

# **THE INCIDENCE OF CANCER IN THE CZECH REPUBLIC FROM 1973 TO 1989: CANCERS WITH NON-PARALLEL TRENDS IN AGE GROUPS**

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## **SUMMARY**

A detailed analysis was made of the malignant cancer incidence rates for the Czech Republic for 1973–1989, concentrating on time trends in five-year age groups. The results were compared with the trend of age-standardized incidence (Standardized Incidence Ratio, SIR) for each cancer type. The dynamics of the changes in the incidence of each type of cancer often proved to be different for various age groups and in some cases even opposite trends were identified:

Lung cancer in men – the SIR trend is insignificant, in the 45 to 64 years age groups an increase in incidence, in the 70 to 79 years age groups a decrease; testicular cancer – the SIR trend is growing, in the 20 to 44 years age groups the increase is up to 2.5 times higher in comparison with the SIR trend, in the 60 to 74 years group a decrease; cervical cancer – the SIR trend is insignificant, in the 30 to 39 years age groups an increase, in the 45 to 49 years groups a decrease; Hodgkin's disease – the SIR trend is insignificant for women, a slight decrease for men, in both sexes a rise in the 15 to 19 years age group, a drop in the 50 to 54 years age group. All identified cases of striking non-parallel trends in age groups have to be regarded as very displeasing as they present "a shift to the left", i.e. a redistribution of the occurrence of the illness towards younger age groups. The causes of this phenomenon are not entirely clear, however, the results achieved demonstrate the necessity of further evaluation of oncological/epidemiological data in narrow age groups.

*Key words:* cancer, incidence, time trends, age groups

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