

The effect of cancer on suicide in ethnic groups with a differential suicide risk



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Ethnic differences in Suicide risk among cancer patients

(Nakash, Barchana, Liphshitz, Keinan-Boker, Levav, 2014; EJPH)

- **Suicide risk is higher in persons with active cancer** (Misono et al., 2008; Robson, 2010)
- **There are ethnic differences in risk for suicide** (Israel Ministry of Health, 2010)
- **Protective factors related to ethnic differences** (Gal et al., 2011; Levav & Eisenberg, 1989)
 - **Attitudes toward suicide**
 - **Religiosity**
 - **Family support**

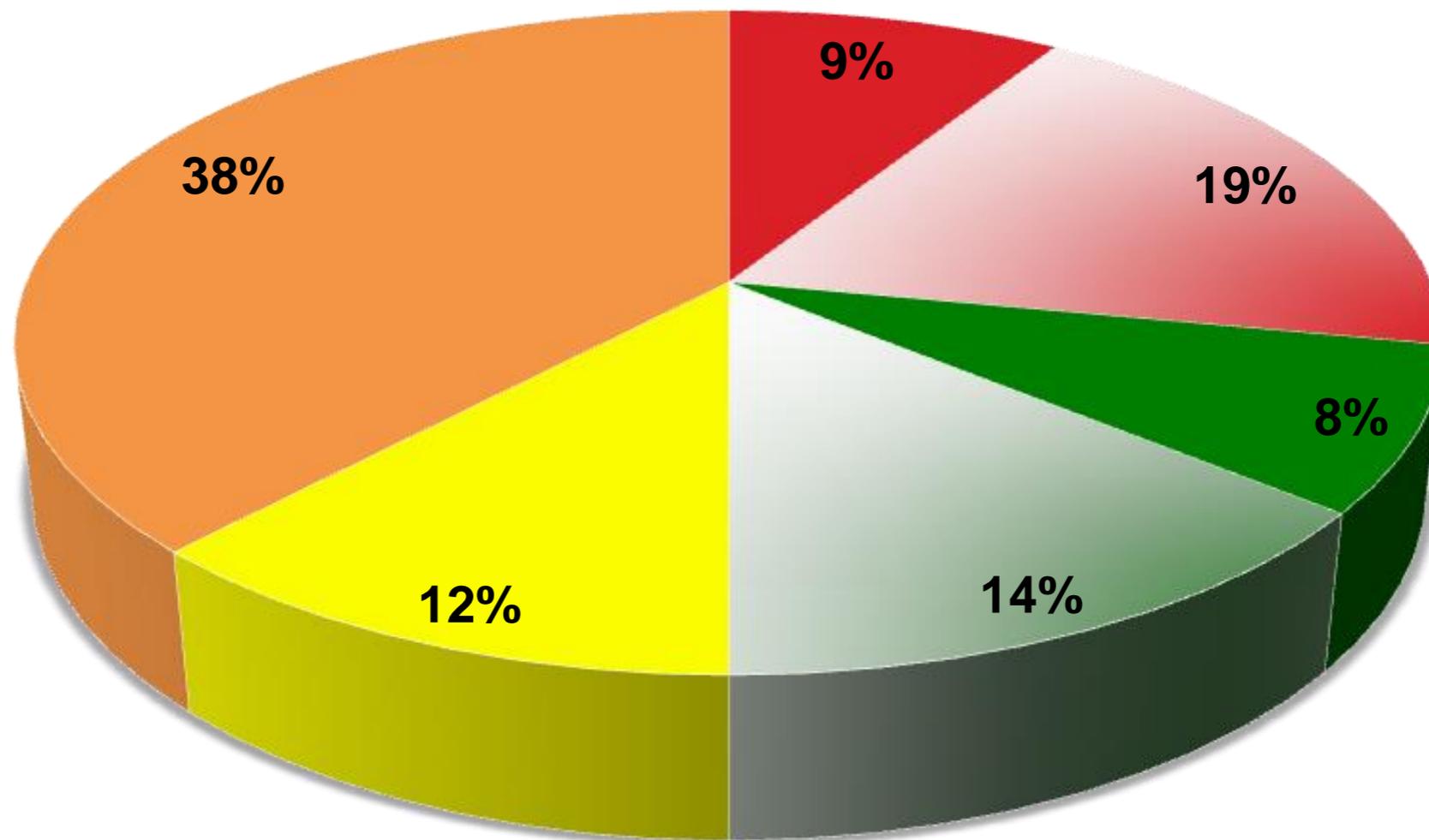
Ethnic differences in Suicide among cancer patients -

- Is the risk of suicide among persons with cancer facilitated (increases) - by a group behavior that is reflected in relatively higher suicide rates in the general population, and inhibited - (no change is identified) by a group behavior that is commonly reflected in lower rates in the general population?
- Ashkenazi represent "suicide facilitator group"
- Mizrahi represent "suicide inhibitor group"

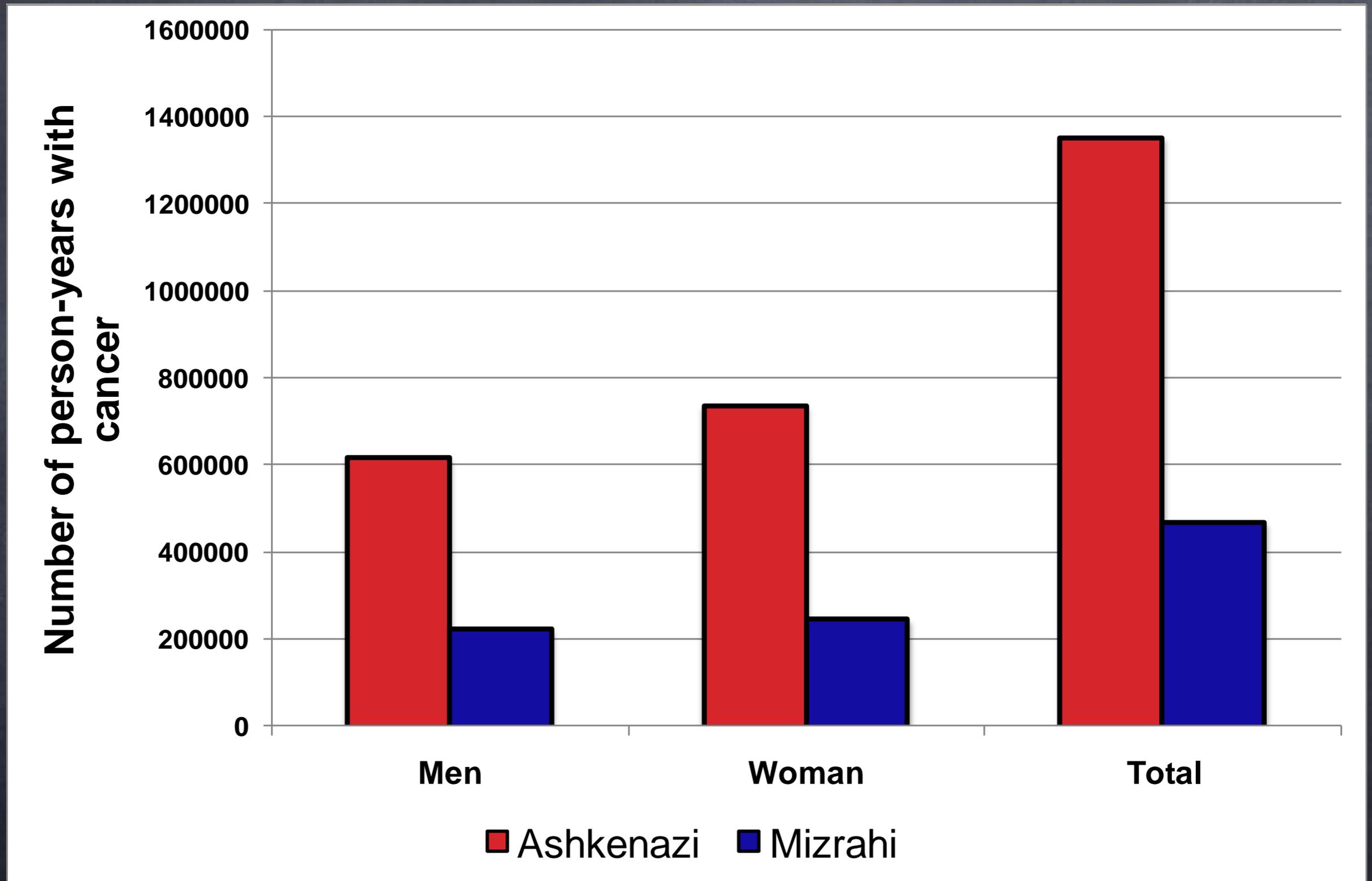
Ethnic groups among Jewish population in Israel

(76% of total population: Israel Census Bureau, 2012)

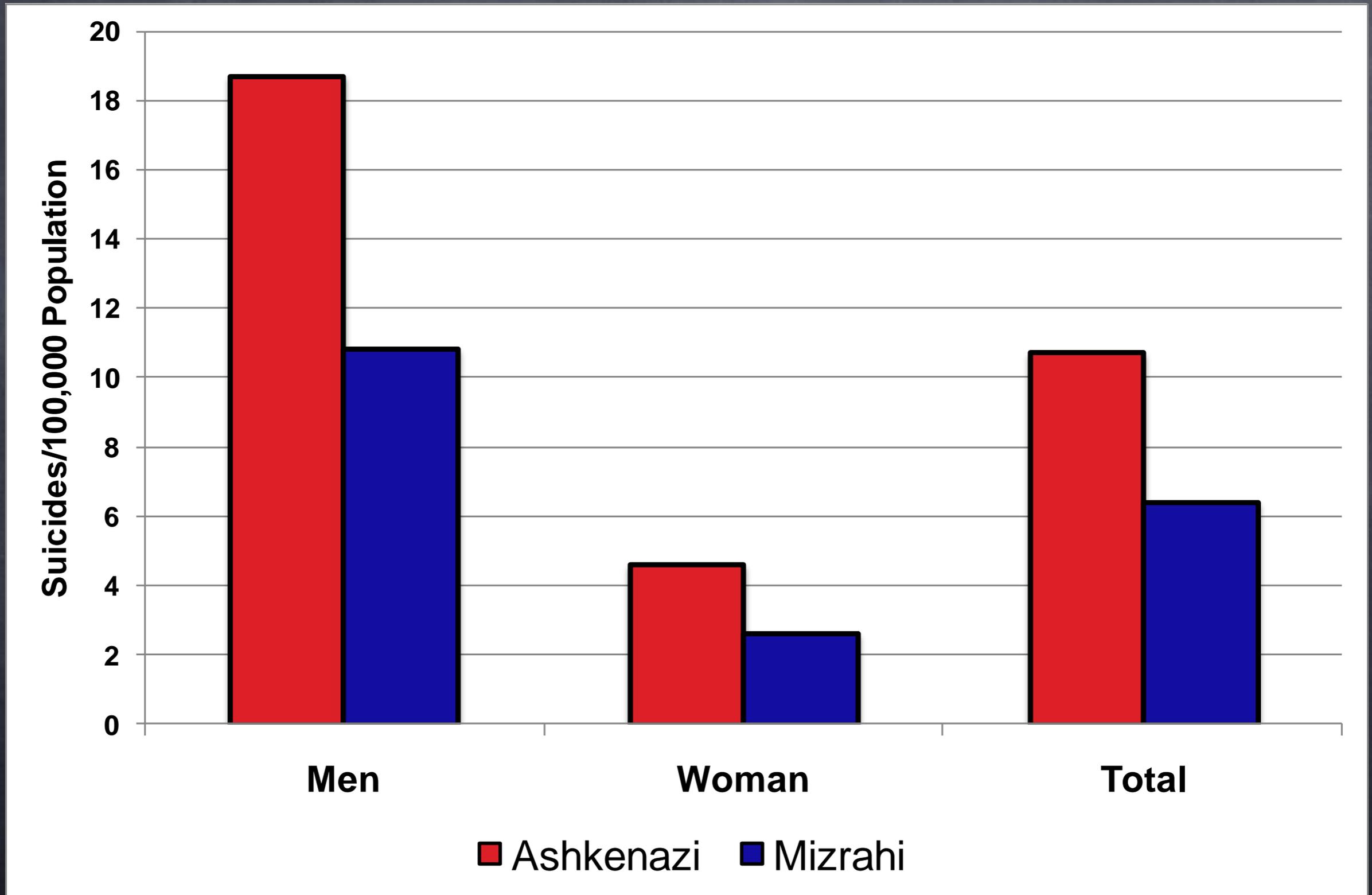
- Mizrahi Immigrants
- Ashkenazi Immigrants
- FSU Immigrants
- Mizrahi Second Generation
- Ashkenazi Second Generation
- Third Generation Jewish Israeli



Person -Years, Cancer Patients, 1999-2007 Israel



Suicide rates among ethnic groups aged 45 and above during the years 2006-2008 in Israel



Ethnic differences in Suicide among cancer patients

- The Israel National Cancer Registry (INCR) provided the information on cancer morbidity and mortality between the years 1997-2007
- The mortality records from Israeli Central Bureau of Statistics with causes of death by suicide for the years of our study, 1999-2007, were linked with the Cancer Registry.

Standardized incidence ratios (SIR) of suicide among persons with cancer by ethnic origin 1999-2007 in Israel

(Nakash, Barchana, Liphshitz, Keinan-Boker, Levav, 2013; EJPH)

		AGE GROUP 40-64		AGE GROUP 65+	
	Sex	SIR	95% CI	SIR	95% CI
Ashkenazi	Men	2.16	1.21-3.11	1.88	1.52-2.24
	Women	3.53	2.12-4.95	1.36	0.85-1.86
Mizrahi	Men	1.08	0.49-1.66	0.59	0.21-0.98
	Women	0.47	0.00-1.11	0.35	0.00-1.04

Culture and Suicide

- Tolerance of suicide despite prohibitions in the person's cultural heritage. Persons belonging to groups with higher risk for suicide may have their behavior facilitated when having to cope with cancer diagnosis and treatment in contrast to groups wherein suicide is less of a risk.
- Differing norms around informal social support and degree of religiosity may serve as protective factors against suicide among Mizrahi persons with cancer (Sareen et al., 2008; Spalletta, 2008; Gearing & Lizardi, 2009; Utsey, Hook, & Stanaed, 2007).

Is the higher suicide risk among
Ashkenazi persons with cancer
affected by the high proportion
of Holocaust survivors among
members of this group?

(Nakash, Liphshitz, Keinan-Boker, Levav, SLTB 2013)

The Effect of Cancer on Suicide among Elderly Holocaust Survivors

- Most Europe-born Jews who arrived in Israel early after World War II were exposed to the Holocaust, which included a combination of severe and protracted personal assaults (e.g., psychological, physical and religious) (Levav, 1998).
- To some of those assaults, both singly or in combination, were imputed the higher rates of cancer compared with their Europe-born counterparts who were not directly exposed to the Holocaust (Keinan-Boker et al., 2009)

The Effect of Cancer on Suicide among Elderly Holocaust Survivors

- Elderly Holocaust survivors were at increased risk for less adaptive coping with subsequent stressors, such as the one elicited by missile attacks on Tel Aviv during the first Gulf war (Hantman et al., 1994).
- Holocaust survivors with cancer reported higher psychopathology compared to non-exposed persons with cancer and Holocaust survivors who did not have cancer (Baider et al., 1994; Hantman et al., 2007).

The Effect of Cancer on Suicide among Elderly Holocaust Survivors

Goal

Explore whether suicide risk in persons with cancer is higher among Holocaust survivors compared with Israeli Jews of the same origin who had not been in Nazi-occupied countries.

Higher risk is a results of the exposure to past maximum adversity with a recent major fateful stressor (vulnerability hypothesis; Selye, 1956)

The Effect of Cancer on Suicide among Elderly Holocaust Survivors

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The Effect of Cancer on Suicide among Elderly Holocaust Survivors

Exposure status was ascertained by place of birth and immigration dates from Europe

Two groups were identified

1. Holocaust survivors (born in Europe and immigration to Israel post 1945)
2. Europe-origin Jews not exposed to the Holocaust (born in Europe and immigrated to Israel prior to 1939).

Standardized incidence ratios (SIR) and 95% confidence intervals of suicide among Holocaust survivors with cancer by sex compared with non-exposed Europe-born Israeli Jews with cancer. Years 1999-2007

	Sex	Observed suicides	Expected suicides	SIR	95% CI
Holocausts survivors	Men	35	39.07	.90	.60-1.19
	Women	25	21.04	.95	.55-1.37

The Effect of Cancer on Suicide among Elderly Holocaust Survivors

- Past exposure to maximum adversity did not increase suicide among persons with cancer above the risk of their cultural group during the period investigated.
- Results highlight the role played by possible resilience factors even in light of severe early trauma.