

## HIGHLIGHTS OF SOVIET HEALTH SERVICES\*

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**T**HE formal structure and function of Soviet health services have been described abundantly over the last 25 years. As the first fully socialist nation, its approach to problems of health and the organization of medical care has interested hundreds of western observers, and we have available as a result of this interest many excellent and thorough accounts, from the Sigerist volumes of the 1930's to the recent study-tour reports of the World Health Organization and the United States Public Health Service.

The excuse for another exposition would not be to add further details to the picture of Soviet medicine. A two-week observation could hardly do that anyway. It is, rather, to attempt to analyze the Soviet health service system in terms of certain key concepts that are of interest in the United States and perhaps in all countries. Under each concept, one may explore the Soviet approach in several of the formal subdivisions of the health services.

One need hardly be reminded that the Soviet Union is a huge country—the largest land area of any nation in the world, with a population of 220,000,000. Because it is built from fifteen republics and an enormous diversity of local national and ethnic groups, one should hardly expect a simple, clear picture of uniformity, in the health services or any other aspect of life. This would be true even had the past 40 years since the 1917 revolution been times of quiet social development. But since the overthrow of Czarism, almost half the time has been spent in periods of war and reconstruction. After the First World War the country experienced a period of hostility from the

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urban and rural resources, and in the 1930's it was changed to one of complete and general governmental support. On the whole, this means funds come from the central government and are allocated outward to the republics and oblasts (provinces). Initial budgets are prepared locally and sent into a central office. The decisions made at this higher level determine the resources in personnel, equipment and facilities that will be available in the local community—and these will be examined below. Whatever resources are provided locally, however, are available to everyone without charge.

But is there any private practice, everyone asks, for which individuals actually pay? The answer is extremely little, although it is not legally prohibited. A physician may not use public facilities to see private fee-paying patients, as he does for example in the Philippines or in Egypt. But he may see them at his home in the evening. Recent Soviet reports give hint of a slight rise of private practice in the cities, particularly for calls to the patient's home. From all that one can learn, however, very little of this goes on. In Latin-America and elsewhere, physicians employed "full-time" in a public system usually engage in private practice to supplement their low salaries, and the weaknesses of the system yield a clientele for them. These forces do not seem to operate in the USSR.

*Scope of Services.* The medical services offered to the Soviet people are comprehensive, but they differ greatly in their pattern from the American custom. The basic scheme is that all persons are expected to get care from a team of doctors at the health center near where they live. In this sense, there is little "free choice of doctor," just as we have no choice of public schools for our children—since they go to the school in the neighborhood. The physicians at the local health center or polyclinic, however, serve as true family doctors; each is responsible for the families in a district. The general practitioner is backed up by a team of specialists in pediatrics, surgery, ophthalmology and so on. He sees these families in the clinic or, when urgent, in their homes. As in the United States, the

ratio of home calls to clinic visits is relatively low, about 1 to 10 or 1 to 12. The local polyclinic also provides dental services, given either by a dentist or by a stomatologist. The latter is a physician specializing in diseases of the mouth and is trained more thoroughly than the dentist. Soviet taste runs to dental prostheses of gold, which must be paid for, although the services of personnel are without charge.

Drugs given in a polyclinic or hospital are free, but others prescribed must be purchased in a local drugstore, somewhat as in other countries. The difference is that in these stores only drugs are sold. Life-saving preparations required for ambulatory patients, like insulin, are provided free from special endocrinology clinics. In any event, prices are low for all prescribed items. Other drugs may be purchased "over the counter" without a prescription, and their prices are higher. The "Bayer aspirin" that we saw in one drugstore, imported from abroad, was apparently for this use. The vast bulk of Soviet drugs, however, are manufactured in the country in government factories supervised by the Ministry of Health. There tends to be only one preparation of each chemical composition. Appliances—from eyeglasses to artificial limbs—also must be purchased privately, unless the need grows out of military service or industrial accident.

Admission to a hospital is without limitation, except that a hospital physician must participate in the decision as well as the doctor who sees the ambulatory patient. This is, of course, the prevailing system in Western Europe where general hospitals have closed and salaried medical staffs, distinct from community doctors. Once hospitalized, the patient gets a range of services much like that in other countries. There is perhaps more emphasis on physical therapy, exercise and diet, somewhat less on diagnostic laboratory and x-ray examinations, than in the United States.

Hospital services are offered predominantly in general hospitals, but there are also some mental hospitals—large institutions in the main cities. The definition of need for mental hos-

pital care, however, is very different from that in the United States; while we have roughly one mental hospital bed for every bed in a general hospital, the Soviet Union has only about one-tenth of a mental bed for each general bed. How much of this large difference reflects a lower relative prevalence of mental disorder and how much represents a different approach to the problem, demands study.

For other long-term care there are sanatoria of various types. Some of these are for old people, but very little stress seems to be put on this group—unlike the situation in America. The focus is more on the types of disease: cardiovascular, cancer, neurological disorders, children's care, and so on. In addition, there is a wide network of rest homes for short stays of persons in need of some release from their work, and of spas and similar resorts for stays of about a month.

Finally, the scope of services includes those of a purely environmental and preventive nature, which will be discussed later. It should also be mentioned that cults like Christian Science are not known in the spectrum of Soviet health services. There are some drugstores, however, that claim to specialize in homeopathic medications, and there is a marginal fringe of chiropractors who make home calls—a subject on which *Izvestia* published a recent attack. Cultist medicine, nevertheless, is of much smaller proportions than in the West where it is a part of the legal medical establishment.

*Quantity Coverage.* A third feature of Soviet health services is their great emphasis on mass impact. The central philosophy is to attempt to provide a reasonably satisfactory level of service for everyone, instead of high-level service for a few. The attitude is that qualitative improvements “will come later.” This passion for quantity is evidenced in many ways.

Most prominently it is seen in the enormous production of medical and allied personnel. By the standards of other countries, the output of physicians has been fantastic. There are now over 402,000 doctors in the USSR, or a ratio of one to every 540 persons—the highest relative supply of any country

in the world (the United States ratio is about one to 750). This was achieved by great expansion of the medical school enrollments; there are 84 schools—about the same as in the United States—but each class has several hundred students. The educational process is doubtless less individualized than in America. The length of training also was shortened, having been fixed at five years beyond high school for some time, although now it is six years. (While this is shorter than the usual American eight-year course, it is similar to the practice in most European countries.)

As in Western Europe, only a small percentage of physicians have internships. Instead they go right to work in a polyclinic, hospital or health station—some organized setting where their work is subject to review by other doctors. The Soviet Union is very proud of achieving a short work-week for all employed persons, and this applies to doctors as well. A six or seven-hour day, which with a six-day week usually amounts to about 40 hours per week, is the norm. This may be contrasted with the American medical practice in which doctors tend to be proud of their 50 to 60-hour week. Some Soviet physicians, however, may hold second part-time jobs. Moreover, they do not lose time going between an office and one, two or three different hospitals or other facilities each day; each Soviet doctor is located at one center.

Everyone has been struck by the very high proportion of women doctors in the USSR. Undoubtedly this has been one of the consequences of the emphasis on quantity output; thousands of men were needed for other fields like engineering, the sciences and education. It has also been due to the emphasis on child health service (see below) for which women are believed particularly well suited. Then after the Second World War, the proportion of women medical students went up from about 50 to 75 per cent, because so many men had been killed. Still another factor has been the policy of encouraging advancement in the ranks of health workers, so that many medical students are former nurses. The Russians explain that, con-

trary to Western conceptions, this female predominance does not imply a lower status for physicians.

It has been said that the vast numbers of Soviet physicians are partially wasted by assignments to tasks which in western countries are performed by auxiliary personnel. This is certainly true in the field of public health, since there are relatively few sanitary engineers or sanitarians, and much of the surveillance of environmental sanitation is done by medically-trained "hygienists." (See below.) (There were actually some 28,000 sanitary and epidemiological assistants in 1960.) In the clinical fields, however, I could see no evidence of squandering medical skills. On the contrary, there are large numbers of auxiliary personnel in the hospitals, polyclinics, and various health stations—adding up to about 1,350,000.

In 1960, there were 623,000 nurses—more than in the United States, and a higher ratio to population. In addition, the Soviet health services have a special type of auxiliary health worker not found in other countries—the feldsher. Unlike the nurse, the feldsher is not simply an aide to the doctor, but works with greater independence on the basis of "standing orders." He or she (about one-third are men) is often stationed at isolated rural points (the pattern started in the 19th century under the old Zemstvo medical system), and is authorized to give drugs for common ailments like diarrheas or respiratory infections, to give first-aid to injuries, to vaccinate, to make sanitary inspections, and to offer health education. In 1960, there were 334,000 feldshers. In addition there were 76,000 feldsher-midwives and 139,000 regular midwives. Technicians of all types number about 84,000 which is fewer than exist in the United States. Other personnel include about 80,000 pharmacists and almost 31,000 dentists (not counting about 16,000 stomatologists who are numbered with physicians).

The mass impact applies also to hospital facilities. In 1960, there were about 1,740,000 civilian hospital beds of all types of which only 162,000 were for mental patients. (The number of military beds is not reported.) Thus, the over-all ratio was

about 8.0 beds per 1,000 people. Beds are classified in different ways than in the United States—for example, there are many separate maternity homes—but it is quite evident that the supply of *general* hospital beds is well in excess of the American ratio of under 4.0 per 1,000 population. (This is not counting the beds in sanatoria or rest-homes.) Attached to practically every hospital is an out-patient department or polyclinic, serving everyone in the area. In addition there are several thousand separate health stations at collective farms or industrial enterprises.

The quantity coverage, however, is associated with many deficiencies in quality, at least by American standards. The diagnostic work-up of cases appears to be less thorough than prevails here. Routine screening laboratory tests (urinalyses, hemoglobins, etc.), which we have come to consider essential in the United States, are not done on all hospital admissions. Even the mass periodic health examinations (see below) are weak on laboratory procedures like chest x-rays or serological tests. The training of medical and surgical specialists is done in special post-graduate institutes, but it tends to be less elaborate than that required by the twenty-odd American specialty boards. Physical facilities in the hospitals and polyclinics are certainly modest by United States standards. The beds are simple, flat cots, usually without the mechanical features—bedside lamps, call-buttons, and other gadgets—that add to patient-comfort in the United States. On the other hand, there is the sputnik complex, with artificial kidneys, operating-room television, and electromicroscopes to be seen in hospitals that have only rudimentary diagnostic x-ray equipment.

Still, it may not be fair to compare Soviet resources with those of the wealthy United States. The technical level of hospitals is certainly as good as much that one sees in Western Europe, not only in France and Italy, but also in Great Britain. Moreover, the Soviet doctors never tire of telling you that the quality will be improved later on.

*Geographic Spread.* Tied to the rapid expansion of health

personnel and facilities is a policy of equitable distribution of these resources through the vast stretches of the Soviet Union. Not that full success has yet been achieved, but there is no question about the deliberate policy of getting physicians, middle-medical personnel and facilities into the remotest villages, wherever people live and regardless of the local affluence of the region.

Physicians are attracted to the rural districts in several ways. Every new medical graduate is, first of all, theoretically required to spend a period of three years in one of a list of localities posted by the Ministry of Health of his republic. His medical education has been completely subsidized (including living expenses), and this is a way of paying back his obligation to the state. The new graduate is given a list of places needing physicians, from which he makes a selection, but the higher-ranking students get the first choices. Such periods of rural service, incidentally, are required also in Turkey, Greece, and several Latin-American countries.

A certain proportion of these young doctors remain in rural health service, but there is no question that in the USSR, as in other countries, the cities have greater attractions. To counterbalance these, rural medical positions pay higher salaries than urban posts of comparable responsibility.

The basic key to geographic coverage of the vast Soviet lands is simply the "table of organization" of the health services. Even if the great majority of medical and allied personnel preferred to settle in the cities, they could only go where there are job openings. It is not a question, in other words, of physicians and dentists settling where they wish and opening offices—a policy which in most countries has resulted in great overcrowding of the main cities and critical shortages in the hinterland. While there is free competition for all medical posts, the virtual absence of private practice means that personnel go where there is an established need, whether in city or village.

Another instrument of wide geographic coverage is the extensive use of auxiliary personnel. The feldsher is specifically



suiting to meeting rural needs, especially in thinly settled areas where it would be very costly to provide physicians. Thus, a village of a few hundred persons or less will be served by a locally-stationed feldsher, who can refer cases to a physician when necessary.

A built-in regionalization of hospitals and polyclinics is the ultimate basis for providing a reasonable quality of services throughout the Soviet system. Thus, the hospitals are conceived as a network of small rural units of 10 to 50 beds, (uchastok hospitals), which feed into rayon hospitals of about 100 to 200 beds; and these, in turn, orient toward the large oblast (provincial) or municipal hospitals in the main cities. There is no hesitation to refer a patient from a peripheral to a central unit, since all the physicians are on salary and no loss of a fee is involved. A specialist from a central hospital occasionally goes out to a smaller hospital to see a case, but much more often it is the patient who is moved. In this way, the better equipment and technical staff of the whole central facility are available to him. At one small rural hospital which we visited, however, there was striking pride that difficult cases—even gastric surgery—could be handled locally, without having to send the patient to a city institution. To provide transportation for patients, there is an ambulance attached to every urban and rural hospital. For transportation from very remote places, there is an airplane ambulance system with special nurses. This service is all free.

*Preventive Emphasis.* Another striking and pervasive feature of the Soviet health services is the great emphasis on prevention of illness and promotion of health. This is not simply a responsibility of the “public health”-type agencies, although these exist, but is built into the whole system.

It starts with medical education which includes much more attention to instruction in environmental sanitation, health education, and preventive concepts than is found in the West. The status of these subjects and their teachers is obviously higher than in Western medical schools. Moreover, the basic

scheme of Soviet medical education calls for a decision after the second year among three major specialties: "therapeutics" (i.e., medicine and surgery), pediatrics and hygiene. The next four years are then spent with a concentration in one of these fields. The hygiene concentration gives attention not only to sanitation but to all social aspects of medicine, including occupational health, epidemiology, biostatistics, medical administration, etc. A physician may also take post-graduate work in this field, although there are no special "schools of public health" such as we have in the United States.

The physicians trained in hygiene staff the "sanitary-epidemiological stations" of the Soviet health system. These are the equivalent of our public health agencies. Until very recent years, Russia was a very backward country, especially outside the main cities, and environmental conditions were primitive. The main emphasis of these stations, therefore, is on environmental sanitation. The medical hygienists, as well as their assistants (feldshers, nurses, sanitary assistants, etc.), are engaged in sanitary work involving food, water, waste-disposal, vermin-control, and especially housing. They also supervise control of the communicable diseases with isolation, quarantine, disinfection and immunizations. They give much attention to general health education of the public. Not much is done, however, in the field of chronic disease control, mental hygiene or administration of medical care, for reasons we shall note below.

The entire territory of the Soviet Union is said to be covered with these sanitary-epidemiological stations, manned with full-time staffs. There are no "non-covered" counties or districts. In the main cities, like Moscow or Kiev, there is a central sanitary-epidemiological station that supervises smaller ones around the city and operates various laboratories for chemical or bacteriological analyses. Generally, however, the station—as we shall discuss later—is part of a hospital center.

This aspect of the Soviet health services is not very different from Western public health, especially as seen in Europe, but it is in the day-to-day program of medical care that an extra-

ordinary emphasis on prevention is seen. The heart of this is the national policy of "dispensarization," which entails provision of periodic general medical examinations to well persons, and the follow-up of those found to have any significant symptoms. The national goal is to examine every person every year, with children being done more frequently. The goal is far from reached, however. In 1960, there were 44,000,000 persons given prophylactic examinations, which is about 22 per cent of the Soviet population. Of these, about 8,000,000 were called back for further care of some sort. Priority in these examinations is given to industrial workers, pregnant women, and children—groups which, of course, also get more preventive service in other countries.

The examinations are evidently not too exhaustive because we were told that they included x-ray and laboratory tests "only on indication." The goal, however, is to make them more complete. The point emphasized is that people are called in for these examinations, or they are done at the place of work, without waiting for patients to come with complaints. Much time is devoted also to health counselling. A record of the findings of all examinations is kept at the polyclinic attended by the person; if he should move, it is sent on to the clinic nearest to his new residence.

Health education is in evidence everywhere. The hospitals and polyclinics are lined with posters, and even outside on the hospital grounds there are billboards with health messages. Some of these are more matters of political propaganda about Soviet health achievements than hygienic education, like the bar-chart indicating that the ratio of doctors to population in the USSR was better than in the USA or any other country. In the hospitals, however, the graphic presentations are devoted to child health, control of respiratory infection, insect control, nutrition and so on. Much use is made also of simple leaflets. In one hospital we visited there was an elaborate system of audio-visual health education, requiring only the pressing of buttons on the wall. Most remarkable perhaps is the re-

quirement that every Soviet physician in a polyclinic should spend a half-hour daily in specific health educational activities with a group or a family.

Health promotion is emphasized through a widespread program of physical culture. Everyone has seen the movies of vast masses of young Soviet men and women engaged in public spectacles of exercise and gymnastics. But these are not only for youth; in factories there are designated periods when the machines stop and everyone does some calisthenics—instead of a coffee break. Housewives are also encouraged to do this. There are various athletic leagues for different age groups. Even in hospitals, convalescent patients are encouraged to exercise at certain periods each day. Development of physical prowess is part of the national health policy.

*Integration of Services.* While it has been implied already, special recognition must be given to another pervasive feature of the Soviet health services. This is the principle of integrated organization.

Health is a goal of high priority, and it is conventional to quote the founding father V. I. Lenin, that “socialism will conquer the louse or the louse will conquer socialism”—the thought being extended beyond the problem of typhus fever. From the earliest post-revolutionary days, therefore, the USSR has had a separate Ministry of Health. One must emphasize the word “separate,” for in much of Europe and elsewhere the health services do not command such a top cabinet post, but are included within a general welfare ministry of some type. (Witness the ministries of social affairs in Norway and Sweden or the Department of Health, Education and Welfare in our country.) More important, all health activities are encompassed under this ministry, with the exception only of the military medical departments.

The full extent of this integration at the top level can only be appreciated by making comparisons with other nations. “All health activities,” of course, include preventive and curative services, so that there is no separate administration of in-

insurance for medical care under a labor or social insurance ministry, as one finds in most European countries. (The trade unions do supervise many aspects of the social insurance system, but in the health services their authority is limited to control of admissions to certain sanatoria and rest homes.) But the integration goes much farther. Medical education is not a function of the universities and, as elsewhere, supervised by ministries of education, but is provided in special institutes supervised by the Ministry of Health. Research also is under the wing of the Health Ministry; there is a general Academy of Sciences that plans over-all scientific research, but medical research comes under the national Academy of Medical Sciences which functions as part of the Ministry of Health. Even the production of drugs is supervised by the Ministry of Health, as well as their distribution through pharmacies.

Integration of health services is found not only at the top—as it is, for example, in the British National Health Service—but more particularly at the local, operating level as well. In most countries one can distinguish three fairly separate branches of the health services: that for ambulatory medical care, the hospital system, and the public health program. In Great Britain, as well as in most other countries, these three activities are quite distinct, with separate authorities and management, not to mention their physical separation. In the Soviet health system, national policy calls for unification of all three both professionally and physically at the local level. In practice this policy has not yet been achieved everywhere, but it is almost accomplished in the rural areas and is on the way to realization in the cities.

The facility around which all the local health services are built perhaps should not be described as the hospital, since it is much more than a building for the bed-care of the seriously sick. Attached to it usually is the polyclinic, in which are located all the physicians serving the population of the district. In order to avert narrow attitudes and to help each physician appreciate the problems of the other, there is a system of rota-

tion between polyclinic and hospital duties. The schedule varies at different places, but usually involves a period of about three months a year when the polyclinic physician works in the hospital and vice versa. This system of rotation apparently does not operate universally—e.g., it was not found to be widely practiced in a large teaching hospital visited in Moscow—but it is the official goal of the system. It is significant that the Soviet literature defines these integrated facilities as “therapeutic-prophylactic institutions” rather than as hospitals. (We have already noted their attention to preventive medicine.)

More remarkable is the professional attachment to these medical centers of the sanitary-epidemiological stations. Even when the personnel of these hygienic services are located at certain outposts, they come administratively under the center. The head of this tripartite service (i.e., hospital, polyclinic, and “san-epid” station) is typically a physician on the hospital staff, very often a surgeon. He is chosen for his general leadership abilities. At the rayon level, the deputy-head is always the hygienist responsible for the sanitary-epidemiological activities; at higher levels, this is also usually the case.

In a city or a rural rayon (like a county), the head of the whole jurisdiction, which may contain several “therapeutic-prophylactic institutions,” is said to be head of the “Health Department.” But this must not be confused with the American or British use of the term, since it is meant to encompass *all* health services. Nevertheless, this executive is seldom full-time, but is ordinarily a highly respected clinician in the largest central hospital, aided by the hygienist in his district. Strictly administrative or bureaucratic duties are performed by a clerical assistant. The ultimate integration occurs within the work of the individual physician where, as noted earlier, preventive services play a major role, side-by-side with therapeutic activities.

*Centralized Policy and Decentralized Execution.* While the whole Soviet health service is centrally planned and directed,

the day-to-day or even the month-to-month orders do not all emanate from Moscow. There is great delegation of responsibility peripherally, and enormous diversity is found in local practices. The execution of policies is a responsibility of the health ministries in the fifteen republics, and is delegated further to hundreds of oblasts, municipalities and rayons.

The fundamental requirement, for example, that the services of physicians and hospitals should be available to everyone without charge, but that drugs outside the hospital or polyclinic must be purchased, is national policy. The central ministry also issues recommended standards for proper ratios of physicians of different specialties, and hospital beds of different types to meet the needs of a population in cities and rural areas. The actual building of these hospitals and the staffing of them and of the polyclinics, however, is left up to local authorities. The great geographic variations in resources actually achieved is evidence of this decentralization. In 1959, there were 112 physicians per 100,000 population in the Tajik Socialist Soviet Republic, 242 per 100,000 in the Latvian Republic, and as many as 314 per 100,000 in the Georgian Republic. Georgia is an attractive place with a climate like California. Total hospital beds varied in 1959 from 6.2 per 1,000 population in the Tajik Republic to 10.5 per 1,000 in the Latvian. These are figures issued by the Soviet Ministry of Health, so it is perfectly obvious that there are great diversities across the nation.

The official curriculum for education of physicians, feldshers, and other personnel is spelled out in some detail, but again there are obvious diversities in the way a particular faculty handles the subjects. Originality in teaching methods, both didactic and practical, is encouraged. All new graduates are supposed to spend three years at a rural post, as noted earlier, but a vacancy in an urban polyclinic can draw a bright young man or woman from his country spot before the three years are up. Public health regulations on sanitation or communicable disease control are nationally uniform, but the degree of their enforce-

ment will obviously vary with the energies and effectiveness of the local staff. Drug production is centrally planned; the distribution system, however, is not flawless and some drug stores are better stocked than others.

There is particular decentralization in the establishment of hospitals, polyclinics, industrial health stations and other physical facilities. A substantial share of the capital costs of these is met from local, rather than central, revenue sources—particularly in rural areas. The collective farms are now expected to build hospitals and maternity homes from their own funds. Factories provide the space needed for health stations. Once established, however, the full costs of operation are met by funds allotted from the central government. The amount a particular local unit gets, however, depends directly on the budget proposal it submits. Thus, the first action on needs for personnel, equipment and supplies is taken when financial estimates are sent up the line. These local budgets are reviewed at the oblast and republic levels before being submitted to Moscow, and there can be no doubt that there must be decreases or increases in funds requested along the way, just as in a federally-supported program like the post-office system in the United States. But it is equally clear that the persuasiveness of the account about local needs will influence the allotment that the local institution eventually receives.

Variations in local performance are seen in matters like the application of preventive measures. While every physician is expected to spend a half-hour daily in health education activities, the diligence with which this is done obviously varies enormously. In one hospital we visited, particular stress was put on audio-visual education because, it was quite evident, one of the doctors on the staff was an amateur electronics fan and enjoyed rigging up various loudspeaker systems. There are also great variations in the rate of dispensarization of the population in different localities; at one rural center, the head physician insisted that all 6,000 people in the area (uchastok) had been examined twice in the last year, which would be



much more than the national average achievement. The precise pattern of work of the feldshers and other personnel of the sanitary-epidemiological stations must vary enormously.

While the lines of authority from the uchastok to the rayon, oblast, republic and central ministry are perfectly clear, a great deal of use is made of local committees. Much as one sees in the British civil service, these committees are made up principally of health service workers from the establishment; there may be a few non-medical or public representatives as well. Such committees will be responsible for various phases of the operation of the health program and may influence greatly how general policies are carried out. Separate voluntary agencies, however, are not common, although the Red Cross and Red Crescent operate—primarily in conjunction with the military services.

This leeway in local operations—which has been especially prominent since the generalized Krushchev policy of 1957 on decentralization of industry—should not obscure the fact that Soviet health services are mainly characterized by their centralized planning. Indeed, the main function of the national Ministry of Health is probably best described as *planning* the health services. In this it is aided particularly by the Semashko Institute for the Organization of Public Health and the History of Medicine, a research unit named after the first Commissar of Public Health who worked at the elbow of Lenin. It is this institute that studies the supply of hospital beds needed for a region, that explores the value of closer relationships between polyclinics and hospitals, that analyzes the use of drugs, etc., and recommends changes which the Ministry may promulgate.

Because of the basically centralized and uniform scheme of the Soviet health services, well understood by everyone, there is an impressive paradox to the American observer. This is the presence of much less in the way of full-time administration than we have come to expect in the United States. Almost all directors of local health jurisdictions are physicians who have active clinical responsibilities in a hospital or polyclinic.

The full-time hospital administrator or local health officer is almost unknown. There are clerical personnel who keep the records and accounts, but top administration seems quite casual. It absorbs much less time and energy than in the United States, where health administrators are kept busy dealing with hundreds of agencies—public and voluntary, with boards of directors, scores of sources of money, and so on. The building in which the Ministry of Health of the USSR is housed in Moscow is a modest structure, such as might accommodate a health department in a small American state; the same applies to a republican Ministry, such as the Ukrainian one in Kiev. Yet these agencies supervise not merely preventive health work, but all medical care as well. In other words, the very systematization and unification of the Soviet health system reduces rather than increases the administrative overhead and bureaucracy of the entire program.

*Political Overtones.* In the Soviet Union, one expects to see all sorts of political overtones in the health services, but the predominant impression is how very similar the services are technically to the modes of the West. Doctors diagnose and treat most illnesses about the same way they do in England or America. Substantially the same drugs are used and the same surgical operations are performed. The average duration-of-stay of hospitalized patients for a given diagnosis is much longer than it is in the United States, but this is true throughout Western Europe; British or Norwegian hospital practices are more like Russian than they are like American. The Soviet physician may use somewhat different *forms* of antibiotics or surgical sutures than the American, but the predominant principles of therapy and diagnosis are substantially the same.

Despite all this, there are certain political overtones to Soviet medicine which can be recognized while not exaggerated. In the professional education of all physicians and other personnel, for example, instruction in Marxism-Leninism is always included. This seems shocking to some Western observers, but one must keep in mind that the Russians would regard the

ordinary instruction in "capitalist economics" or "bourgeois sociology" at our universities as essentially comparable indoctrination. The instruction in Marxism-Leninism is intended to inculcate in Soviet personnel a dedication to the collective goals of the health service. There is some evidence, however, that this instruction is not always taken seriously by the students, any more than are the compulsory courses in "military science" provided in many American universities.

The materialistic philosophy of Soviet society is seen also in certain aspects of medical theory and practice. Most striking is its influence in psychiatry. The predominant view seems to be that mental illness is associated with organic changes in the brain. Not that functional disorders are denied, but the major psychoses are believed due largely to chemical processes induced by metabolic disturbances, trauma, infection, or other physical causes. A virus etiology for schizophrenia has long been sought. The greatest emphasis is given, therefore, to physical forms of therapy—electric shock, drugs, hot baths, work regimes, and so on. Prefrontal lobotomies had been commonly done but have now been discontinued since they were found ineffective. There is virtually no acceptance of Freudian concepts or practice. Some inter-personal psychotherapy is used—both on a group basis and an individual basis—but it is largely directive, and aimed to encourage the individual to see his role in the larger society. To some extent the differences from American psychiatric concepts are due to different definitions of illness along the continuum from sanity to psychosis. The peculiar behavior of some old people, for example, which in America calls for hospitalization as senile dementia, is seldom regarded as mental illness in the USSR. Behavioral disorders in children, on the other hand, are treated through institutionalization, during which fairly rigid routines are designed to reorient the child in his group. One such institution that we visited was significantly called a "psycho-neurological sanatorium." Despite the organic and the collectivistic philosophy, both children and adults in mental

institutions seem to be served with great care and tenderness.

Another expression of Socialist materialism is perhaps the great emphasis on physical medicine in general. Not only does every hospital seem to have a well-developed department of physical therapy, but there is a great network of rest homes and spas where people may go for recuperation. Various regimes of exercise, baths, diet and rest are followed in these places.

The Pavlovian theory of the conditioned-reflex, developed actually before the 1917 revolution, is given great emphasis in Soviet physiology and medicine, and it seems likely that this is partly because it was a native Russian scientific discovery and partly because it coincides so well with Marxist philosophy. Its basic implication, after all, is that modification of the physical environment can directly influence the behavior of human beings. In one hospital we visited, a central theme of the whole institution was the principle of "Pavlovian therapy." This meant, for example, great attention to the colors of rooms and wall decorations, systematic physical exercise for almost all patients, a program of sleep therapy, a special department of climato-therapy, and much health education. It also seemed to include a department of acupuncture, which is worth special comment.

Acupuncture is a system of treating all diseases by inserting needles of different lengths into the body at sets of points (usually 3 or 4 at a time) among some 250 designated spots on the human surface anatomy. Each disease calls for a special grouping of points, with a prescribed duration and schedule of insertions. Without examining the actual or supposed rationale of this therapy, its origin dates back to ancient China of at least 2,000 years ago. Since the victory of the Communist movement in China, acupuncture has been seriously re-examined on the ground that it is part of the national culture which may well have some value if it has survived two millenia. (The policy of India, which has set up institutes for the re-examination of Ayurvedic medicine with its ancient

herb therapies, reflects a similar attitude.) In about 1955, an institute for acupuncture was established in Moscow with Chinese instructors, and there can be no doubt that this represents an extension of the hand of political friendship to China. Soviet medicine is obviously lending its resources to test out the theories of acupuncture, and see if they have demonstrable merit. Three or four hospitals out of about 290 in the Kiev oblast, we were told, are now trying out acupuncture therapy.

There are other medical policies that seem to derive from a particular political philosophy. Just as religious influences in the West deeply condition our social attitudes, our practices, and even our laws on abortions, Soviet ideology has comparable though opposite influences. Abortions are quite openly sanctioned legally and medically; physicians may sometimes try to discourage a woman from having her pregnancy terminated, but if she still requests it, it is done as readily as other elective surgery. This policy has had its ups and downs; after initial legality following the Revolution, abortions were later prohibited on the ground that they were being done to excess and population growth was threatened. Now that the Soviet population and economy are robust again, abortions are again fully permitted. Of course, contraceptive information is also freely available everywhere.

The non-religious attitude toward death may also be responsible, in part, for the achievements of Soviet medicine in blood collection and preservation. I do not know of any other country that removes blood from cadavers—except after fatal infections—and uses it for transfusions. It may be this non-sanctified attitude toward dead bodies that led also to the first transplantation of corneas by Filatov in the USSR.

Direct political influence on health policy in the Soviet Union is seen in such actions as the withdrawal from the World Health Organization, in the last days of Stalin and at the height of the Cold War. Perhaps this is no more political than the non-recognition of the People's Republic of China by the Western majority in W.H.O. The Soviet Union is now fully active again

in this and many other specialized agencies of the United Nations. Within the country, the operations of the health services at all levels are subject to the surveillance of the Communist Party, just as are all other governmental functions. The Party acts as a kind of "watchdog," equivalent in some ways to legislative committees or voluntary accreditation agencies in America.

Another political overtone—priority for the proletariat—is so basic in Soviet health services that it requires a special discussion.

*Priority for the Proletariat.* The Soviet Revolution was led by the Communist Party on behalf of the working class of Czarist Russia, and it is understandable that the top priority in health services should be accorded to the industrial proletariat. The vast impoverished peasantry was also involved, but as in all countries it was politically more conservative and sections of it were antagonistic. Moreover, the vast industrialization plans of the Soviet economy demanded a robust urban population, whose health would be constantly protected.

The priority accorded to industrial workers is evidenced in many ways. Most important is the network of health stations in the factories. Unlike the American pattern, these do not restrict their services to physical examinations and first-aid, but may provide any medical care required. At the same time, they put much emphasis on occupational hygiene in the preventive sense. In the larger plants, there is a whole staff of physicians, nurses, and others; in smaller ones, it may be only a feldsher. In either case, this staff is under the wing of a hospital and polyclinic nearby, to which patients may be readily referred. The tendency lately, in fact, has been to get away from elaborate medical facilities in the plants in favor of better services at the general medical institutions in industrial districts. One purpose of the factory health unit is to make medical care convenient for the worker, so that follow-up therapy may be given at his place of work.

Within hospitals and polyclinics also, the worker is accorded

priority. Polyclinic hours are scheduled to his convenience. He is put to the head of the line—ahead of housewives and oldsters. One does not see the attention to geriatrics in the USSR that marks the current American scene, and it may be that this reflects a lower priority for the aged. (It may also reflect a society closer to the rural model, in which old people stay with the extended family. The high proportion of married women who work is certainly facilitated by the custom of having grandma take care of the children.) In any event, the worker, both in cities and rural districts, gets the most energetic attention from medical centers.

The whole social security system in the USSR is geared to an attitude of high respect for and faith in the worker. All disability insurance systems in the West, for example, pay to the disabled worker a cash-benefit that is less than his usual wage—typically an amount not exceeding half or two-thirds of it. This is partly for economy, and partly is based on the notion that full-wage benefits might reward indolence, so that the worker would be slow in returning to his job. In the Soviet Union, the integrity of the worker, on principle, seems to be more fully respected. Disability benefits, which cover all forms of industrial employment and all types of illness or injury, are equal to the usual full wages.

In the education of physicians, training in industrial hygiene and occupational diseases is given substantial attention. For those specializing in "hygiene," it is a major component of the training. The rest-homes and spas mentioned earlier are largely controlled by the trade unions, and admission to them is first of all for industrial workers.

In medical establishments, the Soviet philosophy is also expressed in the unionization of the health workers, including everyone from janitor to Chief Physician. The union is intimately involved in the hiring and firing of workers, in settlement of grievances, welfare services, etc., although it does not negotiate for wages in the Western sense. There is great pride, as mentioned earlier, in the 7 or 6-hour day for all health

personnel, including doctors. Another key feature of personnel policy is the opportunity for health workers to rise from the ranks. About half the Soviet women medical students (or about one-quarter of the total) are former nurses or feldshers.

*Priority for Children.* Another priority that permeates Soviet society is the enormous favor shown to children. Foreign visitors are always struck by the vigor and healthiness of the youngsters. The great Soviet attention to both elementary and higher education is well-known, and the same priority applies to the health services for children.

One of the three basic specializations after the second year of medical education is pediatrics. There are 27 whole medical faculties devoted to the field. The great majority of doctors in pediatrics are women, and perhaps the very high proportion of women in medicine as a whole represents a favor for persons particularly sensitive to the needs of children.

The philosophy of Soviet child-rearing is different from in the West. Babies are swaddled firmly—a practice seen also in some other European countries and found more generally in rural than urban parts of the Soviet Union. If lack of crying suggests a happy baby, the custom certainly has its advantages, and who knows if it perhaps contributes to a more secure child? (American pediatrics seems to have returned to pacifiers.) The question is surely worth careful comparative study. Greater use is made of crèches and nursery schools than in the West. In these the child learns cooperative behavior for the welfare of the group, from an early age. There are stations for free milk to families with small children.

Although the United States has moved away from specialized children's hospitals, the Soviet Union is still building them in the cities. There are also children's polyclinics, separate buildings associated with general hospitals as well as with children's institutions. The staff of such a polyclinic has within it all the specialties of surgery, dermatology, and so on that one would see in an adult medical center. A medical record of the child's whole development, as well as of any illness, is kept in the



greatest detail. There are also special sanatoria for children with long-term illness or psychological problems.

The Soviet emphasis on children makes different impressions on different observers. To some it may be seen only as the breeding of "cannon fodder;" to others, it is pure humanitarianism. Doubtless it means many things, but above all it embodies the same concepts as those expressed by Bishop Berkeley for Catholicism when he said "give me the child before five. . . ." It is the Soviet strategy in building a socialist society, by starting out with the shaping of a sound mind—socialist style—in a sound body.

*Social Motivation.* Whatever one may think of the goals of Soviet society, there is no question about the energy and dedication with which the vast majority of people in the USSR seem to be working toward them. After forty years, a particular philosophy and way of life have become firmly established and the great mass of the population are identified with it. Almost all foreign observers get this impression today. In the health services it is quite apparent.

Physicians, nurses and other health workers seem to be deeply devoted to their work. They are proud of everything and the morale seems high. Turnover of personnel in the hospitals is low, although people are free to leave for other jobs and, since unemployment is virtually unknown, there are plenty available. (Compared with the United States, the turnover of hospital personnel throughout Europe is low.) The attitude of doctors and nurses toward patients seems warm and sensitive. We saw a young woman who had just been treated with an artificial kidney machine for anuria, following a self-induced septic abortion. Since medical abortions are quite proper, her act was illegal, but the gynecologist explained that she would only be scolded and not reported to the police; she was just a foolish and unfortunate girl, he said. An Egyptian patient, with whom I was able to speak English, had been operated on a few days before for appendicitis. Although he was just a young tourist, not a high personage whom the Russians would be

anxious to impress, he said he had never been treated so kindly. High Soviet officials or other important citizens, of course, get special attention from top-flight medical centers, as they do in any society, but it is within the framework of the regular medical care system.

One often hears the view that the high proportion of women in Soviet medicine implies a lower status for the profession than prevails in the West. Western observers seem frequently to get this impression, although the top Soviet medical leaders (most of whom are men) certainly do not admit to it. Reports on physicians' salaries are conflicting. Our group was informed officially that they are relatively high—approximately at the same level as engineers'. Other observers report them to be lower—more like those of school teachers or skilled workmen. Of course, there are great variations within the ranks of the system. The medical schools have two or three applicants for every place, about the same ratio as in the United States today, suggesting a high level of attraction of the field. Morale, as well as competence, in the medical profession is also maintained through continuous encouragement of post-graduate education and financial support for the physician while he is undertaking it.

There may be some of the attitude of condescension toward patients by Soviet doctors that one sees in many Western countries. In a speech made in December, 1960, Dr. S. V. Kurashov, the Minister of Health of the USSR, called for many improvements in the health services. Among other things, he criticized the attitude of some hospital personnel toward patients as heartless and inattentive. This is mindful of recent attacks on American hospitals in popular magazines and probably means the same thing—that there is a rising consciousness of the importance of sensitivity in good patient-care, and rising public expectations about it. In one hospital we toured, the visiting hours were on only one afternoon per week, on Sundays, except by special permission of the doctor. While this was justified as protecting the interests of the pa-

tient, it would seem to reflect a rather rigid institutional policy in which the convenience of the staff was put ahead of the feelings of patients and their families.

The social motivation of health workers is also reflected by their almost uniformly optimistic response to questions. Undoubtedly there is much exaggeration about the health services, and the story is told in glowing terms. As in other aspects of Soviet development, the achievements are usually presented in percentages of improvement over a previous level, which are usually quite impressive. Much detail is given on trends in the supply of health personnel and facilities, and very little on rates of death or illness for specific diagnoses or age-groups, which would reflect the end-results of the health service. (Data on the crude death rate and infant mortality are freely quoted and are impressive.) Nevertheless, there is an obvious enthusiasm about achievements which everyone seems to share. To elicit admission of shortcomings, one has to probe pretty deeply, and can seldom expect any negative comments except from high officials who are concerned with over-all planning.

The relative simplicity of administrative machinery, discussed earlier, is another reflection of the basic motivation of the collectivity of Soviet health workers. In a well-knit team, everyone knows what to do and the role of the captain can be limited; in a team of individualists or prima donnas, it takes a lot of cajoling and directing to reach a goal. This is perhaps an over-simplification, but still may epitomize the Soviet health services and offer an interpretation of their paradoxical simplicity of administration. The men or women rising to key executive positions seem to be those with natural leadership qualities, regardless of medical specialty and whether or not the person has had any training in administrative matters (like the "hygienists"). The rules of the game are well understood, and the general social pressures toward collective behavior are so fundamental in Soviet society that they become internalized in the motivation of each individual in the health service.

*The View to the Future.* A final characteristic permeating the whole Soviet health service is its persistent view to the future. Whatever may be deficient now, everyone will assure you, will be corrected in time. Soviet planning is a complex mechanism under the over-all direction of a central agency of government known as "Gosplan." Health service goals, of course, are only a small part of the total, and must be fitted into the planning of resource allocation in industry, agriculture, housing, education and all other fields. There is no question, for example, that the top-priority given to the construction of new housing—thousands of new apartment houses in the cities—has slowed up the development of modern hospital facilities.

The goals for health service are still very ambitious by Western standards. While the Soviet supply of physicians, at one to 540 population, now exceeds that of all other countries, the goal for 1980 is to have one doctor to 333 persons. Whether this can be achieved, while at the same time improving the quality of the professional product (as many Soviet medical leaders advocate), remains to be seen. The goal for total hospital beds is 16.5 per 1000 population, a level which—if achieved—will probably surpass that of all other countries. The important Third Program of the Communist Party, issued in 1961, specifies that *all* medical services will soon be free, which has been interpreted to mean inclusion of drugs and appliances, as well as all the other elements of care, in the public service.

There is also continual discussion of improvement of the quality of service. Medical education, one hears, may eventually be extended to seven years. Post-graduate medical courses are to be expanded, so that more doctors may be included in them. The health examinations and dispensarization of the population are to be extended so that they reach everyone every year. By 1965, it is planned that there should be an increase in the supply of drugs, medical supplies, and equipment of 350 per cent above the 1958 level.

An important sign of the high attention given to health services, as suggested earlier, is their independent place in the

structure of both the national and republic governments. The Ministry of Health is a full-fledged cabinet department, on a par with agriculture or heavy industry or other major functions. The Soviet Union is very proud of its health achievements, and gives them top billing in its international propaganda on the benefits of socialism. I am not certain of the accuracy of its mortality statistics, but the crude death-rate in the USSR (not age-adjusted) is now down to 7.6 per 1,000, or lower than that of the United States. The infant mortality in 1960, at 36 per 1,000 live births, was lower than that of any other vast and predominantly rural country, although still higher than that of Great Britain or the United States. In the International Fairs at Brussels and New York and elsewhere, the attainments of the health service enjoy prominent display, not as a by-product but as a central purpose of Socialist society. And the emphasis is always on future improvements.

In interpreting Soviet health services, everything depends on one's points of comparison. Americans naturally are inclined to compare with conditions in the United States—even perhaps in the most advanced sections of our country. But the Soviet Union is European and, in fact, largely Asiatic. Many of the attributes of its medical system—which we may look upon either as weaknesses or as strengths—are indeed European rather than Communist. The central planning, for example, has much in common with the British National Health Service; prolonged hospital stays are found throughout Europe; emphasis on physical therapy and spas goes back to nineteenth century Germany; hospital organization with full-time salaried doctors has long prevailed in Scandinavia and elsewhere.

Many of the deficiencies are more Russian than socialist. The washrooms in restaurants tend to be grim and unsanitary—as they were before the Revolution and as they still are throughout France and Italy. The American achievements in plumbing and cleanliness are simply not to be found in most of Europe. The design of hospitals and other public buildings seems terribly ornate, non-functional, and old-fashioned to

American eyes—but the Soviet Union of 1945–60 was in its Victorian Age of great national pride and pretentiousness. It is mostly in the physical setting—the way walls are plastered or lawns are kept—that one detects a certain lack of workmanship, wherein one can contrast Russian standards with, say, Swiss or Swedish. This is a vast complex nation, only recently emerging from rurality and ignorance, and the style-of-life of an affluent industrialized society is not to be achieved overnight.

In so big a country, one must expect unevenness of local development. As everywhere in the world, much depends on the energy and initiative of leaders and health workers in each community. Perhaps the greatest achievement of all has been the provision of a reasonably good minimum level of health service everywhere, even in the most primitive sections of Asiatic Russia, where roads are yet to be built and the women still wear veils. In visiting some of these regions a few years ago, the Minister of Health of India, Rajkumari Amrit Kaur, said that she would be pleased if the great cities of her country could achieve the level of health service found in the humblest Soviet village. Perhaps it is most accurate to evaluate Soviet health service—or other aspects of this society—in terms not of the United States, nor of Western Europe, but of itself, as a nation that has emerged in a brief span of years from an underdeveloped to an industrialized society, and still has some rough edges.

The Soviet health workers are obviously anxious to smooth off those edges and are eager to learn from other countries how to do it. In 1961, they certainly impress the American visitor as friendly and gracious. There are still certain aspects of the health program apparently closed to foreigners—for example, analysis of costs and expenditures for specific items of service—but most doors one knocks on are opened. There is obviously a great deal that the Russians can learn from the West by exchanges, especially in improvement of the technical content of hospital and medical service. It is equally clear that the West can learn a good deal from the Soviet Union about the organiza-

tion of an integrated and comprehensive health service available to everyone. Such two-way lessons can have value only if they are applied against the social and cultural backgrounds of our different societies.

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