

Burden of Disease

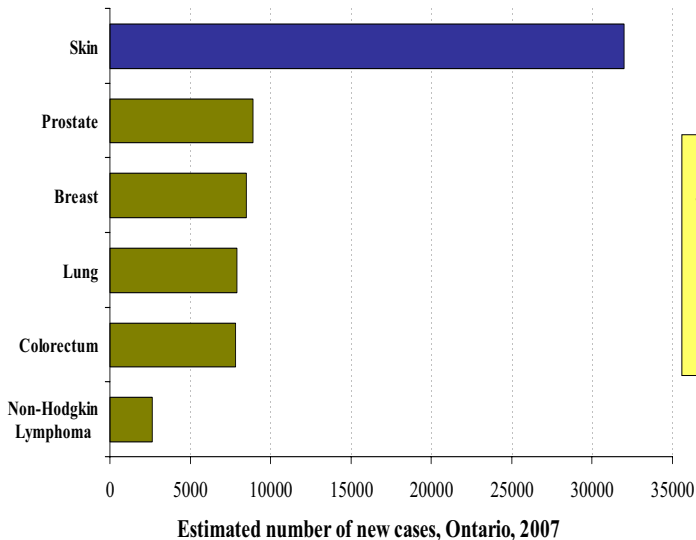
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Most common cancers, Ontario, 2007*



- 32,000 Ontarians will be diagnosed with skin cancer in 2007
 - 1/3 of all new cancers
 - 2,000 are melanoma

Source: Canadian Cancer Statistics 2007



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Current hypotheses re sun exposure and skin cancer

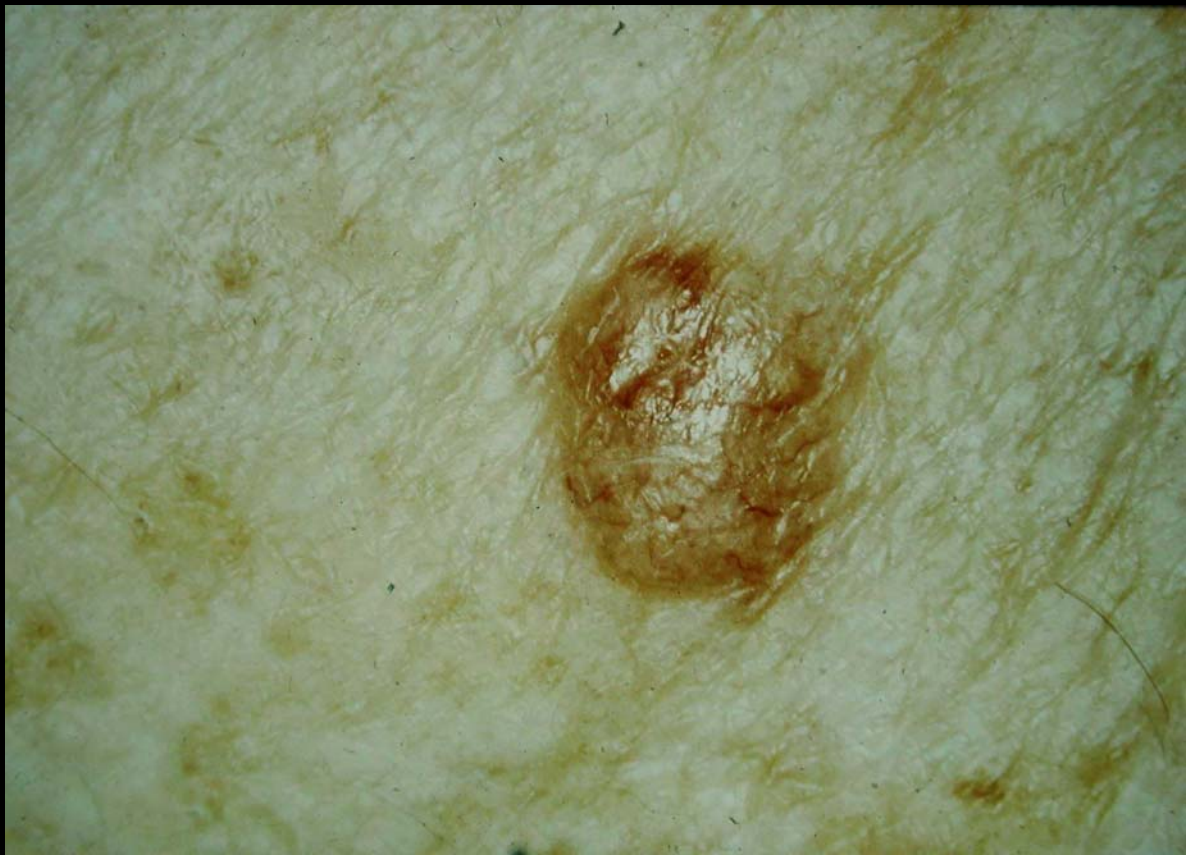
Squamous cell carcinoma:

- *cumulative amount* of exposure important
- exponential increase in risk with exposure

Basal cell and melanoma:

- *intermittency* and *amount* of exposure both important

Basal Cell Carcinoma









Squamous Cell Carcinoma









Malignant Melanoma





Diagnosis of Melanoma

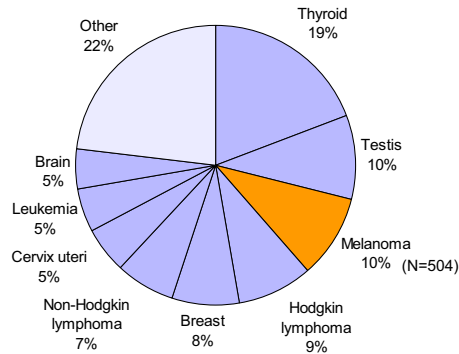
- A. Asymmetry
- B. Border - irregular edge
- C. Colour - 2 or more
- D. Diameter > 6 mm.
- E. Evidence of change**





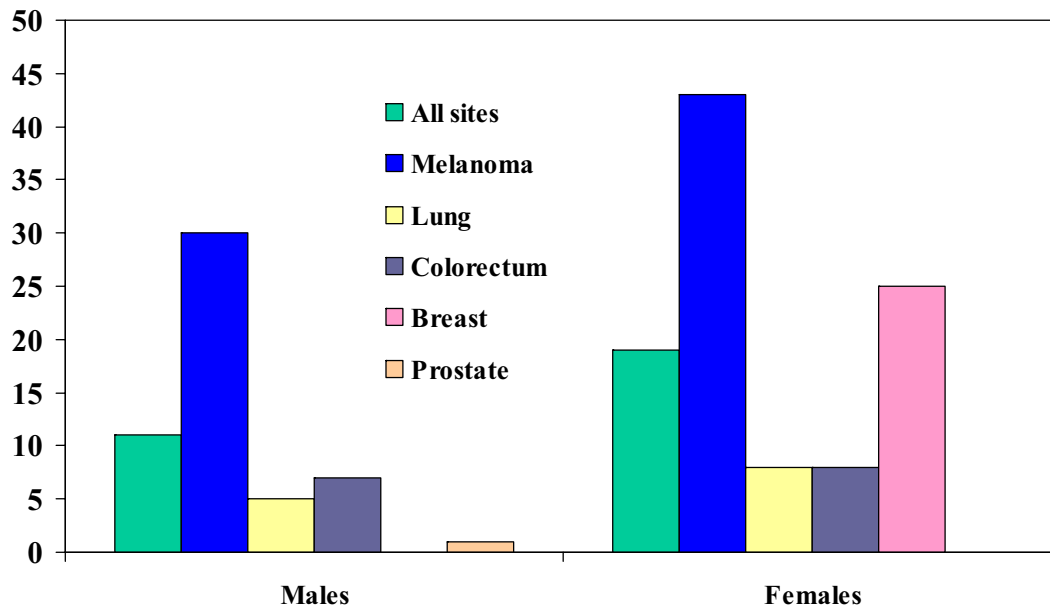
Common cancers of young adults, Ontario

- 10% of cancers in 15-34 year olds are melanomas
- Tied for second rank
- Only thyroid cancer is more common



Source: Cancer Care Ontario (Ontario Cancer Registry, 2007)
Cases diagnosed at ages 15-34 in 2002-2004.

Percent of new cases aged under 50 years

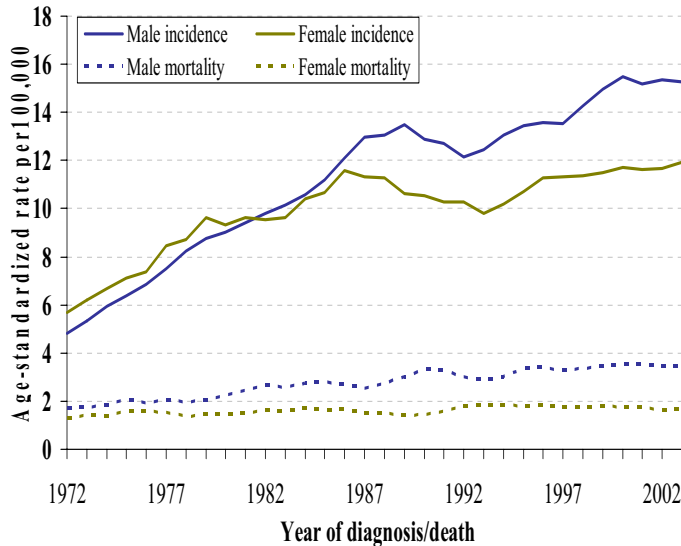








Melanoma incidence and mortality rates*, Ontario, 1971-2004



- Incidence & mortality higher in males
- Incidence increasing again
 - Following a period of decline/stability
- Mortality increasing steadily in both sexes

Source: Cancer Care Ontario (Ontario Cancer Registry, 2007).

*3-year moving averages standardized to the Canadian 1991 population.



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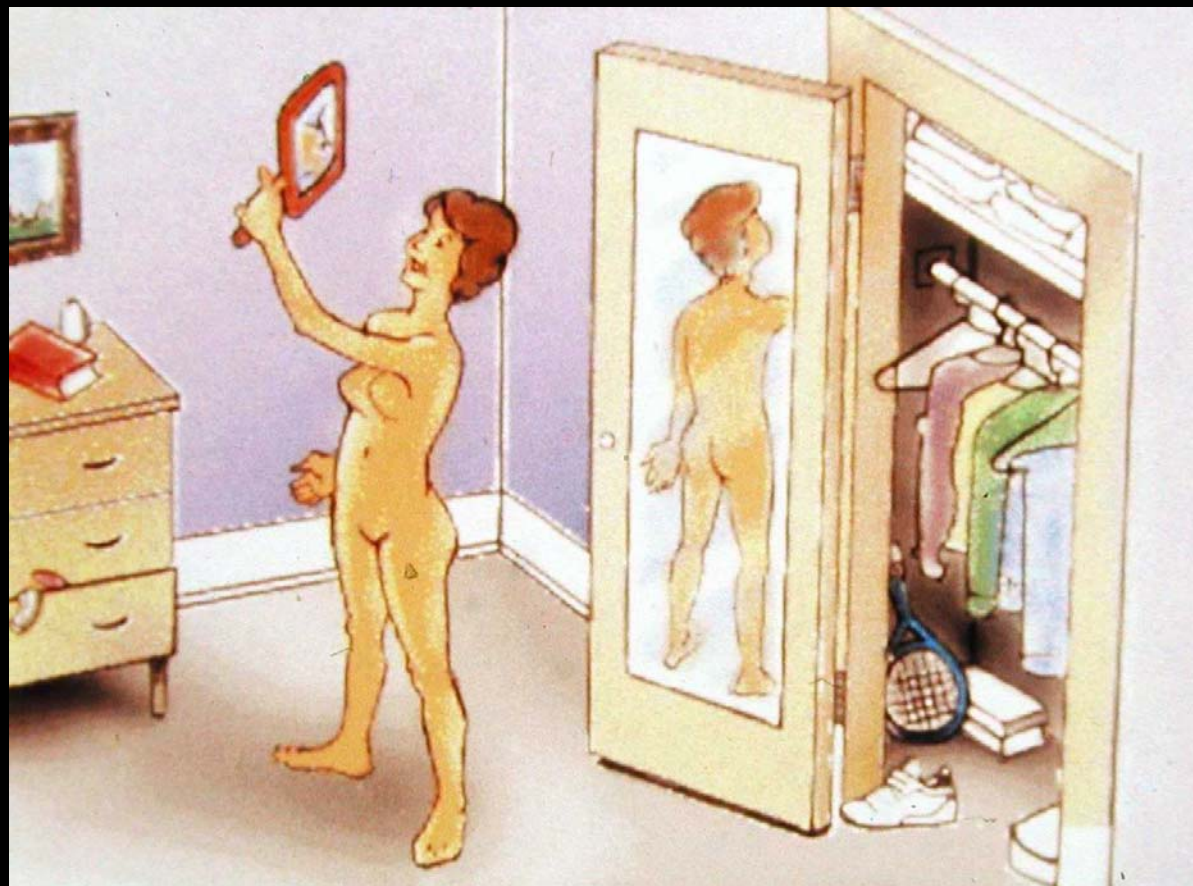
High Risk (5x)

Two or more of:

- A first degree relative with melanoma
- Many (50 – 100) nevi
- 1 or more atypical (dysplastic) nevi
- Naturally red or blond hair
- A tendency to freckle
- Skin that burns easily, tans poorly

Very High Risk (10x)

- Immunosuppressive therapy
- Personal history skin cancer
- 2 or more first degree relatives with melanoma
- > 100 nevi or > 5 atypical nevi
- Psoriasis patients who have received > 250 treatments with PUVA
- Irradiation therapy in childhood



**Skin cancer is among
the most costly of all
cancers to treat for the
Medicare population.**

Housman TS et al, JAAD 2003; 48: 425-429

Medicare Cost 1995

	<u>Million US\$</u>
•Non-melanoma skin cancer	\$ 562
•Breast cancer	\$ 840
•Prostate cancer	\$1,706
•Lung cancer	\$1,793
•Colon cancer	\$1,479

Annual Incidence

- Non-melanoma skin cancer 1,300,000
- Breast cancer 183,000
- Prostate cancer 180,000
- Lung cancer 164,000
- Colon cancer 130,000

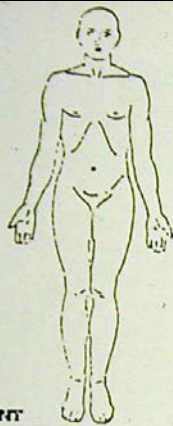


Lifetime Skin Cancer Risk

- Basal Cell Carcinoma 1 in 6
- Squamous Cell Carcinoma 1 in 6
- Malignant Melanoma 1 in 90

Ultraviolet Working Group (UVR) of the TCPC

- 95% of skin cancer is related to sun exposure
- Most skin cancers are preventable
- Treatment and follow-up of skin cancer is costly
- Skin cancer causes mutilation and can be fatal

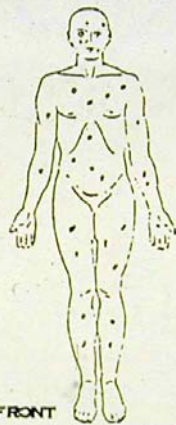


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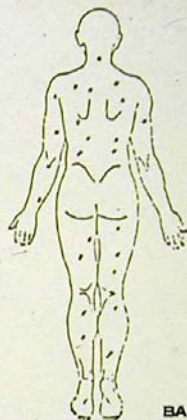


BACK

FRONT

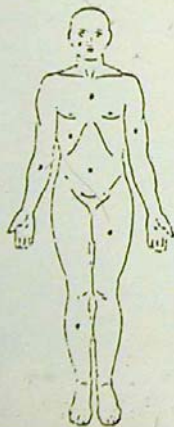


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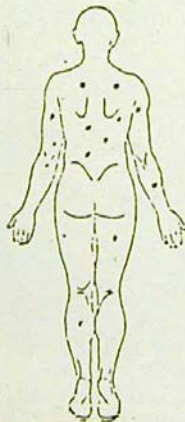


BACK

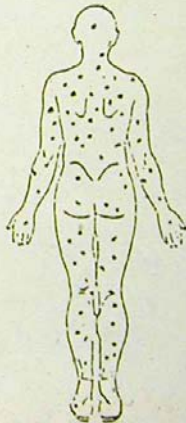
FRONT



2



4





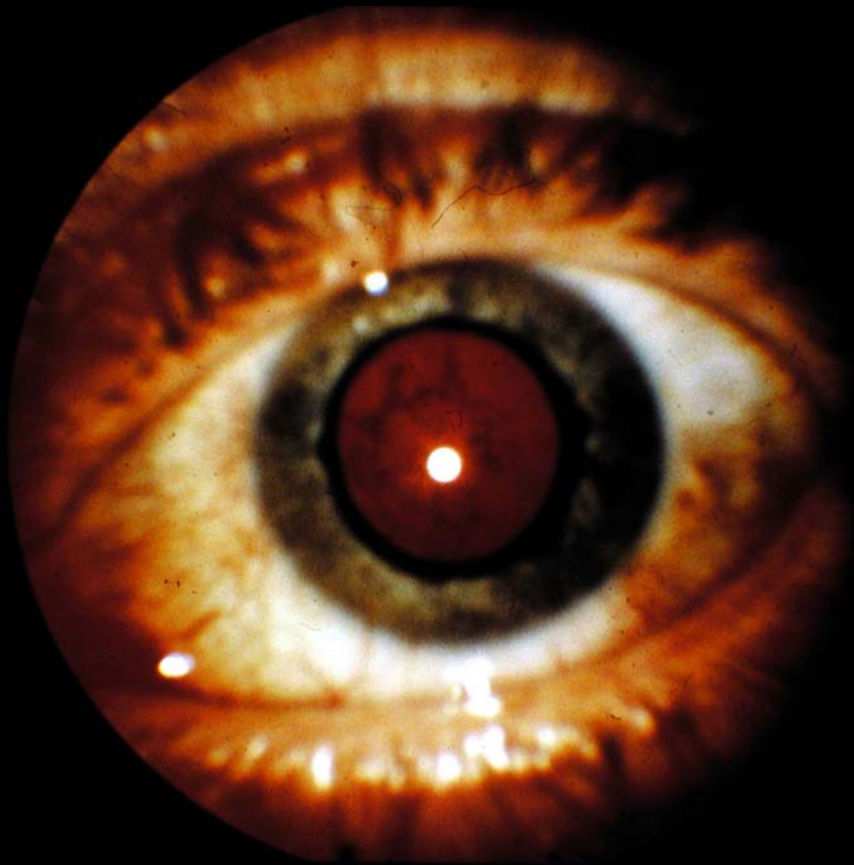
TBC/SMC

cm

Ruppel
Hank

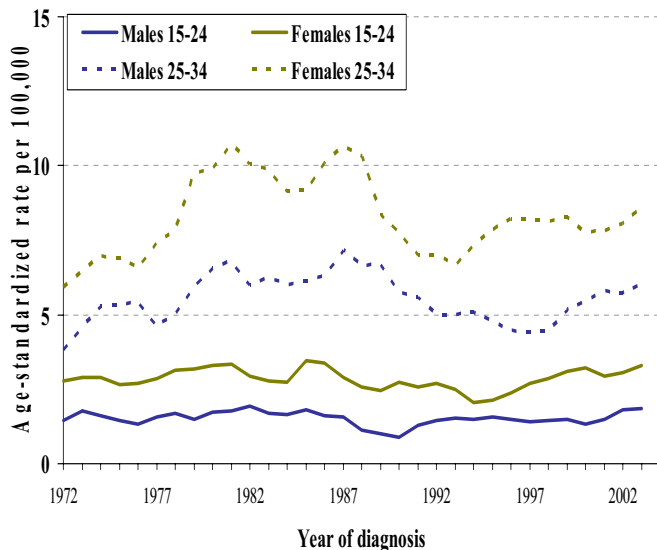
A blue rectangular card is placed below the lesion for scale. The card features a horizontal line with a vertical tick at each end, labeled "cm". To the right of the line, the text "TBC/SMC" is printed. Below the line, the name "Ruppel" is handwritten in white ink, with "Hank" written below it. A large, faint white outline of the letter "R" is also visible on the left side of the card.







Melanoma incidence rates*, for young adults, Ontario, by sex, 1971-2004



• Rates are increasing for both 15-24 and 25-34 year olds of both sexes

Source: Cancer Care Ontario (Ontario Cancer Registry, 2007).

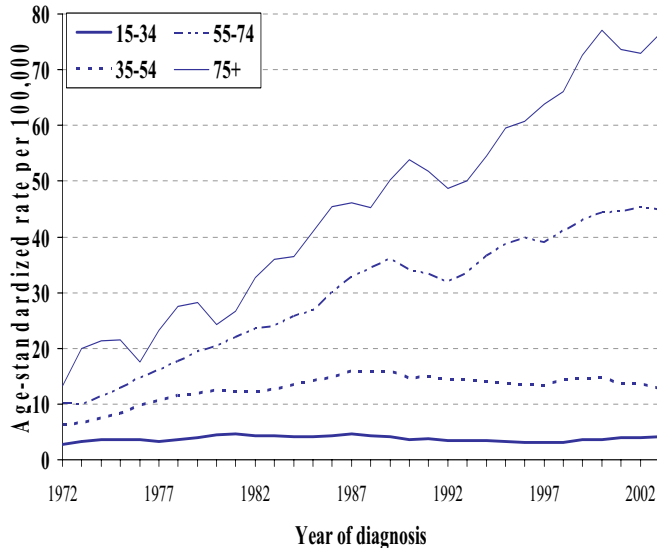
*3-year moving averages standardized to the Canadian 1991 population.



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Melanoma incidence rates*, by age, Ontario, males, 1971-2004

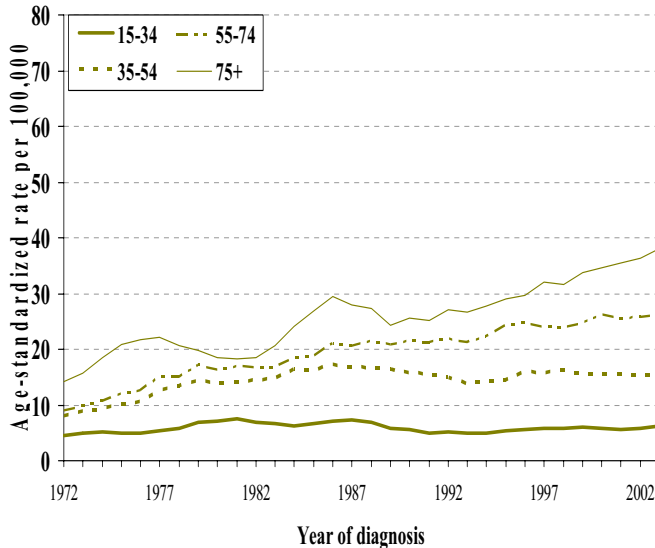


- Increasing very recently in 15-34 year olds, after long period of stability/decline
- Declining in 35-54 yr olds
- Increasing at older ages

Source: Cancer Care Ontario (Ontario Cancer Registry, 2007).

* 3-year moving averages standardized to the Canadian 1991 population.

Melanoma incidence rates*, by age, Ontario, females, 1971-2004



- Increasing in 15-34 year olds, after a period of stability or decline
- Stable for 35-54 yr olds
- Increasing at older ages
- Rates much lower than for males at older ages (55+)

NOTE: Rate scale is same as for males

Source: Cancer Care Ontario (Ontario Cancer Registry, 2007).

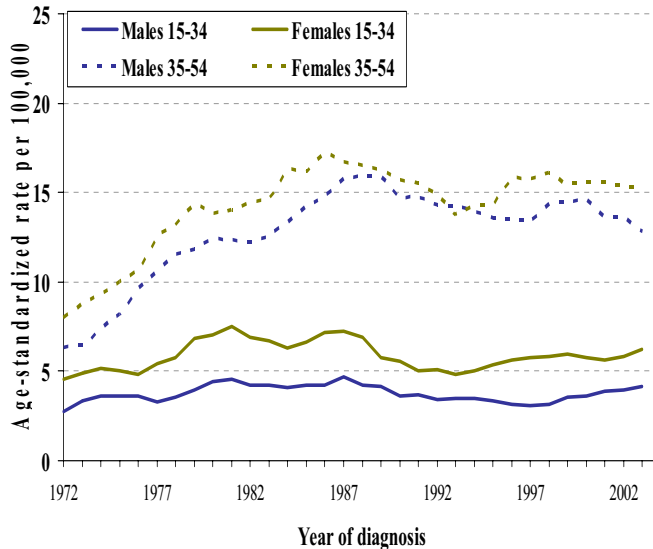
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Melanoma incidence rates*, for those <55, Ontario, by sex, 1971-2004



- Using a better scale for younger age groups, we can more clearly see trends
- Males and females have similar trends, but females have higher incidence

Source: Cancer Care Ontario (Ontario Cancer Registry, 2007).

*3-year moving averages standardized to the Canadian 1991 population.