

# Weighing Our Future

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**The ongoing changes occurring within society are a difficult topic for study. One needs to posit a research thesis carefully and then to be very patient: emerging trends only become visible in the longer term**

The changes Poland witnessed in the late 80s and early 90s bore all the traits of a great social revolution: they were abrupt and involved dismantling the existing political and economic order. The introduction of a free-

market economy began to change the economic status and living conditions of Polish society to various degrees and in various directions. One place it has also had an impact is on Poles' physical fitness.

## Stress among women

Pursuing a professional career, constantly staying ready to perform tasks imposed by employers, and facing ever-present competition give rise to abundant stressful situations, while time pressure makes it hard to develop methods of coping with such stress. That is why psychological stress is increasingly noted as a risk factor in the etiology of many illnesses - for women these include infertility and breast cancer. The great importance of studies investigating how stress affects the level of fertility-related hormones is best illustrated by statistics: infertility is a serious problem in EU countries, affecting some 20% of couples in Poland and from 14.8% (Italy) to 26.6% (Germany) in other European countries.

More and more women in our part of Europe are dying from breast cancer, even though such mortality has been



Bartek Bobkowski/Agencja Gazeta

Poles are near the middle of the pack in the ranking of Europe's most obese nations

on the decline in Western European countries over the past 15 years. Although the role of estrogens and progesterone in the development of mammary gland cancer is relatively well understood, the role of stress in this process is still unclear. On the one hand it may lower the secretion of such hormones as estradiol or progesterone, inhibiting the interaction between hypothalamus, pituitary and adrenal glands and thereby reducing the risk of illness. On the other, stress impairs immunological functions and thus the risk of developing disease is greater.

### Braking on oil

The rapid increase in the number of obese individuals in some developed countries taken the form of an "epidemic," seen among adults since the 1960s and, more disturbingly, among children since the 1980s. According to data gathered by the International Obesity Task Force (IOTF), adult overweight and obesity (BMI>25.0) occurs in more than 75% of Germans and 73% of Greeks, but only 45% of Estonians. Poland, with 56% of men and 48% of women showing such conditions, is considered an average country in this regard. For teenage boys aged 14–17 the highest rates are seen in Spain (40%) and England (38%), for girls in Ireland (26%) and Italy (23%). In this age group, as well, the Poles come in around the middle of the scale. Because the tendency for obesity is strongly conditioned by age, we can expect those numbers to double in the coming years.

Such growth trends have now been visible for several generations, a period too short for significant obesity-conducive changes to have taken place in the population's gene pool. The main factors driving the obesity epidemic are therefore to be sought within our surroundings: mainly a "sedentary" way of life and a high-fat and high-carbohydrate diet. Among other findings, research has shown that every hour spent in front of the television daily raises the risk of developing obesity by 12%. That trend is further reinforced by easy access to sweetened soft drinks and a plethora of fast food eateries serving up high-calorie meals rich in trans fatty acids and poor in fiber. It has been calculated that every additional 130 kcal above and beyond a balanced daily energy balance leads to a body mass accumulation of 50 kg over 10 years.

How to counteract obesity within the "obesogenic" environment seen in developed countries poses a significant challenge to epidemiologists and biologists. The most important objectives are to pinpoint the main factors that contribute to greater body fat, to identify their degree of synergy, and to develop a program for minimizing their impact. An important role for anthropologists here lies in studying the pace of storage, distribution, and accumulation of fat tissue in human development. It is worth stressing that even doggedly counteracting the factors that underlie obesity unfortunately does not yield



**Infertility already affects 20% of couples in Poland.**  
One of the factors responsible may be stress

an immediate drop in its occurrence – akin to a speeding car trying to decelerate on a slick, oil-covered surface.

### Better off than Dad?

Intergenerational social mobility is a term that denotes a shift in socioeconomic status, gauged in terms of children's level of education with respect to that of their parents. It is not entirely clear how such mobility affects one's overall state of health. The objective of one study carried out by the Institute of Anthropology was to estimate the impact of social mobility on the risk of coronary heart disease (CHD) in middle-aged individuals in Poland. CHD risk was identified on the basis of 6 parameters: age, LDL and HDL cholesterol level, blood pressure, glucose concentration, and smoking habits. We found that a change in social status (measured in terms of a subject's level of education, as above) significantly reduced the risk of CHD. That favorable impact was particularly visible among men who had improved their social position over that of their own father. No similar dependencies were seen for women.

Research projects at the confluence of various domains of science where anthropologists can make a contribution are certainly no easy task. But it is only once the unfavorable trends within Polish society are identified that the real challenge will unfold: how to go about solving those problems. ■

#### Further reading:

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