

Differences in health – a global problem and its various aspects

Andrzej Wojtyła¹

¹ Department of Health Promotion, Food and Nutrition, Institute of Rural Health, Lublin, Poland

Annals of Agricultural and Environmental Medicine (AAEM) is the journal in the columns of which for many years the scope of problems has been discussed concerning the effect of environmental hazards on the human body. It focused rather on risk related with work in agriculture and habitation in rural areas, as evidenced by the reports published in our journal. In recent years, profound demographic, social, economic and political changes have been observed worldwide, associated with the globalization, technological progress (development of new technologies), mass migration of the population within individual countries and continents, and between them. Migrations cause health problems which to-date could have been considered local, have gained global, international importance. It is increasingly more difficult therefore to consider confining to analysis the risks pertaining to an individual occupational or social group, or specified place of residence. Global studies (Prospective Urban Rural Epidemiology Study – PURE), conducted by Prof. Yusuf Salim and described in the current issue of AAEM, are reflections of this situation. In the light of migration, globalization, and technological progress, the social aspect of health problems has become of crucial importance. Also, the character of environmental hazards on the human body has changed. An example of this is the proceeding mechanization of work in agriculture, and emerging threats related with it, and change of to-date risks. Currently, in the developed countries as well as in some of the developing countries, manual labour has been replaced by mechanical equipment; therefore, a sedentary character of occupational activity and risk of civilization diseases become a health problem. At present, in the majority of countries worldwide, the fact of living in a rural area is no longer associated with a life style denoting great physical effort associated with migration and performing manual household activities. Due to common access to mechanical means of transport and household facilities, a sedentary mode of life becomes a health problem. The reports included in this issue of the journal pertain to these problems and discuss currently conducted cohort studies devoted to the analysis of risk of civilization diseases – presented by Prof. Zatoński and Prof. Lars Vatten within Polish-Norwegian scientific cooperation (the PONS project). Interesting observations concern the developing countries, where there occurs the so-called double burden of diseases, which means that the hazards to-date related with the risk of infectious diseases, or those related with hard physical effort, still exist; however, there overlap risks associated with the style of life and work, which increase the risk of chronic diseases. These problems are undertaken by the report concerning the hypothesis of developmental origin

of health and diseases presented in this issue. The scope of problems undertaken to-date in the reports published in our journal, concerning environmental hazards: chemical, physical and biological [1-13], for several years has been supplemented by reports touching the social aspects of risks, as reflected by many articles published in AAEM [14-17]. The presented issue, which follows the conference devoted to the cohort studies in Poland, contains reports from studies currently conducted in Poland, the majority of which are a part of global studies (e.g. PURE) or in cooperation with other countries (e.g. PONS). The reports presented in this issue concerning the cohort studies conducted in Poland indicate that the above-mentioned global phenomena frequently contribute to the deepening of the differences in health from many aspects: between urban and rural areas, between various social groups, between worse and better educated parts of societies, and between rich and poor inhabitants of our globe. In Europe, this is well reflected by studies conducted by Prof. Zatoński within the HEM project [18], or the studies conducted by him in cooperation with Prof. Larsem Vatten within the PONS project,¹ globally coordinated by Prof. Yusuf Salim within the PURE project [19]. These very valuable studies were presented by their authors in Warsaw, for which I would like to express thanks to all lecturers in the name of the organizers. I would also like to express my thanks to Prof. Paolo Boffetta for making the presentation and presiding over the conference, and Prof. Alan White for an interesting presentation concerning the health of males in Europe, resulting from the report which he prepared [20]. I express thanks to all researchers from all parts of the world for coming to Warsaw and presenting here in Poland their own studies and reflections concerning differences in health and the causes of these differences. I very much appreciate that it was possible to present the experiences from research on differences in health in Poland, the part of Europe which within the last two decades has been experiencing the process of political, economic and social transformation. This has led to a considerable improvement in the state of health of the population living in the whole of Central-Eastern Europe² which, however, at the same time, caused many perturbations associated with these transformations [21]. As a result, health differences between the countries of so-called new and old Europe are not equal. This was very clearly shown by Prof. Zatoński in his presentation during the plenary session of the conference. The results of observations made in Poland concerning differences in health allow the drawing of more conclusions – since the period of transformation in Poland

Address for correspondence: Andrzej Wojtyła, Department of Health Promotion, Food and Nutrition, Institute of Rural Health, Jaczewskiego 2, 20-090 Lublin, Poland.

E-mail: a.wojtyla@imw.lublin.pl

1. Scientific conference on health differences in Polish population and primary prevention (29-30 September, and 1 October 2011) organized by: The Maria Skłodowska-Curie Cancer Center and Institute of Oncology in Warsaw.

2. Democracy is healthier. A health miracle on the Vistula. Institute of Oncology, Warsaw 1999, 2000, 2001, 2002, 2004

and other countries of Central and Eastern Europe, we have also observed the phenomenon of the double burden of diseases [22], despite the fact that the majority of these countries are no longer classified as low income countries, but as middle income countries. The considerations with which I came away from this conference, and the resulting reports published in this issue, allow me to presume that a political system in which the population lives, and not only their social position and material standard which are often excessively publicized, exert a great effect on the occurrence of differences in health, [23-25]. After the period of transformation in Poland, and perhaps in other countries of our part of Europe, the differences in health resulting from social position do not seem to be as big, as it would appear from the above-quoted reports. This may be the only positive aspect of living in the former system. I would also like to express thanks that such outstanding researchers have agreed to publish in the columns of AAEM their considerations and reflections concerning the scope of subjects undertaken during the conference.

Andrzej Wojtyła – Editor-in-Chief

REFERENCES

- Góra A, Mackiewicz B, Krawczyk P, Golec M, Skórska C, Sitkowska J, et al. Occupational exposure to organic dust, microorganisms, endotoxin and peptidoglycan among plants processing workers in Poland. *Ann Agric Environ Med* 2009;16:143–150.
- Bønlokke JH, Mériaux A, Duchaine C, Godbout S, Cormier Y. Seasonal variations in work-related health effects in swine farm workers. *Ann Agric Environ Med* 2009;16:43–52.
- Karwat ID, Krupa S, Gorczyca R. Causes and consequences of head injuries among rural inhabitants hospitalised in a multi-organ injury ward. II. Circumstances, types and consequences of head injuries. *Ann Agric Environ Med* 2009;16:23–29.
- Reyes ES, de la Cruz DR, Merino ES, Sánchez JS. Meteorological and agricultural effects on airborne *Alternaria* and *Cladosporium* spores and clinical aspects in Valladolid (Spain). *Ann Agric Environ Med* 2009;16:53–61.
- Nowakowska A, Heyman P, Knap JP, Burzyński W, Witas M. The first established focus of hantavirus infection in Poland, 2007. *Ann Agric Environ Med* 2009;16:79–85.
- Wójcik-Fatla A, Szymańska J, Wdowiak L, Buczek A, Dutkiewicz J. Coincidence of three pathogens (*Borrelia burgdorferi sensu lato*, *Anaplasma phagocytophilum* and *Babesia microti*) in *Ixodes ricinus* ticks in the Lublin macroregion. *Ann Agric Environ Med* 2009;16:151–158.
- Kallioniemi MK, Simola AJK, Kymäläinen H-R, Vesala HT, Louhelainen JK. Mental symptoms among Finnish farm entrepreneurs. *Ann Agric Environ Med* 2009;16:159–168.
- Oliveira M, Guerner-Moreira J, Mesquita MM, Abreu I. Important phytopathogenic airborne fungal spores in a rural area: incidence of *Botrytis cinerea* and *Oidium* spp. *Ann Agric Environ Med* 2009;16:197–204.
- Monno R, Fumarola L, Trerotoli P, Cavone D, Giannelli G, Rizzo C, et al. Seroprevalence of Q fever, brucellosis and leptospirosis in farmers and agricultural workers in Bari, Southern Italy. *Ann Agric Environ Med* 2009;16: 205–209.
- Gbaguidi-Haore H, Roussel S, Reboux G, Dalphin JC, Piarroux R. Multilevel analysis of the impact of environmental factors and agricultural practices on the concentration in hay of microorganisms responsible for farmer's lung disease. *Ann Agric Environ Med* 2009;16:219–225.
- Jacobsen G, Schaumburg I, Sigsgaard T, Schlünssen V. Non-malignant respiratory diseases and occupational exposure to wood dust. Part I. Fresh wood and mixed wood industry. *Ann Agric Environ Med* 2010;17:15–28.
- Suproniene S, Justesen AF, Nicolaisen M, Mankeviciene A, Dabkevicius Z, Semaskiene R, Leistrumaitė A. Distribution of trichothecene and zearalenone producing *Fusarium* species in grain of different cereal species and cultivars grown under organic farming conditions in Lithuania. *Ann Agric Environ Med* 2010;17: 79–86.
- Panasiuk L, Mierzecki A, Wdowiak L, Paprzycki P, Lukas W, Godycki-Ćwirko M. Prevalence of cigarette smoking among adult population in eastern Poland. *Ann Agric Environ Med* 2010;17:133–138.
- Binkowska-Bury M, Kruk W, Szymańska J, Marć M, Penar-Zadarko B, Wdowiak L. Psychosocial factors and health-related behavior among students from South-East Poland. *Ann Agric Environ Med* 2010;17:107–113.
- Krzyżak M, Maślach D, Bielska-Lasota M, Juczevska M, Rabczenko D, Marcinkowski JT, Szpak A. Breast cancer survival gap between urban and rural female population in Podlaskie Voivodship, Poland, in 2001–2002. Population study. *Ann Agric Environ Med* 2010;17:277–282.
- Sygit K, Nasiłowska-Barud A, Karwat ID, Gorczyca R, Jędrzych M, Koflątaj W. Selected social and health problems in functioning of disabled rural and urban inhabitants in the Lublin Region – similarities and differences. *Ann Agric Environ Med* 2010;17:287–299.
- Krzyżak M, Maślach D, Juczevska M, Lasota W, Rabczenko D, Marcinkowski JT, Szpak A. Differences in breast cancer incidence and stage distribution between urban and rural female population in Podlaskie Voivodship, Poland in years 2001–2002. *Ann Agric Environ Med* 2010;17:159–162.
- Witold Zatoński W.(Ed.), Mańczuk M, Sulkowska U, and the HEM project team. Closing the health gap in European Union, https://camtools.cam.ac.uk/access/content/group/5e895f99-398c-46c7-86ab-b1f76a48c718/2_Ppblc_Health_Assessment/03_The_east_west_gap_in_Europe/Closing_the_health_gap_in_EU_chs_1_and_2.pdf
- Teo K, Chow CK, Vaz M, Rangarajan S, Yusuf S. PURE Investigators-Writing Group The Prospective Urban Rural Epidemiology (PURE) study: examining the impact of societal influences on chronic noncommunicable diseases in low-, middle-, and high-income countries. *Am Heart J* 2009;158(1):1-7.e1. <http://www.ncbi.nlm.nih.gov/pubmed?term=%22PURE%20Investigators%20Writing%20Group%22%5BCorporate%20Author%5D>
- Alan White (Ed). The State of Men's Health in Europe. http://ec.europa.eu/health/population_groups/docs/men_health_report_en.pdf Men's Health in Eur
- Zatoński W. Democracy and Health: Tobacco Control in Poland. In: de Beyer, Waverley Bridgen L. (Eds.) Tobacco Control Policy, Strategies, Successes, and Setbacks. World Bank 2003: 97-120; A Nation's Recovery.
- Newnham JP, Ross MG (Eds). Early Life Origins of Human Health and Disease. Basel, Karger, 2009, pp 11–20
- Marmot MG. Social differential in health within and between populations. *Daedalus* 1994;123:197–216.
- Kramer MS, Seguin L, Lydon J, Goulet L. Socio-economic disparities in pregnancy outcome: why do the poor fare so poorly? *Paediatr Perinatal Epidemiol* 2000;14:194–210.
- Barker DJP. The foetal and infant origins of inequalities in health in Britain. *J Public Health Med* 1991;13:64–68.