

## Endometrial and cervical cancer: incidence and mortality among women in the Lodz region

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### Abstract

**Introduction:** By the early 21<sup>st</sup> century the most common cancer of female genitals in Poland was cervical cancer. Now endometrial cancer ranks first. The aim of this study was to analyse the incidence and mortality of endometrial and cervical cancer among women in the Lodz region.

**Material and methods:** Data on the incidence and mortality of endometrial and cervical cancer among inhabitants of the Lodz region were obtained from the National Cancer Registry and Bulletin of Cancer Cases in the Lodz region. The analysis covered ten consecutive years beginning in 2001.

**Results:** The number of new cases reported in 2010 exceeded that observed in 2001 by 181. The standardized incidence rate of endometrial cancer increased by 6.3, while the standardized incidence rate of cervical cancer decreased by 1.4.

**Conclusions:** In the years 2001-2010, the incidence of endometrial cancer increased by 88.3% and that of cervical cancer decreased by 6.5% among inhabitants of the Lodz region. In the years 2001-2010, mortality of endometrial cancer increased by 24.5% and that of cervical cancer decreased by 12.6%. In 2010, the highest crude incidence rates in the Lodz region of both endometrial and cervical cancer at 39.1 were recorded in the district town of Piotrków.

**Key words:** endometrial cancer, cervical cancer, incidence, mortality, Poland.

### Introduction

The annually increasing percentage of new cases of and deaths from malignant cancer in Poland was observed already in 1924 when the first Anti-Cancer Programme was announced. The purpose of the programme was to popularize knowledge about cancer and organise cancer treatment centres. The second Anti-Cancer Programme, developed in 1952, introduced a compulsory register of cases of and deaths from malignant cancer [1, 2]. The third, called the Government Cancer Control Programme, was developed in 1974 and aimed at the prevention, treatment and rehabilitation of cancer patients [3]. The latest National Cancer Control Programme, developed in 1999, was aimed at reducing the rising incidence and improving the treatment rates, thus decreasing mortality of malignant cancer [4].

The aim of this study was to analyse the incidence and mortality of endometrial and cervical cancer among women in the Lodz region.

### Material and methods

Data on the incidence and mortality of endometrial and cervical cancer among inhabitants of the Lodz region obtained from the National Cancer Registry and Bulletin of Cancer Cases in the Lodz region available on the website were analysed. The analysis covered ten consecutive years beginning in 2001, i.e. years after the development of the National Cancer Control Programme and introduction of a number of measures aimed at the prevention of cancer among women.

Total numbers of new cases and deaths, standardized incidence and mortality rates for the Lodz region, and crude incidence and mortality rates for specific districts in the Lodz region were thoroughly analysed. For standardized rates, "the world standard population" proposed by Segi and modified by Doll was used as the standard population.

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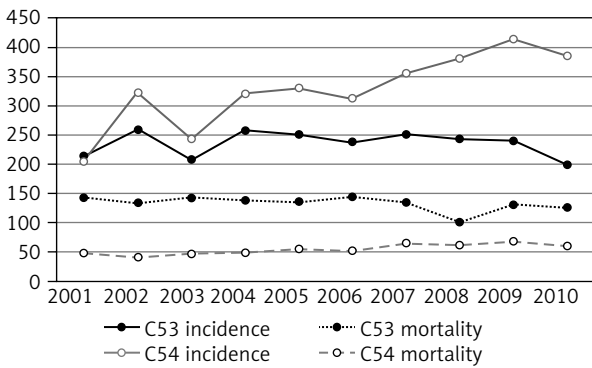
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**Results**

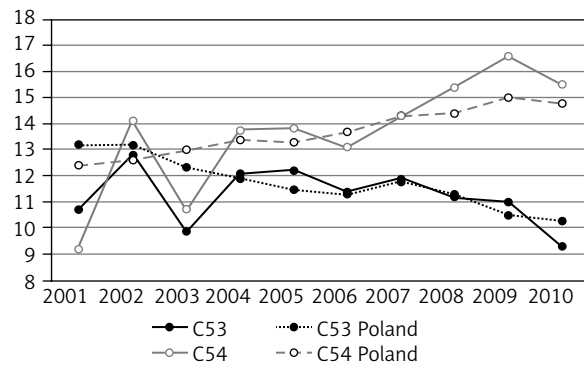
In the years 2001-2010, the incidence of endometrial cancer among inhabitants of the Lodz region increased by 88.3%. The number of new cases reported in 2010 exceeded that observed in 2001 by 181 (Fig. 1). In 2010, the standardized incidence rate exceeded that of 2001 by 6.3, while over the analysed decade, with the exception of the years 2003, 2006 and 2010, it showed a steady upward trend of about 0.6 per year on average (Fig. 2). In 2010, the highest crude incidence rates of endometrial cancer in the Lodz region were reported in the town district of Piotrków (39.1), the Pabianice

district (37.7) and the Kutno district (35.7). The lowest rate was observed in the Wieruszów district (9.3) (Fig. 3). There was no new case of or death from endometrial cancer in the town district of Skierniewice in 2010 (Fig. 3 and 4).

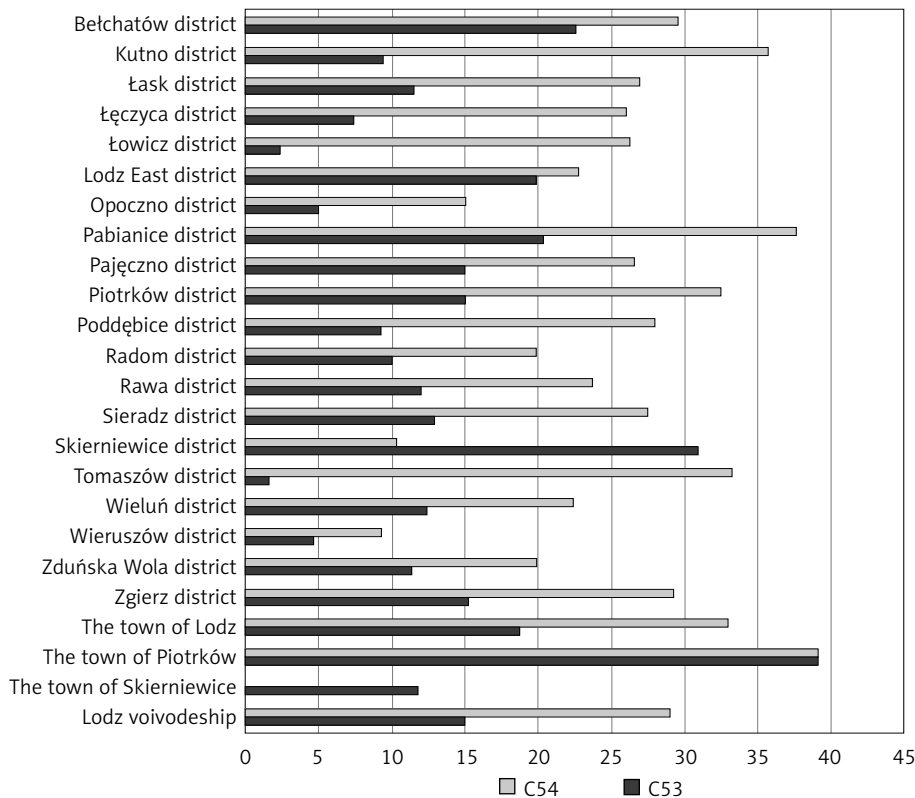
In the analysed period, the incidence of cervical cancer in the Lodz region decreased by 6.5%. The number of new cases reported in 2010 was lower than that observed in 2001 by 14 (Fig. 1). The standardized incidence rate fell by 1.4 (Fig. 2). In 2010, the highest crude incidence rates of cervical cancer in the Lodz region were reported in the town district of Piotrków (39.1)



**Fig. 1.** Endometrial and cervical cancer – numbers of new cases and deaths in the Lodz region



**Fig. 2.** Standardized incidence rates of endometrial and cervical cancer in the Lodz region and in Poland



**Fig. 3.** Incidence of endometrial cancer and cervical cancer in the Lodz region by districts in 2010 – crude rates per 100 000 of the population

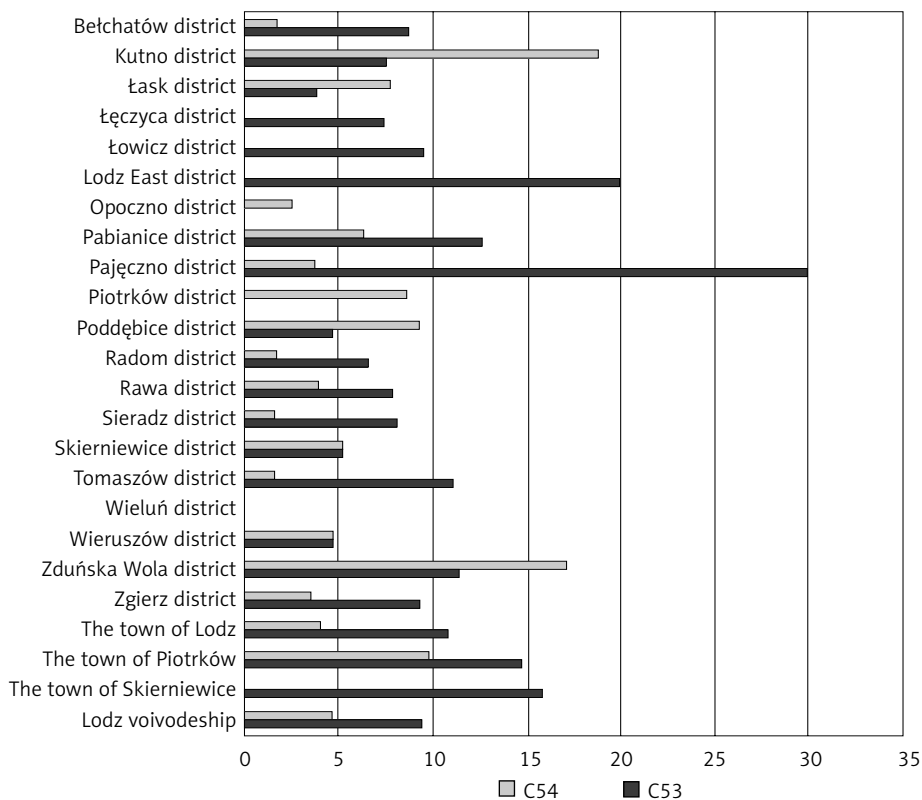


Fig. 4. Mortality from endometrial cancer and cervical cancer in the Lodz region by districts in 2010 – crude rates per 100 000 of the population

and the Skierniewice district (31.0). The lowest rate was observed in the Tomaszów district (1.6) (Fig. 3).

The mortality of inhabitants of the Lodz region from endometrial cancer, despite a slight decrease in 2002, 2006, 2008 and 2010, increased by 24.5% (Fig. 1). The standardized mortality rate rose by 0.3 (Fig. 5). The mortality and incidence of cervical cancer slightly decreased. The number of deaths from cervical cancer in 2010 was lower than in 2001 by 18 (Fig. 1). The standardized mortality rate fell from 6.4 in 2001 to 4.9 in 2010 (Fig. 5). In 2010, the highest crude mortality rate from endometrial cancer in the Lodz region was reported in the Kutno district (18.8) and from cervical cancer – in the Pajęczno district (29.9). In the Lodz East district, the Łęczyca district, the Łowicz district and the Wieluń district, there were no deaths from endometrial cancer; in the Opoczno district, the Piotrków district and the Wieluń district – from cervical cancer (Fig. 4).

### Discussion

The epidemiological situation of the incidence and mortality of endometrial and cervical cancer among women in the Lodz region differs considerably from the epidemiological situation in the whole country.

The standardized incidence rate of endometrial cancer increased by 6.3 in the Lodz region, while the respective rate for Poland increased by only 2.9. Mortality from endometrial cancer among inhabitants of the Lodz region increased slightly in the reported period. The standardized mortality rate in the Lodz region increased, and so did the corresponding rate for Poland, by 0.3. The standardized incidence rate of cervical cancer in the Lodz region decreased by 1.4, while its counterpart for Poland decreased by 2.7. The epidemiology of mortality from cervical cancer in the Lodz region looks much better. The standardized mortality rate de-

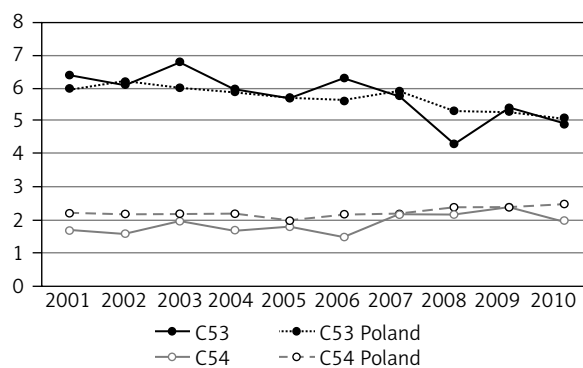


Fig. 5. Standardized mortality rates from endometrial and cervical cancer in the Lodz region and in Poland

creased by 1.5, while the standardized mortality rate for Poland decreased by 0.9. Among the 16 regions of Poland, the Lodz region ranks 10<sup>th</sup> in terms of the incidence of endometrial cancer and 5<sup>th</sup> in terms of cervical cancer. As for mortality, it holds the 2<sup>nd</sup> and 6<sup>th</sup> position respectively [5, 6]. By the early 21<sup>st</sup> century, the most common cancer of female genitals in Poland was cervical cancer. Now endometrial cancer ranks first [6].

According to estimates, in 2025, there will be a two-fold increase in the incidence of endometrial cancer in Poland with 60% of cases among women over 65 years of age. The incidence of cervical cancer will decrease by about 800 cases as compared to 2006 [7].

In 2010, the highest increase in the incidence of both endometrial and cervical cancer was recorded in a group of women aged over 50 years. The highest death rate from cervical cancer was seen among women aged 50 to 59 years and from endometrial cancer among those above 60 years of age. In women of up to 40 years of age, cervical cancer occurs more often than endometrial cancer [6].

A major problem in Poland is the early detection of lesions at the pre-malignant or pre-invasive stages giving the patient a chance to be cured and increasing the percentage of 5-year survival, thus reducing mortality from cancer [8]. Numerous campaigns were conducted in Poland to raise awareness of the need to carry out preventive examinations. Outdoor events are held, television stations broadcast “choose life” and “I get check-ups and I am certain” spots addressed to women. In the press, articles on cervical cancer prevention and advertising modules are becoming more frequent [9].

Since 2006, the Population Programme for the Prevention and Early Detection of Cervical Cancer has been run. As part of the aforementioned programme, women aged 25-59 years receive a personal invitation for a pap test and are offered free tests once every 3 years [9-13].

In spite of all those actions, very few women report for pap tests. In 2007, pap tests were used by 21.3% and in 2008 by 24.4% of Polish women. In the Lodz region, the cervical screening programme covered 16.7% of women in 2007 and 19.1% in 2008 [11, 13].

According to a study by Bakalczuk *et al.*, the pap test is regularly performed in 43% of respondents, while 21.5% of the study population never had a pap test done [14]. In the population studied by Iwanowicz-Palus *et al.*, a pap test was never performed in 16.5% of women. In that group, 33.3% of respondents gave up pap tests for lack of time and 27.3% due to absence of complaints [15].

There is no screening test for the detection of endometrial cancer. The best method of early detection of cancer is regular gynaecological examinations. According to literature reports, Polish women do not have a habit of reporting to the gynaecologist for check-ups. According to Bakalczuk *et al.*, 23.5% of women visit the gynaecologist for check-ups every year [14].

## Conclusions

In the years 2001-2010, the incidence of endometrial cancer increased by 88.3% and that of cervical cancer decreased by 6.5% among inhabitants of the Lodz region.

In the years 2001-2010, mortality from endometrial cancer increased by 24.5% and that from cervical cancer decreased by 12.6%.

In 2010, the highest crude incidence rates in the Lodz region of both endometrial and cervical cancer incidence at 39.1 were recorded in the district town of Piotrków.

## Disclosure

Authors report no conflict of interest.

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