A MEDICAL REVIEW OF SOVIET RUSSIA.*

V.—THE MEDICAL PROFESSION, SOVIET
SCIENCE, AND SOVIET SANITATION.

BY

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PART I.

SOCIAL CONDITIONS, 1914-1922.

It will be interesting to the physicians of other countries to know of the personal life and work of their colleagues in the U.S.S.R. (Union of Socialistic Soviet Republics). Before describing their present condition I shall give a brief review of their life during the past decade.

After 1914 there was a gradual decline in the standard of living in Russia. By 1917 deprivations had become chronic. Then the exhaustion of two revolutions, blockade, famine, and disease precipitated wholesale misery, from which Russia is just beginning to recover. What corresponded to the worst period in the rest of Europe was only the prelude to the Russian experiences. It is important to remember not only the intensity of this suffering, but its duration: A barefooted, tattered Russian physician said to me in 1922, on receiving an English newspaper, "It has been so long since I have even heard of anything civilized it seems like hearing from another world." Another doctor said he was so accustomed to going all day without anything to eat that he never felt hungry (in 1924) when he missed a meal. In Russia as early as 1916 there were four meatless days a week, and sugar had entirely disappeared in many districts. Salaries had been raised 20 per cent., but the cost of living had doubled or trebled.¹ During the great war there were fewer Russian doctors but more Russian wounded than in other countries.

When fighting with Germany ceased the Russian physician was mobilized into whatever army was occupying his section of the country—whether white, red, or allied. This civil war and proletarian revolution, which lasted with some intermissions until 1922, left the population without medical assistance, and country medical clinics were closed and disorganized.

The declared purpose of the second revolution was socialism through the elevation of the proletarian, and the destruction of the social superstructure. It brought disaster to all those who lived on a higher level, and lowered the standard of life to that of the peasant.[†] The doctor's position was more hazardous than the peasant's, as shown by his higher death rate.

When fighting was over and Communistic rations were abandoned (end of 1921) the physicians returned to their former positions, often without remuneration. The official salaries were too little to live on, and were often paid several months late, and the population had no money to pay for private practice. If any valuables had been retained, they were sold for food. Well known professors and clinicians became destitute, and in 1918-20 many physicians entered the hospitals with hunger oedema, and death from starvation became frequent. Though the official ration often did not suffice for one person, it had to be divided among the family, and a medical practitioner, in order to sustain himself, had to hold several appointments, hurrying from one to the other on foot through the snow, going several miles to get a pound of bread.[‡] At one time it was the duty of a physician to work in at

least three places, and if he did not he received a compulsory appointment.

Later on, in spite of the shortage of doctors in Russia, there was unemployment in their ranks because they could not pay for a State licence as there was no paying practice. Some gave language lessons, did manual labour, etc. In April, 1923, 400 physicians were registered as unemployed in Leningrad.

During the period of epidemics the death rate of physicians was much higher than that of the rest of the population. A dean of a university told me that "they were taken ill in masses. One city lost 42 physicians out of 300 in one winter." In a single clinic of Moscow in a few days there were eight cases of typhus, ending with the death of Professor M. and his assistant. In another clinic Professor S. was the only one to survive. In one of the clinics of the Military Medical Academy (formerly the clinic of Professor Sirotnin) every doctor died from typhus.

"In Odessa, in one month of the spring of 1922, out of 92 doctors engaged in examining children for the American relief kitchens, sixteen caught typhus. This is the more spectacular side; the more important part of it is that in many of the districts where the after-effects of the famine are worse, there is not more than one doctor for 100,000 persons." (S. M. Keeny.)

During the war there were 24,000 doctors in Russia. About 50 per cent. of them suffered from typhus, and 3,000 died of this disease alone. This high mortality has been attributed to a peculiar susceptibility of the nervous and vascular systems in physicians. Professor Chernoroutsky says, in a personal communication: "Other infections which have no special effect on the nervous system give an average prognosis, but typhus, meningitis, etc., have a bad prognosis. For in medical men the mortality of typhus between the ages of 50 and 60 was 87 to 100 per cent., compared with 33 to 50 per cent. for other people." The following table from the Obookhoff Hospital, Leningrad, shows their high mortality compared to others.

Occupation.	Number.	Morbidity (Typhus).	Mortality (Typhus).	Percentage Mortality of Total Number.
Surgeons	24	12=50%	3=25%	12.5%
Physicians	80	40=50%	8=20%	10.0%
Sisters	96	60=62%	10=15%	9.6%
Servants	416	91=25%	28=27%	6.6%
Nurses	827	237=30%	30=11%	3.6%

Dr. Semashko states that "during the height of the epidemics of typhus and relapsing fever practically 100 per cent. of the doctors on the Eastern Front were stricken, and their mortality was 70 per cent."²

The increased morbidity and mortality of the physicians can be explained, according to Professor Grekoff, by their extreme exhaustion and by the hard conditions of their life. But in spite of his difficulties the fact that the physician had some useful work to perform acted as a mental stimulant. A well known physiologist, who had had hunger oedema in 1920, told me that his work had kept him alive. In many families I noticed that those who had nothing to do died sooner of starvation than those who were working, although they had the same amount of food. As a contrast to the physician was the pitiable mental condition of those who had no work.

Scientific Work.

Scientific work almost ceased.

"Constant anxiety for food and fuel, endless waiting in queues, a half-starved beggarly existence could not but strongly affect the life of scientists. From 1918 to 1920 they, as well as all the other inhabitants of the cities, never left their houses without a bag on their backs in which to bring home bread, potatoes, etc., received as rations. An eminent professor lived the winter through in his bath-room, as it was the only place that could be heated. It was a usual thing for men of science to carry up to their apartments wood and water, and to empty the sewage, as the lavatories did not function."

* Previous papers on medical and scientific work in Soviet Russia by Dr. Horsley Gantt were published in the BRITISH MEDICAL JOURNAL in 1924: I, A Review of Medical Education in Soviet Russia, vol. i, p. 1055; II, Hospitals and Health Conditions, vol. ii, p. 336; III, Scientific Work, vol. ii, p. 533. The first part of section IV, on "Change in type and incidence of disease," was published on August 14th, 1926, p. 303; Part II of this section was commenced on October 23rd (p. 747) and concluded on October 30th (p. 802).

† For an accurate, first-hand account of contemporary peasant life, see M. G. Hindus, *Broken Earth*, 1925, International Publishers, New York.

‡ A professor in a large university told me he was delighted on one occasion to receive two pounds of butter for a lecture, after walking eight miles.

Professor Bechtereff states that the neuro-psychical energy of an organism decreases with the decrease of nutrition. A general depression of personality results, with passivity and a lack of will power. In 1923 one of the survivors wrote:

"Besides resulting in a high mortality among the scientists in Leningrad—the centre of mental life of the country—these hard years decreased the capacity and energy of those who survived."

Leaving aside the difficulty of working in unheated laboratories, examinations could not be done owing to the lack of gas, water, and illumination. There was a total absence of both Russian and foreign literature.*

"In order to write down one's observations one had to use grey paper of a bad quality which was stealthily bought from speculators (trading being prohibited). The home-made ink was usually prepared out of some dye hardly suitable for the purpose."

Many scientists left Leningrad or were employed in some other kind of work. But,

"notwithstanding all the terrors, scientific life did not cease altogether. During the most difficult periods one could see men of science working in their overcoats, fur caps, and snow-shoes. Half-starved men continued to carry out their experiments on half-starved animals. Dead animals were cooked and fed to the living. After an operation the animal was often taken home for the night to be kept near the stove with the investigator."

Scientific meetings were held, although the members had to go on foot and to sit in overcoats. Often a lamp or candle had to be used instead of electricity. By the end of 1919 scientific life began to revive. In spite of the bad conditions several new scientific societies were formed during these years and important work was carried on.

In some institutes lack of money and equipment continued. Professor X. told me that when he went to a university library to work during the winter of 1923-24 the ink was frozen, and that during part of the time when he was lecturing the temperature was 10° C. below freezing; but the students continued to attend in spite of the cold.

The members of the Russian medical profession during these years gave themselves freely and often without any pay. They rendered the people no small assistance in checking the epidemics and carrying on other sanitary measures. Although foreign relief supplied much of the material and sometimes the organization, the actual work was done by the natives, as the number of foreigners was too small to count for more than a stimulus.

Worthy of mention is the uprightness and unselfishness of the Russian physicians during these horrible and hopeless years. This was at a time when the strain of living was so great that some of the population were driven to eating human flesh and even killing members of their own family. In distributing large quantities of relief supplies through the Russian physicians, I never knew of a single case of theft by them, although they were in dire need. There were many cases of heroic unselfishness, such as the following from Vologda, a town of 50,000 inhabitants near Archangel. On an inspection trip there we found the chief surgeon, among others, in great need. He had not had a new suit or overcoat for ten years. He was wearing trousers that were more patches than pants, and out of his salary of less than a pound sterling monthly (in April, 1923) he had a wife and nine children to support. On returning to Leningrad we sent him (and some other doctors there) a relief clothing package. A few days later we received a gracious letter saying that he had given the package to a colleague more needy than himself, enclosing a letter of thanks from the recipient.

As late as September, 1925, I have seen research workers paying one-half of their monthly salary for paper to chart their results, and many professors give part of their salary to support the laboratory where they work.

Present Conditions.

Since 1922 there has been a gradual improvement in both living and working conditions. Fighting and famine are

* "When a foreign journal reached Petrograd, those who desired to read it wrote their names in order and patiently waited the happy hour when their turn came." From December, 1918, there was only one medical journal in the whole of Russia for the next year.

now past, and order has been restored. The currency has been stabilized, and salaries, though small, are paid regularly. As the former war communism has been abandoned in a certain degree, many of the more famous doctors are now better off. Unemployment of doctors has disappeared, except for those recent graduates who prefer living in the cities to working in the villages. A full professor receives now 80 to 150 roubles (£8 to £15), an assistant about half as much, the younger clinical clerks 20 to 40 roubles (£2 to £4). Young scientific workers receive nothing, or from 7 to 100 roubles (less than £1 to £10). These salaries are without rations. Manufactured articles and clothing are considerably more expensive than in England; plain food and room rent are somewhat cheaper. Besides the loss of personal property and private income, professional salaries have dropped to one-half or less, and the cost of living has doubled or trebled compared with the pre-war standard. The population is divided into categories; the cost of lodgings, train tickets, telephones, etc., depend upon a person's category—that is, whether he is in Government employ, a member of a union, in private business, and so on. In 1926 (June) the cost of living had risen about 40 per cent., and salaries about 30 per cent., over 1925; on foreign articles there is a prohibitive duty (300 to 2,000 per cent.); for example, a lemon cost in the summer of 1926 as much as 8 shillings.

The physician's condition is considerably better than in 1922-23, when his daily income was equal to seven times his tram fare, or one pound of sugar, and his yearly salary equal to the cost of two overcoats.

Even at present it is impossible for a person with a family to do more than stave off actual starvation on the official salary. However, he supplements this; for during the past few years the Russian physician has learned many ways of making two ends meet. In the first place, most of the eminent professors have three posts, in spite of the ruling that no one may teach in more than two places. A few write textbooks.* Those not so eminent give language lessons, etc. Prominent clinicians have regained their practices and are making a comfortable living.† Those physicians who are old or cannot obtain outside work are still in dire circumstances; no one has become rich. I do not know of a single doctor in Russia who possesses a motor car. Automobiles owned by the Government are, however, at the disposal of the officials of the public health department. Communists receive 193 roubles monthly, in addition to many privileges, and have some other opportunities of earning money. A prominent Communist doctor who occupied several positions told me in 1925 that the maximum he was able to earn was 400 roubles a month. This general lack of wealth mitigates, by comparison, the misfortune of the poorest. Living in Russia is cheaper than the costs indicate, because the standards of life are lower and wants are reduced to a minimum.

When I asked a Ukrainian doctor in 1925 how he managed on his salary he replied, "By not eating much and going hungry." To one with an Anglo-Saxon appetite it does seem that the Russian physician gets along remarkably well on little more than weak tea at frequent and irregular intervals. The need for dressing is also reduced to a minimum, although it may be due to traditional tendency or personal preference rather than present finances that some appear at work without socks and shirts in the summer. The doctor also buys few books or journals, and

* All textbooks are censored, accepted, and printed by the Soviet Government. Seventy-five roubles are paid for sixteen ordinary textbook pages, 20 per cent. of which is paid when the contract is signed, 60 per cent. when the manuscript is completed, and 20 per cent. when the book is published. As the book is the property of the State, there are no further profits for the author. Professor Pavlov received 25 roubles for each 8,000 words of his book on conditioned reflexes. For the special articles the Soviet Government desires written it pays, I understand, as much as ten times this amount.

† There are no rules prohibiting professors, the chiefs of hospitals, etc., receiving patients at their homes. The fee for an office visit is 1 to 5 roubles, and for a house call 2 to 20 roubles. A former surgeon to the Tsar's family told me that in 1925 he received 10 to 100 roubles for a major operation. Bills are not sent in Russia, but the patient (or his family) hands the doctor what he considers the proper amount as he leaves the house. Semashko states, "private practice in Soviet Russia is entirely free, although it is now not an important source of income, and it continues to decrease rapidly."

his amusements are limited. If his wife is lucky or clever, she too does some kind of remunerative work, such as teaching.*

Vacation and Recreation.

The lack of recreation and vacation has been trying to the Russian physician. It was out of the question for him to go to the theatre, club, etc.; for if any were open he had no money.† Except for the past three summers few, including Communists, have had any vacation for six to ten years. Professor Pavlov was two summers without a vacation. A Russian scientist whom I met in Denmark in the summer of 1924 told me that that was the first time he had been out of Leningrad for ten years. He was then travelling on the proceeds of a book he had just written. It is difficult to realize the strain of ten years without a rest or change even when one works under the most ideal conditions in the laboratory and lives comfortably at home.

There have arisen, however, many co-operative schemes which make life simpler and cheaper, such as rest homes for the summer. The Soviet Government bears the expenses of delegates to congresses, etc., and gives some of the eminent doctors and scientists money to go abroad for three to six months. The Kubu (director M. Leberde) was organized by the Soviet Government to extend aid to the scientists. At present it maintains an excellent club-house in Moscow, which may be used without fee by all scientists, and at which meals are provided at actual cost.

The extreme conditions of life of the Russian scientists may be considered a matter of historical interest, and the present exceptions are parallel to those of other countries when the general economic state is taken into consideration.

REFERENCES.

¹ *Russia in 1916*, Stephen Graham, London. ² *Das Gesundheitswesen in Soviet Russland*, 1924, p. 24.

(To be continued.)

INTERNATIONAL LIST OF CAUSES OF DEATH.

As late as 1893 no two countries in the world used exactly the same forms and methods for the statistical classification of the causes of death. For international comparison of the death rates, for the public health, and for epidemiological purposes a uniform system of nomenclature was so obviously essential that in 1893, at the session of the International Statistical Institute held at Chicago, the late Dr. Jacques Bertillon, the distinguished French demographer and, we believe, the brother of the well known inventor of the method of identification by physical measurements, presented a draft of a classification of the causes of death for international use, which had been prepared by a special committee. This draft was at once generally approved, and, indeed, adopted promptly by several countries; it was further decided to keep the classification abreast of scientific knowledge by decennial revisions at the hands of an international commission appointed by the various participating countries. These meetings for revision were subsequently held in Paris in 1900, July, 1909, and in October, 1920, with Dr. Jacques Bertillon as permanent secretary-general. He was the originator and up to his death, soon after the last meeting of the International Commission, the presiding and guiding genius of this important undertaking.

After the second decennial revision the United States Bureau of the Census and this country both brought out in 1911 "A Manual of the International List of Causes of Death," and the same course has been followed after the third revision (1920) by the United States in 1924 and by this country in 1926. The delay in the issue of the present edition of the English manual is due to various circumstances, special to the British edition, in addition to the death of Dr. Bertillon. Dr. T. H. C. Steavenson, Superintendent of Statistics,

* One young scientist of my acquaintance who receives 10 R. (£1) monthly gets food from his mother in the country, and the chief of the laboratory gives him a few roubles from his salary of 60 R. monthly. Another, working in the laboratory of Professor Pavlov, lives by raising fancy dogs at home.

† In 1923, when I had the privilege of accompanying Professor Pavlov to the theatre, he told me he had not been for five years. A Russian physician abroad in 1924 told me he had not eaten in any Russian hotel or restaurant since 1917. Another said that his favourite recreation nowadays was working in the laboratory at night.

General Register Office, adapted the 1911 manual for use in England and Wales. The present edition (1926) of the Manual,¹ which is adapted for Scotland, and Northern Ireland also, is issued, on the authority of the Registrars-General for England and Wales, Scotland, and Ireland, with a view to providing, for the use of public health officers, the medical profession generally, and any others interested, an official statement of the practice in force with regard to the classification of the causes of death in the several parts of the kingdom. There is still a lack of uniformity in the international methods of death registration, and at the third revision in 1920 a resolution allowed each country a certain amount of latitude in adapting to its own special requirements the model of an abridged list approved at the conference for revision.

The Manual enables the names of diseases as certified according to the method of the country to be assigned to their correct place in the international list of causes of death. Thus the General Register Office advises medical practitioners to use in their death certificates those terms only which are recognized in the Nomenclature of the Royal College of Physicians of London, for when this is done there is, as a rule, no difficulty in referring deaths to their proper heading in the International List of Causes of Death as now adopted for use in the Registrar-General's reports. At an international conference of vital statisticians held at Geneva in August, 1925, it was recommended that all the countries using the International List of Causes of Death should publish similar manuals containing lists of terms employed in certifying the cause of death. The Health Section of the League of Nations has now taken up the matter of improving the correlation of the death statistics of the various countries using the international list, for, according to the high authority of those responsible for the present manual, comparability "under present conditions must be to some extent apparent rather than real."

The International List of Causes of Death does not pose as an academic or scientific classification or proper nomenclature of diseases, but is intended to be a practical working list whereby the compilers of statistics can correctly tabulate the causes of death. The Nomenclature of Diseases drawn up by a joint committee appointed by the Royal College of Physicians of London is much more elaborate than the International List of Causes of Death; it includes certain symptoms and morbid states which seldom or never prove fatal; it is therefore clear that there is a considerable difference between a nomenclature of diseases classified as far as may be possible on a scientific basis and a list of causes of death. The difficulties in constructing a satisfactory classification of diseases on the ever-shifting sands of medical knowledge are so great that critics of the official Nomenclature have not been wanting, and there is full justification for the view that the time for any final attempt has not arrived.

The history of the official Nomenclature of Diseases is not without interest. The famous Dr. William Farr, who has been said to "have made statistics literature," finding Cullen's system, then in general use in the public services, not up to the knowledge of the time and unsuited for statistical purposes, prepared a "Statistical Nosology" (Registrar-General's reports, 1839-40), and in 1853 wrote a report upon a classification for death statistics to be used in all countries. In 1859 the Royal College of Physicians of London set up a joint committee to bring out a Nomenclature of Diseases, which duly appeared in 1869, and, being "subject to decennial revision," came out again in 1884, 1896, 1906, and 1918, so that in the natural course of events another, the sixth edition, is due next year. Whether any preparations for this are being made we do not know. As it has in the past been brought out for, and at the expense of, the Government, it may well be that the financial conditions are unfavourable. In the meanwhile the revised "Manual of the International List of Causes of Death" gives the medical man clear directions, politely called "suggestions," respecting the way in which death certificates should be filled up.

¹ Manual of the International List of Causes of Death, as adapted for use in England and Wales, Scotland, and Northern Ireland. London: Published by His Majesty's Stationery Office. 1926. (Pp. xlv + 135. Price 2s.)