BRITISH MEDICAL JOURNAL

LONDON

SATURDAY SEPTEMBER 22 1945

## FOOD CONDITIONS IN POLAND

During the last three years opinion in Britain has swung between exaggeration and extreme underestimation of the degree of scarcity of food in occupied Europe. The result of this uncertainty has been disastrous, as there has been no steady demand for adequate plans for dealing with the crisis that inevitably arose as the fighting ended. The detailed report on food conditions in occupied Poland, published by the Polish Ministry of Labour and Social Welfare,[1] is still worth attention as example of the degree of privation in a large area before the final disorganization began.

After the German occupation all Western Poland and a large part of Central Poland were incorporated into the Reich, while the central and southern provinces formed the General Government. In the incorporated provinces Polish farmers were expropriated and hundreds of thousands of German colonists settled on the land. These provinces were under strict control as the granary of the Reich; but, in spite of the distribution of fertilizers, agricultural machinery, and seeds, and the improvement of the livestock, food production fell below the pre-war level. In the General Government area agricultural production deteriorated still more owing to loss of capital goods and livestock and shortage of fertilizers and draught animals. Before the war Poland exported well under 10% of the food produced, and maintained a mediocre standard of living on the remainder. After occupation the Nazis' requisitions were over 10% of the produce, in spite of lowered production. The inevitable scarcity was worst in the General Government area, for before the war this area had not been self-supporting but had imported food; after occupation it had to meet Nazi requisitions and feed a population swollen by people deported from Western Poland as well as the enemy garrison. There were therefore four ration scales—one for Germans (very similar to that in the Reich); one for Poles in the incorporated areas; one for Poles in the General Government; and one for Jews. The rations for Jews may be dismissed as an extermination ration. In the incorporated area the Poles were allowed about half as much meat, fats, and cheese as the Germans were; in 1942 rations of meat (100 g. per week) and of fats (50 g. per week) for Poles in the General Government were about 30% lower, and the sugar ration (70 g. per week) 70% lower, than in the incorporated area. At the end of 1944 meat and sugar rations had not risen and no fats were allowed to the normal consumer. As no extra cereals or potatoes were allowed, in order to make up for the deficit of animal products, the total of calories provided by the rations in the incorporated area were under 1,500 a day for an ordinary adult and about 1,200 in the General Government; and these rations could not always be obtained. Extra rations were allowed to heavy workers, and at the end of 1943 to their families as well. But even very heavy workers got under 2,000 calories a day. Only those engaged in work of military importance got these extra rations; the vast majority of Poles were rationed as normal consumers. The rations for young children supplied enough calories, though they were allowed skimmed milk only, and in 1943 this allowance ceased at 3 years in the General Government and at 6 in the occupied area. But the calories supplied did not rise with age, and amounted to no more than 758 per day at 10 to 14 years—about one-third of the League of Nations standard. The total protein at this age was 24 g., of which 2.6 g. was animal protein, and the calcium 91 mg. per day.

Throughout the greater part of occupied Europe foodstuffs that supplied over 90% of the day's calories have been rationed, and the official rations have supplied well under 2,000 calories per head per day. This has been known well enough; the uncertainty which has led to wide differences and fluctuations of opinion has been on the possibility of supplementing this scanty fare with unrationed food or by irregular means. It will never be possible to dispose of this uncertainty, because all data about production are untrustworthy, and conditions varied from one place to another and from one family to another. But, as the amounts of food requisitioned from Poland were about double the amounts exported before the war, food must have been scarce, even if production had not fallen below the pre-war level. Until scarcity of food becomes extreme the agricultural population invariably fare better than townspeople; it is probable that the actual consumption by peasants in Poland was more than the 2,000 calories a day calculated from statistics of production. About 70% of Poland's population is classed as "rural," but a large proportion of these are not engaged in producing food—lumbermen, for example—and may have been little better off than the people in the towns.

It is often claimed that people in occupied Europe made up the deficiencies in their official calories through the black market or by eating very large amounts of vegetables. But in an area in which food actually is scarce the black market can only aggravate the privation by causing unequal distribution. Prices in the black market in Poland were so high that the greater part of the population could not buy in it after their stock of disposable property was exhausted; in fact a good deal of the "black" trade was in coupons for meat, which the poorer people sold in return for bread or potato coupons; this trade altered the distribution of calories but did not increase the average per head. As Durig in Vienna pointed out, it was not possible to eat or even to cook enough vegetables (excluding potatoes) to make up a serious deficit in calories, even if enough land could be devoted to producing these quantities. In Warsaw a large number of open spaces were taken for allotments of about 1/12 acre; half were to be sown with potatoes. With a fair yield one of these might provide some 250,000 calories a year, or under 200 calories a day to each of a family of four. But owing to the limited

[1] *Food Conditions in Occupied Poland.* Analysis of the German Food-rationing System in Poland. By Leon Dmochowski, M.D. Published by the Polish Ministry of Labour and Social Welfare in 1944. London.

amount of free space in towns few could benefit from the allotments.

There can be no doubt of the serious undernutrition of the Poles, especially of children, during the period covered by this report. The final stages of the war—bombing and blowing up of railways, appropriation of the remaining transport by the military, consumption of seed and dislocation of harvest and sowing—all have accelerated the scarcity of food in Europe. In the Polish area the expulsion of the German settlers and the flight of Germans from the area east of the Oder will again set farming back. At the end of July the U.S. Office of War Information reported: "... Thousands of people will starve and freeze to death in Europe this winter unless help can be rushed from outside. Tens of thousands of others will be hungry and cold. They will be jobless. If no help were to be forthcoming from the outside, they would almost certainly riot, because the authorities could not enable them to get the vital necessities of life. Without this help they would succumb to disease, because their weakened bodies cannot stand up against further hardship. The economy of Europe has been running downhill fast. Production is already at unbearably low levels. Faced with a continued lack of food and incentive goods for workers, transportation for materials and, chiefly, lack of coal, it would continue to fall steadily. . . ."

Newspaper reports of the terrible plight of the Germans displaced by the Poles west beyond the Oder show that the goddess Nemesis is as remorseless as ever.

## INFANT MORTALITY AND SOCIAL CONDITIONS

The causes of infant mortality and the methods by which it may be reduced have been medico-sociological problems of the first importance for several decades. Considerable progress has been made towards a solution, and the rate is now only one-third of that at the beginning of the present century. The continuous fall in the birth rate has made it even more imperative to reduce unnecessary wastage of infant lives, and it is generally acknowledged that a further reduction is possible, probably to one-half of the present level. Infant mortality exhibits associations similar to those of the general death rate—e.g., a progression with urbanization and with the social-class classification of the Registrar-General; but the former is more sensitive to adverse conditions than the latter, and this has led to its adoption as an index of the relative social and economic well-being of a community. Infant mortality has given a good approximation when used as a relative measure of these conditions, though it would be, perhaps, a bold person who gave unqualified support to Hersch's[1] recent contention that it is the best single index of the degree of civilization attained by a country. He stated that a high infant mortality shows a condition of poverty and inferiority, while a low mortality reflects the best hygienic conditions, the greatest advances in medicine, bacteriology, chemistry, public education, and intellectual progress. It has been suggested by Mitra[2] that infant mortality is less sensitive to social conditions than it was 20 years earlier, owing to the large decrease in the rate itself and to an improvement in general living conditions; but it is still highly correlated with social and environmental conditions.

The latest paper on this subject is by Woolf and Waterhouse,[3] who have used the infant mortality during 1928–38 in the county boroughs to assess social influences. Their finding that economic conditions are inversely related to infant mortality is well known and generally accepted, but their conclusions are not so well founded. They were, apparently, so enamoured of their lengthy arithmetical processes that they overlooked the first lesson in statistics—i.e., that correlation is not necessarily causation—and they conclude that "23.1 is the infant mortality that would prevail if our five poverty symptoms would be eliminated." This rate is much below 32.7, the rate for Social Class I, and we may safely assume that poverty was not a factor here. The many factors associated with infant mortality are highly interrelated, and one cannot assess their relative importance; but the authors have allocated one-sixth of the excess mortality to overcrowding, one-quarter to low-paid occupations, one-fifth to unemployment, and one-eighth to the industrial employment of women. Apparently public health workers and authorities have deluded themselves for years by assuming that infant mortality was influenced by complex factors and that medical science and improved mothercraft could affect this rate. But perhaps they were not so largely mistaken, since in 1943 and 1944, when enemy action had made the housing position worse and the employment of women in industry was on a higher scale than ever before, the figures for infant mortality were 49 and 46, the lowest values ever recorded in England and Wales. Between 1911 and 1931 the infant mortality of Social Class V was halved, due, the authors state, to improvement in environment. The mortality of Social Classes I to IV also declined at approximately the same rate, and it seems more reasonable to suggest that a factor independent of social class was responsible for a large proportion of this improvement. That social and economic conditions are of great importance in determining the size of the infant mortality has been established beyond doubt, but curious anomalies exist. For instance, Social Class II in the regions of Wales I and North I had in 1930–2 a larger infant mortality than any class in the South-East (excluding London) with the exception of Class V, which cannot be explained by differences in economic conditions.

Woolf and Waterhouse fail to appreciate the paucity of the data which the pioneer writers on this subject had at their disposal. The indices the earlier writers used were the best available, and they fully realized their imperfections. The use of the proportion of female domestic servants in the female population as an index of the residential nature of a district is not so foolish as the authors would have us believe. They state that "high proportions of domestic servants are found not only in well-to-do areas but also in those poverty-struck places like Newcastle-upon-Tyne and Merthyr Tydfil." In fact the percentage in these towns was only about one-third of that in Eastbourne and Bournemouth. Women in highly industrialized areas, where no opportunities exist for female labour, are not forced by

[1] *Médecine et Hygiène*, 1943, **10**, 1.
[2] *J. Hyg.*, Camb., 1937, **37**, 108.
[3] *J. Hyg.*, Camb., 1945, **44**, 67.