

# Skin melanoma

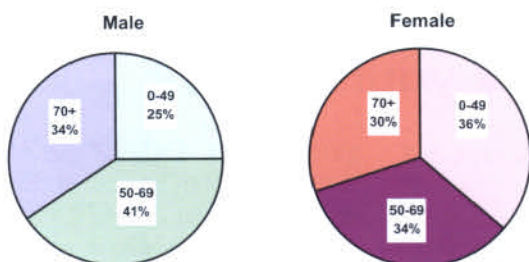
## NICER and Swiss Cancer Registries

### Raw data - Period 2002-2005

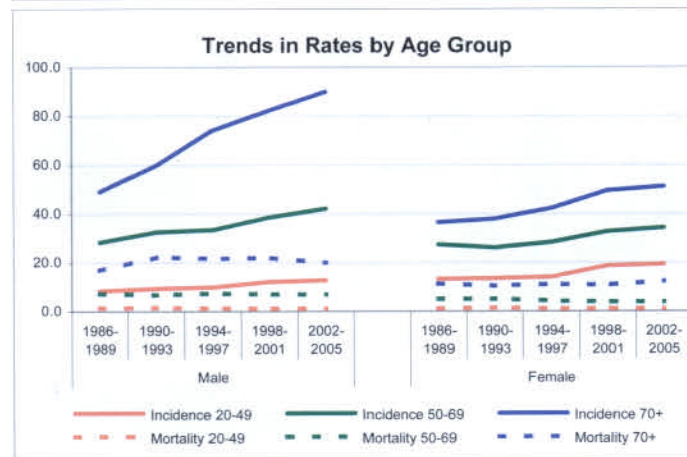
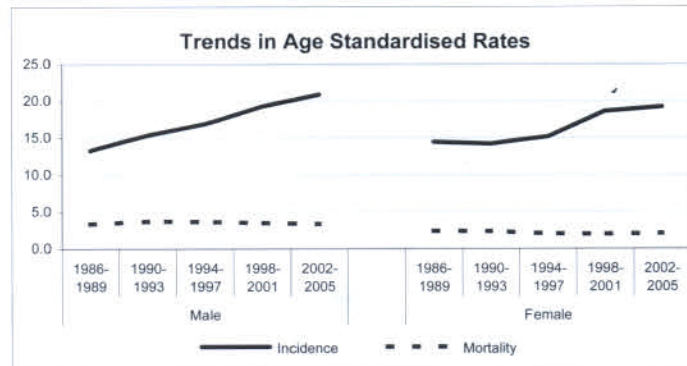
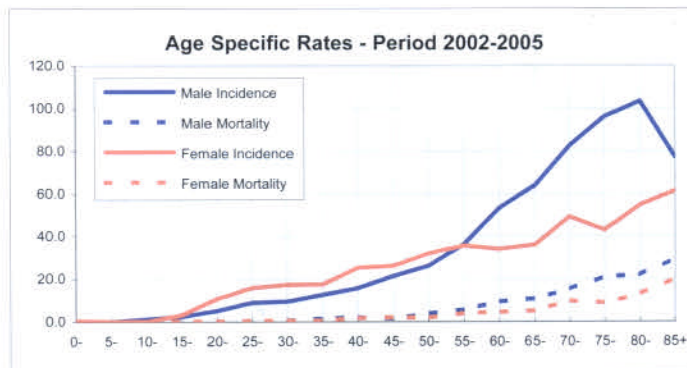
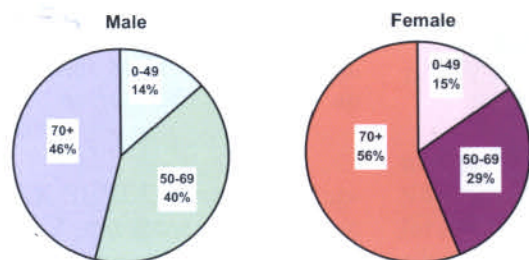
Gender	Yearly averages		5-year Prevalence (3)	Years of life lost (4)
	New cases (1)	Deaths (2)		
Male	855	142	2578	1516
Female	869	113	3869	1096
Total	1724	255	6447	2613

- (1) Swiss estimates on basis of nine registries
- (2) Computed from data of Statistical Federal Office
- (3) Estimated from Globocan 2002, IARC - Lyon
- (4) Years lost each year before age 75

### New cases by age group



### Deaths by age group



### Skin melanoma

Melanoma is a malignant tumour of melanocytes, which are the cells that make the pigment melanin. Most melanomas (95%) arise in the skin, predominantly in adults.

On the basis of nine Swiss Cancer Registries data covering about 60% of the population, it is estimated that more than 1'700 skin melanoma were diagnosed each year between 2002 and 2005 in Switzerland. It accounts for about 5% of all *new cancers* and for about 1.7% of cancer deaths. European standardized incidence and mortality rates are currently 20.9 and 3.4/100'000 for males and 19.2 and 2.1/100'000 for females

**Incidence** of skin melanoma appears to be increasing for both genders, more in French and Italian speaking than in German speaking Switzerland. Superficial Spreading Melanoma (SSM) is the subtype having the most important increase, especially among elderly (>70).

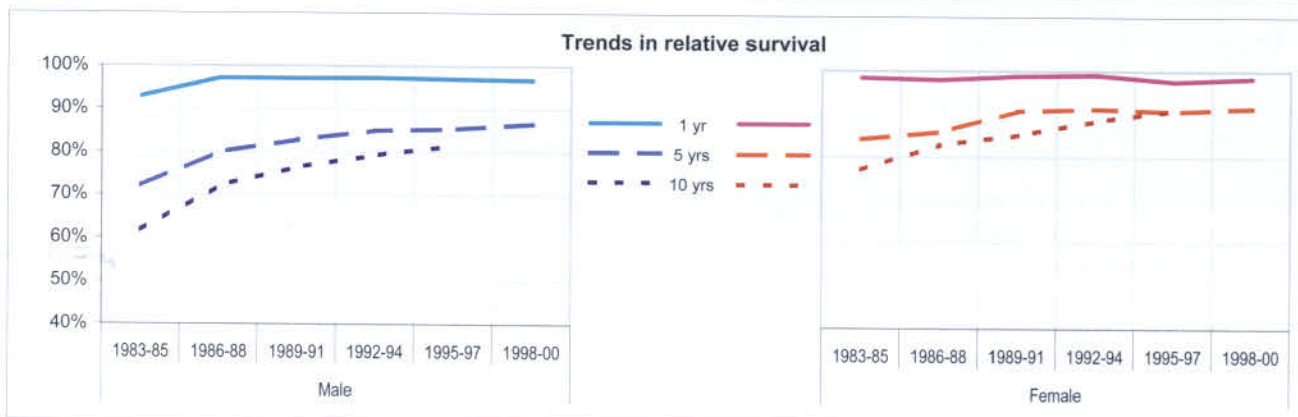
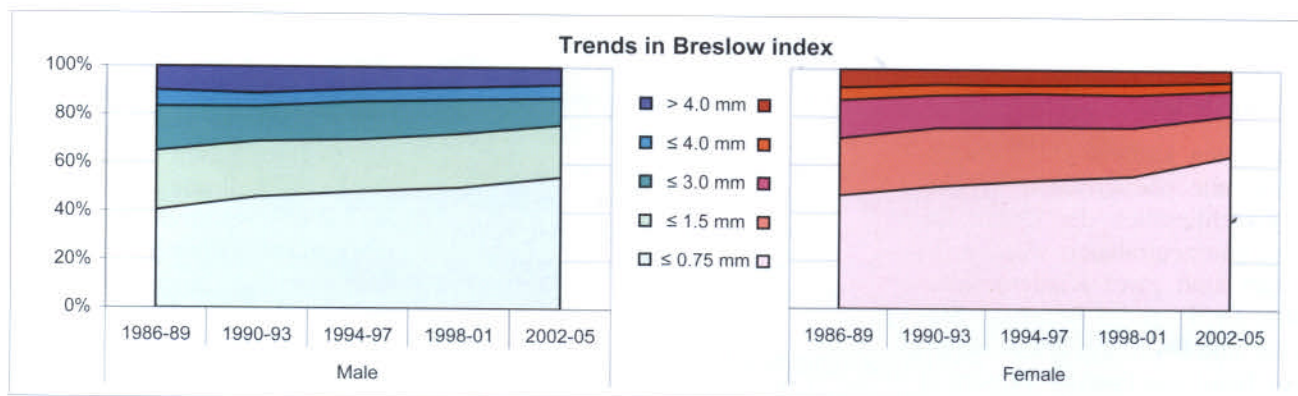
**Prognosis** is affected by clinical and histological factors and by anatomic location of the lesion. Thickness and/or level of invasion of the melanoma, mitotic index, presence of tumour infiltrating lymphocytes, number of regional lymph nodes involved, and ulceration or bleeding at the primary site affect the prognosis. Microscopic satellites in stage I melanoma may be a poor prognostic histologic factor, but this is controversial. Patients who are younger, female, and who have melanomas on the extremities generally have a better prognosis. Any organ may be involved by metastases, but lungs and liver are common sites. The risk of relapse decreases substantially over time, though late relapses are not uncommon.

**Survival** clearly improved during the last twenty years, related to the proportional increase of early diagnosis. (Cf trends in Breslow index).

Melanomas that have not spread beyond the site at which they developed (Breslow thickness  $\leq 1$  mm) are highly curable with surgical excision. Melanomas with a Breslow thickness of 2 mm or more are still curable with a surgical excision in a significant proportion of patients, but the risk of lymph node and/or systemic metastasis increases with increasing thickness of the primary lesion. These patients should also be considered for sentinel lymph node biopsy followed by complete lymph node dissection if the sentinel node(s) are microscopically or macroscopically positive.

Patients with melanomas that have a Breslow thickness more than 4 mm should be considered for adjuvant therapy with high-dose interferon. Melanoma that has spread to distant sites is rarely curable with standard therapy, though high-dose interleukin-2 (IL-2) has been reported to produce durable responses in a small number of patients. In patients with systemic metastasis confined to one anatomic site, long-term survival is occasionally achieved by complete resection of all metastatic disease.

Malignant melanoma has been reported to spontaneously regress; however, the incidence of spontaneous complete regressions is less than 1%.



**Risk factors and prevention.** Most evidence about ultraviolet (UV) radiation exposure and the prevention of skin cancer comes from observational and analytic epidemiologic studies. Such studies have consistently shown that increased cumulative sun exposure is a risk factor for nonmelanoma skin cancer : individuals whose skin tans poorly or burns easily after sun exposure are particularly susceptible. The relationship between UV radiation exposure and cutaneous melanoma is less clear. Rather than cumulative sun exposure, it is intermittent acute sun exposure leading to sunburn that seems to be more damaging; such exposures in childhood or adolescence may be particularly important.

It is not known, however, if reduction of exposure to UV radiation through the use of sunscreens and/or protective clothing or through limitation of exposure time can reduce the incidence of nonmelanoma skin cancer in humans. Nonmodifiable host factors, such as propensity to burn, lack of tanning ability, a large number of benign melanocytic nevi and atypical nevi may also increase the risk of developing cutaneous melanoma.

Several groups have conducted studies to learn more about possible intervention strategies for reduction of exposure to UV radiation. The best approach seems to be education about the risks associated with sun exposure and sunburn and education about sun protection strategies. Self-examination for skin pigmentary characteristics associated with melanoma (e.g., freckling status) may be a useful way to identify individuals at increased risk of developing melanoma.

The efficacy of chemopreventive agents (isotretinoin, beta carotene) has been assessed in individuals at increased risk of developing nonmelanoma skin cancer. High-dose isotretinoin was found to prevent new skin cancers in individuals with xeroderma pigmentosum. A randomized clinical trial of long-term treatment with isotretinoin in individuals previously treated for basal cell carcinoma, however, showed that such treatment did not prevent the occurrence of new basal cell carcinomas but did produce side effects characteristic of isotretinoin treatment.

Edited by:

Jean-Michel Lutz & Pierre Pury, NICER