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*The state of health analysis of the population of children,
adolescents and adults below 30 in the years 1999–2003
from a selected area of the Lublin macro-region*

The present progress of civilisation leads to various transformations of the environment. Changes in local and global ecosystems resulting from anthropogenic activity lead to destabilisation of the settled, primarily complex, biotope configurations. Many substances harmful to man are being introduced into the environment, e.g. pesticides, fertilizers and heavy metals. These transformations do have an influence on the development and the state of health of the population. A lot of compounds with a long period of persistence surge in the environment for many years and accumulate in living organisms. Harmful substances that occur in the work and life environment constitute a real or potential threat to the functional and structural integrity of human cells and organs, leading to pathological states of the organism. The consequences of constant exposition to low or subthreshold concentrations of various chemical compounds are difficult to grasp and they reveal themselves after many years or in the future generations. Problems of environmental conditioning include ecological factors and factors determined by socio-educational position and by health behaviours, resulting from the adopted lifestyle, such as eating habits, motor activity, inclination to stimulants. Cause-and-effect relationship of man between the state of the environment, behavioural conditioning and health, especially of children and adolescents, does not raise any doubts. Health conditions of the youth population determine their physical, psychical and social well being, meaning good health and ability to psychosocial functioning. Unfavourable conditioning of childhood and adolescence can cause further unfavourable conditioning later in life, whose accumulation may lead to the development of a disease (1, 2, 4, 5, 6, 7).

The aim of the research was to evaluate the state of health of a selected population of children, adolescents and adults below 30 from rural areas of the Lublin macro-region in 1999–2003.

MATERIAL AND METHODS

The study of the state of health of a selected population of children, adolescents and adults below 30 was conducted in the years between 1999 and 2003. It concerned a group of 491 people, including 297 people of the female sex and 194 of the male sex, living on rural areas of the Lublin macro-region. General, specialistic and biochemical examinations were carried out, according to generally accepted rules used in laboratory diagnostics. The examinations included full blood cell count and urine analysis. They were performed on people that spontaneously volunteered during scientific camps organised by

the Medical Academy in the above mentioned years. The conducted interview analysed past diseases, morbidity and socio-existential conditions.

RESULTS

In the studied population, females constituted 60.49% of the respondents and males – 39.51% (Fig. 1, 2). Morbidity in the studied population was changeable, but higher in the group of females in comparison with the group of males. The dominant group of diseases were contagious diseases, diseases of the respiratory system, allergic diseases and next laryngologic diseases, injuries and dermatosis (Tab. 1). Among contagious diseases the biggest number of cases was recorded in 2002–2003 (Fig. 3). Falling ill to contagious or allergic diseases, taking sex into account was changeable, but it was higher in the female population as far as the respiratory system diseases are concerned.

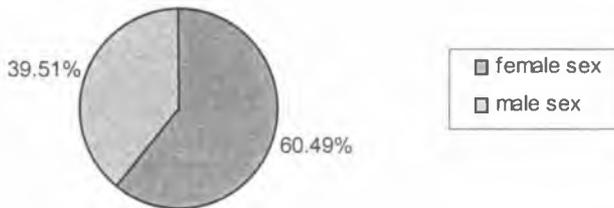


Fig.1. The studied population in general

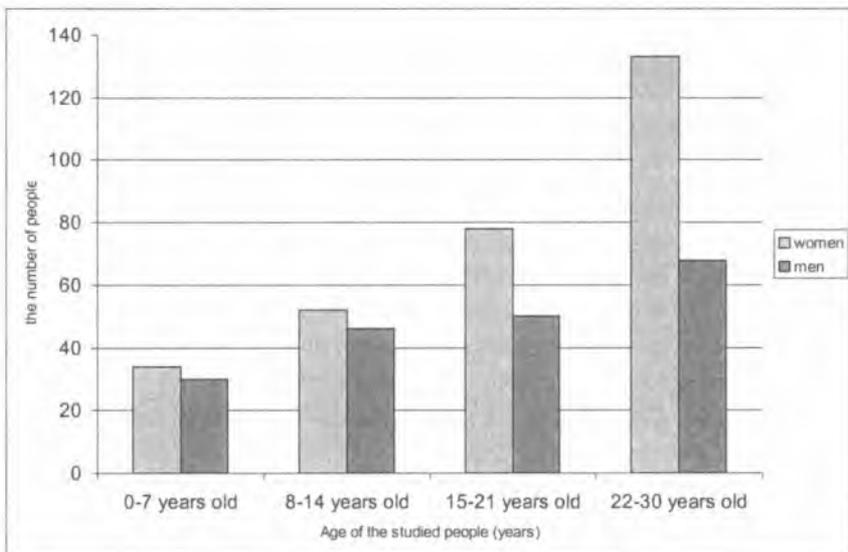


Fig. 2. The studied population of children, adolescents and adults below 30 in years 1999–2003

Table 1. Diseases occurring in the studied population in 1999–2003

Diseases	Women	Men
of the respiratory system	111	92
allergic	83	54
laryngologic	73	42
injuries	48	53
of the osteoarticular system	28	28
contagious	213	157
of the thyroid	47	11
of the digestive system	32	15
of the circulatory system	21	8
of the urinary system	18	7
of the nervous system	10	4
stomatological	63	35
ophthalmological	48	22

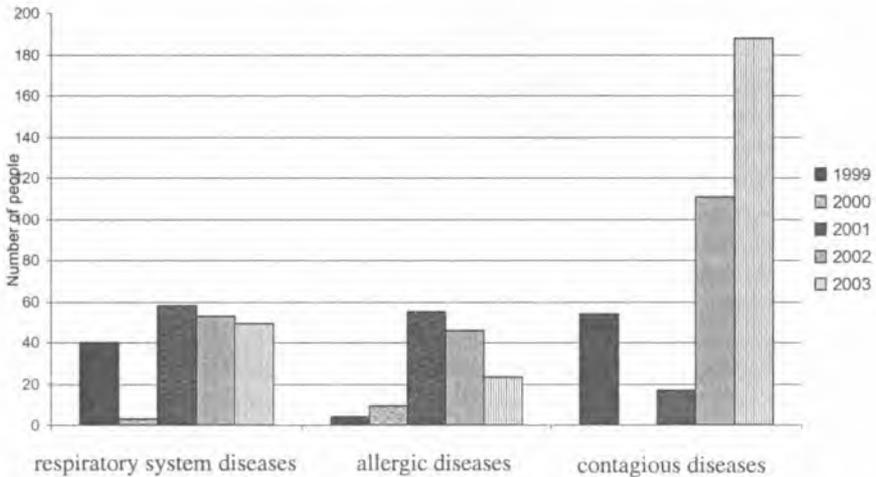


Fig. 3. The most frequent diseases in a given population in 1999–2003

DISCUSSION

Man in the environment that surrounds him is exposed to many harmful factors and there may be interactions leading to intra-systemic disorders. The influence of pollution caused by industry, motorization and chemicalization of agriculture is not limited only to the area connected with the place of work but it spreads to populations living in the neighbourhood and also to country folk. Regular evaluation of the environment and health threats in urban and rural areas shows essential territorial differentiation. The evaluation is higher for urban, strongly industrialised areas. In rural areas there are proportionally more people who because of their age show higher morbidity and falling ill to various diseases. The country is characterised by higher percentage of people at the age of 0–17 and at the productive age (11). Jarosz and co-authors conducted sounding research on a representative group of 800 inhabitants from the whole Poland on the subject of the influence of environment pollution on the

state of health of man, and especially of children. 79.8% of the respondents believe that there is a relationship between the health of man and the state of the natural environment. From among these people, 85% claim that the environment pollution may have a considerable influence on the worsening of man's state of health. The respondents are aware that children below 5 are in particular exposed to the harmful influence of environmental pollution and that it is the parents' task to protect the children also in this area (3). The quality of children and adolescents' life has a special meaning not only for the time of childhood and adolescence but it also influences later periods in life. Unfavourable environment and health conditioning from the time of childhood and adolescence can cause further unfavourable conditionings later in life and it is emphasised that childhood plays an important role in forming predisposition to certain diseases in maturity and old age (14).

With reference to the population of children and adolescents, of great importance are problems related to falling ill to respiratory system diseases and allergies. In the research concerning the frequency of occurrence of respiratory system diseases with children living in rural areas Muszyńska-Gaca and co-authors showed that among these diseases the problem of bronchial asthma is becoming especially important. The cause of this phenomenon is probably the increase in the number of diseases of the atopic origin and the environment contamination. It has been shown that the frequency of basic symptoms from the respiratory system of young school-children from rural areas is two times lower in comparison with the population of children living in industrial cities (9). Obtulowicz and co-authors evaluated the occurrence of allergic diseases of the respiratory tract and skin with primary school pupils in an industrialised region and in rural areas. Among allergic diseases the ones that dominated were pollen allergies and bronchial asthma. Family predisposition to allergy was twice more frequent among school children from rural areas. The frequency of allergic diseases, diagnosed on the basis of allergic examination was similar in schools from industrialised and rural regions (10).

In the research concerning parents' care of health in country families, Lachowski draws attention to the fact that in the process of health education of children, it is very important for the parents to be interested in their children's health, especially in the country, where taking care of health is made difficult for many reasons. In general, the surveyed parents consider their children's state of health to be good. Among parents who notice that their child's state of health is not fully satisfactory, the decisive majority knows health problems of their children. The most frequently reported causes of poor health are: inclination to colds (35.9%), inclination to falling ill to different diseases, not mentioned by the name (14.5%) and diseases of the respiratory tract (13.7%) and also nervousness (9.4%) (8).

Health behaviours are of great importance for the evaluation of the state of health of an individual in a society. The initiation of anti-health behaviour during adolescence, conditioned by the influence of peer groups and socio-cultural standards of a given social group, may lead to pathological states of the organism. Anti-health behaviour of people living in the country includes: diet errors, hygienic neglect, ignoring disease symptoms and irregular treatment. On the basis of the conducted research in the West-Pomeranian province, Sygit showed that among the inhabitants of the village there is a large group of people who show anti-health behaviour. There was insufficient knowledge about the principles of a proper diet, harmfulness of using stimulants, the importance of preventive examinations, environmental threats and consequences of epizootic diseases. It was shown that the higher health awareness of parents, the wider knowledge of their children (13). Skrętowicz and co-authors conducted studies among a selected rural population at the age of 24–64 years. The frequency of occurrence of particular groups of diseases among men and women in particular age groups was changeable. In a sub-population of men and women at the age of 20–34, the highest coefficient for 1,000 studied people was obtained by diseases of the digestive system and then diseases of the circulatory and nervous systems (12). In the studied population of children,

adolescents and adults below 30, the dominant group of diseases was constituted by contagious diseases, diseases of the respiratory system, allergies, laryngologic diseases, injuries and dermatosis. Morbidity tends to be changeable but higher in the female population.

Environmental factors, factors determined by socio-educational position and behavioural conditionings are of great importance for the state of health of human population. Knowledge of these different conditionings and resulting from them health risk is essential to take up rational activities aiming at disease prevention and health promotion. This also helps to get to know a disease and to choose a proper treatment.

CONCLUSIONS

1. In the analysed years, morbidity in the studied population was changeable, but higher in the group of females in comparison with the group of males.

2. The dominant group of diseases were contagious diseases, diseases of the respiratory system and allergic diseases.

3. Among contagious diseases the biggest number of cases was recorded in 2002–2003.

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SUMMARY

The conducted research concerned a selected population of children, adolescents and adults below 30 from rural areas of the Lublin macro-region. The results of the research showed that morbidity in the female population was higher than in the male population. The dominant group of diseases were contagious diseases, including smallpox, mumps, measles and roseola, and then respiratory system diseases and allergic diseases. Further places were occupied by laryngologic diseases and injuries.

Analiza stanu zdrowia populacji dzieci, młodzieży i osób do 30 roku życia w latach 1999–2003
z wybranego terenu makroregionu lubelskiego

Przeprowadzono badania stanu zdrowia wybranej populacji dzieci, młodzieży i osób do 30 roku życia ze środowiska wiejskiego makroregionu lubelskiego. Analizując wyniki badań, wykazano większą zachorowalność wśród populacji żeńskiej w porównaniu z populacją męską. Dominującą grupą schorzeń były choroby zakaźne, w tym ospa, świnka, odra, różyczka, następnie choroby układu oddechowego i alergiczne. Kolejne miejsce zajmowały schorzenia laryngologiczne i urazy.