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*Changes in health status of the Polish population after 1990*

Economic and political transformations that occurred in Central Europe in 1989 resulted in changes of lifestyles of Poles. This influenced the health status of the Polish population. Appreciation of these changes is possible through analysis of positive and negative features of population's health. One of the measures of such transformation is the analysis of alteration in the structure of causes of deaths and mortality rates (3, 4).

The aim of the paper is presentation of changes in health status of the Polish population that occurred after the year 1990.

MATERIAL AND METHODS

There were gathered epidemiological data concerning the causes of deaths in the Polish population in the years 1990-2000, published by the National Office for Statistics (GUS) in Warsaw (2). There were analysed: mortality rates and causes of deaths in Poland since 1990 in accordance with the "International Statistical Classification of Diseases and Related Health Problems (X Revision)". There were taken into account the main causes of deaths in Poland in total and according to gender. The data for the years 1997 and 1998 are orientative due to a strike of physicians, who stopped filling medical certificates regarding the cause of death.

RESULTS

In Poland in the analysed period total mortality rates per 100,000 population have been constantly decreasing (1999 – 986.7; 2000 – 952.3), apart from the transitory increase in the years 1991 and 1999 (Table 1). Similar trends were observed when analysing mortality rates in males and females (no available data for the years 1999 and 2000)

Table 1. Deaths by causes in Poland 1990-1998 (per 100,000 population)

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total	1019	1056.2	1024.7	1016.3	1002.5	1000.5	998.2	983.7	970.8
Circulatory system diseases	534.2	556.7	537.4	529.8	512.7	504.6	503.2	490	485
Neoplasms	193.4	195.7	195.1	199.4	201	205.2	206.8	210.5	212
External causes of death	78.2	82.4	78.3	73	75.4	74.6	70.5	67.2	65
Respiratory system diseases	41.1	39.5	34.6	35.8	32.7	34.3	37	35.1	32
Digestive system diseases	31.5	32.1	32.5	32.3	32.8	33	32.4	31.4	32.6
Endocrine and metabolic diseases	16.1	17.4	16.8	15.9	15.4	14.1	14.2	15.2	14.2
Genitourinary system diseases	12.8	12.3	11.7	11	11	10.4	10.1	11.2	10
Nervous system diseases	9.1	8.5	8	8.1	7.9	8.1	8.1	7	6.9
Infectious and parasitic diseases	8.1	7.8	7.5	7.2	6.8	6.4	5.9	4.9	4.2
Others	94.5	103.8	102.8	103.8	106.8	109.8	110	111.2	108.9

Table 2. Female deaths by causes in Poland 1990-1998 (per 100,000 population)

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total	916.6	949.2	924.8	930.4	918.2	910.7	917.9	898.1	884.7
Circulatory system diseases	*	*	*	530.3	517.5	506.2	510.8	490.9	486.4
Neoplasms	159.7	162.5	162	165.3	166.4	169.9	172.3	175.5	178.8
External causes of death	37.6	39.9	37.9	36	36.3	36.9	35.4	32.5	31.5
Respiratory system diseases	28.5	27.5	24.3	26.2	24	24.9	28.5	29.2	23.3
Digestive system diseases	*	*	*	28	28.1	27.2	26.6	26.31	26.5
Endocrine and metabolic diseases	*	*	*	19.4	18.9	17.2	17.2	18.4	17.5
Genitourinary system diseases	*	*	*	9.8	9.9	9.6	9.2	9	8.8
Nervous system diseases	*	*	*	7.1	7.1	7	7.1	6.6	6.5
Infectious and parasitic diseases	5.2	4.6	4.4	4.5	4.5	3.9	3.7	3	2.9

\* No available data.

(Fig. 1, Table 2 and 3). It was noted that the decrease in total mortality rates was due mainly to a significant decline of deaths from the circulatory system diseases (1990 – 52.4%, 1996 – 50.4%), observed after 1991, both in males and females (Fig. 2).

There is observed a fall in mortality rates due to external causes (trauma, accidents, intoxications), however the main victims in this group are men. The mortality rates from

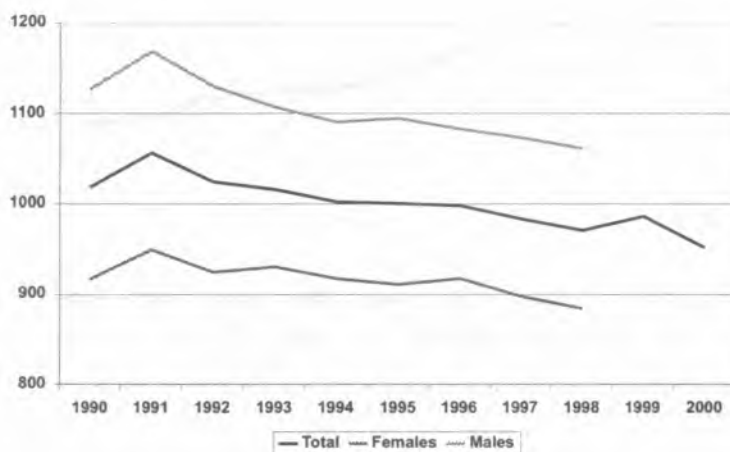


Fig. 1. Mortality rates from all causes in Poland in the years 1990-2000

Table 3. Male deaths by causes in Poland 1990-1998 (per 100,000 population)

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total	1126.8	1168.9	1129.9	1106.9	1091.3	1095.3	1083	1074	1061.7
Circulatory system diseases	*	*	*	529.2	507.6	502.9	495.2	486	479
Neoplasms	228.9	230.6	230.1	235.4	237.6	242.5	243.2	247.4	255.2
External causes of death	120.9	127.1	120.8	111.9	116.6	114.3	107.5	103.9	100.3
Respiratory system diseases	54.4	52.1	45.6	46.1	42	44.2	46	45	44
Digestive system diseases	*	*	*	36.9	37.7	39.1	38.5	36.8	35.1
Endocrine and metabolic diseases	*	*	*	12.2	11.7	10.8	11.1	11.8	10.9
Genitourinary system diseases	*	*	*	12.2	12.1	11.4	11.2	11.8	10.4
Nervous system diseases	*	*	*	9.1	8.7	9.3	9.2	9	8.9
Infectious and parasitic diseases	10.7	10.9	10.5	10.1	9.3	9	8.3	7.5	7.1

\* No available data.

infectious and parasitic diseases have been constantly decreasing. There is observed minor reduction in mortality rates in the group of diseases of the respiratory system, genitourinary system, endocrine system as well as nervous system. The mortality rates in the group of digestive system diseases remain at similar levels (Fig. 3). At the same time

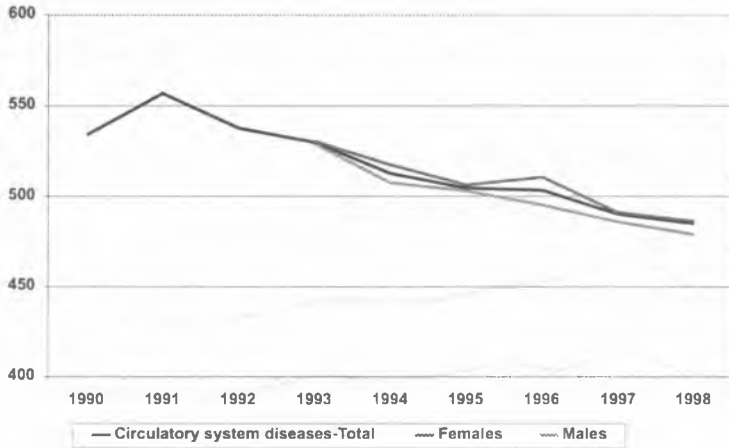


Fig. 2. Mortality rates from circulatory system diseases in Poland in the years 1990-1998

there was noted a considerable increase in mortality rates from neoplastic diseases and their percentage in total mortality rates in the analysed period (Fig. 4). They account for the higher and higher percentage of deaths in Poland (1991 – 18.9%, 1996 – 20.7%) (Fig. 3). The results are presented in a graphic form in Figures 1-4.

## DISCUSSION

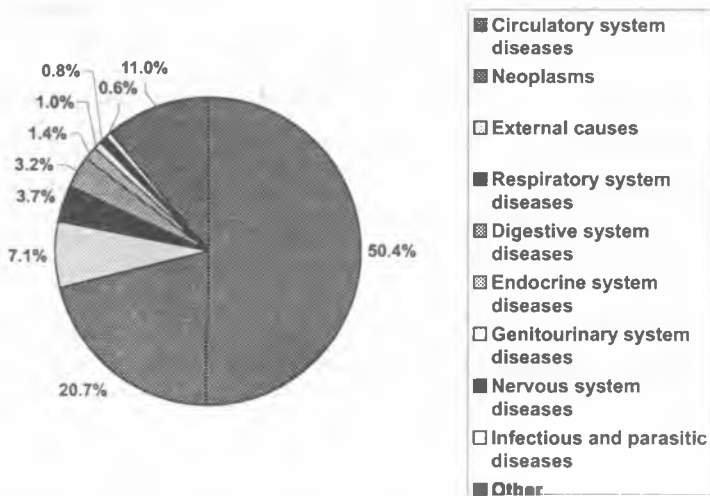


Fig. 3. Structure of deaths according to causes in Poland in 1996

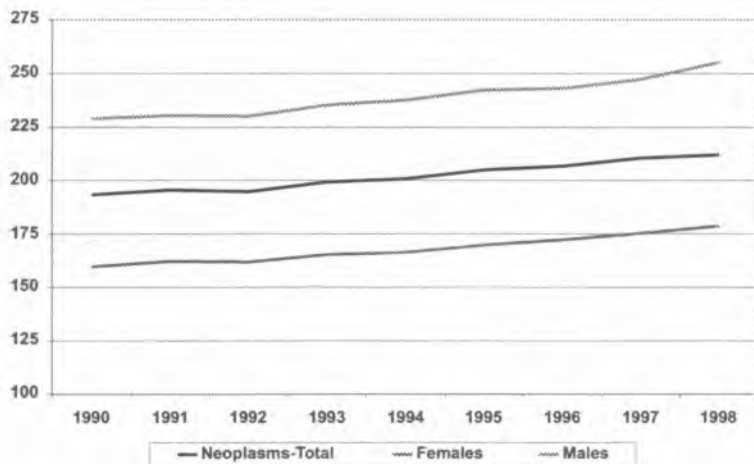


Fig. 4. Mortality rates from neoplasms in Poland in the years 1990-1998

In the analysed period the mortality rates per 100,000 population in Poland were characterized by a decreasing trend. The main reason is the decline in mortality from circulatory system diseases, which is believed to be caused by changes in lifestyles of Poles. From 1960 to the beginning of the 1990s mortality from circulatory system diseases in Poland was high and increasing. However, since 1991 the fall in death certification rates from ischaemic heart disease seemed to have been larger than that previously observed in any country in peacetime (6). Promotion of healthy lifestyle, carried out by medical circles in media, comprising healthy dietary habits, adequate physical effort as well as giving up smoking and alcohol abuse, leads to first results (1, 3, 6). There are found symptoms of the end of the epidemic of cardiovascular diseases. Also the development of interventional cardiology influences reduction in number of deaths due to cardiovascular diseases. However, neither access to medical services nor their effectiveness have obviously improved since 1989 and the number of percutaneous transluminal coronary angioplasties in Poland is still relatively small (6).

The decrease in the number of deaths leads to the increase in life expectancy in Poland and results in aging of the population. There appear more and more diseases characteristic of old age. Among others, this phenomenon causes the rise in percentage of deaths from neoplastic diseases in the total number of deaths in population (5).

The decline in the number of deaths due to external causes (trauma, intoxications, accidents) may be attributed to the improvement of the conditions of work, better technical state of motor vehicles, organisation of emergency medicine units as well as reduction of the time of transport of wounded to specialized medical centers. In the past 10 years there increased the numbers of specialistic life-saving medical equipment. The decrease in mortality from external causes contributes largely to improvement of life expectancy, especially in men (3).

## CONCLUSIONS

There is observed a decreasing trend in total mortality rates in Poland. Circulatory system diseases still account for the largest number of deaths, but the percentage decreases. There increases mortality from neoplasms and their percentage in total mortality rates. Mortality rates from infectious diseases, genitourinary system diseases, respiratory system diseases as well as endocrine system disorders decrease. The number of deaths from external causes falls down.

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## SUMMARY

The health status of the Polish population in the past decade has been strongly influenced by economic and political transformations. One of the measures of such transformations is the analysis of alteration in the structure of causes of deaths and mortality rates. In order to present the changes in health status of Polish population that occurred after the year 1990, in the paper there have been analysed epidemiological data in the form of mortality rates and the causes of deaths in the Polish population in the years 1990-2000.

### Zmiany w stanie zdrowia populacji Polski po roku 1990

Na stan zdrowia społeczeństwa polskiego w minionej dekadzie duży wpływ wywarły przemiany ekonomiczne i polityczne. Jednym ze sposobów oceny takiej transformacji jest analiza zmian w strukturze przyczyn zgonów i umieralności. W celu przedstawienia zmian w stanie zdrowia populacji Polski, które dokonały się po roku 1990, w pracy przeanalizowano dane epidemiologiczne dotyczące umieralności i przyczyn zgonów w społeczeństwie polskim w latach 1990-2000.