

Cancer and non-surgical cancer treatment in Israel

Naples, 27.4.07

אונקולוגיה ONCOLOGY

האיגוד הישראלי לאונקולוגיה קלינית ורדיותרפיה
The Israeli society for clinical oncology and radiation therapy



Prof. Yoram Cohen, M.D.

ISCORT Chairman

**Data from INCR were provided by
Dr Micha Barchana, M.D. MPH,
Chairman of INCR**

***Israel National Cancer Registry
(INCR)***



Association of Radiotherapy and Oncology of the Mediterranean area



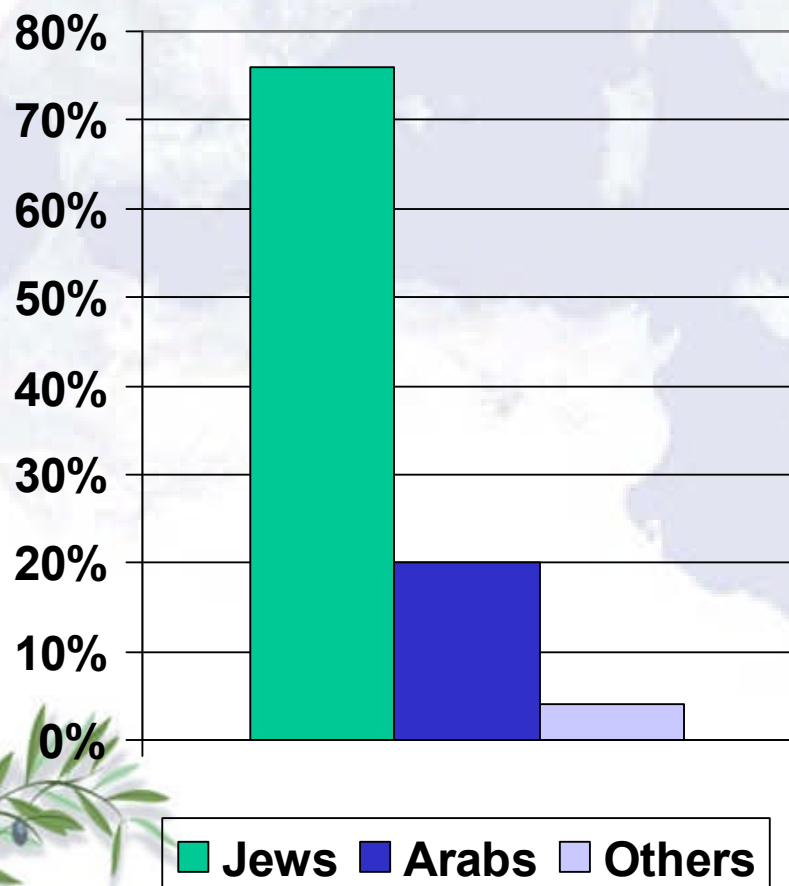
The Israel National Cancer Registry

- A population based cancer registry.
- National registry.
- Passive registry.

- Comprises only Israeli citizens (Israeli I.D.) and diseases occurring to them.
- Both sub-populations (80% Jews, 20% Arabs & Others).



Israel`s Population , 2005



- Total : 6.9 M
- Jews & others : 5.5M
 - Jews: 5.26
 - Others: 0.29
- Arabs: 1.35

- Total : 100%
- Jews & others : 80%
 - Jews: 76%
 - Others: 4%
- Arabs: 20%

Notification

- The registry was established in 1960.

1960-1982 reporting is **voluntary**.

- **1982 ministerial decree :**

- Notification is mandatory.
- A copy of the medical information should be delivered to the registry.
- The head of the registry can apply to hospital for specific data.

A list of reportable diseases.



Today, there are more than 95 information sources, including computerized data transfer.



Information sources

- Cytology and Histology reports.
- Hospital charts.
- Death notification.
- **Oncological Institutes.**
- Hematological out-patients clinics.
- **Population registry (demographical parameters and deaths).**
- MoH`s hospitalization database.



Today, 100% of demographical and 10% of medical data arrives in electronic way through computer connectivity.



Dataset



- **Demographical data:**

- Unique Personal Identification Number given upon birth or immigration, in use in all medical contacts.
- Names. Gender, Date & place of birth, immigration date, marital status, ethnic group (Jew, Arab or Other), residential history, current status (alive, dead, cause of death).

- **Medical Data:**

- Coding according to ICD-O Ver. 3, and other International Standards.
- Site, Morphology, Place & date of diagnosis, Basis of diagnosis, staging, treatments (Surgery, Chemo & Radiation), second primaries, relapses & metastasis.

Burden of Cancer in Israel



- 24,000 Israelis are being diagnosed with cancer yearly (2002-2004 data).
- 11,000 Israelis die annually from cancer (26% of total deaths, Ranks 1st).
- 75,000 people are at present time with active disease. (Active disease I.E. Within 5 years from diagnosis).

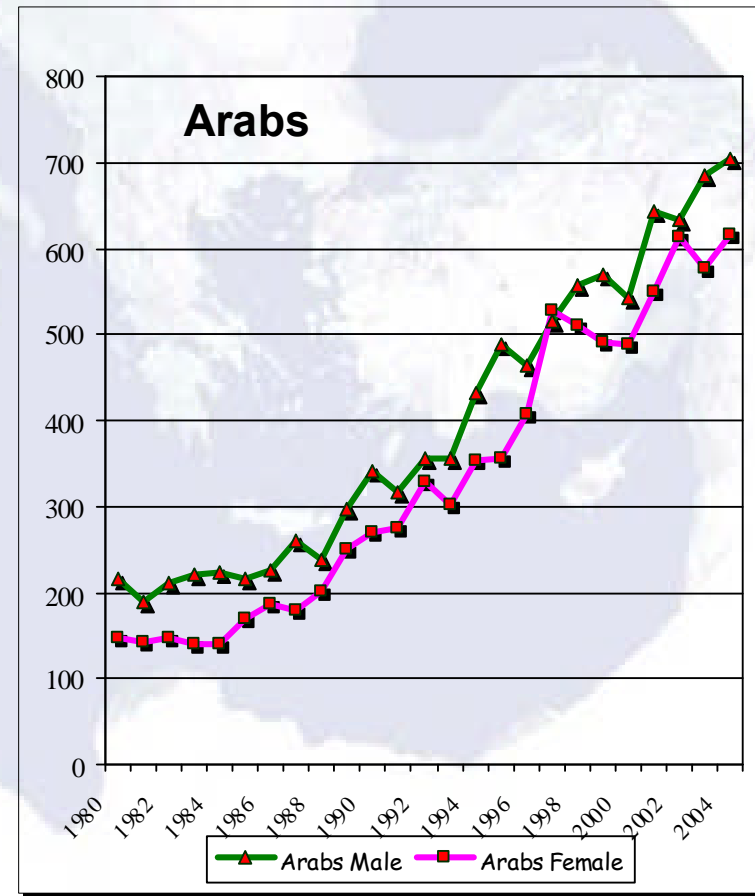
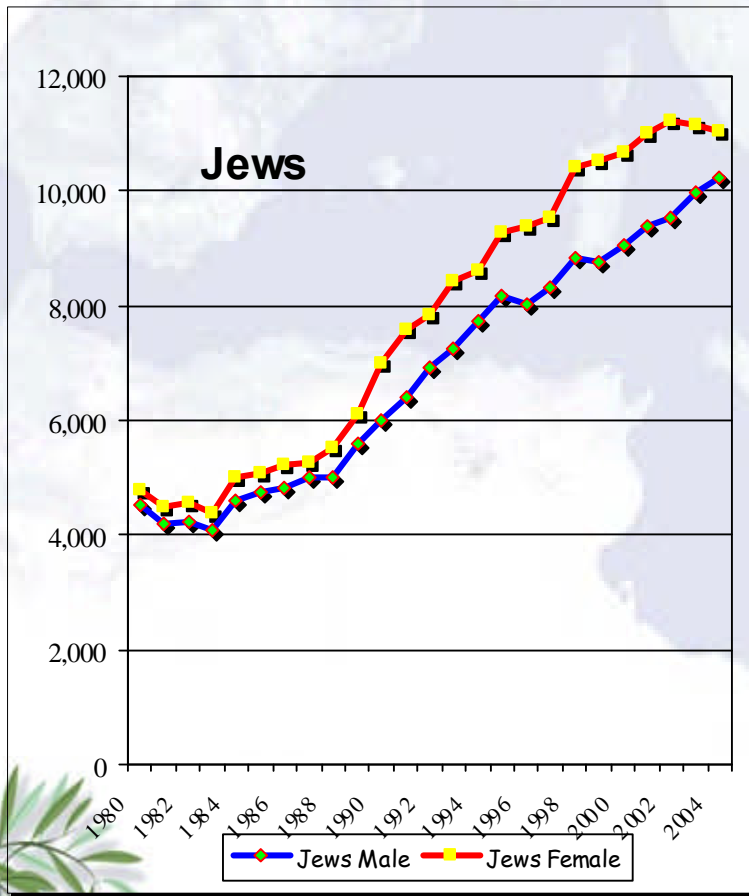




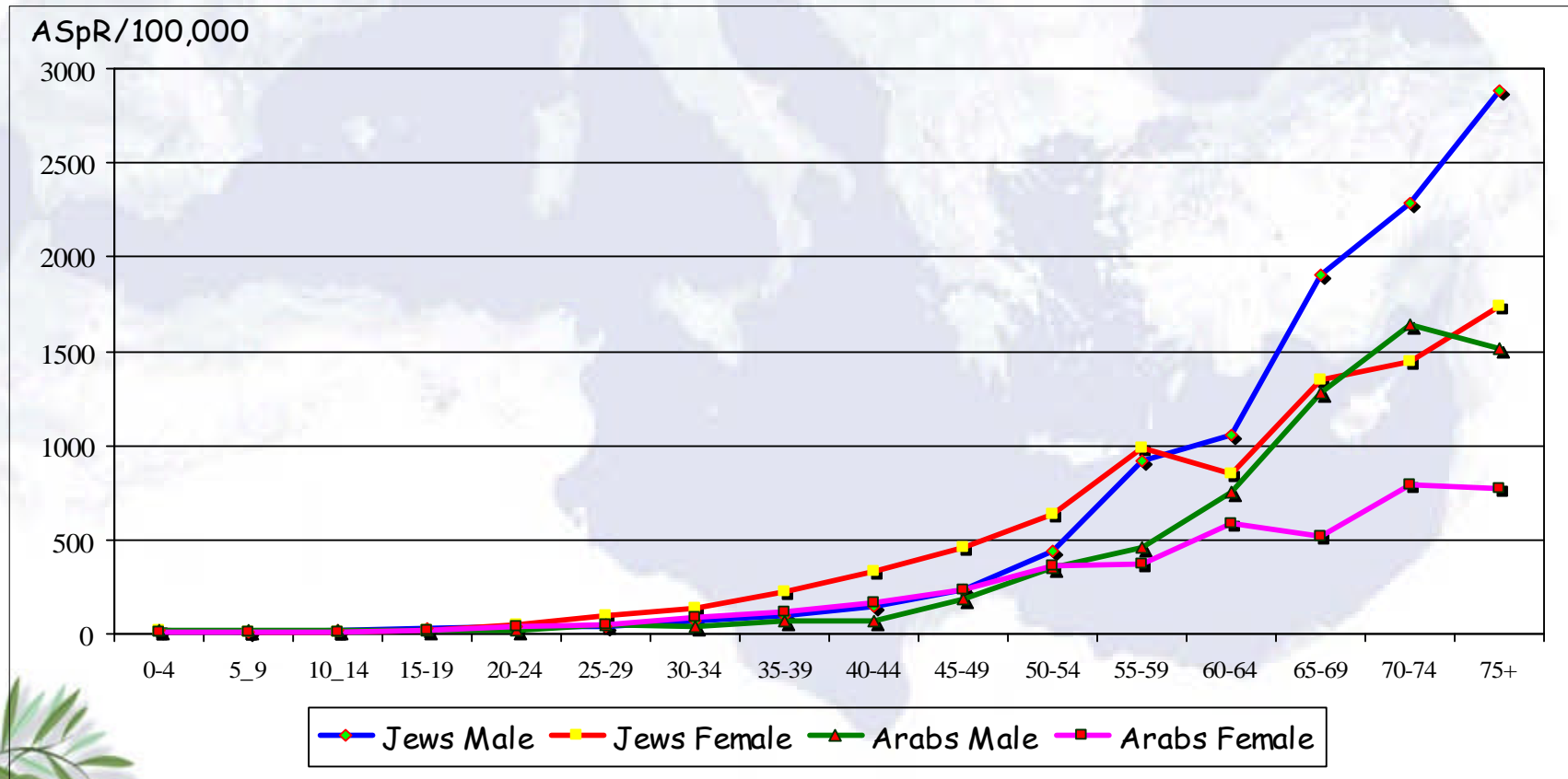
**In Israel
Jews have much higher
incidence of cancer as
compared to Arabs**



Cancer Incidence Trends, Number of cases ,Israel 1980-2004



Cancer Incidence Age Specific Rate, All Sites, 2004



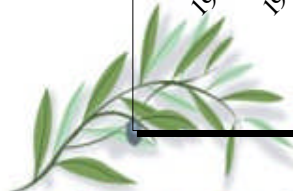
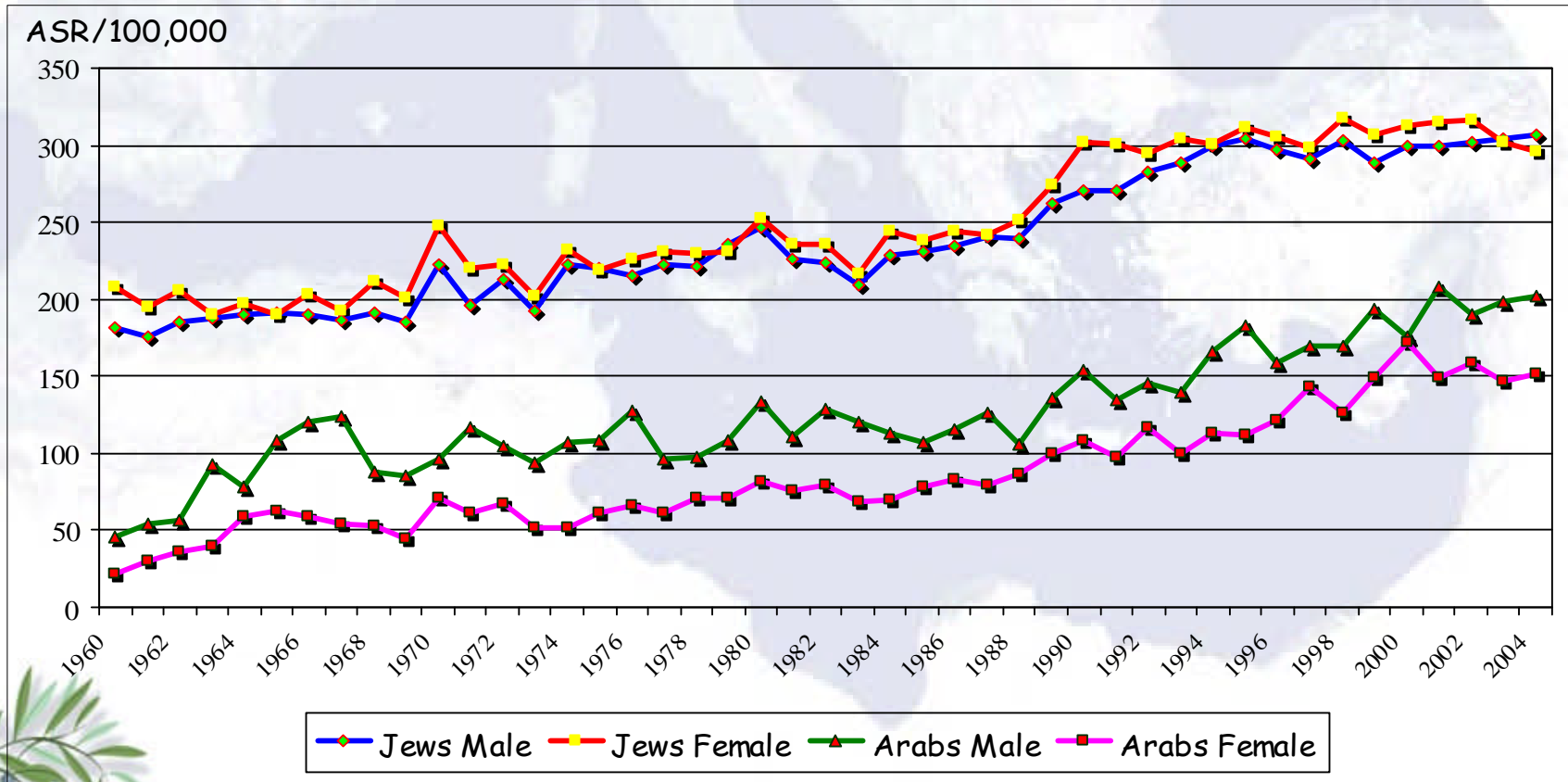


**ASR is constantly increasing in
Jewish and Arab populations in
Israel**



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Cancer Incidence Trends, Israel 1960-2004

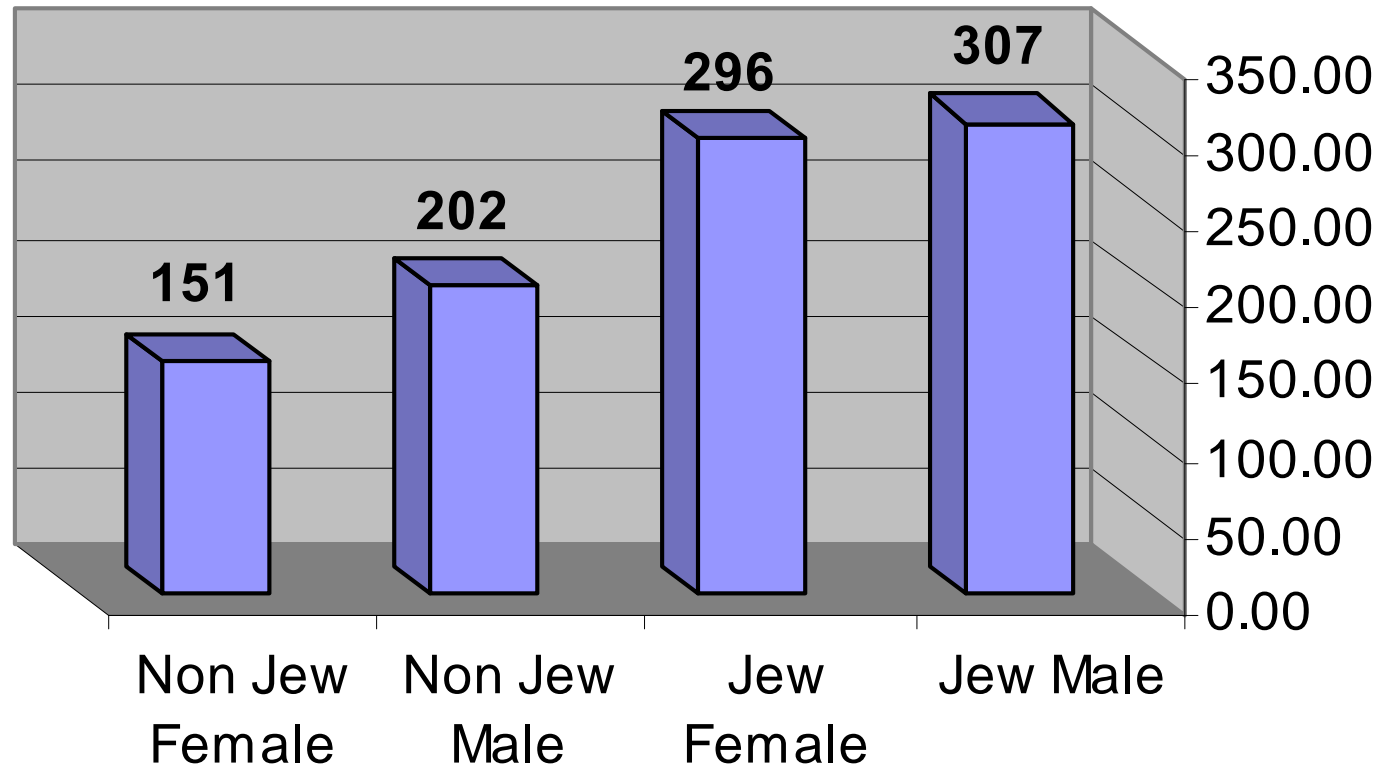


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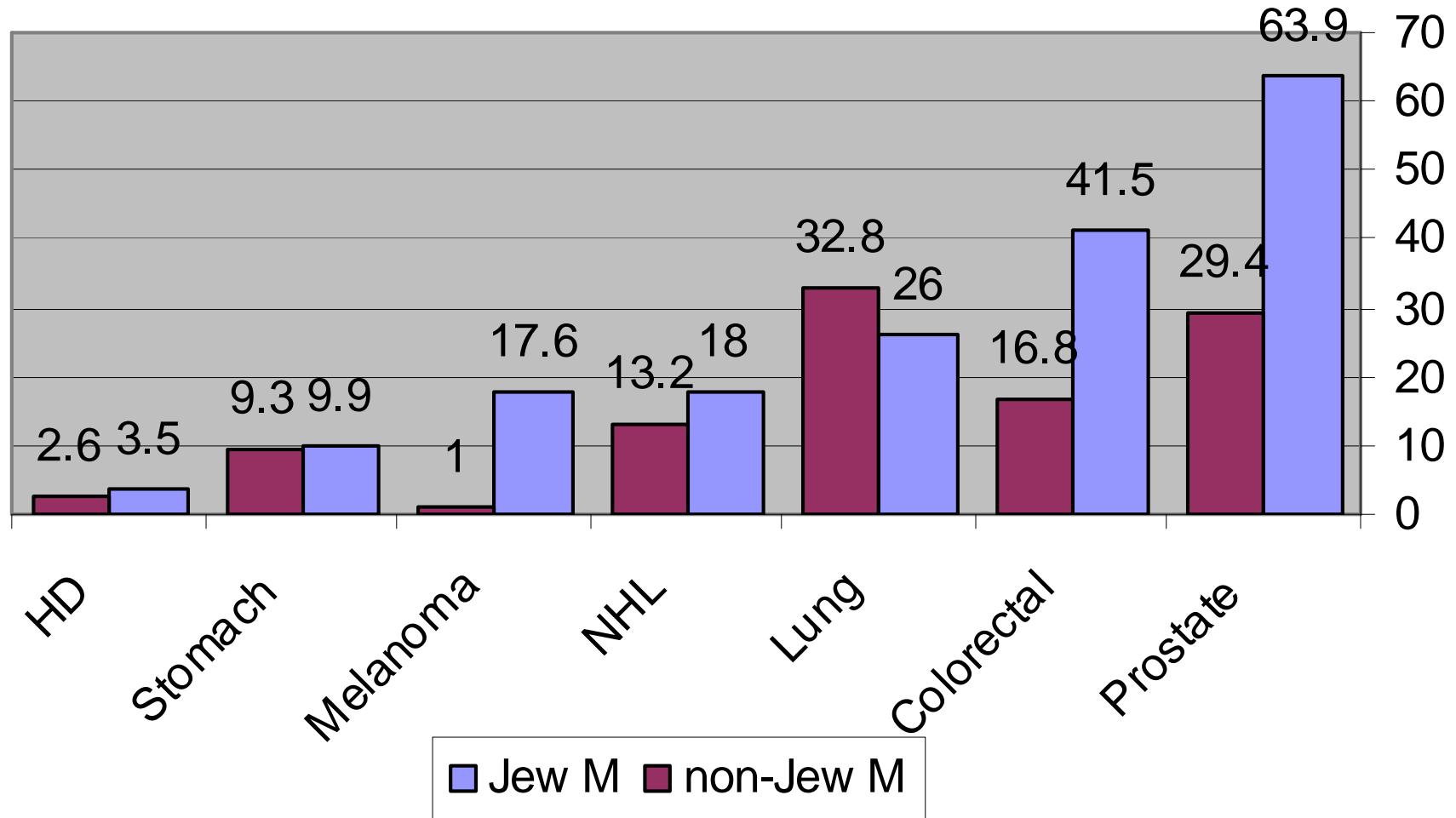
Standardization to the "World Standard Population"

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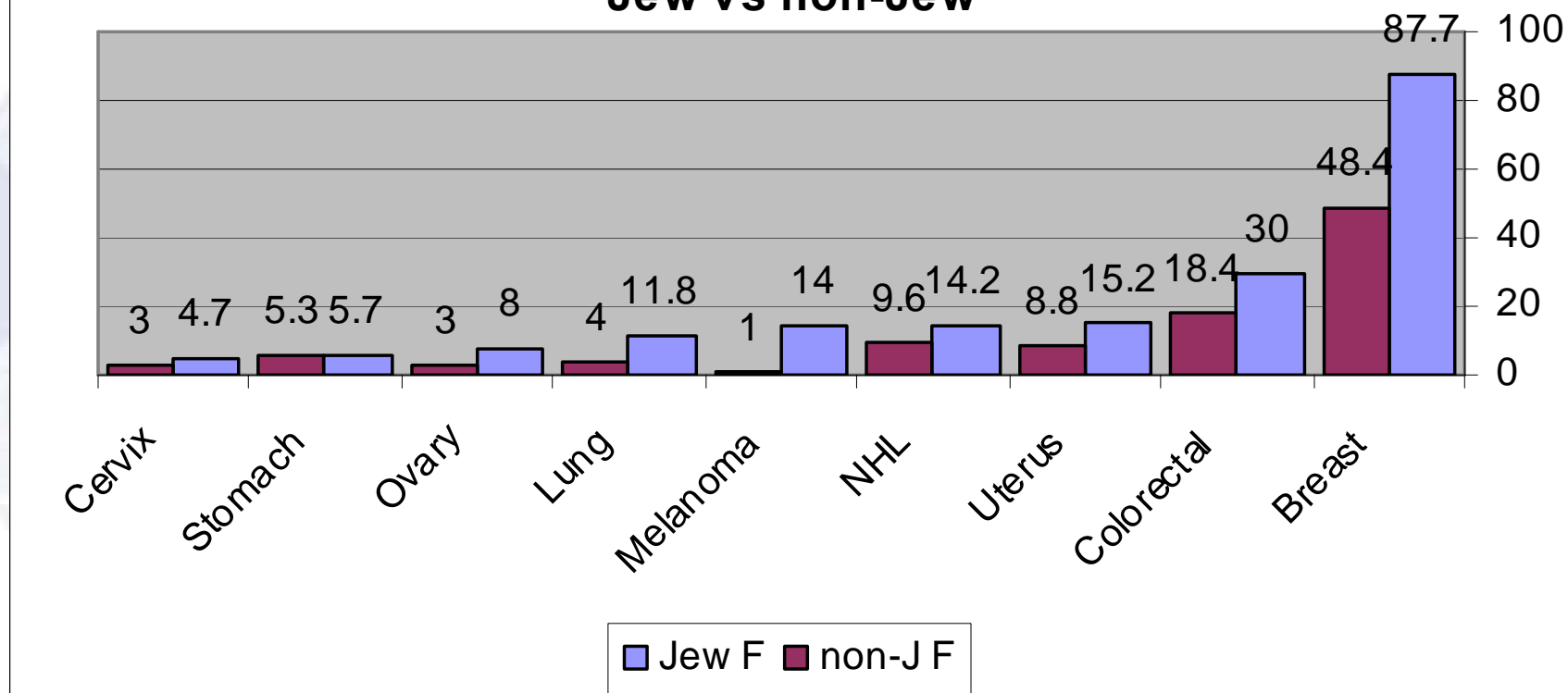
ASR 2004



ASR 2004 for most common cancers in Male Jew vs non-Jew



ASR 2004 The most common cancers in Female Jew vs non-Jew



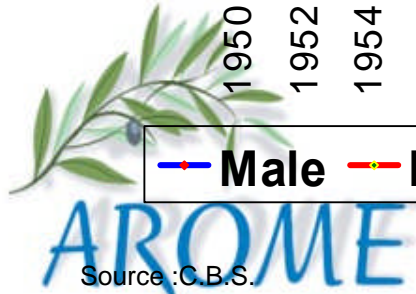
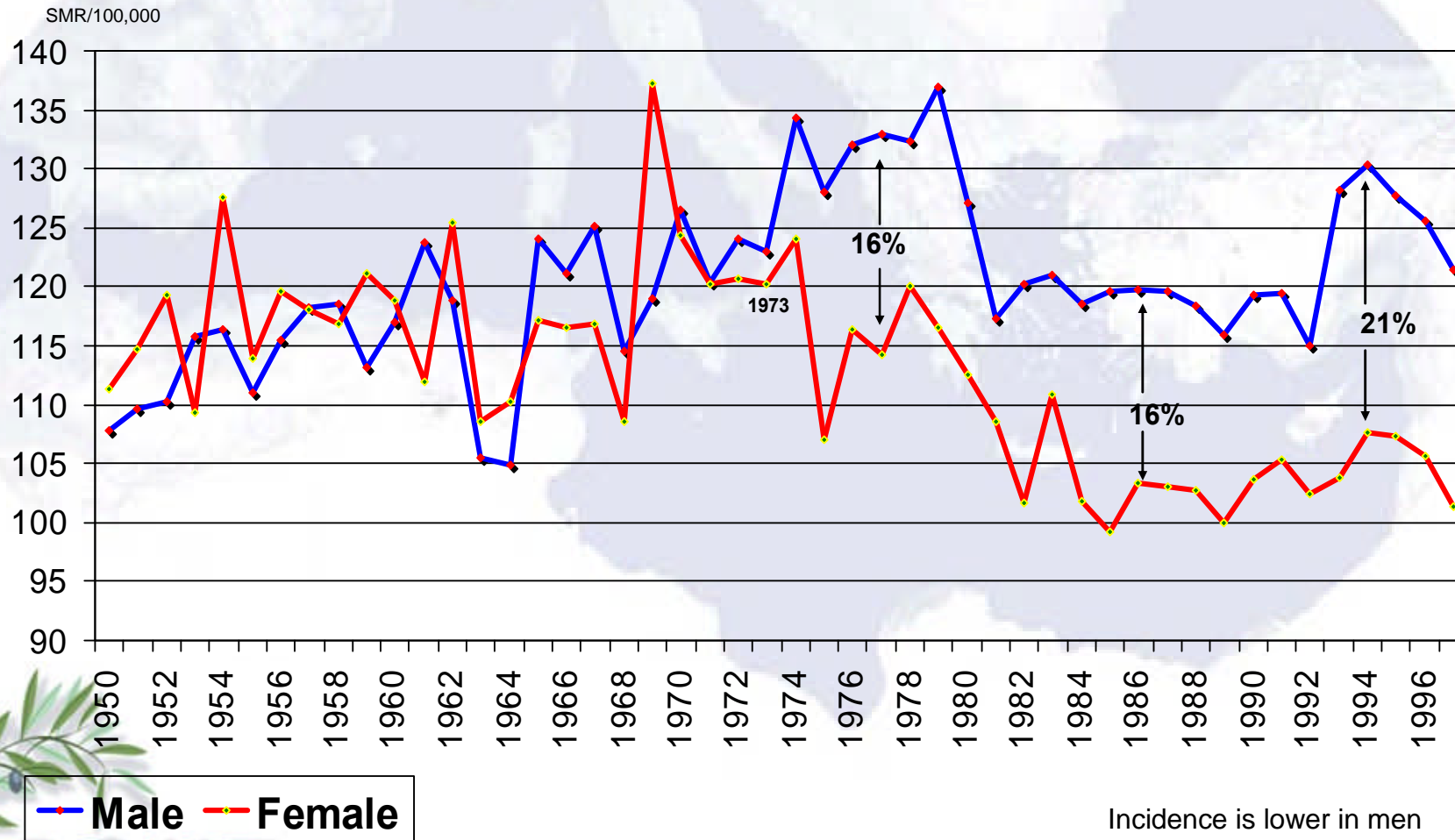


Decreased cancer mortality



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Standardized cancer mortality rate, Jews, 1950-1997.

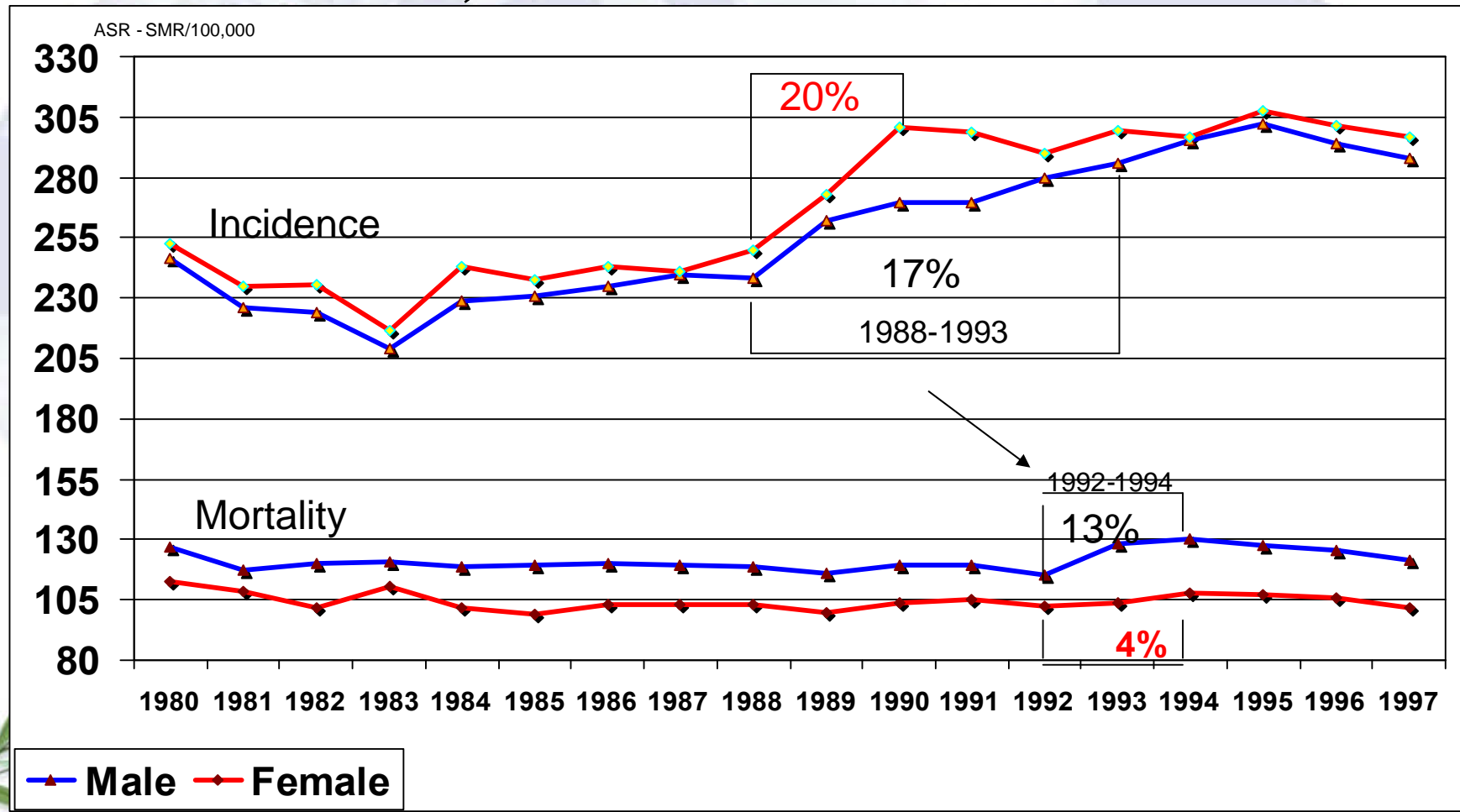


Source: C.B.S.

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Standardized Incidence & mortality rate, trends 1980-1997, Jews.



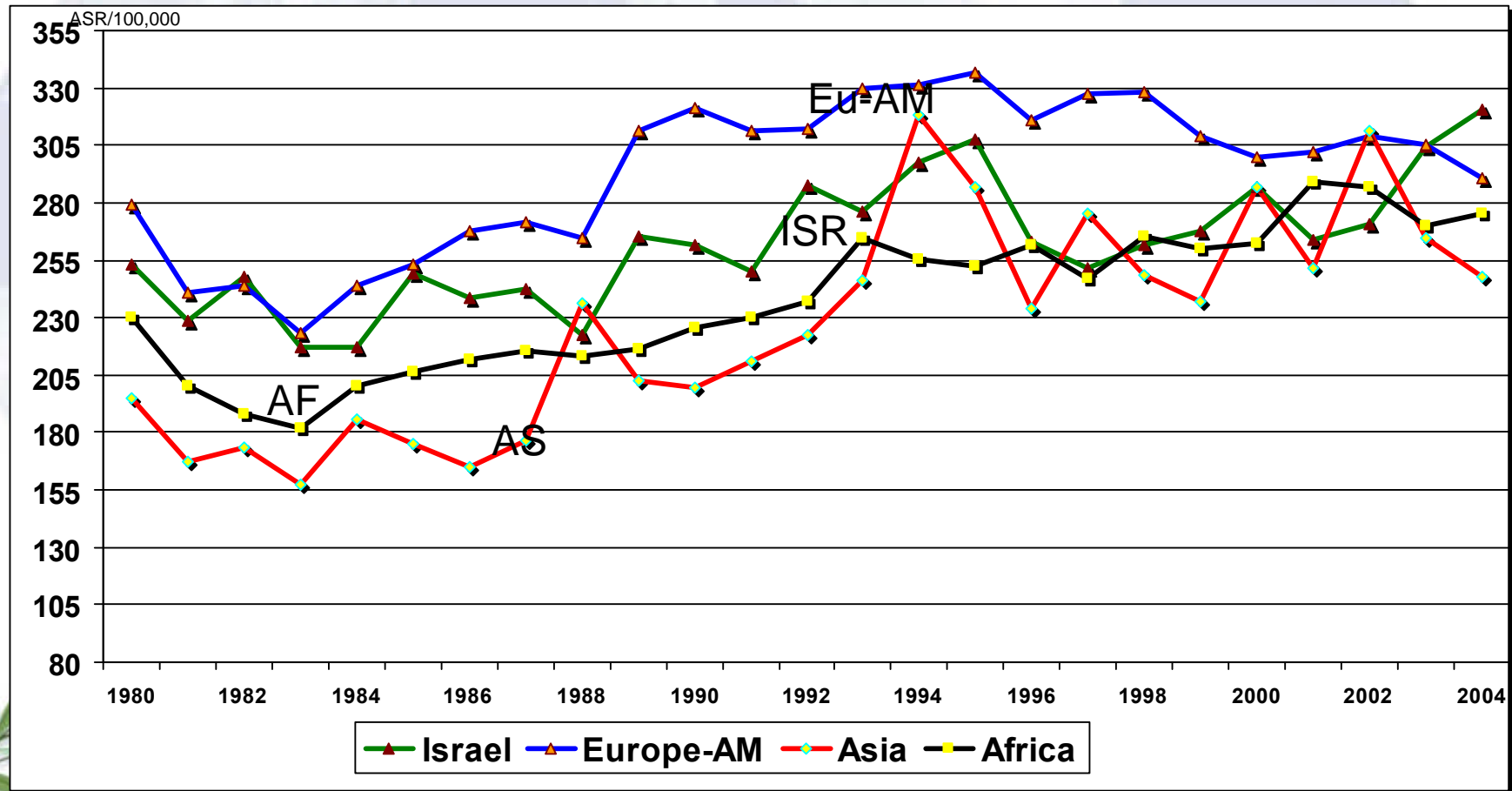


There is a difference in Cancer incidence among Jewish ethnic groups. In European born Jews cancer incidence is higher than in those born in Asia or Africa



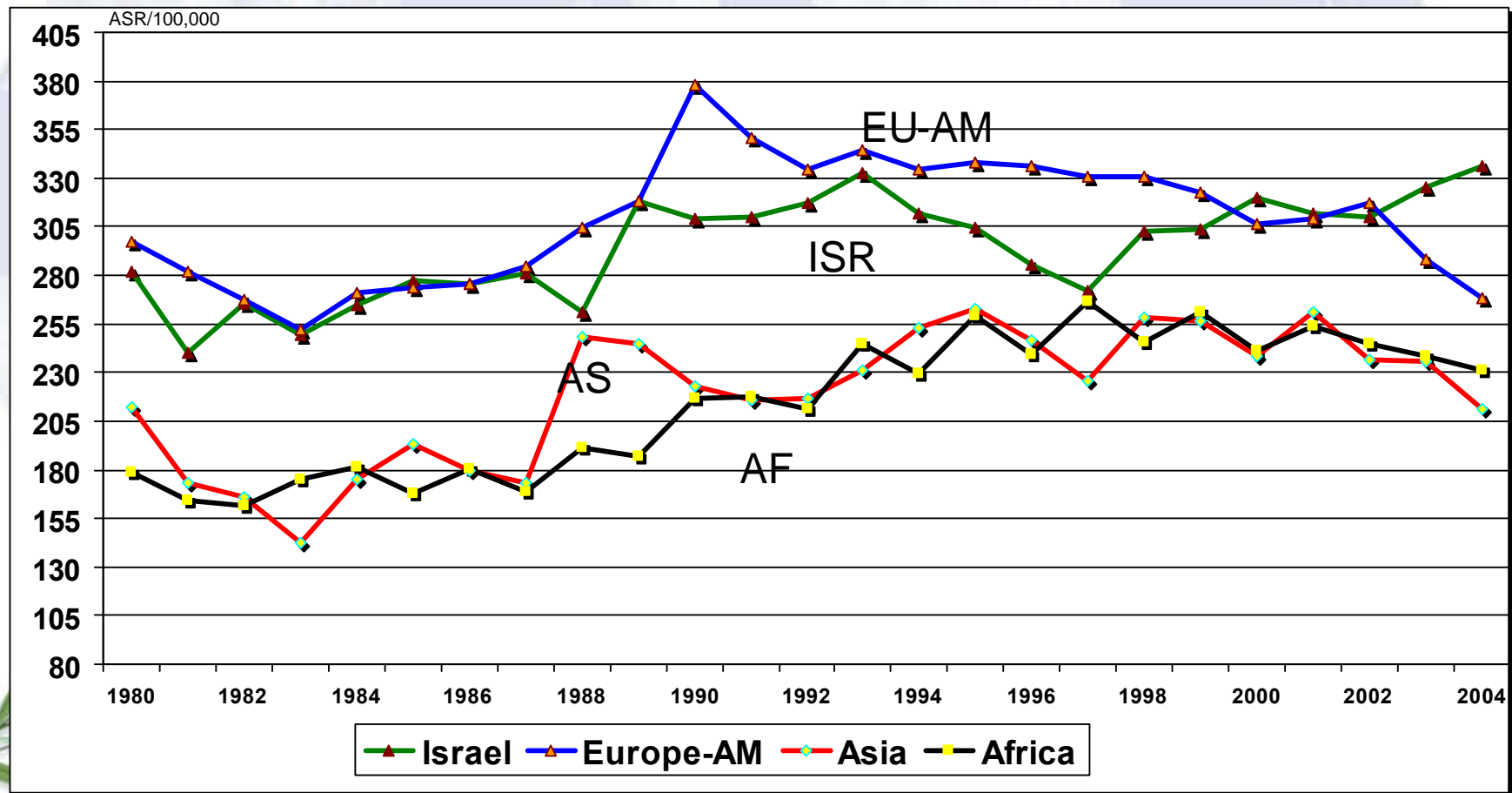
Standardized Incidence rate, Males

by place of birth, 1980-2004, Jews.



Standardized Incidence rate, **Females**

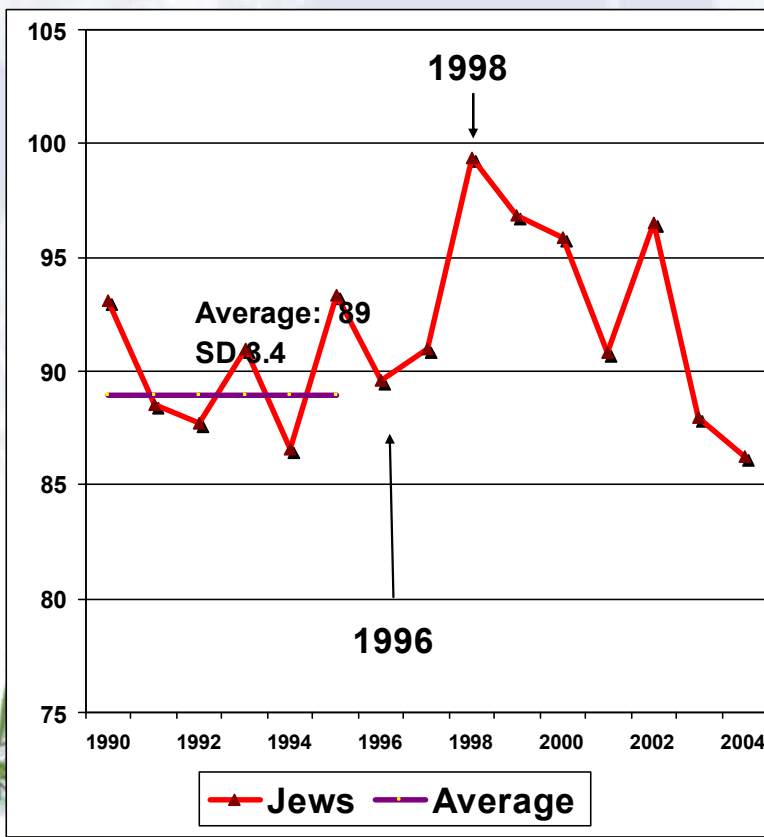
by place of birth, 1980-2004, Jews.



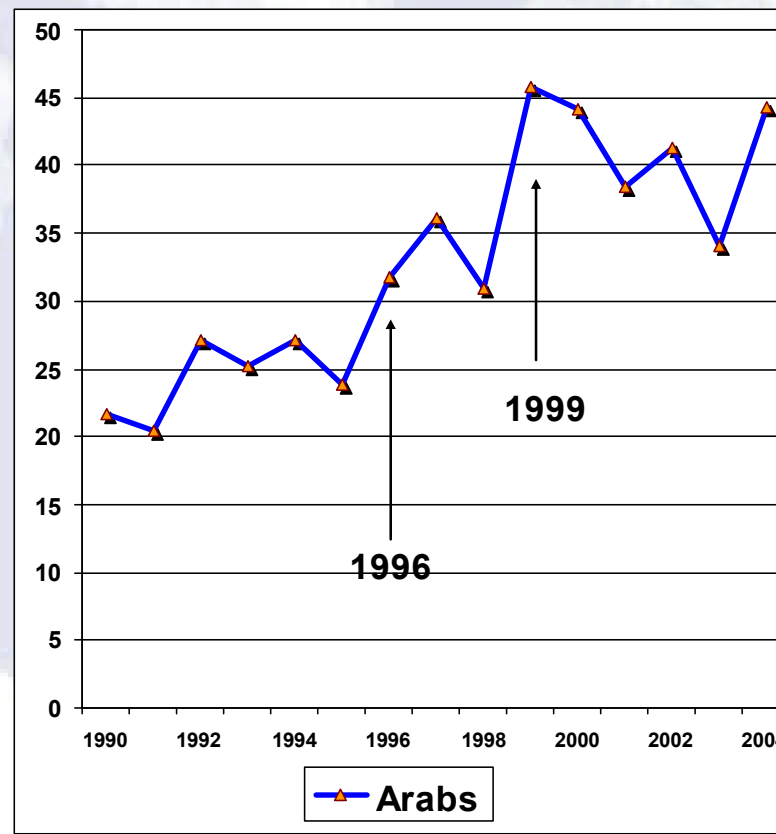
Standardized Incidence rate, Breast

Females 1990-2004,

ASR/100,000



ASR/100,000



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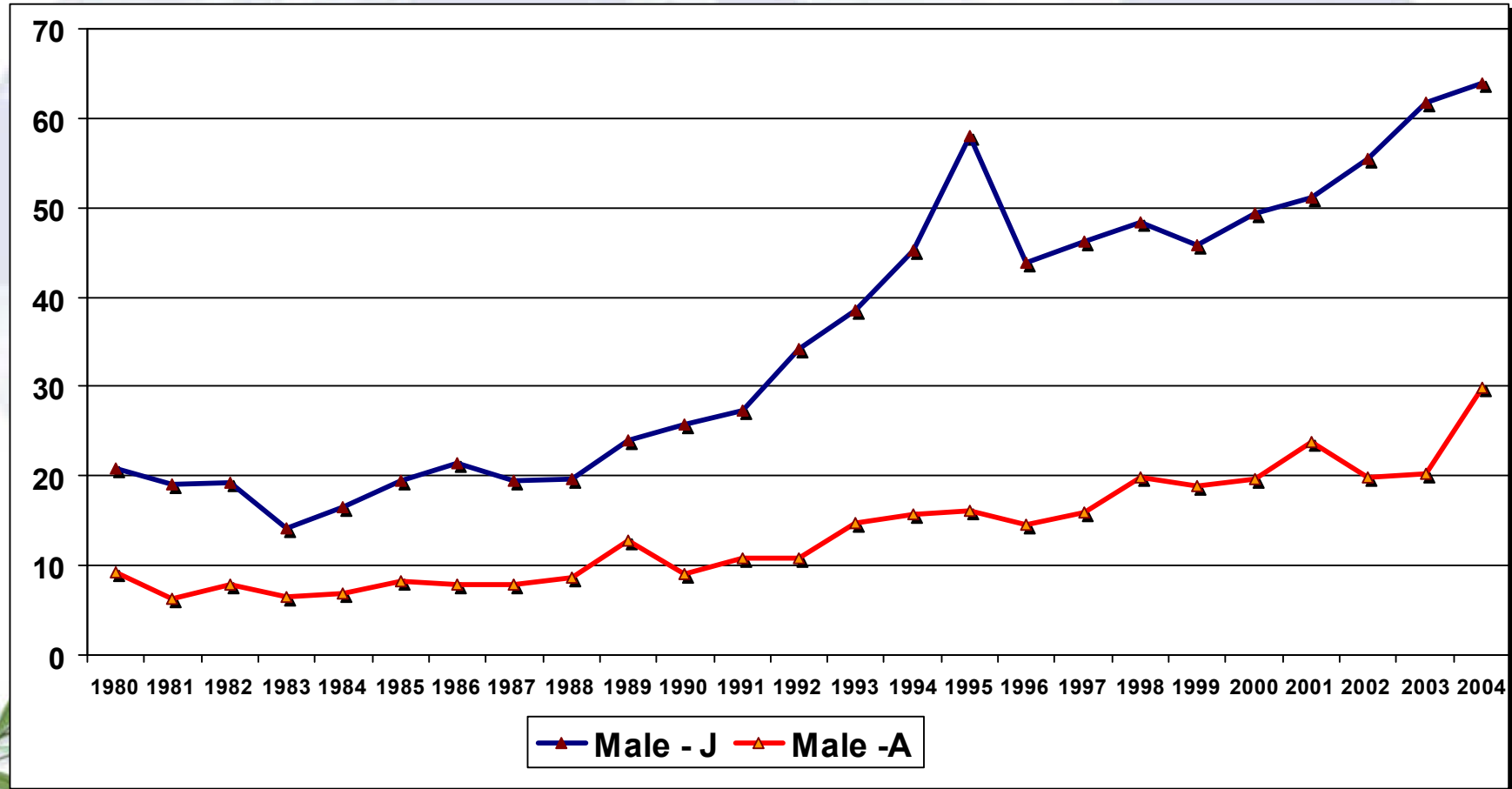
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Standardized Incidence rate, Prostate

1980-2004, Jews & Arabs.

ASR/100,000



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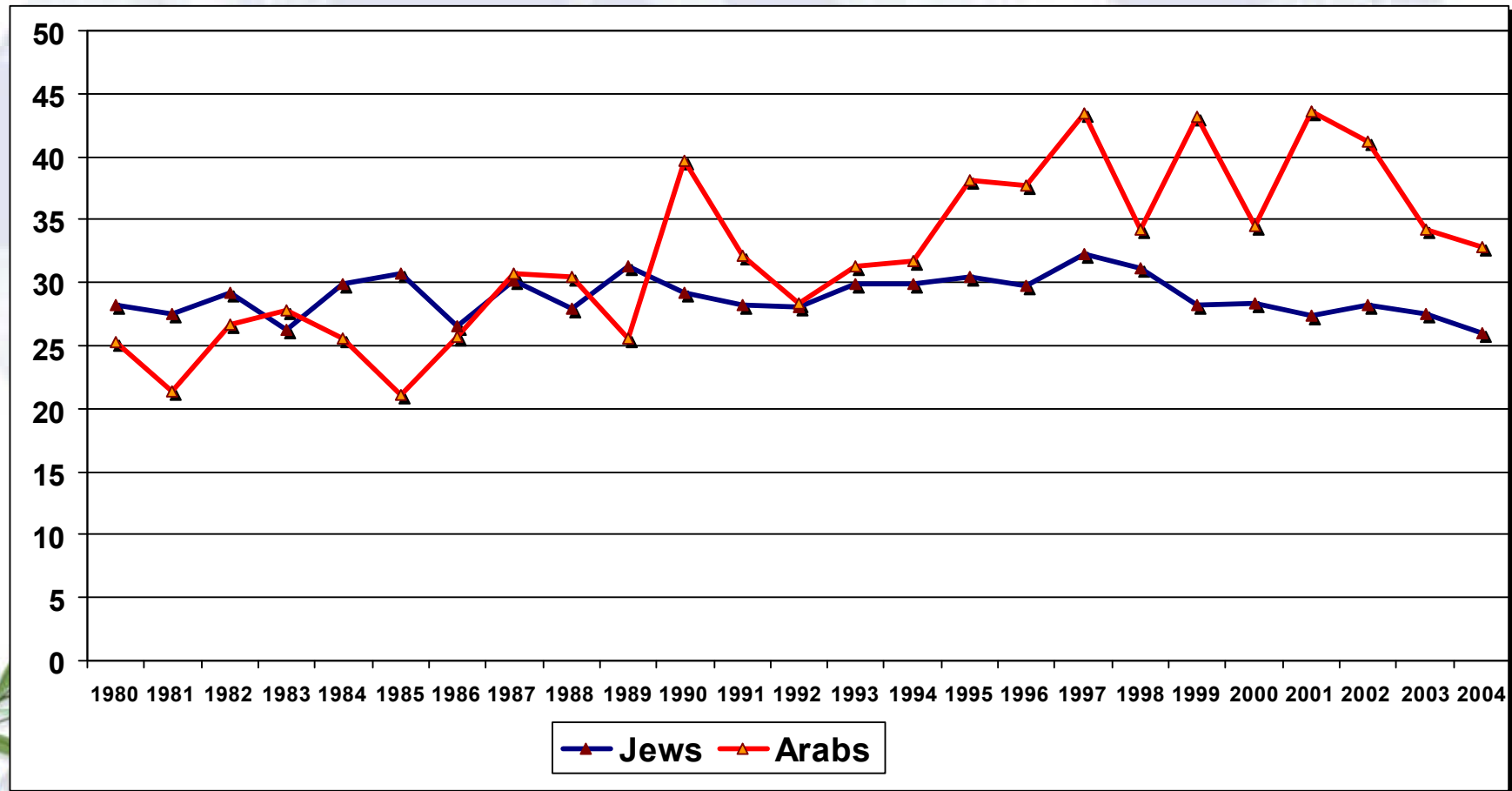
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Standardized Incidence rate, Lung

1980-2004, Jews & Arab, Male.

ASR/100,000



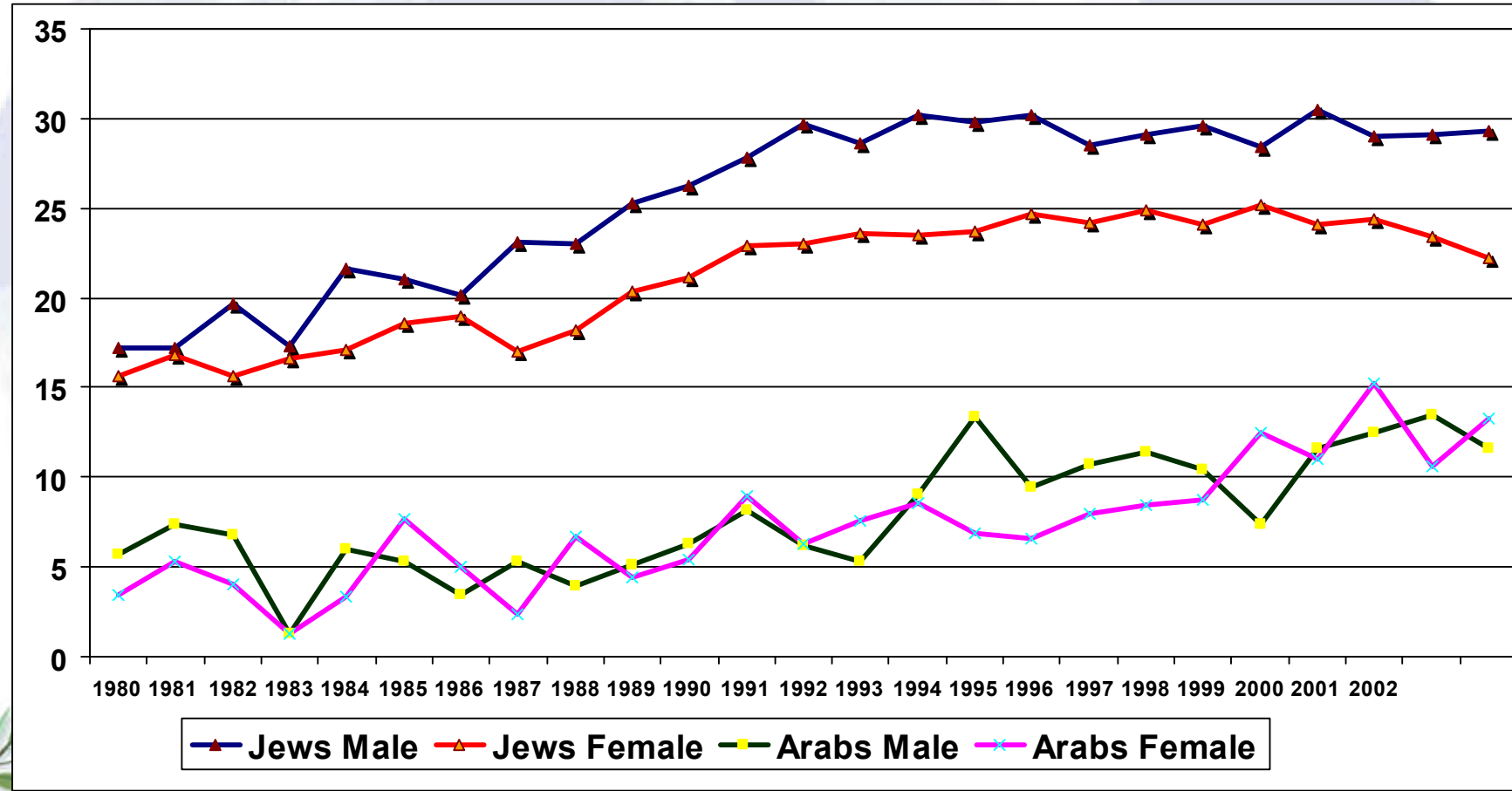
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Standardized Incidence rate, Colon, 1980-2004, Jews & Arabs.

ASR/100,000

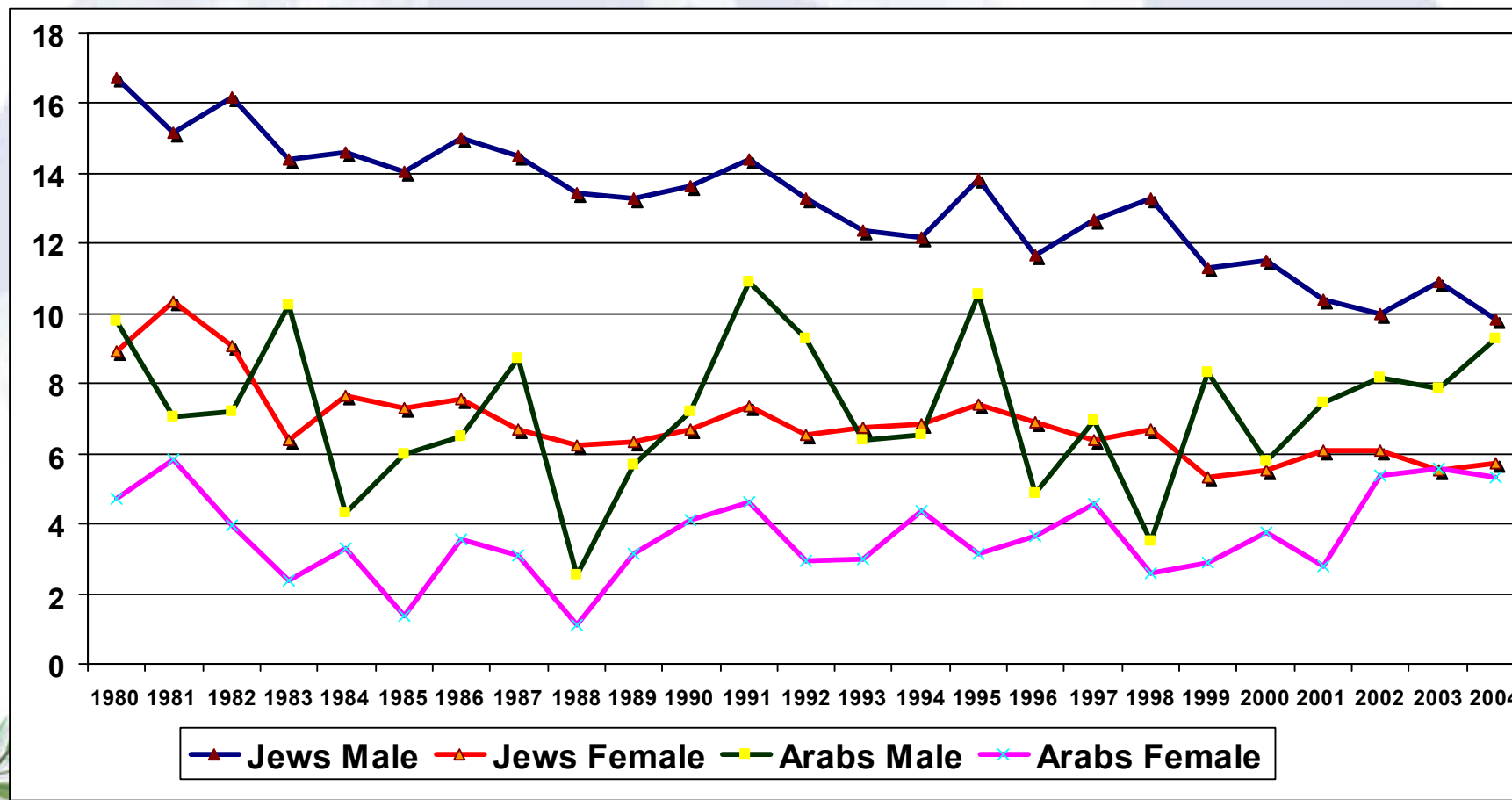


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Standardized Incidence rate, Stomach, 1980-2004, Jews & Arabs.

ASR/100,000

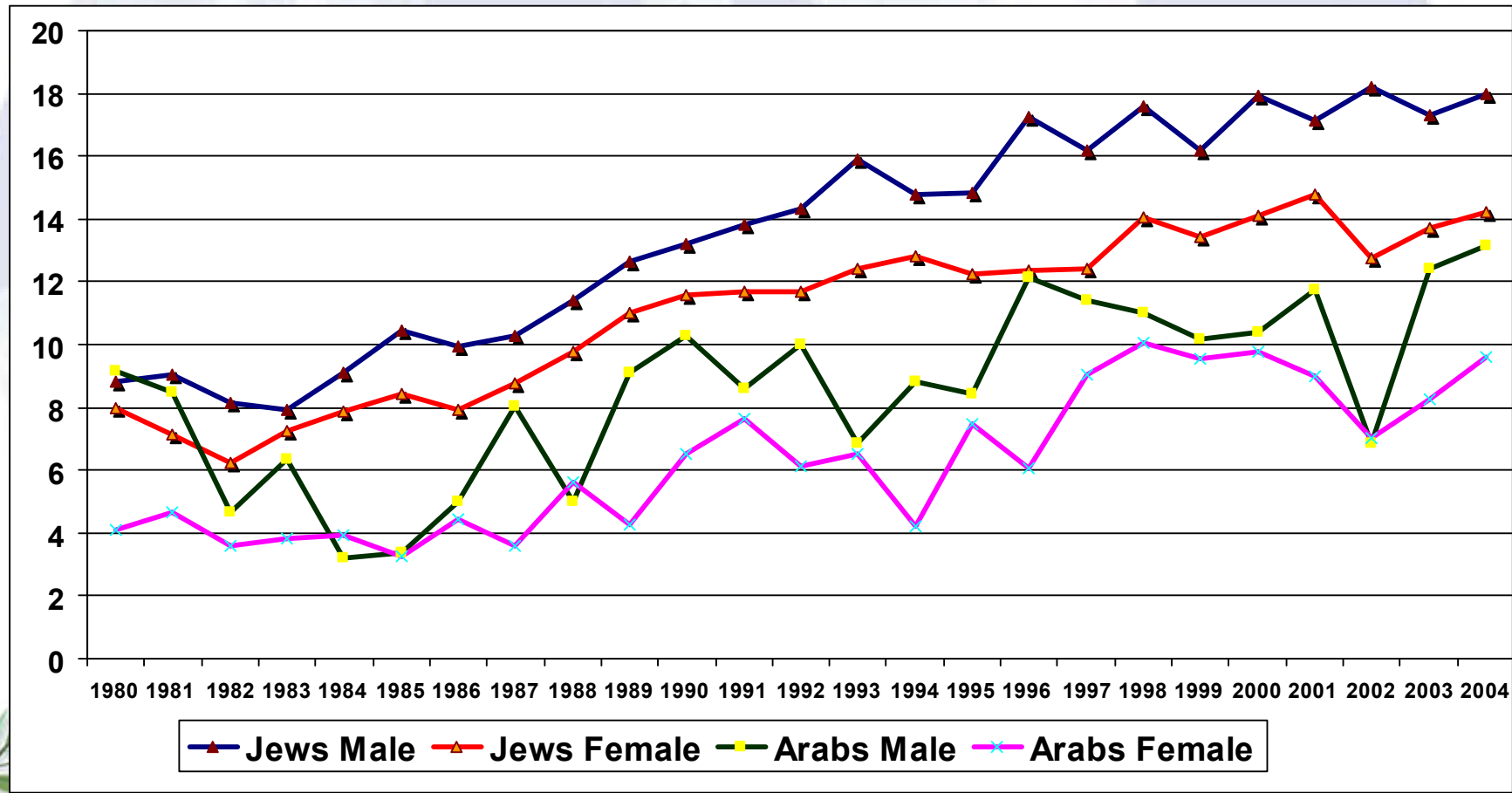


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Standardized Incidence rate, NHL, 1980-2004, Jews & Arabs.

ASR/100,000



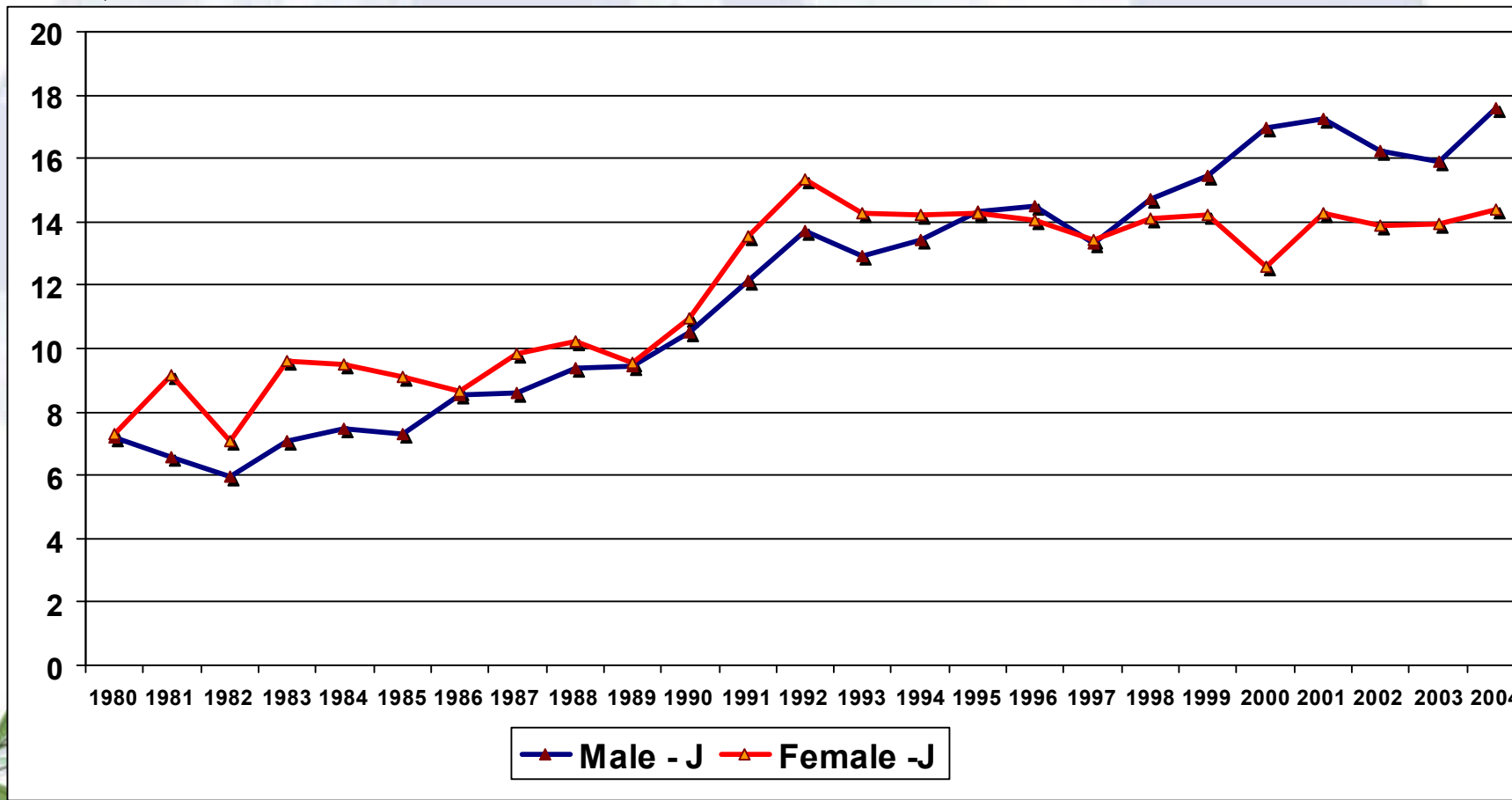
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Standardized Incidence rate, Melanoma

(Malignant Melanoma of Skin, CMM), 1980-2004, Jews.

ASR/100,000



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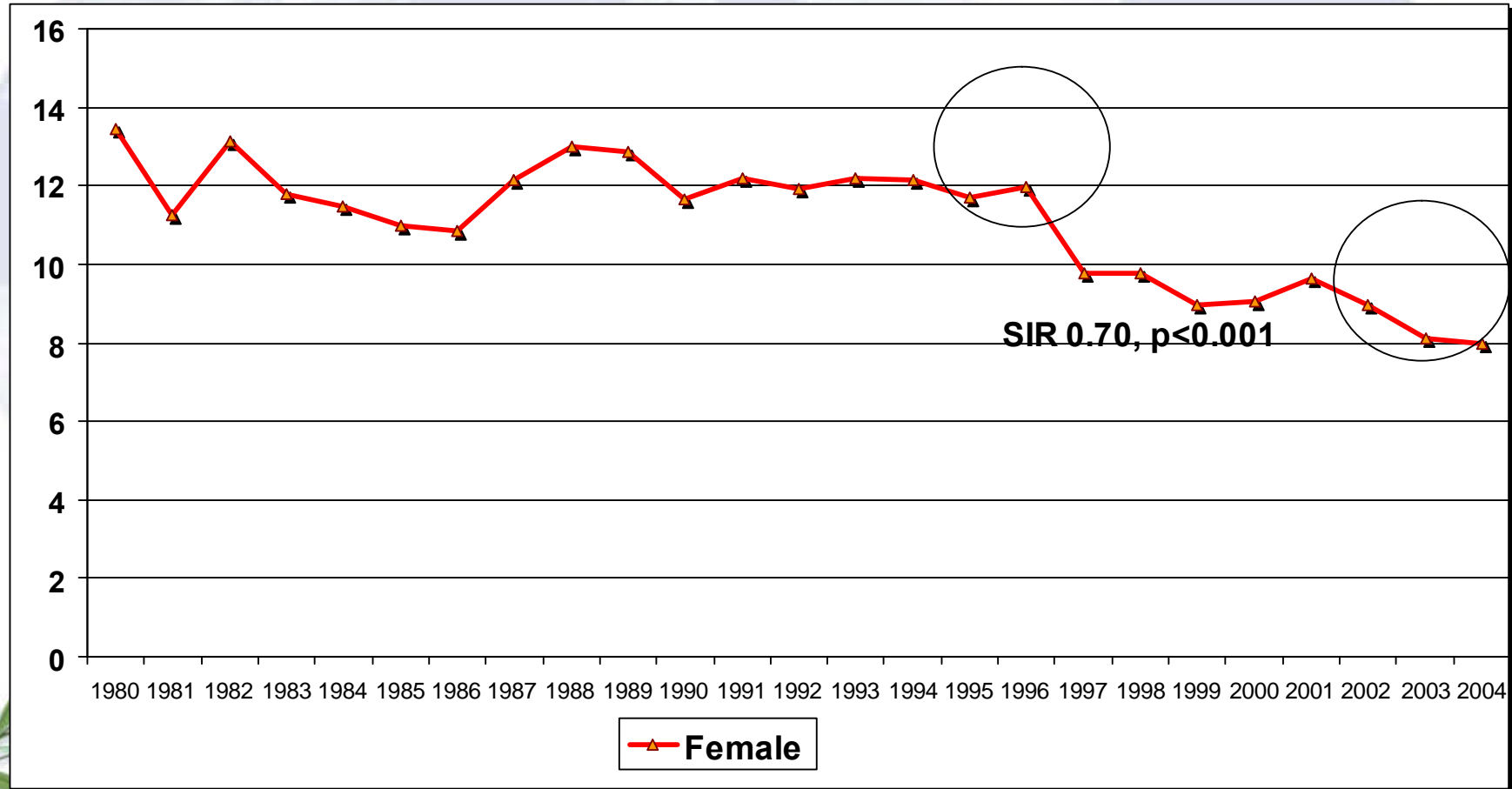
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Standardized Incidence rate, ovary

1980-2004, Jewish Females.

ASR/100,000



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רישום סרטן לאומי

רישום סרטן לאומי לאתר רישום סרטן לאומי



חפש

- רישום סרטן לאומי
- לאתר רישום סרטן לאומי
- Annual Reports
- Special Reports
- MECC
- geographical mapping



- Annual Reports
- Special Reports
- MECC
- Geographical Mapping

Click to activate

- רישום סרטן לאומי
- Annual Reports
- Special Reports
 - אומדן הסיכון לחלת במחלה ממארת בישראל
 - survival
 - Melanoma
 - Colon & Rectum Cancer
 - Breast Cancer
- MECC
- geographical mapping

1274 2005



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www.health.gov.il/icr

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Non-surgical cancer treatment in Israel

**In 2005, about 22500 new cancer
patients were referred for consultation,
treatment and follow up to the Oncology
services in Israel**



6 Cancer Centers in Israel



Ward



Chemotherapy



Clinic



**Radiation
Therapy**

Research Laboratory



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Cancer centers

- **All 6 Cancer centers in Israel are located at major general hospitals**
- **Are affiliated to medical schools**
- **2000 and more new patients are referred to each center every year**



Sheba Medical Center (Near Tel Aviv)



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Institute of Oncology

Rambam Medical Center complex, Haifa



**Institutes of
Oncology and
Hematology**

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Cancer Services



Chemotherapy



Clinic



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A few institutes have a few beds located in internal medicine wards. One institute has a research laboratory



14 Cancer Services in Israel (institutes, units, consultants)

All but one are located in medium size and small general hospitals. One institute is located in a community service



The scientific council of the Israel Medical Association (IMA) is consisted of the national medical societies.

ISCORT is one of 51 medical societies which form the scientific council of IMA.

ISCORT has 225 members, 125 of them are full members (Specialists). ISCORT performs according to the rules of IMA

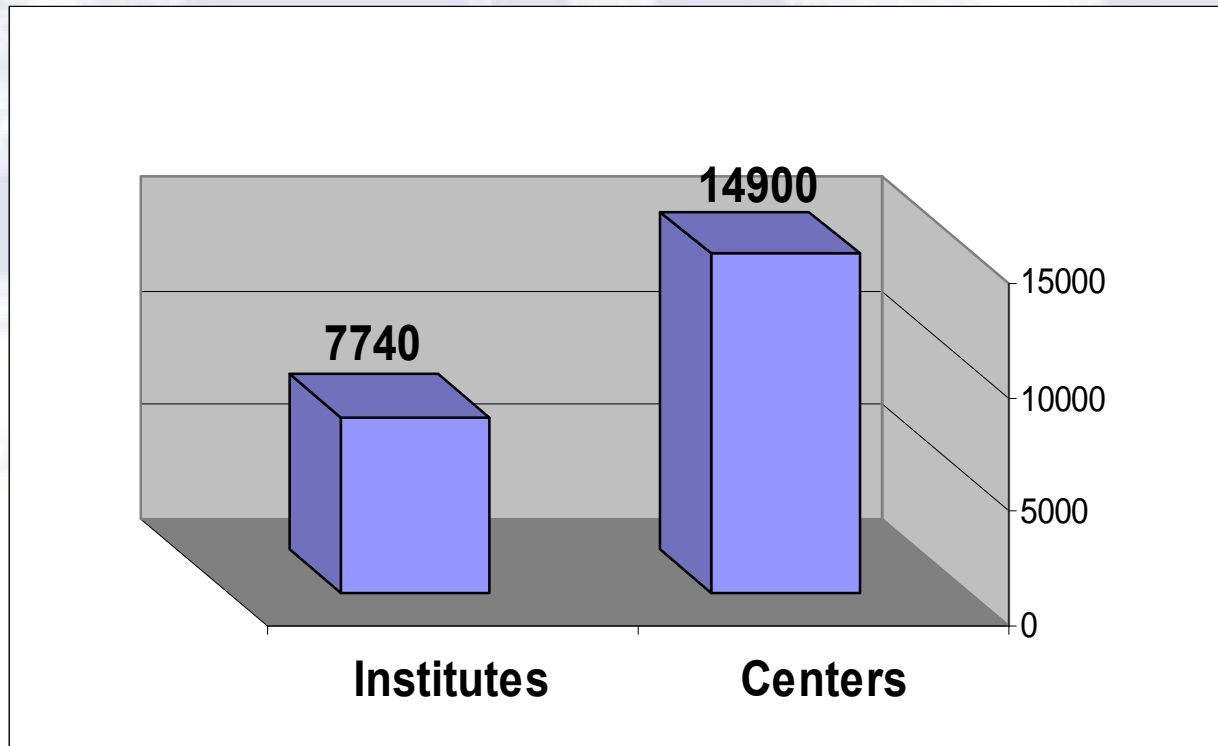
Detailed activity information was derived from annual questionnaires submitted by ISCORT

מכוני רדיותרפיה
שם המרכז
מנהל
מספר חולים 2005
מספר מטופלים ליום
טכניקות טיפול מיוחדות (פרוט)
מאיצים (פרוט)
סה"כ מאיצים
סימולטור (פרוט)
סה"כ סימולטורים
תכנת תכנון טיפול (פרוט)
תכנת שליטה (פרוט)
רופאים בכירים (פרוט)
מתמחים (פרוט)
סהכ רופאים
פיזיקאי ראשי
מומחה מחשבים (פרוט)
סה"כ פיזיקאים (פרוט)
טכנאי קרינה אחראי
סה"כ טכנאי קרינה

שאלון פעילות אונקולוגי 2005
יחידה/מכון/מחלקה/מערך
שם המנהל
דרגה אקדמית
מספר מינויים אקדמאים נוספים - אבקש פרוט שמי
מספר יחידות עם מינוי תקני למנהל יחידה - אבקש פרוט שמי
מספר שירותים רפואיים עם מנהל שירות - אבקש פרוט שמי
האם יש הסמכה למומחיות מלאה/חלקית ומשך ההתמחות המאושר
מספר מומחים באונקולוגיה (אחרי שלב ב) (בפועל)
מספר מתמחים באונקולוגיה
רופאים במעמד אחר
מספר רופאים בהשתלמות ממושכת (שנה+ בחו"ל)
מספר חולים חדשים שהופנו בשנת 2005
מחלקת אשפוז עצמאית/משותפת לפנימית או המטולוגיה
מחלקת אשפוז מספר מיטות תקני
מספר רופאים בפועל במחלקה
תפוסת מחלקת אישפוז באחוזים לשנת 2005 אם יש
טיפול יום: מספר רופאים בפועל
מספר אחיות (משרות)
מספר עמדות טיפול
מספר טיפולים בטיפול יום בשנה (הערכה לשנת 2005)
מרפאה: מספר רופאים בפועל
מספר אחיות (משרות)
מספר ביקורי מרפאה בשנה (הערכה לשנת 2005)

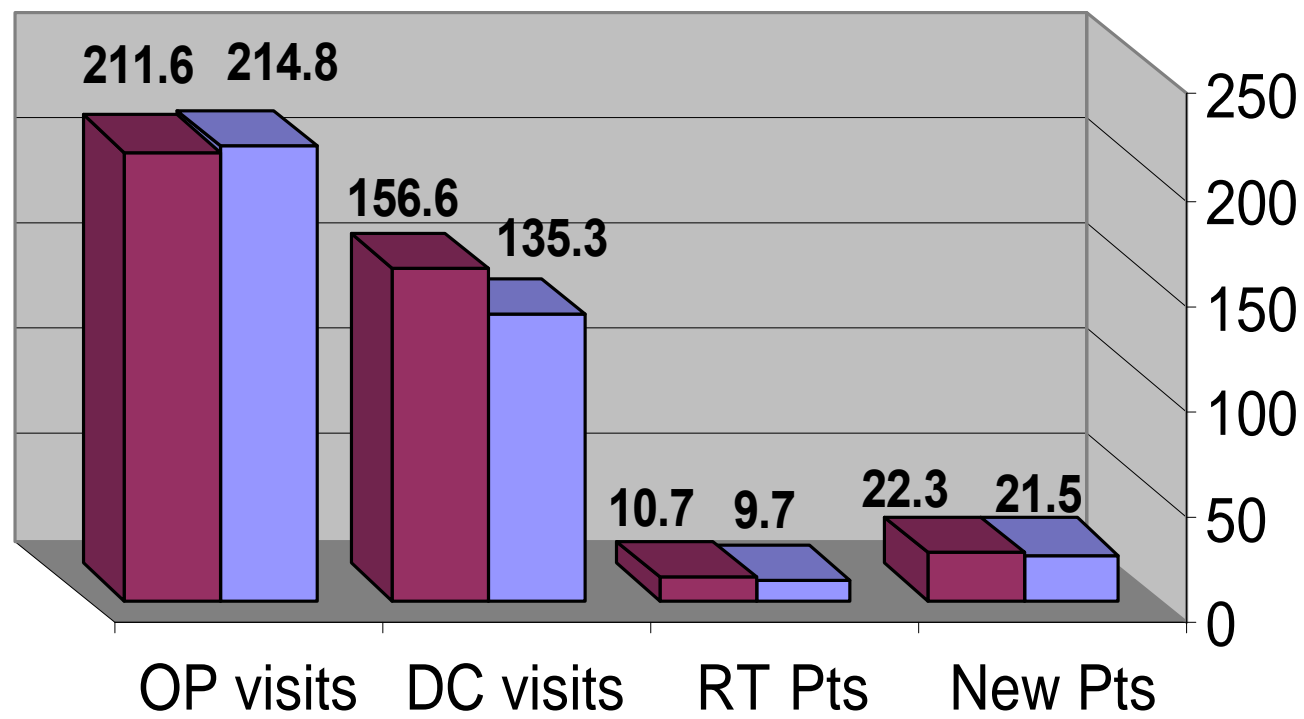


New cancer patients referral to cancer centers and institutes 2005



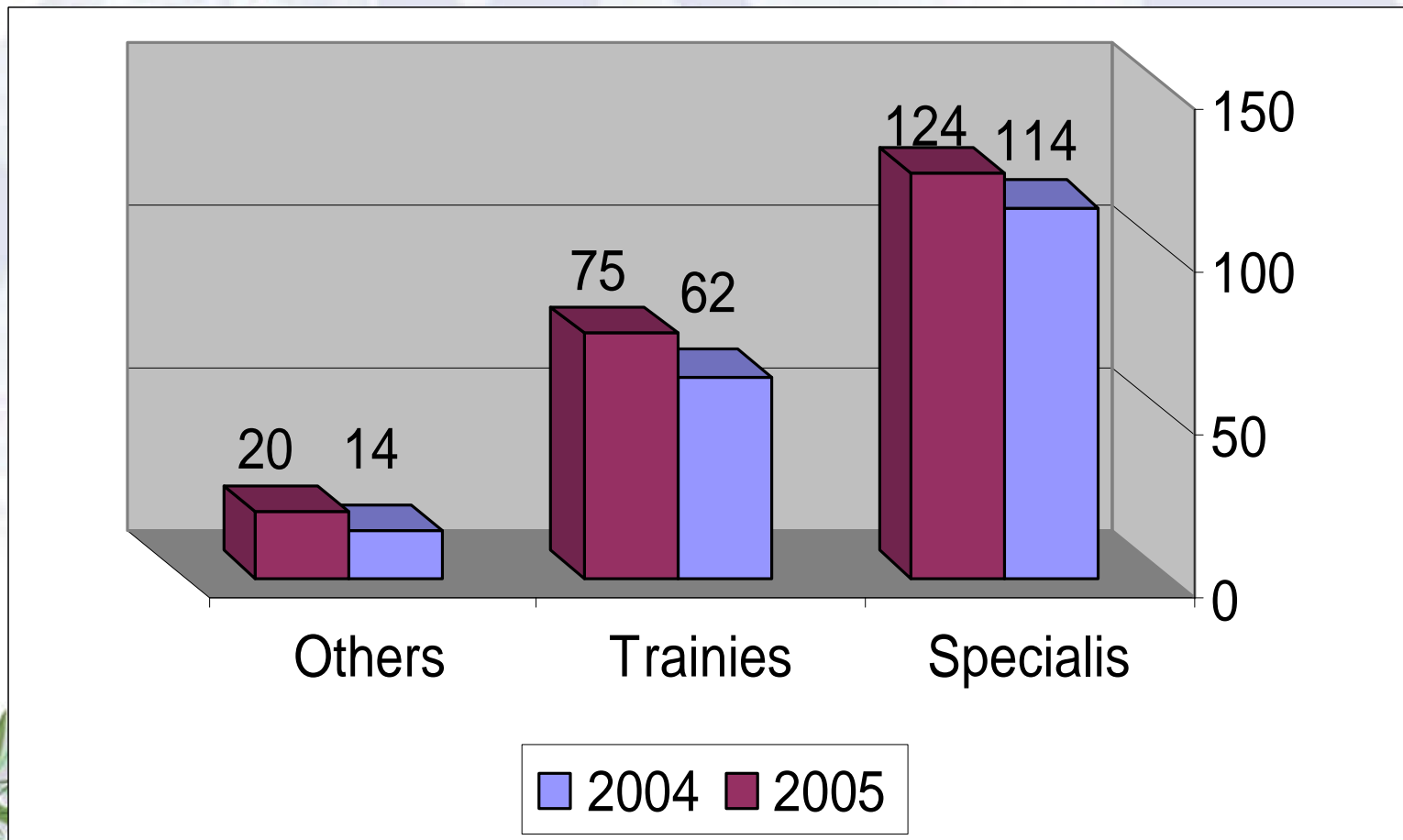
22340 new cancer patients were referred to oncology in 2005

Non surgical activities in Israel: 2004 vs 2005



2004 2005

Physicians numbers 2004 vs 2005



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The Israeli Oncologist until 2006 pull me push you -the rarest animal

Medical
Oncology

The Israeli
Oncologist

Radiation
Oncologist



Dualism of Oncology in Israel



★★★ CONGRESS
ESMO

31st ESMO Congress
29 September - 3 October 2006, Istanbul, Turkey

1487

**Yoram
COHEN**

Omer, ISRAEL

ESMO Member

ESTRO 
European Association of
Oncology Therapists, Radiotherapy and Oncology



Yoram Cohen

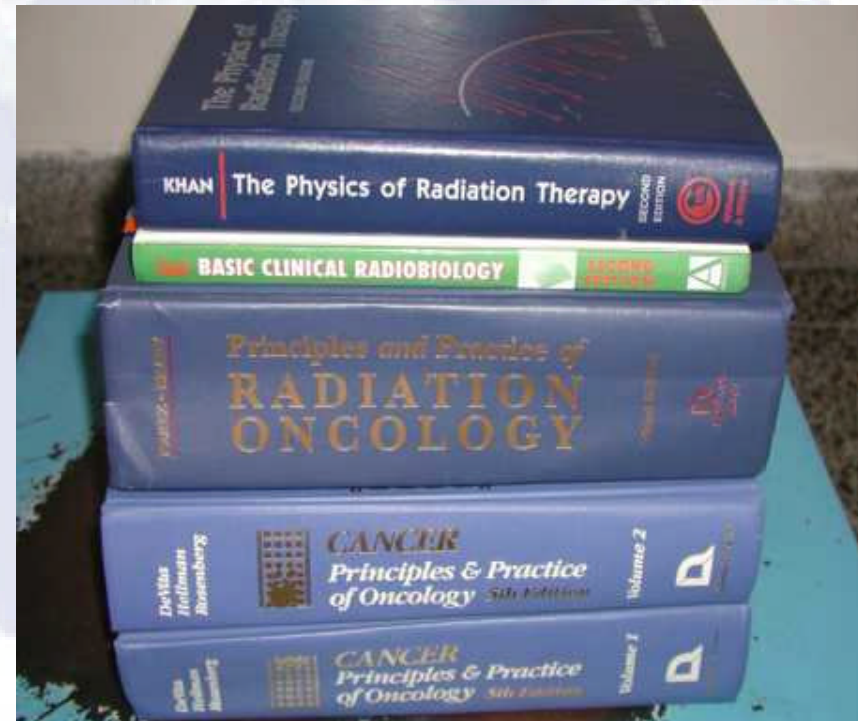
Israel

M E M B E R


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Textbooks in Radiation and Medical Oncology



Since 2006 we have 2 sub-specialties Clinical & Radiation Oncology



Common program
12 months radiotherapy
12 months chemotherapy
9 months internal medicine
3 months rotation
6 months basic sciences
Written examination

Radiation Oncology
2 years radiation therapy
Oral examination

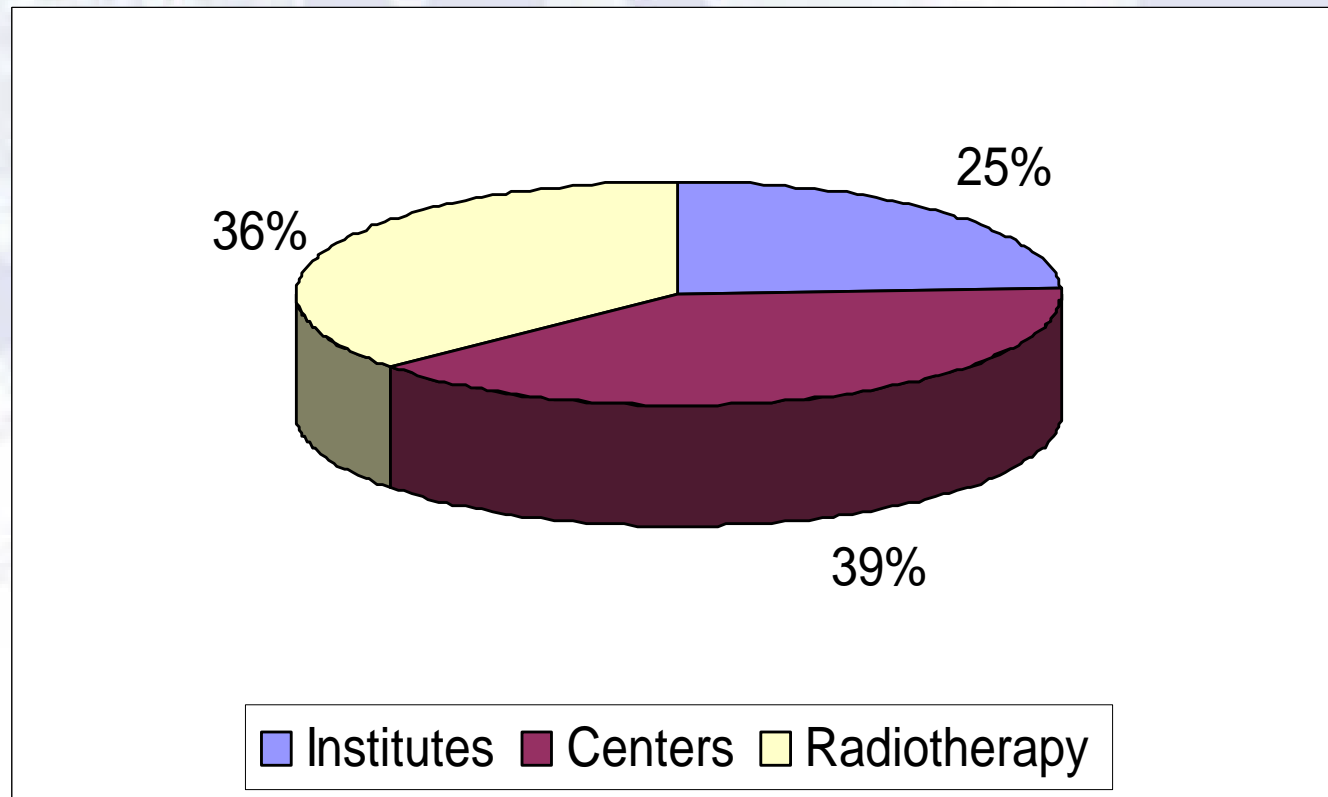
Clinical Oncology
2 years chemotherapy
Oral examination

Radiation Oncologist

Clinical Oncologist



Annual visits to centers, institutes and radiotherapy institutes (2005)

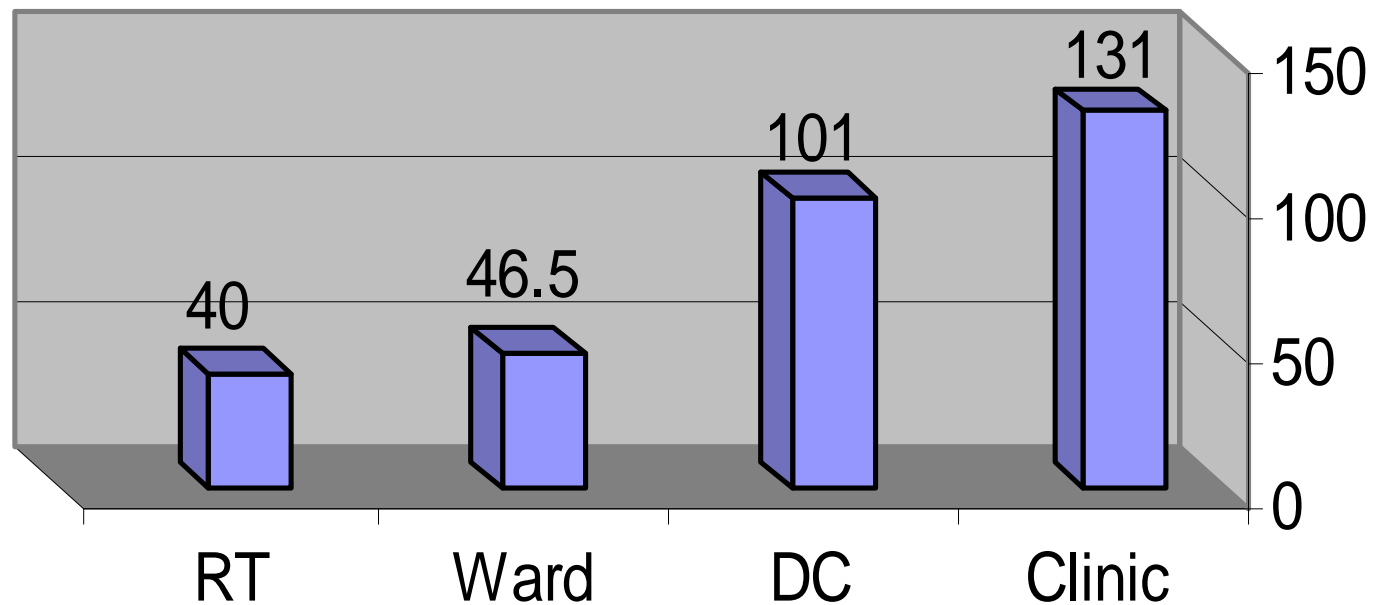


Institutes – 141000

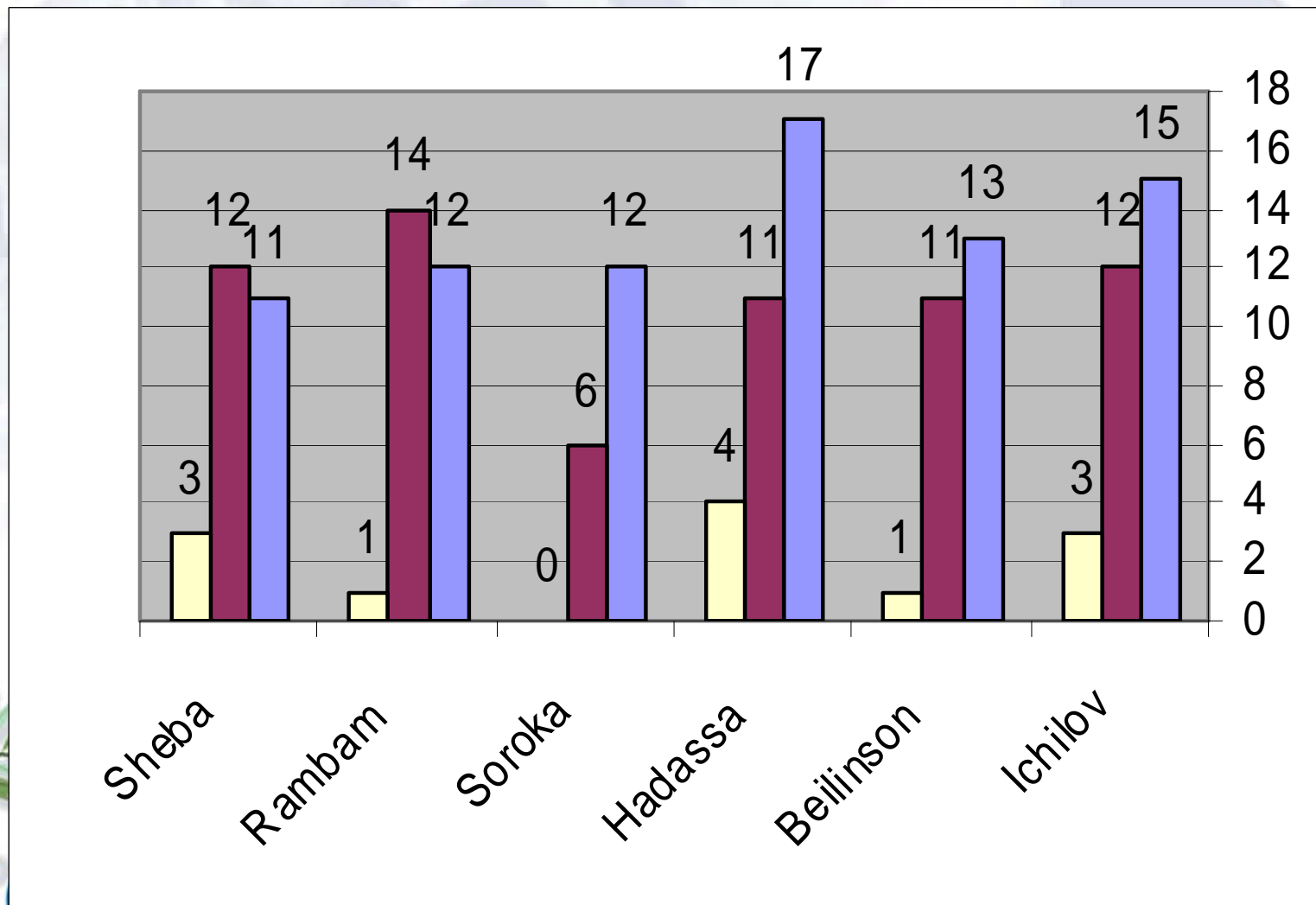
Centers – 225000

Radiotherapy - 209000

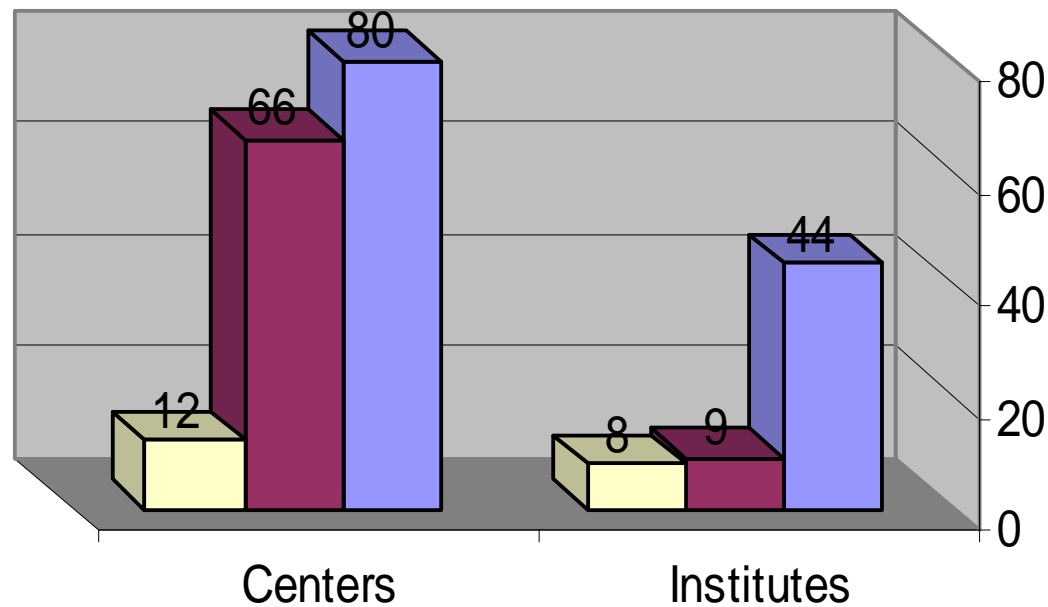
**Number physicians according to agreements
with the employers
215 as compared to expected 290**



Specialists & trainees in cancer centers in Israel

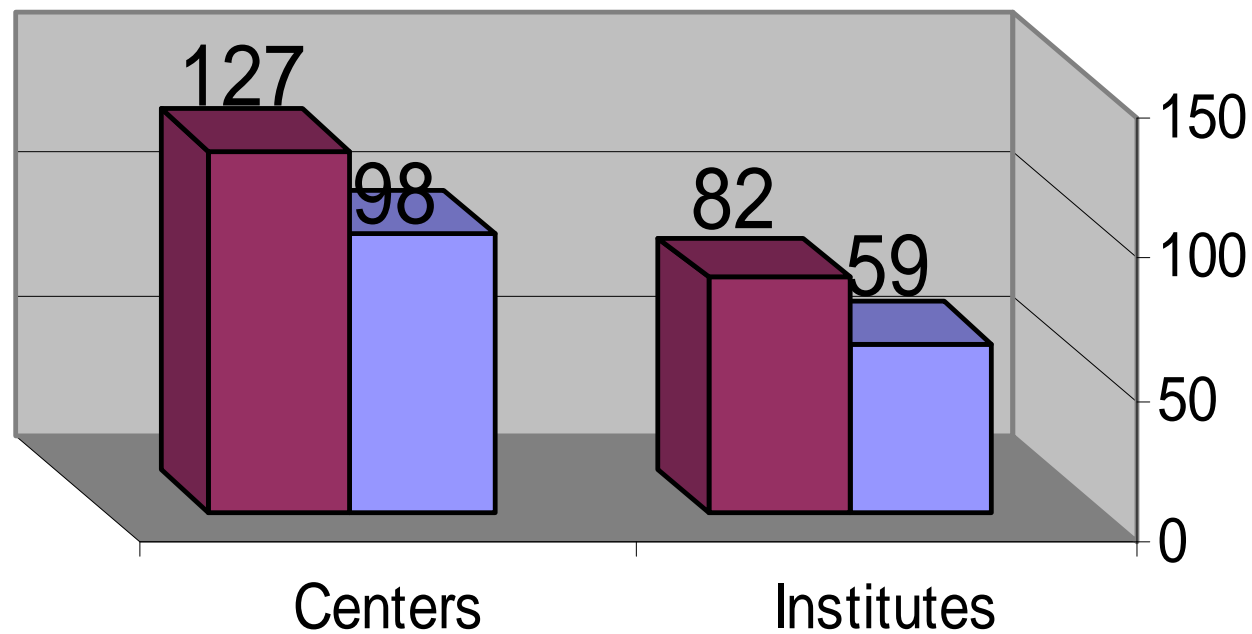


Specialists and trainees in Cancer Centers and Institutes



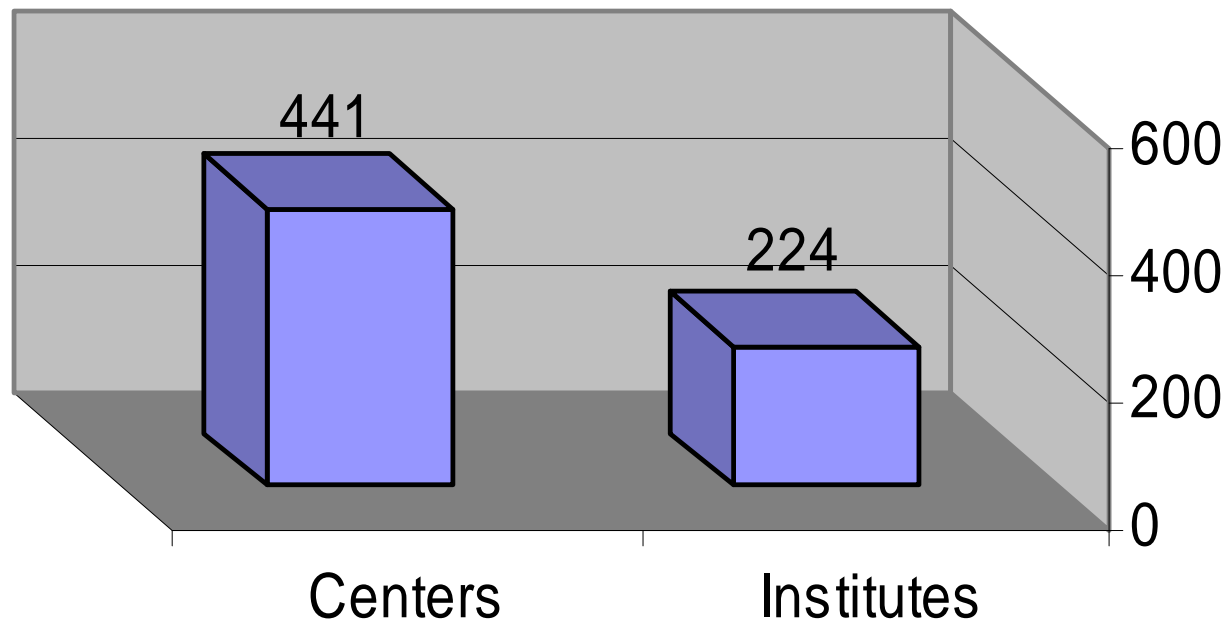
■ Specialist Trainees ■ Trainees ■ Others

Day care and clinic activities in Cancer Institutes and Centers in Israel 2005 (thousands)



■ DC visits ■ Clinic visits

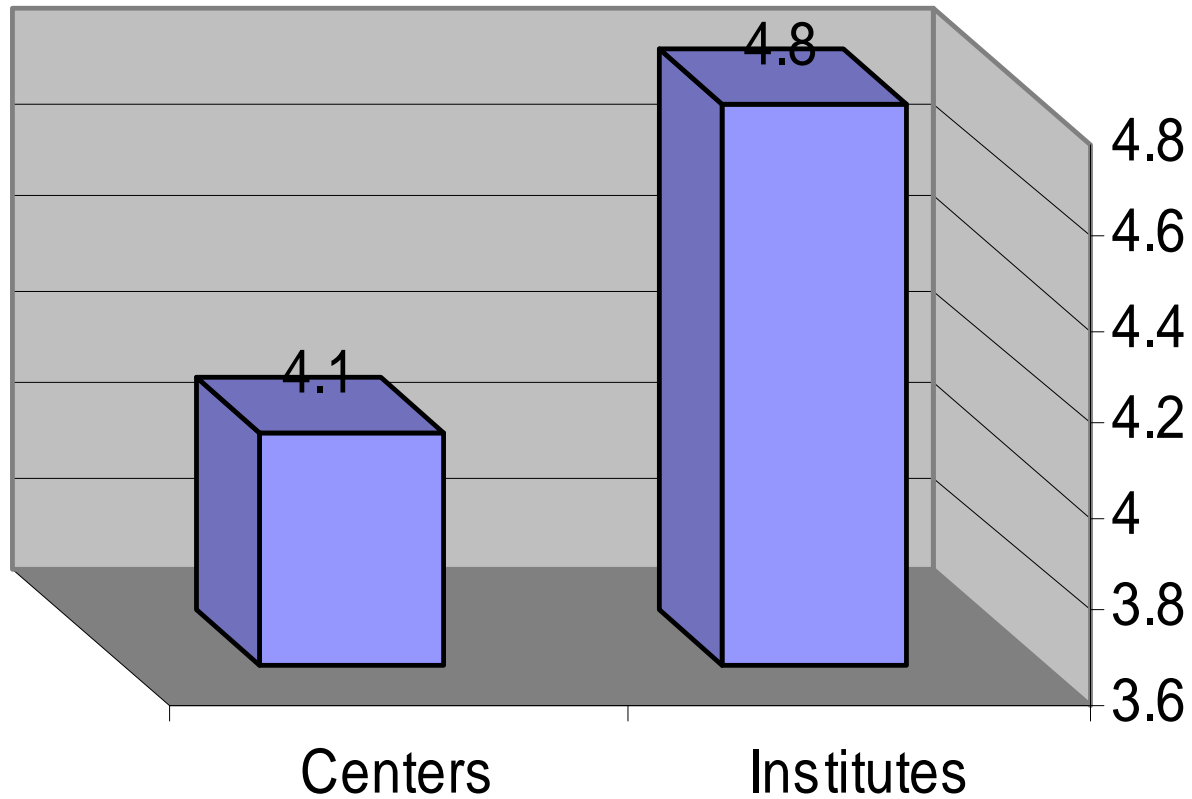
Number of DC treatments per station in Institutes and Centers in 2005



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Treatment stations per nurse in Cancer Centers and Institutes 2005



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Summary

- Israel population is 7 millions
- About 23500 new cancer patients per year
- The most common cancers in Israel are Breast, colorectal, prostate and lung. Cancer of the cervix is relatively rare. There is a significant difference in cancer incidence for Jewish and Arab populations as well for Jews of different ethnic origin.
- 90% of cancer patients are referred to 6 cancer centers and 14 institutes. 6 Radiotherapy institutes all located within cancer centers
- 10700 cancer patients (45%) are treated annually by radiotherapy
- The Oncology specialty was subdivided in 2006 to 2 subdivisions: Clinical Oncology and Radiation oncology
- We have only 125 Oncology specialists and about 75 trainees
- There is a national program to enhance radiotherapy in Israel