

Cancer mortality and long term sick leave

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Here follows a study that has looked for any timely relationship between long-term sick leave and periods of acceleration of a number of cancer forms.

The mortality in some serious cancer diseases has increased during the 20th century and accelerated like a step response at some specific years. The number of people who have been sick for more than 12 months has also varied in time in a similar way. It is concluded that an environmental factor that delays the recovery process of long-term sick people also is likely to influence the survival possibility of cancer patients.

Introduction

Some of the more serious cancer forms are bladder cancer, prostate cancer, breast cancer, and malignant melanoma of skin and lung cancer. The mortality in these cancers has increased remarkably during the 20:th century. Since 1975, though, the mortality of breast cancer has stabilized despite the fact that the incidence has continued to increase the same way as the other cancers have.

During the last years the costs for long-term sick leave has increased dramatically. In this study we examined if there is a timely relationship between long-term sick leave and the acceleration periods of the mentioned cancer forms.

Results

Since the different cancer forms have different rates the mortality and in the case of breast cancer the incidence were normalized relative to their measures in 1996. The average value of these normalized cancer rates are shown in Figure 1. Data before 1955 is only based on lung cancer and skin cancer due to lack of detailed data on other cancer forms. Figure 1 also shows at right scale the registered number of patients on sick leave for more than 12 months.

Discussion

In 1955 we can notice the first evident trend break in Swedish cancer statistics. In 1970 there is another one, while in 1979 opens a period of a few years reduced cancer mortality. This improvement can be seen on all cancer forms that were studied. In 1982 this good trend is broken again and a continuous increase starts until a leveling off is noticed 1990. In 1997 the mortality starts to increase clearly again, with the exception of lung cancer that shows a reduced mortality, probably due to reduced smoking. It is interesting to note that the radio- and TV broadcasting net changes exactly these years. (**Note:** in 1991 the last LW radio station in Motala was closed, 300 kW which also fits into this picture. This is a comment outside the translated paper/ ÖH).

The number of people on long-term sick leave (LS) is shown in Figure 1 since 1974. When the cancer mortality that year starts to reduce its rate increase LS starts to decrease and when

the mortality suddenly decreases in 1979 also the LS is reduced stepwise by ca 25%. During the stable cancer period 1990-1996 LS is reduced while the cancer acceleration from 1997 and onwards is followed by a strong increase of LS.

Conclusions

A factor that hinders the recovery of long term sick people is probably also affecting the survival possibility of seriously ill cancer patients, e.g. by impairing the immune defense system or cell repair capability. A similar connection to cancer mortality can be noticed also for the sickness rate number (sjuktal) reported by RFV since 1955.

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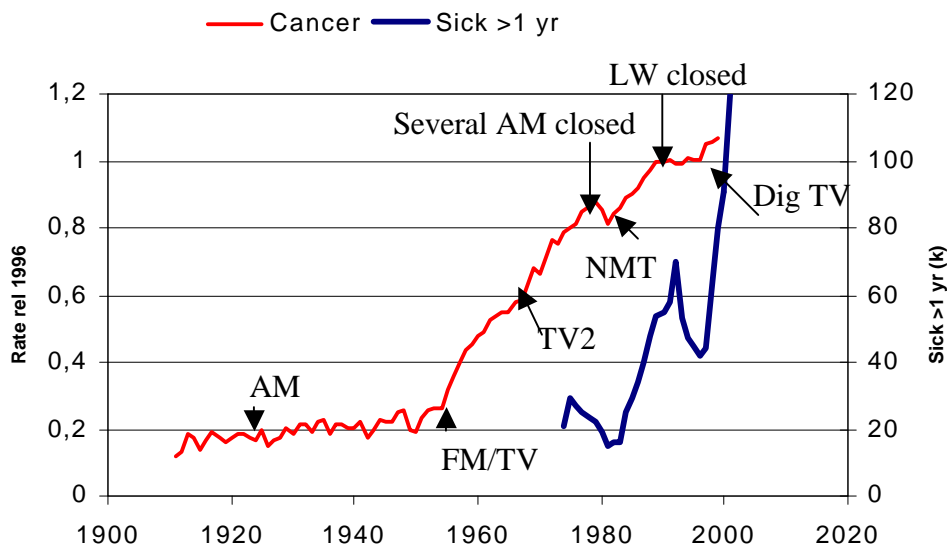


Figure 1. Normalized cancer-rate (see text) and the number of people who have been sick for more than one year in Sweden. The sharp reduction of the number of long term sick registered in 1993 has been connected to increased possibilities of early retirement from that year.

(Note: since the article was written I learned that the only LW transmitter we had in Sweden, Motala 300 kW, was closed down in November 1991, also marked above. // Ö Hallberg)