EM9901: The Globe and Mail, June 9, 1999, pages A1 and A8

Skin-cancer rate levels off as Canadians cover up

People taking to heart sun-protection measures

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The Globe and Mail, Toronto

The incidence of the most serious form of skin cancer is finally levelling off after years of steady increases, and researchers are giving protective clothing and sunscreen much of the credit.

A Statistics Canada report released yesterday shows that the number of Canadian men who developed melanoma peaked at about 10 per 100,000 in the late 1980s and has remained roughly the same since. For women, the rates peaked at about nine per 100,000 in the late 1980s and fell slightly during the 1990s.

"People have started taking to heart the sun protection measures that began in the mid-eighties," said the report's author, Leslie Gaudette, who works with Health Canada's cancer bureau.

Alastair Carruthers, president of the Canadian Dermatology Association, is thrilled to see sun-awareness programs he helped create 15 years ago coming to fruition.

"There is always a lag time between our starting a program and seeing its actual effect," he said, adding that the Statistics Canada report helps to refute previous studies that claimed sunscreen is not useful in preventing skin cancer. "This shows our message is right; don't stop using sunscreen."

The report cited data from the 1996 Sun Exposure Survey, which indicated about four in 10 Canadians over the age of 15 wore protective clothing during their leisure hours, covered their heads, used sunscreen on their faces and stayed in the shade as much as possible.

Ms. Gaudette said many people began wearing sunscreen and protective clothing in response to public-awareness campaigns of the 1980s, but changing fashion trends may have also played a role.

"Until recently, fashion trends had been gradually exposing more skin," she said. "There's much more variation in skirt length now than in the sixties and seventies, when the miniskirt really came in."

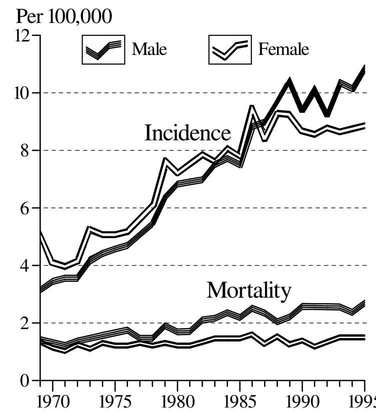
Ms. Gaudette said one of the ways she made the fashion connection was by looking at where people were developing melanoma. She said it was appearing less frequently on women's legs, where it was once common.

The study also revealed a shift in the likelihood of developing melanoma between the sexes. Since the late 1960s, women had been more likely than men to be diagnosed with melanoma, but that began to change in the late 1980s. Incidence rates are now about 10 per cent higher for men than women.

The chance of dying from melanoma, once considered a near-lethal disease, has also leveled off. Survival rates for melanoma five years after diagnosis are 88 per cent for women and 74 per cent for men.

Debbie Altow, a spokeswoman for the Canadian Cancer Society, said mortality rates may also be stabilizing as a result of increased public awareness.

SKIN CANCER
Canadian rates for melanoma.



Source: Statistics Canada The Globe and Mail

The article EM9901 reprinted above is of interest because its Answer depends on identifying a *change* in the slope of two trends which had previously been roughly linear over time. Other matters of statistical interest in the article are:

- the inference, from *observational* data, of a *causal* connection between use of sunscreen and a lower rate on melanoma (see the last paragraph of the left-hand column);
- the identification of another explanatory variate – fashion, as reflected in skirt length – from the analysis of *site-specific* melanoma data (see the fifth paragraph of the middle column).

The article EM9901 reprinted above is used in Figure 13.1 of the STAT 221 Course Materials, in Chapter 7 (and Figure 16.1) of the STAT 231 Course Materials, and in Statistical Highlight #52.

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