)*[1].

Figure 5.10: Regular physical activity* in Israel, by age, gender and population group. INHIS-3, 2014-2015[1]



** According to WHO recommendations*

Physical activity among youth



In the Health Behaviors in School-aged Children (HBSC) Survey conducted in 2014 on a national sample of students in 6th, 8th and 10th grades, 24.0% of students reported engaging in physical activity at least 4 times per week, with a cumulative weekly total of at least two hours of activity[6].



The rate of physical activity (as defined above) was approximately twice as high in boys (32.2%) as in girls (15.7%).

Reported rates of physical activity were 37.2% in Jewish boys, 18.7% in Jewish girls, 21.5% in Arab boys and 10.7% in Arab girls.

Trends in physical activity among youth



- Between 2006-2014, rates of physical activity decreased in both Jewish and Arab youth.
- Among Jewish students, rates of physical activity decreased from 42.8% to 37.2% in boys, and from 20.7% to 18.7% in girls.
- Among Arab students, rates of physical activity decreased from 28.4% to 21.5% in boys, and from 13.9% to 10.7% in girls.

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2. Israel Center for Disease Control (ICDC). Israel National Health Interview Survey, 2014-2015 (INHIS-3). Selected data, 2016 *(Hebrew)*. doi:http://www.health.gov.il/PublicationsFiles/INHIS_3main_findings.pdf
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1 2

5.3 Alcohol consumption

Alcohol consumption among adults

Findings from the KAP (Knowledge, Attitudes and Behavior) 2013 Survey

Alcohol consumption

In the KAP national survey conducted in 2013, 51.4% of adults aged 21 years and over reported drinking alcohol during the past month. Rates of drinking during the past month were 1.5 times higher in men than in women (62.9% and 40.5% respectively), and 4.4 times higher in the Jewish population, compared with the Arab population (59.1% and 13.4% respectively)[1].





Binge drinking

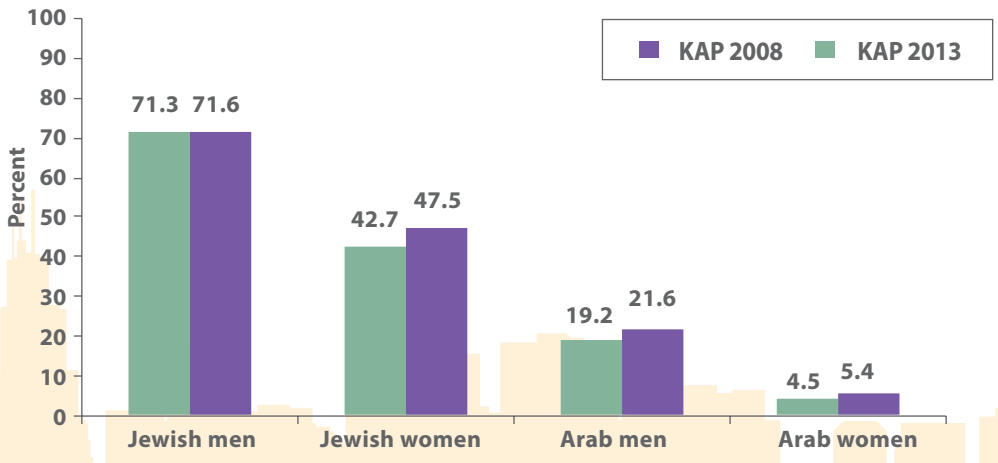
"Binge drinking" is defined as consumption of 5 or more drinks for men and 4 or more drinks for women, within a few hours.

In the KAP 2013 survey, 3.3% of adults reported binge drinking at least once in the past month. Rates of binge drinking were higher in men (5.9% in both Jewish and Arab men) than in women (1.0% in Jewish women and 0.2% in Arab women)[1].

Trends in consumption of alcohol among adults - KAP 2013 and KAP 2008

Reported rates of alcohol consumption were slightly higher in the KAP survey of 2013, as compared to KAP 2008[2]. The increase was most prominent in Jewish women and to a lesser extent in Arab men and women. In Jewish men rates were very similar in 2008 and 2013 *(Figure 5.11)*.

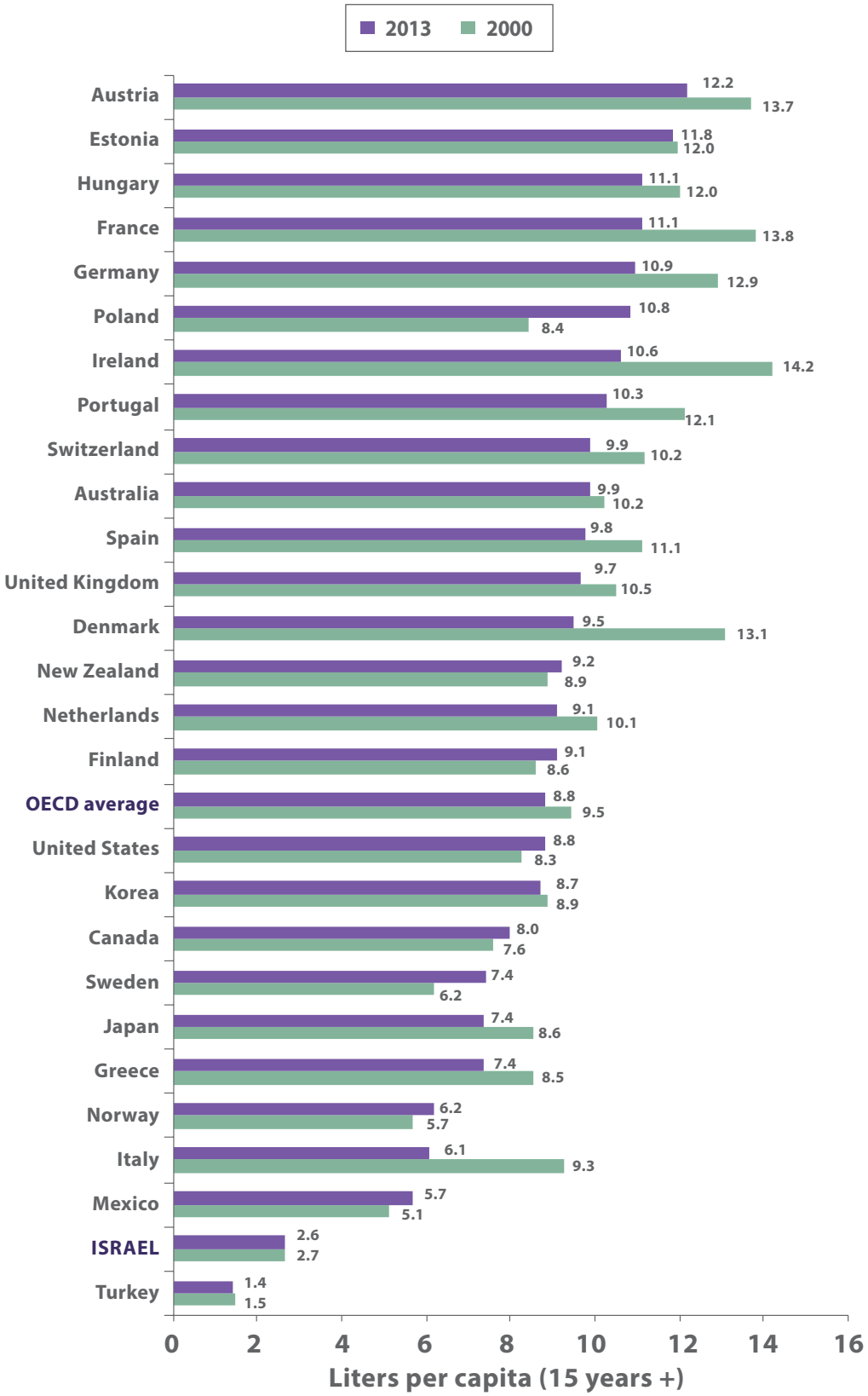
Figure 5.11: Alcohol consumption in the last month, KAP 2008[2] and KAP 2013[1] (%)



Trends in consumption of alcohol among adults in the OECD countries

Alcohol consumption in Israel is considerably lower than in all other OECD countries, except Turkey. Most OECD countries show a decrease in alcohol consumption between 2000 and 2013 *(Figure 5.12)*[3].

Figure 5.12: Alcohol consumption among adults in OECD countries, 2000 and 2013 (or nearest year) (liters per capita)[3]



Use of drugs and alcohol in youth

Findings of Health Behaviors in School-aged Children (HBSC) Survey[4]

Alcohol consumption



In the HBSC survey conducted in 2014 on a national sample of students in 6th, 8th, 10th, 11th and 12th grades, 28% of students reported consuming at least one alcoholic drink per month.



The rate of alcohol consumption was almost twice as high in boys (36.5%) as in girls (18.9%). Reported rates of alcohol consumption (at least once per month) were 38.2% in Jewish boys, 21.6% in Jewish girls, 31.0% in Arab boys and 9.8% in Arab girls.



The rates of alcohol consumption in youth increased with age. 12.4% of 6th grade students, 15.8% of 8th grade students, 30.7% of 10th grade students and 38.9% of 11th-12th grade students reported drinking alcohol at least once per month *(Figure 5.13)*.

Figure 5.13: Drinking alcohol at least once per month among youth, by grade, HBSC survey 2014[4]

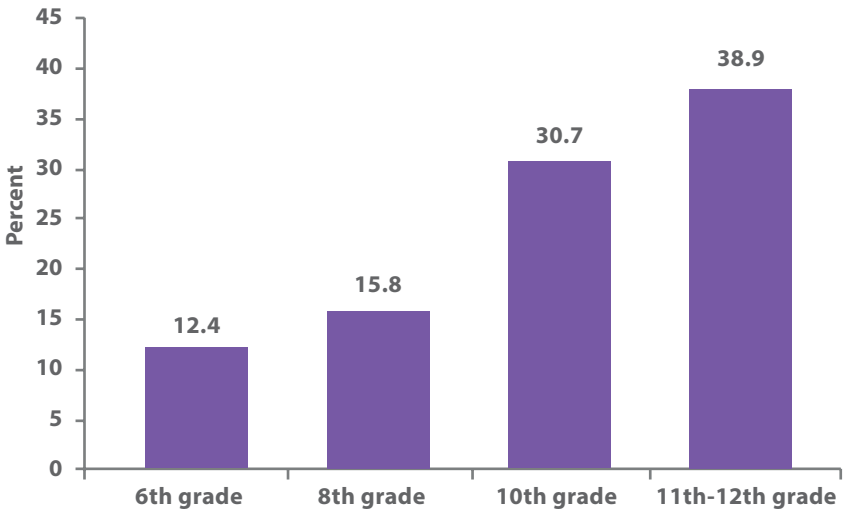
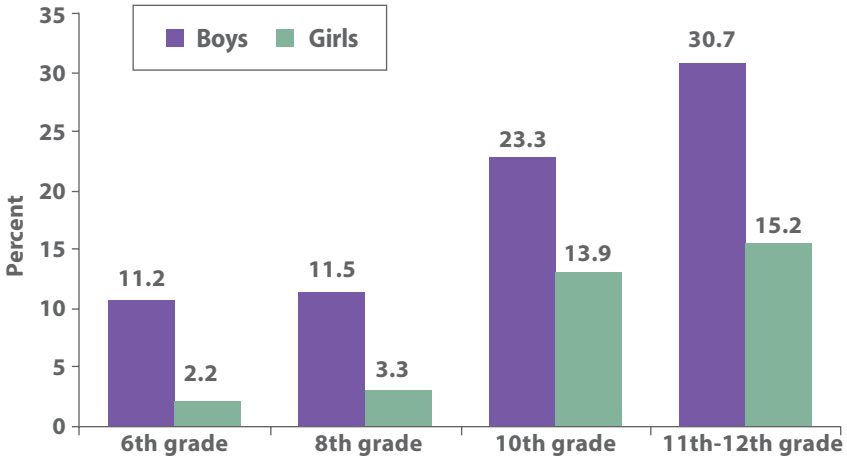






Figure 5.14: Youth consuming 5 alcoholic drinks or more within a few hours ("binge drinking"), at least once during the past month, by grade and gender. HBSC survey, 2014[4]



Drunkenness and binge drinking

18% of the students reported ever having been drunk (25% of boys and 12% of girls).

17% of the students reported having consumed five drinks or more within a few hours, at least once during the past month (23% of boys and 11% of girls). Rates increased with age, reaching 23% in 11th-12th grade students (30.7% in boys and 15.2% in girls) *(Figure 5.14)*[4].

Use of drugs

10.2% of 10th-12th grade students reported ever using hashish or marijuana (15.4% of boys and 5.2% of girls).

Trends in use of drugs and alcohol

(HBSC surveys: 6th grade, 8th grade and 10th grade students)

- Between 1998-2014, reported rates of alcohol consumption at least once per month declined in both genders (from 38.0% to 27.9% in boys, and from 18.6% to 12.5% in girls).
- Reported consumption of five drinks or more within a few hours, at least once during the past month, decreased slightly in boys (from 16.8% in 1998 to 16.1% in 2014), but increased in girls (from 5.4% in 1998 to 7.0% in 2014)
- Reported experiencing of drunkenness decreased between 1998-2014, in both genders.
- Reported ever using hashish or marijuana decreased between 1998-2014, in boys (from 12.5% to 8.4%), but not in girls.

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4. Harel-Fisch Y et al. Health Behaviors in School-Aged Children (HBSC) A World Health Organization Cross-National Study. Use of addictive Substances and Attitudes to Substance Use. Summary of Findings of 7th Survey, 2014. School of Education, Bar Ilan University, 2016 *(Hebrew)*.



1 2 3



Chapter 6:

External Injuries

6.1 Injuries

Background

In 2013, external injuries were the sixth leading cause of death in the general population: the third among men and the seventh among women. External injuries are the principal cause of death in children, youth and young adults.



DATA FROM THE NATIONAL TRAUMA REGISTRY

The **National Trauma Registry** reported 40,688 cases of injury in 2015, based on data from 20 medical centers[1]. The data include Israeli citizens who were hospitalized or who died in the ER following injury.

Age and gender

Approximately one-quarter (24.9%) of the injured were children aged 0-14, and approximately one-third were aged 60 and over. 59% of the injured were males, and 41%, females.

In males, most injuries (52.4%) were in the younger population (ages 0-29 years). In females, almost 50% of injuries were in women aged 60 and over.

Causes of injury and age

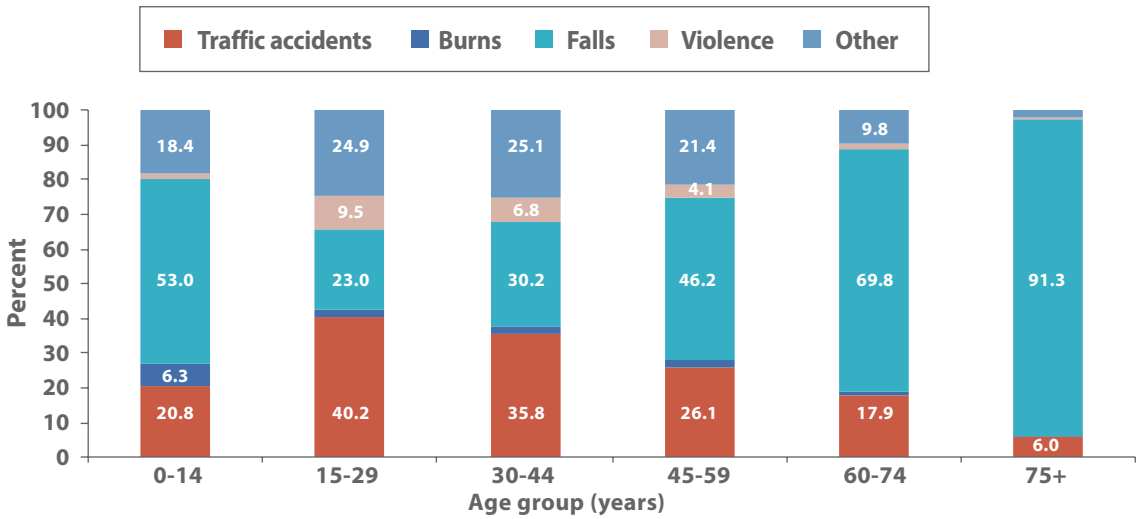
Over half of injuries in children aged 0-14 (53%) and close to half of injuries in adults aged 45-59 were due to falls. Among ages 75 and over, more than 90% of injuries were due to falls.

In youth and young adults (ages 15-29 and 30-44, respectively), the leading cause of injury was traffic accidents *(Figure 6.1)*.

Severity

Overall, 9% of all injuries were defined as severe or critical: 14% of traffic injuries, 14.4% of injuries due to violence and 26% of injuries incurred in terrorist incidents.

Figure 6.1: Distribution of persons injured, by causes of injury and by age group. National Trauma Registry 2015[1]



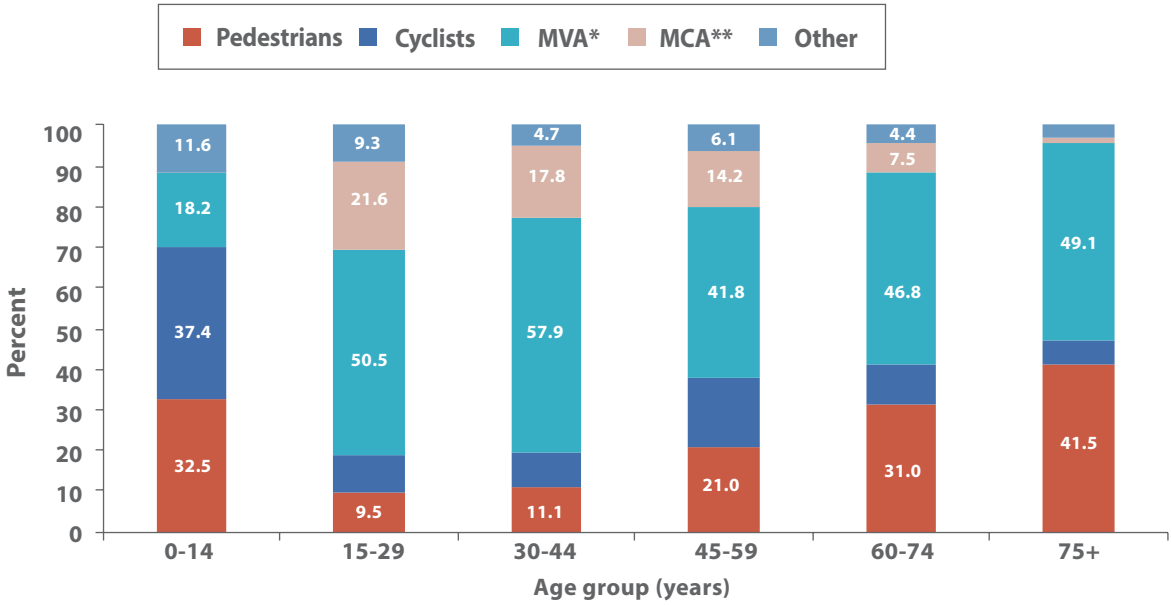




Traffic accidents

- Of all persons injured in traffic accidents, more than one-third (35.9%) were pedestrians or cyclists.
- 43.4% were drivers or passengers in motor vehicles, and 12.9% were injured on motorcycles.
- Among children aged 0-14, most of those injured in traffic accidents (70%) were pedestrians or cyclists.
- Among the injured aged 60-74 years, almost one third were pedestrians and 47% were injured in motor vehicle accidents.
- In those aged 75 and over, 41.5% were pedestrians and almost 50% were injured in motor vehicle accidents *(Figure 6.2)*.

Figure 6.2: Distribution of persons injured in traffic accidents, by type of accident and age group. National Trauma Registry 2015[1]



**MVA: Motor vehicle accident (driver or passenger).*

***MCA: Motorcycle accident (driver or passenger).*

Injuries of violence*

- Just over 50% of all injuries resulting from violence occurred in youths and young adults (ages 15-29).
- 87.5% of all violence-related injuries occurred in males.
- Overall, 30% of violence-related injuries were caused by stabbing and 17% by firearms. One-third of the injuries were caused by physical attacks and brawls, and 18% by being struck by an object.
- The distribution of violence-related injuries differed between males and females. Almost one-third (32%) of injuries among males were caused by stabbing, and about 17% by firearm assaults. Among females, stabbing accounted for about 14% of the injuries, while 7% were injured by firearms. The majority of females (69%) were injured by unarmed physical assault or by being struck by an object *(Table 6.1)*.

**excluding terrorist attacks*

Table 6.1: Distribution of persons injured by violence* (%), by type of violence and gender. National Trauma Registry 2015[1]

	Females (%) *(N=187)*	Males (%) *(N=1308)*	Total (%) *(N=1495)*
Firearm	0.7	16.9	15.6
Stabbing	13.9	32.0	29.7
Struck with object	13.9	18.6	18.0
Unarmed assault	55.1	29.6	32.8
Other	10.2	3.0	3.9
Total	**100.0**	**100.0**	**100.0**

**excluding terrorist attacks*



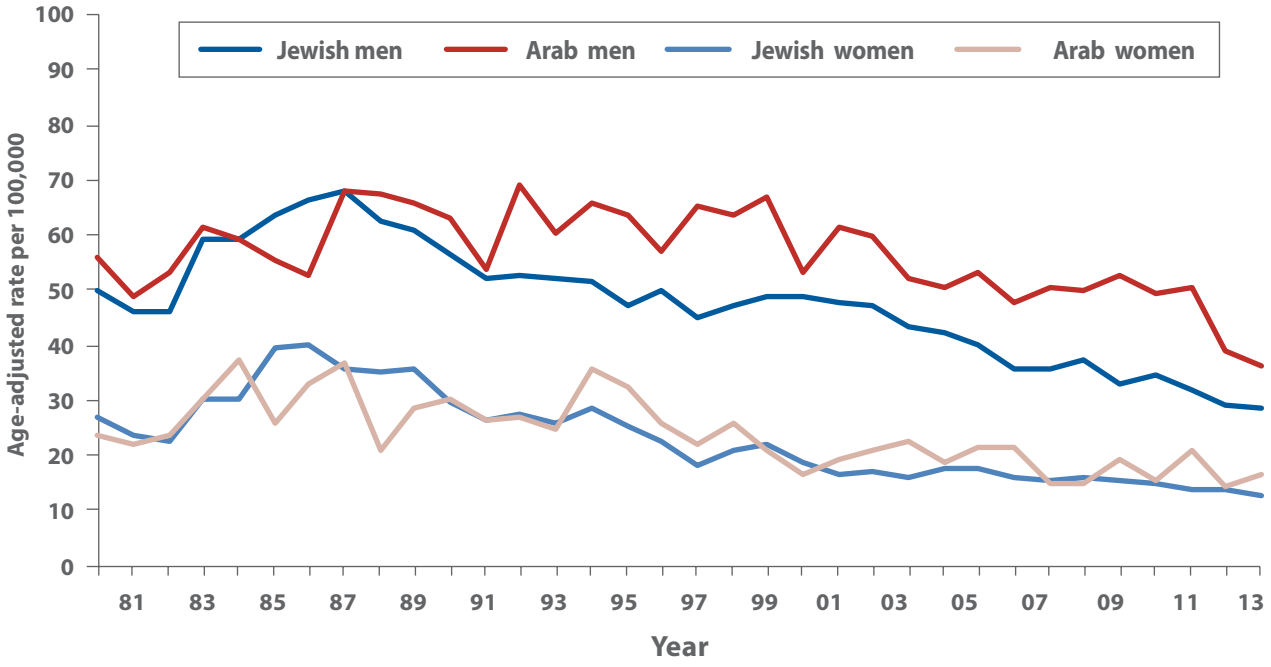


Mortality

Trends in mortality from external injuries

During the past two decades (1993-2013) mortality rates due to external injuries declined by approximately 45% in Jewish men, 52% in Jewish women, 40% in Arab men and 34% in Arab women. Rates of mortality from external injuries have been higher in Arab men than in Jewish men since the early 1990's. Among women, mortality rates have generally been similar in the Jewish and Arab populations. Mortality rates are higher in men than in women in both population groups *(Figure 6.3)*.

Figure 6.3: Mortality from external injuries in Israel by gender and population group, 1980-2013[2]



Mortality from external injuries by age and gender

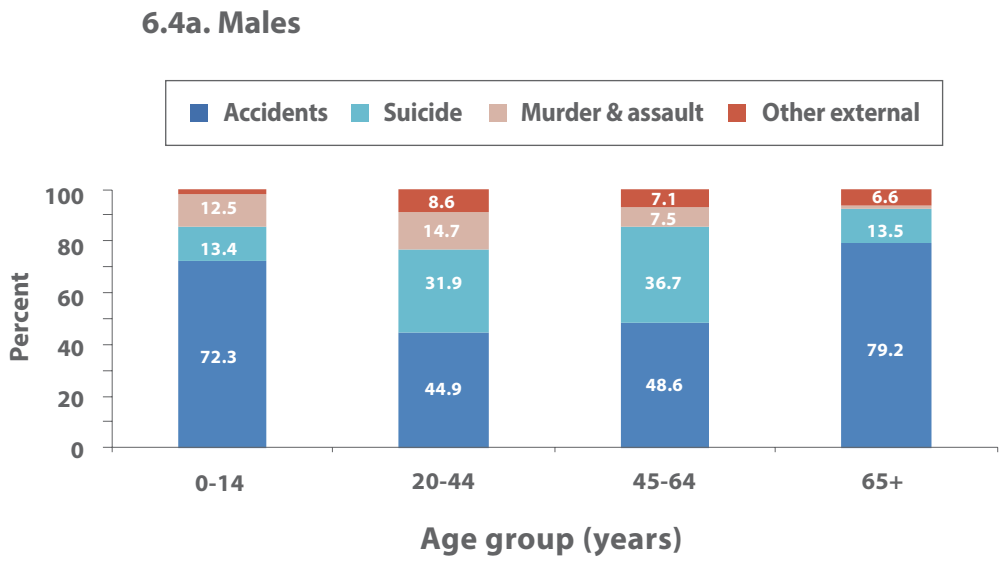
Among males

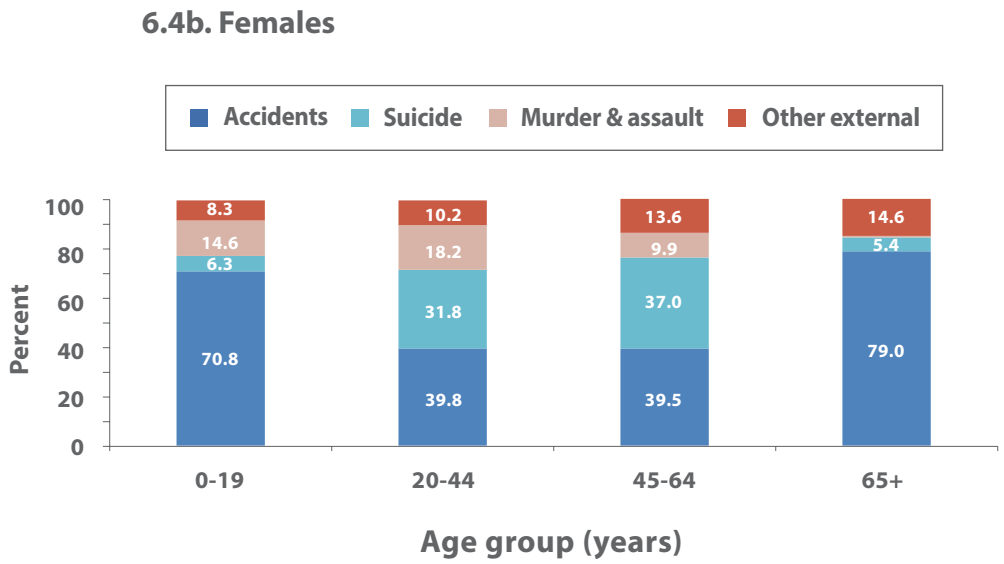
In the youngest age group (0-19) and even more so in the oldest age group (65+), the great majority of deaths from external injuries are attributed to accidents. In the 20-44 and 45-64 age groups, accidents account for 40% of deaths, and approximately one third of deaths are due to suicide. The highest proportion of deaths due to homicide and assault is found in the 20-44 age group *(Figure 6.4a)*.

Among females

As in males, in the youngest and particularly in the oldest age group, the great majority of deaths are from accidents (71% and 79% respectively). In women aged 20-44 and 45-64, the proportion of deaths from suicide is very similar to that among men. However, in the youngest as in the oldest age group, the proportion of deaths from suicide is much smaller in females than in males. The proportion of deaths due to homicide and assault is greater in women than in men in all age groups under age 65 *(Figure 6.4b)*.

Figure 6.4: Mortality from external injuries in Israel by type of injury, age and gender, 2013[2]





6.2 Suicide and attempted suicide

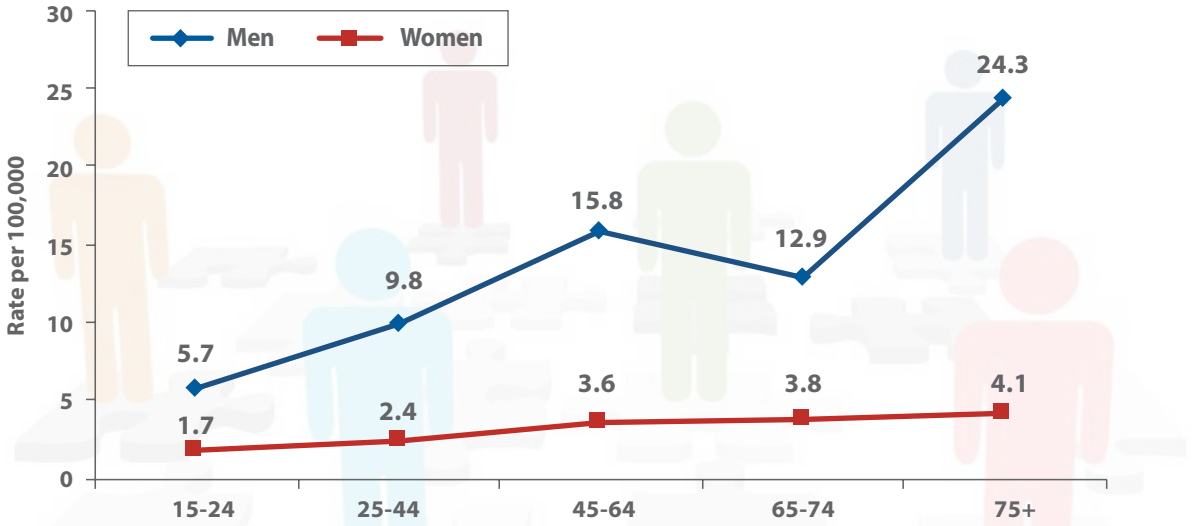
General

In 2013, 372 suicides were reported in Israel, a decline from 2010, when 482 cases of suicide were reported. 78% of all suicides in 2013 were in men. The age-adjusted suicide rate was 6.3 per 100,000 – 10.2 per 100,000 in men, and 2.7 per 100,000 in women.

Between 2011-2013, suicides were responsible for approximately 1% of deaths among persons aged 15 and over. Among adolescents and young adults (ages 15-24), suicides accounted for 13% of all deaths.

Suicide rates increase with age, particularly in males *(Figure 6.5)*[3].

Figure 6.5: Suicide rates in Israel by age and gender, 2012[3]



Suicide by population group

- In 2013, out of 372 cases of suicide, 342 (92%) were in the Jewish population and 30 cases (8%) were in the Arab population.
- The age-adjusted suicide rate was 3.1 times higher in the Jewish population than in the Arab population.
- In the Jewish population, 34% of suicides were among immigrants. Age-adjusted suicide rates were higher among immigrants than veteran Israelis - 1.9 times higher among immigrants from the former Soviet Union and 4 times higher among Ethiopian immigrants.

Suicide attempts

In 2014, 6,488 suicide attempts were reported by general hospital emergency departments – 42% were in men and 58% in women.

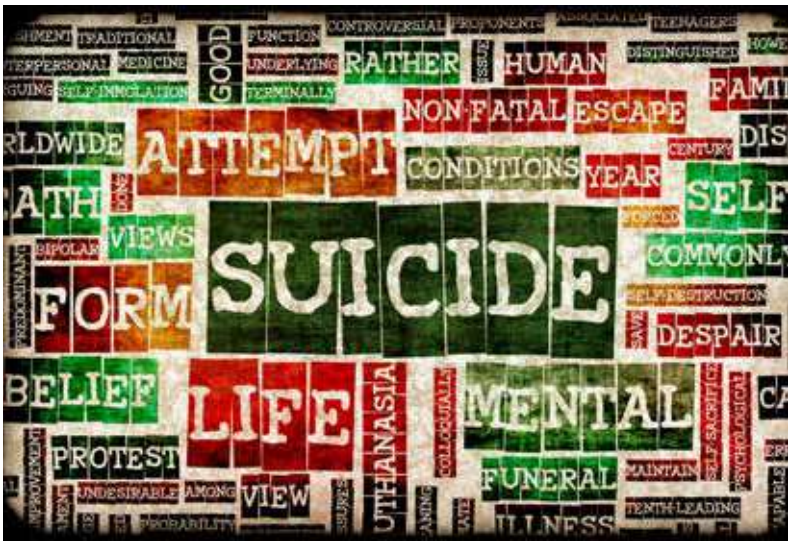
The age-adjusted rate of attempted suicide (ages 10 and above) was 98 per 100,000 – 84 per 100,000 in males and 113 per 100,000 in females.

Almost half the reported suicide attempts (47%) in females and 41% in males were by adolescents and young adults (aged10-24)[3].

National Program for the Prevention of Suicide

In December 2013 the government of Israel declared suicide prevention to be a national interest, to be dealt with jointly by government ministries and authorities, under the leadership of the Ministry of Health.

A suicide prevention unit was established in the Ministry of Health, which is responsible for the implementation of the national suicide prevention program[4].



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