The Contributions of Henry E. Sigerist to Health Service Organization

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Henry E. Sigerist made profound and strikingly original contributions to health service organization. Not only did he expand greatly our concepts of the functions of medicine, but he redefined health in a manner which was later to be paraphrased by the World Health Organization. Sigerist's account of the evolution of the physician and his discussion of the role of the people in the fight for health provide important new insights into current realities, while his remarkable analysis of the genesis of national health insurance makes it possible to understand its continued absence in the United States. Although he was in the forefront of the campaign for national health insurance, Sigerist always considered it inferior to a national health service. His thorough studies of the Soviet national health service opened new vistas in the promotion of health and prevention of disease and the development of team practice in health centers. Sigerist's impact was world-wide, and was particularly important in Chile, Cuba, China, and Great Britain.

One of the tribulations of life as a teacher of medical students is their ignorance and unconcern not only with the distant past but the recent past as well. Woe befall the teacher who presents data on health service organization which are ten, five, or even three years old; students complain that the material is out of date and therefore irrelevant even though—as is so often the case in the United States—nothing has changed and the data remain, alas, too true.

As a former student of Henry E. Sigerist, I have been dismayed to discover that none of my students have ever heard his name, much less read his work. Sigerist was, and remains, the outstanding medical historian of our time. He revolutionized medical history; before him, it was either philological or antiquarian in orientation. Sigerist turned medical history around to face the realities of social being and to take its proper place as an integral part of the history of human society. As Alan Gregg stated (1948:32): "Beyond and above anyone else Henry Sigerist made us aware of the fact that medicine is the study and application of biology in a matrix that is at once historical, social, political, economic, and cultural. The practice of medicine is a part of sociology, and a product of sociological factors. We were not aware of that—nor of the vistas unrolling in such a comprehensive view."

Sigerist's extraordinary knowledge of medical history enabled him to make profound and original contributions to our understan-

ding of health services. He was unique in his bold delineation of the role of his discipline (1951a:32): "Medical history teaches us where we came from, where we stand in medicine at the present time, and in what direction we are marching. It is the compass that guides us into the future."

"Where We Came From"

Sigerist's contributions to our understanding of "where we came from" cover a wide range of subjects. I shall discuss only four of these, relating to the functions of medicine, the evolution of the physician, the role of the people in the fight for health, and the genesis of national health insurance.

The Functions of Medicine

For most physicians, diagnosis and treatment have defined, and still define, the scope of medical concern and activity. Medical schools in the United States continue to provide overwhelming indoctrination of students in this limited view. Public health workers and some clinicians, particularly pediatricians, have added a second dimension, the prevention of disease. In 1946, speaking to the American Philosophical Society, Sigerist outlined a far more comprehensive view, thereby fulfilling his own description of the philosopher's role in society (1951a:31): "he thinks and formulates what others only vaguely feel and puts it into a system. And once the aspirations of the group are formulated and systematized, they become conscious and exert a tremendous influence by guiding the people in their actions. The philosophers are the most powerful makers of history."

"For thousands of years," Sigerist points out (1960a:69), "the treatment of the sick was considered the primary task of medicine while today its scope is infinitely broader. Society has given the physician four major tasks, which although they can hardly be separated since there are no sharp borderlines, yet may be discussed separately for simplicity's sake."

The four functions of medicine, as conceived by Sigerist, include the promotion of health, the prevention of illness, the restoration of the sick, and rehabilitation. He describes each of these in turn (1960a:69–70):

> The first task, and one of the most important today, is the promotion of health. Health cannot be taken for granted. It must be maintained and promoted through incessant activities in which the physician shares with a great many other workers. Education, general education and health education, represent the starting point of all health activities, and the school undoubtedly is one of the most important public health institutions. Health is promoted, furthermore, by our developing a program of physical culture that must reach all groups of the population and all age groups. Physical education does not consist of competitive and commercialized athletics but is primarily an attitude toward health, the creation and satisfaction of a need for organized physical exercise that will benefit the general condition of an individual's health.

"Another important field in the promotion of health and one in which we still lag behind," he notes, "is the provision of means of rest and recreation. Labor power spent in the process of production must be restored. Periods of work must be followed by periods of rest, and this rest should in certain cases be under medical supervision. In handling our automobiles we have learned that it is cheaper to have them overhauled periodically and to have minor repairs made before the car breaks down. A program of human conservation would make use of the same principle."

Sigerist (1960a:70) considers that "The promotion of health moreover requires the provision of a decent standard of living with the best possible living and labor conditions. The promotion of the people's health is undoubtedly an eminently social task that calls for the coordinated efforts of large groups, of the statesman, labor, industry, of the educator, and of the physician who, as an expert in matters of health, must define norms and set standards."

His view of prevention goes beyond conventional limitations (1960a:70–71). "By promoting health society prevents illness, yet special measures of prevention are needed to protect society against communicable diseases through the sanitation of dwelling places, quarantine, immunizations, the finding, segregation, and treatment of individuals who, suffering from communicable diseases, are a menace to their fellow men. These are the classical tasks of the public health services which in all countries had a great development during the past hundred years. These are tasks of such magnitude that they cannot be carried out without the state power. Thus an extremely important medical function has become part of the administration of the state, and the physician functions in it as a civil servant.

> The effective prevention of illness, however, requires in addition special organizations and services for the protection of those groups of the population that are particularly threatened, either physiologically or socially. Especially menaced for physiological reasons are women in pregnancy, childbirth, and childbed, are infants, young children, and aged people. Socially threatened as a result of their occupation are industrial workers. Society, therefore, called upon the doctor to develop special methods and institutions for the protection of mother and child, for the care of the aged, and for the protection of labor. This, however, also requires group activities and is thus an eminently social function.

Sigerist (1960a:71) emphasizes the profoundly social character of the relationships involved in the care of the sick. In a few sentences he strikes at the heart of current medical practice with its lack of attention to the patient's life situation and its tendency to treat the patient as an object rather than a subject, a human being who needs to be informed about the illness in order to participate intelligently in its management.

"When the promotion of health and the prevention of disease have broken down and an individual has fallen ill," Sigerist writes, "then the physician's immediate task is the restoration of the patient's health. Uncomplicated as the relationship between physician and patient may appear, yet it also includes strong social elements. In taking the history of a patient, the physician endeavors to obtain a picture of his living and working conditions, of his relationships to the family and other social groups, because the illness may have been caused directly or indirectly by a wrong mode of living or by social maladjustment. The doctor is an individual, to be sure, but is at the same time also a member of society who, in the patient, treats another individual who is also a member of the group. Treatment may consist in the correction of a social relationship."

The need for rehabilitation is considered by Sigerist (1960a:71) realistically, in terms of society's willingness and ability to provide work for the disabled. Nor does he hesitate to urge government action to make such work available if private industry cannot do so. "From all that has been said," he writes, "it is apparent that the physical restoration of a patient cannot be the final goal of the physician's actions. No task may be considered completed before the patient has been rehabilitated, reintegrated into society as a

useful member. A highly specialized and technical society such as ours has jobs for every degree of intelligence and physical capacity. Even the most disabled individuals, blind men, people who have lost extremities, and other invalids, can perform socially useful and therefore necessary work that deserves to be fully remunerated. Work is one of the most powerful factors of health, and society should make every possible effort to prevent skilled workers from dropping into the ranks of the unskilled laborers as a result of physical disability. With our present advanced technology, people with every degree of disability can be retrained in such a way that they will be able to fulfill useful work that will permit them to maintain their self-respect as well as their economic status. In times of war, society is more strongly aware of its responsibility toward the men who sacrificed their health for its protection, and a great deal of rehabilitation work is performed very successfully with war veterans."

Sigerist (1960a:71 – 72) is convinced that "The battle against disease and its dire consequences, however, is one that knows no armistice, and we therefore must provide training centers for the rehabilitation of civilians also. The Soviet Union has set a great example to the world in demonstrating how physically handicapped individuals can perform highly skilled work in factories. Under a system of free competition, in periods of economic crises, it may be difficult to provide work for the disabled, but if private industries cannot provide the necessary work government projects will have to do it."

Sigerist's four major tasks of medicine—the promotion of health, the prevention of illness, the restoration of the sick, and rehabilitation—were later adapted by Hugh Leavell and Gurney Clark (1953:11) to become "levels of prevention": health promotion, specific protection, early recognition and prompt treatment, disability limitation, and rehabilitation. As such they became widely known and quoted in the United States as "Leavell's levels."

Sigerist was greatly influenced in his concept of the functions of medicine by his studies of the Soviet health services, with their emphasis on health promotion, prevention, and rehabilitation (see Sigerist: 1937; 1947). But this was only part of the background, for his observations of current reality were linked with his research into the past. In the Terry Lectures at Yale University, presented in 1940 and published as *Medicine and Human Welfare*,

Sigerist discussed three subjects: disease, health, and the physician. In his chapter on health, he pointed out that (1941:55) "It is one weakness of our present system of medical education that health plays a very small part in it. The student's interest is directed primarily toward disease." He then presented a detailed and fascinating historical analysis. He noted (1941:57) first that in ancient Greece "The physicians had an explanation for health. Health, they believed, was a condition of perfect equilibrium. When the forces (dynameis) or humors or whatever constituted the human body were perfectly balanced, man was healthy." Furthermore, (1941:59) "From the fifth century B.C. on, and throughout its course, Greek medicine was never exclusively curative medicine. The preservation of health seemed from the very beginning the more important task and in the fifth century physicians devoted a great deal of thought to problems of hygiene."

Sigerist traced both the concepts of health, and the specific modes of living which were advocated to achieve it, in Greece, Rome, the medieval period, the Renaissance and Reformation, and the era of industrialization down to the present day. He noted how these applied to the different social classes in each society, and how they related to definite political philosophies. He described the tremendous role played by popular books on hygiene such as the *Regimen Sanitatis Salernitanum*, the *Catechism of Health* of Bernhard Christoph Faust, and the *Art of Prolonging Life* by Christoph W. Hufeland, which was first published in German in 1797, translated into eight languages, and reprinted frequently throughout most of the nineteenth century.

Sigerist (1941:100) defines health, but only after completing his historical survey. He states "This long historical analysis has given us a clearer view of health and its significance for human welfare. Like the Romans and like John Locke, we think of health as a physical and mental condition. *Mens sana in corpore sano* remains our slogan. But we may go one step further and consider health in a social sense also. A healthy individual is a man who is well balanced bodily and mentally, and well adjusted to his physical and social environment. He is in full control of his physical and mental faculties, can adapt to environmental changes, so long as they do not exceed normal limits; and contributes to the welfare of society according to his ability. Health is, therefore, not

simply the absence of disease: it is something positive, a joyful attitude toward life, and a cheerful acceptance of the responsibilities that life puts upon the individual."

Six years later, the Constitution of the World Health Organization paraphrased Sigerist's definition in its much quoted declaration that "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

That Sigerist should place the promotion of health first in his list and give it such emphasis is difficult for most physicians to accept. It is only when one absorbs the full exposition of his chapter on health that one can really appreciate the basis for his concept. This historical understanding undoubtedly played a major part in Sigerist's development of a new synthesis of the functions of medicine. It was a bold and creative achievement, and one which we have yet to assimilate in the United States.

Evolution of the Physician

One of Sigerist's most valuable contributions was his demonstration that the present-day physician is only the latest in a long series of different types of physician, and that current modes of practice are relatively new and hardly immutable. In *Medicine and Human Welfare*, he states (1941:107) that "Every society required of its physician that he have knowledge, skill, devotion to his patients, and similar qualities. But his position in society, the tasks assigned to him, and the rules of conduct imposed upon him changed in every period. They were determined primarily by the social and economic structure of society and by the technical and scientific means available to medicine at the time."

"The physician," he points out (1941:107–108), "is by no means the only medical worker. Even in remote times he had assistants to help him in his task, and this very important auxiliary medical personnel increased with every century as medical knowledge became more diversified."

In primitive society (1941:109) "the 'medicine man was and still is sorcerer, priest, and physician in one." In some agricultural tribes he is part-time, so to speak, a farmer who receives modest remuneration for the practice of his art on special occasions. In many other tribes, however, he is full-time and leads a different

and lonely life; he is (Sigerist, 1941:110) "often rich, because people pay him willingly, sometimes in advance, sometimes according to the gravity of the case, success of the cure, or rank of the patient. He is regarded with awe, is respected and feared."

In ancient Greece, the physician was a craftsman like the shoemaker, the blacksmith, or the painter. Moreover, like the other craftsmen, he was primarily itinerant, going from town to town to offer his services. Only a few of the larger cities had physicians permanently in residence; these usually paid the physician an annual salary, raised by a special tax, which guaranteed him an income even in times when work was scarce and fees were few. There was much competition among physicians as among other craftsmen. Some tried to impress the people by dressing extravagantly or scenting themselves; others displayed spectacular instruments.

"The Hippocratic physician was paid for his services, and since Greek society despised people who worked for money his social position was not very high. Yet among all the craftsmen he was held in the highest esteem because health was considered one of the greatest goods" (1941:114–115).

Physicians in the early days of ancient Rome were mostly slaves, and (1941:115) "those who knew how to treat disease brought a good price on the market, as much as a eunuch." However, beginning with the third century B.C., Greek physicians immigrated into Rome and demonstrated their superior knowledge. Numerous privileges were extended to these and other physicians because of the need of the Roman armies for physicians and surgeons.

"In imperial Rome many physicians had salaried positions, at court, in the army, in gladiatorial schools, theaters, thermae, gardens, or were attached to a few families who paid them an annual stipend. Most doctors, however, were in private practice, where competition was fierce and unscrupulous. There were specialists for every organ and every treatment, and in the capital there were some who charged from $2,000 to $10,000 for special cures or operations" (1941:116).

In the early Middle Ages, the surgeon remained a craftsman. As a rule, however, the physician was a cleric for whom the church provided a living so that he could practice medicine as a charitable service. From the eleventh century on, laymen entered the profession. Since they were not supported by the church, they sought

salaried positions as body-physician to a nobleman or as a municipal doctor, and when they treated private patients they had to follow rigid codes.

About the sixteenth century (1941:119–124), "there arose a new economic order, appealing to the individualist in man and calling for free initiative, free trade, free competition . . . The physician found himself at the mercy of a competitive world which was utterly strange to him. Professions were no longer considered divine missions but simply means of making a living. Once more, as had been the case in antiquity, the doctor had to sell his services on the open market. But now the situation was totally different. In antiquity the physician sold his services to whoever could pay for them and nobody cared about the indigent sick. Now, however, after many centuries of Christianity, the idea was generally accepted that everybody, whether sick or poor, should have all the medical services he needed. Yet only a very few people could afford to purchase medical care, and charitable institutions although increased could not possibly solve the problem.

> . . . For a long time physicians refused to accept the challenge of the new economic order and strenuously resisted developments. As heretofore they sought salaried positions as body-physicians or in government services, in order to be independent and free to serve the poor or to devote part of their activities to research and similar occupations. With the rise of the middle class, physicians endeavored to attach themselves to a number of such families. The family doctor is the democratic form of the body-physician. In European countries until the end of the nineteenth century many family doctors never wrote a bill. Families sent to their doctor, around Christmas time, what they could afford or considered fair, and this was enough to secure him a modest but decent living and to allow him to treat indigent patients without remuneration.
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> The physicians' attempt to preserve medieval ideals of service in a world ruled by iron economic necessities was heroic but was doomed to failure. The situation became still more complicated during the nineteenth and twentieth centuries when, as a result of industrialization, the needy population increased tremendously and at the same time the cost of medical care was rising, largely because of the progress of medical science. Against his will and in spite of desperate resistance the physician found himself in a harshly competitive business. When this was generally realized, although it was not openly admitted, medical societies were organized, and codes

> of ethics and etiquette were promulgated to safeguard the profession against some of the worst features of competition, such as advertising, underbidding, fee-splitting, taking patients away from a colleague, and similar procedures. Physicians still looked back to medieval ideals, still were willing to attend indigent patients free of charge, but an untenable situation arose. Unless special adjustments were made, either large sections of the population would remain unattended or the medical profession must be ruined.

It is ironic that the current resistance of physicians to the replacement of competitive fee-for-service practice was, as Sigerist notes, preceded during the sixteenth to nineteenth centuries by the strong resistance of physicians to the growth of such practice, in the heroic but futile attempt to preserve medieval ideals of service.

The Role of the People

In the fight for health, the physician plays an important but secondary role. As Sigerist emphasized in his book on *Socialized Medicine in the Soviet Union* (1937:97), "'The protection of the health of the workers is the task of the workers themselves:' Soviet medicine was born with this slogan that has remained the guiding principle. The physician is an instrument of the working masses created by them to protect their health."

Although greatly influenced by the Soviet example, Sigerist's concept of the relation of physicians to the people evolved also from his historical studies. In Germany, he writes (1941:92–96), "A powerful reform movement developed in the years preceding the Revolution of 1848. Directed against bureaucracy, special privilege, and clerical obscurantism, it fought for a complete reorganization of health services. It was led by liberal physicians, and since the battle had to be fought in the political arena, doctors did not hesitate to enter the field of politics."

> The head of the movement was Rudolf Virchow who later was to become Germany's outstanding pathologist. He was born in 1821 and was young and fiery in the revolutionary years. In 1847 an epidemic of relapsing fever was devastating the industrial districts of Silesia. The government, under pressure of public opinion, appointed a committee of investigation of which Virchow was a member. He soon came to the conclusion that the causes of the epidemic were as much social and economic as they were physical. His report was a passionate indictment of the regime. The remedy he recommended was prosperity, education, and liberty, which can develop only on the basis of "complete and unrestricted de-

mocracy." These were unusual words in an epidemiological report, but they are characteristic of the whole trend. Back in Berlin Virchow founded in 1848 a new journal, *Die medizinische Reform*, which became the organ of the movement. "The physicians," he wrote in the introductory article, "are the natural attorneys of the poor, and social problems fall to a large extent within their jurisdiction."

. . . Demands were made for public medical services for the indigents, for an increase in hospital facilities which would not only serve the people better but also raise the standard of medical care. The hospital was to be the center of medical practice. Voices were raised asking compensation for the loss of wages due to illness, and demanding sickness insurance financed by contributions from the workers and from the propertied classes with municipal and state subsidies. Further postulates included the erection of a central Ministry of Health advised by a Physician's Parliament; the foundation of an Academy of Medicine to serve as a clearinghouse for medical research; uniform license, entitling physicians to practice in every German state; appointment of physicians to public offices on the basis of contests. .

In all these discussions the citizens' *right to health* was postulated more and more loudly. It was justified in a way which proves that the whole movement was by no means socialistic but a true middle-class liberal movement. The right to own property, even the means of production was not contested. S. Neumann, one of the most brilliant minds of the period, in his book *Public Health and Property*, justifies the right to health in the following way. The state claims to be a state of property rights. Its purpose is to protect the people's property. Most people, however, possess nothing but their labor power, which depends entirely on their health. This is their only property and the state, therefore, has the duty to protect it and the people have the right to insist that their health, their only possession, be protected by the state.

The German Revolution of 1848 collapsed and with it the health movement declined. After having published ten numbers, Virchow had to discontinue his journal. . . .

The great, forceful, and promising German health movement with its far-reaching program had broken down. Why? Chiefly because it was a movement of liberal middle-class physicians *for* the people but *without* the people. The people were never consulted. They had no voice in all these deliberations. The people's health, however, is the concern of the people themselves. They must want health. They must struggle for it and plan for it. Physicians are merely experts whose advice is sought in drawing up plans and whose cooperation is needed in carrying them out. No plan,

> however well devised and well intentioned, will succeed if it is imposed on the people. The war against disease and for health cannot be fought by physicians alone. It is a people's war in which the entire population must be mobilized permanently.

"One of the tragedies of mankind," Sigerist comments, "is that most people refuse to learn from the teachings of history, and that mistakes are repeated over and over again."

The Genesis of National Health Insurance

The most remarkable example of Sigerist's use of the past to illustrate the present is his analysis of the genesis of national health insurance. During World War II, he began a series of papers titled (1960b) "From Bismarck to Beveridge: Developments and Trends in Social Security Legislation." Unfortunately, only the first paper, on "The Period of Bismarck," was completed. From his detailed study of Germany and his thorough knowledge of social insurance in other countries, Sigerist (1956:68–69) formulated a hypothesis which he summarized in his Heath Clark Lectures at the London School of Hygiene, as follows:

> The other solution to provide medical care for the low-income population was initiated by Germany when Bismarck from 1883–9 created a system of social insurance including sickness, industrial accident, old age, and invalidity insurance. The idea of mutual insurance against disasters is very old. In ancient Rome craftsmen had burial societies to provide a decent funeral for their members. The medieval guilds sometimes had very considerable welfare funds from which contributions were made to hospitals and thus provided medical care for their members. The miners in many European countries had fraternal organizations some of which can be traced back for centuries. In the nineteenth century employers in various countries were made liable to compensate their employees for accidents, but this liability was frequently illusory wherever the employee had to sue for damage and prove that the accident was due to the negligence or fault of the employer, which few workers could afford to do. The liability was greatly extended and liberalized when the railways were built and a new element of risk was created. Another root of Bismarck's insurance system can be traced to a type of benefit society which was peculiar to Germany. The English mutual benefit societies were voluntary. In Germany from 1845 the State could require that certain categories of workers join such a society. In such a case the employer was frequently required to contribute part of the dues.

Sigerist (1956:69–72) observes that "social-security legislation came in waves following a certain pattern which was determined by social, economic, and political conditions. Industrialization created the need. More people earned wages but more people were insecure as they depended for a living on the labour market over which they had no control. After the Franco-Prussian War German industries developed by gigantic strides, and in less than half a century Germany was to become the most serious competitor to Britain. Another determining factor is to be sought in the development of a strong labour movement. Germany had a strong socialist party which developed before trade unions were created. Under the able leadership of Bebel and Liebknecht the party became stronger every year as industrialization progressed. In the first parliament of 1871 the socialists had one seat, six years later they had twelve and the conservatives became alarmed, particularly after the French Commune had demonstrated that socialism was not an arm-chair philosophy but could become a very tangible reality. As early as 1849 Bismarck had said that the social insecurity of the workers was the real cause of their being a peril to the State. He passed his social-security legislation partly to take the wind out of the sails of the working class, but also from a certain paternalistic attitude, characteristic of the Prussian aristocracy. . . .

"Unlike what we have experienced in recent years, no opposition came from the ranks of the physicians—for very obvious reasons. The physicians had called for compulsory health insurance in 1848. They were treating many patients who were insured in a voluntary or compulsory way with private companies. The new sickness insurance law of 1883 relieved them of the burden of treating indigent patients free of charge. More money went to the doctors and their numbers increased considerably. In the decade from 1889 to 1898 once the insurance system functioned properly the German population increased by 11.5 per cent, while the number of physicians increased by 56.2 per cent. In the decade from 1891 to 1901 the population of Great Britain increased by 12.8 per cent, the number of physicians by only 16 per cent, and in the United States during the same period the growth in the population was of 20.7 per cent, the increase in the number of doctors of 25.9 per cent. Bismarck failed to kill the socialist party through his social-security legislation, it kept growing

steadily, and in 1912 was the largest political party in the Reichstag. But he succeeded in breaking the revolutionary momentum of the party which became one of social reformers as it still is today. It was no longer a threat to the established order."

> While I was in the United States, [Sigerist added] I was in the forefront of those who fought for health insurance. I was fully aware that it was not the only and probably not the best solution, but in the nineteen-thirties under the Roosevelt administration it seemed the best we could hope for. Yet all health insurance bills were defeated and the opposition against them was extremely strong. Why? Why was it possible to have health insurance in Germany, Austria, Switzerland, England, France, and almost all European and a number of South American countries, but why was it not possible in the United States? The need was obvious as America was the most highly industrialized of countries with an enormous number of wage earners. The country had just gone through a shattering depression and although the Government did a great deal to relieve the immediate needs of the unemployed workers and of the suffering farmers, yet large sections of the population had no medical care at all or certainly not enough of it, as all surveys of the United States Public Health Service demonstrated unmistakably.
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> I mentioned before that social-security legislation came in waves and followed a certain pattern. Increased industrialization created the need; strong political parties representing the interests of the workers seemed a potential threat to the existing order, or at least to the traditional system of production, and an acute scare such as that created by the French Commune stirred Conservatives into action and social-security legislation was enacted.
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> In England at the beginning of our century the second industrial revolution was very strongly felt. The Labour Party entered parliament and from a two-party country England developed into a three-party country. The Russian Revolution of 1905 was suppressed to be sure, but seemed a dress rehearsal for other revolutions to follow. Social legislation was enacted not by the Socialists but by Lloyd George and Churchill.
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> A third wave followed World War I when again the industries of every warfaring country were greatly expanded when, as a result of the war, the Socialist parties grew stronger everywhere, and the Russian revolution of 1917 created a red scare from which many countries are still suffering. Again social-security legislation was enacted in a number of countries.
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> Every historical pattern we set up is to a certain extent artificial and history never repeats itself unaltered. But patterns are useful because they help us to understand conditions. When we look at the

> American scene we find the need for health insurance and a red scare that could not be stronger, but America has no Socialist party, no politically active labour movement that could bring pressure upon the Government. The existing order is not threatened from any side and conservative parties do not feel the need for action on these lines.

I heard Sigerist present his analysis at the Institute of the History of Medicine in 1943, when I was a student at The Johns Hopkins School of Hygiene. During that seminar Sigerist talked for two hours. As I recall, there were no questions or discussion; he was opening the doors to an understanding of history, and we had no desire to interrupt the process. Several days later I went to see him, for I had doubts about his view of the situation in the United States. I said, with conviction: "Look at the support the unions are giving the Wagner-Murray-Dingell bill for national health insurance." His reply, given very kindly, was that the unions were much more concerned with what they could get through collective bargaining and the development of their own private health insurance programs. Nevertheless, I remained convinced that national health insurance was just around the corner.

Unfortunately, Sigerist's analysis turned out to be devastatingly correct. More than thirty years have gone by, and there is still no national health insurance; it remains "just around the corner."

"Where We Stand in Medicine at the Present Time"

In addition to his historical studies, Sigerist was an indefatigable observer of the current scene. He read widely to keep abreast of medical care changes in European countries, Chile, New Zealand, and other areas. He also traveled widely to study health service organization in the United States, Europe, Saskatchewan, South Africa, India, and the Soviet Union. On a number of occasions, he expressed his desire to visit Chile and Mexico. Having begun his career as a student of oriental languages and literature, he looked forward to the time when he would visit China. None of the latter visits materialized, however, before his death in 1957.

The American University

In 1927, William H. Welch invited Henry Sigerist, then Director of the Institute of the History of Medicine in Leipzig, to come to

Baltimore at some future time as a visiting lecturer at the newly created Johns Hopkins Institute of the History of Medicine. For four years Sigerist prepared for his visit by reading whatever he could find in Europe on the history and current status of American medicine and the political, economic, and social history of the United States. Finally, in September 1931, he landed in New York, spent two months as visiting lecturer at Johns Hopkins, and then, for half a year, traveled all over the country. One result of the visit was Dr. Welch's offer to Sigerist of the directorship of the Institute of the History of Medicine, an offer which he accepted in April of the following year. The other was his book, *American Medicine*, which appeared in its American edition in 1934.

Characteristically, as he was to repeat later in his first book on Soviet medicine (1937), the initial 74 pages of Sigerist's book on American medicine are devoted not primarily to medicine, but to America: the Indians and primitive medicine, colonial times, and the history of the United States. Only then did he feel that he could move into the description and discussion of the achievements and problems of American medicine. In 1940 Sigerist (1960c) traveled again throughout the United States to write his reports of 18 group health plans for the newspaper *PM*.

In *The University at the Crossroads* (1946), Sigerist views the American scene with the authority that comes from firsthand knowledge. It is in these wartime essays that Sigerist makes some of his most penetrating analyses of trends in American medicine and most creative contributions to medical education and medical care.

His criticism (1946: 6–7) of the narrow vocational emphasis of the American university reads as true now as when it was written in 1945:

> The university has graduate schools which must impart the knowledge and skills required for the exercise of professions. The original structure of the Western university in four faculties has been greatly expanded, and today many universities are huge conglomerations of schools including those of home economics and hotel administration. This was a development peculiar to America. Europe has also schools for the training of farmers, and cooks, and hotel administrators but kept them separate from the university, and the USSR went even so far as to make the medical schools independent institutions. . .
>
> The inclusion of vocational schools into the university was a step that had great implications. It meant that we were determined

> to raise vocational education to academic standards. The farmer and engineer graduating not from a technical school but from a university were to be not only good practical farmers or engineers but highly educated citizens fully aware of the social and philosophical implications of their profession and prepared for leadership in the life of the nation.
>
> When we look at the developments that took place in the last twenty-five years, we must admit that the universities failed miserably in their tasks. They did not produce the enlightened leaders that the country so urgently needed. They produced legions of highly competent technicians and specialists but men without education, imbued with traditional prejudices, unable to think independently outside of their narrow specialty, and frequently quite indifferent toward public affairs. Thus the inclusion of vocational schools into the university did not raise the cultural standard of the professions but actually lowered academic standards.

Sigerist was also very critical of the universities' reluctance to engage in research in many important fields because they appeared to have no immediate practical value or, as in the case of medical care, to be controversial. This failure, he believed, was caused by the financial structure of the universities, ruled by boards of trustees recruited from a very small group of the population with no labor or farmer representation. He was also greatly disturbed by the growth of what, many years later, was to be called the multiversity. Long before the academic community realized what was happening, Sigerist (1946:60) warned that "our universities have become conglomerations of schools with a great number of large departments." In addition to their academic responsibilities for teaching and research, the heads of these departments must raise money, balance budgets, and attend a multiplicity of meetings. "The professor who is head of a department has thus become primarily an administrator, and we all know dozens of distinguished men whose research career ended the day they were appointed to some famous chair as a reward for outstanding researches" (1946:61).

A New Type of Medical School

One of Sigerist's most interesting contributions to the organization of health services was his proposal in 1941 for a new type of medical school. He thought that (1946:113) "We still need, more than ever, a scientific physician, well-trained in laboratory and

clinic. But we need more: we need a social physician who, conscious of developments, conscious of the social functions of medicine, considers himself in the service of society. There is no point in training doctors primarily for city practice among the upper middle class."

The medical school, Sigerist (1946:113) believed, should be oriented to producing graduates who consider medicine to be "not competitive business but a service," who will serve most of all the low-income groups who need their services most, who will be trained in teamwork and a spirit of cooperation to prepare them for group practice organized around a health center, who will practice preventive medicine, and who will (1946:114) "become interested in health, not only in disease. Clinical medicine must be taught differently than heretofore. Every case must be analyzed medically and socially as to the factors that have made it possible, and conclusions must be drawn how to prevent similar cases in the future."

A major principle of this new medical school was that (1946:116) "The training of auxiliary medical personnel (clinical nurses, public health nurses, midwives, medical social workers, laboratory technicians, etc.) is just as important as the training of physicians and needs just as much reorganization along new lines. The School should foresee a special division for the training of such personnel, closely integrated with the curriculum of the medical student. Students of medicine must learn from the very beginning to work in teams with the auxiliary personnel."

The school was to be of six years' duration, following two years of college work. The 11 courses in "Social Sciences and Humanities" were to have about 400 hours, and the 15 courses in "Hygiene, Public Health, Social Medicine" were to have about 600 hours of a total required curriculum time of 5,400 hours. Almost 200 hours were to be assigned to "Nursing, Medical Social Work, Dispensary Work" during the first two years in order that (1946:117) "the student shall be in touch with the sick man from the first year on."

In addition, he recommended (1946:121), "The academic course shall be supplemented by two months of field work every summer. Teams consisting of students of medicine, nursing, midwifery, student-technicians, etc. shall be sent out with or without instructors according to the task. Such teams could serve a very useful purpose in a great variety of fields. All government

health services, municipal, state and federal are understaffed as a rule and could make good use of additional workers during the four summer months. The students thus could work in clinics, nurseries, rural health centres, on Indian reservations, in migrant agricultural workers' camps, in distressed areas of the south. They could be used for special purposes such as immunization campaigns, health education, the making of chest X-rays of large groups, surveys of various kinds. There is no doubt that in the future the Government will establish an increasing number of rural health centres and the School could contract with the Government to staff and operate such centres. It would improve the services and would provide the School with centres of research and instruction in different sections of the country.

"A plan would be worked out according to which the student during the course of five summers would obtain a comprehensive view of the health situation and medical problems of the country and would gain considerable practical experience in social medicine. During the academic year the various teams would report on their activities and observations.

"The cost of such field work should not be prohibitive. It seems pretty certain that government funds will be available for medical education after the war and they could not be better spent than on a project that would benefit education and at the same time provide much needed services to the country."

The Voluntary Way

There is, finally, one small additional contribution of Henry Sigerist to an understanding of health services in the United States. It is a comment on voluntary health agencies and similar organizations which came to light only with the publication of his autobiographical writings in 1966. In his diary of February 12, 1937, Sigerist (Beeson, 1966:120–121) noted the following:

> There is more begging in America than in any other country, including the Orient. It is not done in the streets but by mail, on good stationery. Not one day passes that I am not solicited to give money for crippled children, for tuberculosis, the Red Cross, for hospitals, conservatories, libraries, universities, for fires and floods. Half of the population is begging to support the other half. What a shameful procedure for a civilized country. Thousands of women are spending all their time and efforts in begging. What a waste of energy and intelligence.

National Health Insurance

Sigerist knew at firsthand the workings of European national health insurance systems, understood their usefulness, and never ceased to point out their weaknesses. In 1934 (1934:183), he criticized health insurance because "It includes only part of the population. And since the physicians, who cannot liberate themselves from their traditions, insist on being paid for each case and each service separately, an extremely complicated system of accounting and administration is necessary, requiring a large staff of officials."

Furthermore, Sigerist (1934:184) commented that "It is unworthy of his professional standing for the physician to be forced to express the value of each individual service in terms of money, as if he were a storekeeper. Medicine must be freed from economic fetters, like the teaching profession, the judiciary, and the clergy. It is an insult to their profession when it is repeatedly stated—strangely enough by physicians themselves—that free competition is essential. Are physicians really supposed to be inferior to professors, judges or clergymen? Those whose minds are on riches had better join the stock exchange."

In 1938, Sigerist (1960d) extended his critique to include the English system based on capitation. Two years later, in his Terry lecture on The Physician, he carried it further (1941:141): "Most present insurance systems have serious defects which are due to a simple cause. They are too conservative. They were established with the idea of financing the extension of existing services to groups which did not have them before. People failed to realize that the application of a new medical science to a new type of society required new forms of service. The result was that in many countries insurance did not improve health services but merely extended them in their traditional haphazard form."

Despite his repeated criticism of national health insurance, Sigerist (1956) was one of the leading advocates of health insurance in the United States. In *American Medicine* (1934), he had urged complete coverage of the population, the development of group medicine and the systematic establishment of health centers. In 1939, in the midst of the campaign for the Wagner National Health Bill, Sigerist (1960e:192) pointed out that "Medical services can be made public services, financed through taxation and available to all

without charge, like education or the administration of the law. This is, in my opinion, the ideal solution to which every country will come ultimately. . . .

"Health insurance is not a panacea. It is not the ideal system, but I think that, under the present social and economic conditions of the country, compulsory health insurance combined with an extension of public health services is the best possible solution" (1960e:195). Again, Sigerist (1960e:194) emphasized the widest possible coverage of the population and new forms of service. "Quality will not be improved," he wrote, "if insurance funds are used merely to pay the doctor's bill under the present haphazard system. It will be improved considerably, however, if funds are used to develop group medicine in health centers."

Perhaps the best statement of Sigerist's views on national health insurance is in an address in 1944 to the Health League of Canada and the Voluntary Committee on Health of the Canadian Senate and House of Commons. He pointed out (1960f:232) that "The idea of social insurance is by no means new but has a history of over sixty years. It is not a revolutionary but, on the contrary, a basically conservative issue. It does not tend to overthrow the existing economic order but provides a corrective mechanism that mitigates its hardships."

He emphasized once more that insurance should cover not only wage earners but the family members as well, and should also include the self-employed. Complete medical service by all types of health professionals and institutions should be provided. Of the three ways of paying physicians—fee for service, capitation, or salary, he urged the last as by far the best, with salaries (1960f:237) "graded according to experience, responsibility, and hazard."

"Health insurance is a method to provide the funds needed for the financing of health services. What kind of services? My own personal view is that, in the future, medicine will increasingly be group medicine practiced through medical centers, for the simple reason that this is the form of medical care that can make the best use of the present technology of medicine. The people today need more than a family doctor; they need a family medical center where they will find the general practitioner, the various specialists, with all the technical equipment needed to give them preventive, diagnostic, and curative services. In the cities it should not be difficult to establish such medical centers that would serve

residential districts and working places. In rural districts, particularly in countries like Canada and the states, where the population is scattered over wide areas, it would be more difficult. But I think that with the present means of transportation, with airplane and helicopter, it should be possible to bring not only general practitioners but also specialists, nurses, and other auxiliary personnel to the people of rural districts. I am particularly impressed by the great possibilities of the helicopter, which will permit one to take a patient from the top of a mountain and bring him to the operating table with a minimum of delay" (1960f:238).

Sigerist (1960f:238) pointed out that "Medical services provided under a health insurance scheme will not be enough to solve the health problems of a nation. We shall still need our public health services in addition. The sanitation of dwelling places, the protection of society against epidemics, the provision of medical services to poor minority groups, and many other tasks will remain such that they will require the full state power for their execution. The two services together will promote health, prevent disease, restore and rehabilitate the patients, once prevention has broken down. Every country will have to decide on the basis of existing conditions what public health and what insurance services it wishes to have. Personally I believe that ultimately the provision of health services and medical care will become a public service, just as education already is."

Finally, he noted (1960f:238), "Health cannot be forced upon the people. It cannot be dispensed to the people. They must want it and must be prepared to do their share and to cooperate fully in whatever health program a country develops. No bill is perfect from the very beginning. If we had to wait until we had a perfect bill that would satisfy everybody and would solve every problem at once, we would never get anywhere. A beginning must be made and must be made soon, because in war as in peace the people's health is one of the nation's most valuable assets."

When Sigerist was asked to consult on health services in different countries, his advice was always consistent with his basic orientation. It was never rigid, however, never a fixed position. On the contrary, it varied according to his estimate of the medical, social, economic, and political situation in the country. Sigerist was too sophisticated and too serious in his concern for the health of the people to recommend utopian or doctrinaire solutions regardless of their applicability.

Thus, in South Africa in 1939, he rejected national health insurance in favor of the gradual development of public services. He wrote (1960g:271):

> One way of financing medical services is through insurance. The European mine workers, the railway workers, and those of many industries have their benefit societies. I studied the Colley report on national health insurance, and I have no doubt that such a scheme would reach groups such as the clerical workers, who so far have no organized medical services and find it difficult to budget the cost of illness. Health insurance, however, cannot be a national solution of the problem in a country in which over eight tenths of the population is too poor to pay insurance premiums. It seems to me, therefore, that the only possibility of bringing health to all the people of South Africa, irrespective of race and income, is the gradual development of public services. This is by no means a revolutionary step, because the country already has extensive state medical services. The cities have their medical officers of health, the districts their district surgeons. Free clinics are available in many places. The task would be to develop the existing organization more and more, so that it would gradually reach the whole population.

Sigerist (1960g:271) also indicated his great interest in "the free hospitalization scheme that is being discussed so eagerly in the Transvaal today. The hospital is playing an increasingly important part in our medical life, and if hospital service and outpatient department service become available to all free of charge this will become a tremendous step in the development of state medicine."

In the same year, Sigerist wrote approvingly about new developments in health insurance in New Zealand and in Chile. In the former, a Labor government had proposed universal coverage for an impressive scope of health services. In the latter, a People's Front, embracing all liberal elements in the country, had come into power in 1938. Under the leadership of the Minister of Health, Dr. Salvador Allende, the national health insurance program was greatly strengthened and expanded on the basis of salaried physicians working in community health centers and hospitals. In a preview of the tragic events of 1973, Sigerist (1960h:266) commented that "If the People's Front succeeds in staying in power there is no doubt that Chile will set an example to the whole American continent. And I know from my Chilean friends that the people are determined to defend their social conquests and will not yield to the pressure of international fascism."

In India, in 1944, Sigerist and Joseph W. Mountin of the U.S. Public Health Service were consultants to the Health Survey and Development Committee chaired by Sir Joseph Bhore. The two consultants gave differing advice on the question of health insurance (1960i:294):

> The Bhore committee recommends that a system of compulsory health insurance be created for industrial workers, and the recommendation will in all probability be accepted by the government. It has the support of the Trade Union Congress. Dr. Mountin and I disagreed in the matter. He felt that health insurance was an unnecessary detour and that industrial workers should have the same state medical services as the farmers. I, on the other hand, supported the recommendations, because I think that it is very important to create a comprehensive health service for industrial workers without delay, now, in the beginning of industrialization. It will take many years before a universal tax-supported health program can be operated, whereas health insurance could be made to function within a few weeks and would apply automatically to new industries.

That same year, the Cooperative Commonwealth Federation was elected to power in the Canadian province of Saskatchewan, and shortly thereafter Dr. Sigerist was invited to serve as commissioner of the Health Services Survey Commission, the secretary of which was Dr. Mindel Sheps. His official report recommended that a health services planning commission be established to study, among other things (1960j:227), "a scheme of compulsory health insurance for the population of the eight cities," but the major emphasis in his report is on the totality of health services, particularly for the rural population, and on a policy (1960j:211) "to finance an increasing number of medical services for an increasing number of people from public funds." Specifically, this included (1960j:227) "hospitalization and prenatal care, delivery, and postnatal care of all maternity cases, from public funds, as a first step toward a system of complete free hospitalization"; (1960j:227–228) ". . . complete medical services to old-age pensioners, widows and orphans, and to patients suffering from mental diseases and venereal diseases, from public funds"; and clinics (1960j:228) "providing dental care to school children to the age of sixteen, from public funds."

It is interesting, finally, to note Sigerist's emphasis (1960j:214) that "The rural health program must be carried out

with the active participation of the population," and his recommendation that each rural health unit should have its health service commission consisting of both technical personnel and representatives of the local communities.

In all these recommendations Sigerist was undoubtedly influenced, not only by his observations of national health insurance, but by his studies of the first national health service which had been established in the Soviet Union.

Health Services in the Soviet Union

In the epilogue to *American Medicine*, Sigerist (1934:288) observed that "The United States of America and the Union of Socialist Soviet Republics today are the two countries that are experimenting in the medical field and are seeking new forms of medical service. They, first of all, will determine the future of medicine. In writing this book, whenever I discussed a problem, I endeavored to find out what the Russians were doing in such a case. The literature on the subject was very poor, and consisted mostly of the superficial impressions of travelling physicians. I did not find what I wanted, namely, a study on the philosophic and economic background of Soviet Russia that could explain the medical developments and trends. So I will try to fill in that gap myself. Two years ago I began learning Russian, studying Russian history, literature, philosophy, the Soviet institutions. A research trip through Russia will follow. A book on Russian medicine will integrate this study on American medicine, and both together will make evident what the actual course of medicine is."

In the Introduction to *Socialized Medicine in the Soviet Union*, Sigerist (1937:15) outlined his approach:

> My problem in this book is the problem of socialist medicine. Here is a definite political philosophy—what is its attitude toward health and disease? What is its attitude toward science? Applied to life what forms of medical service does it determine? What place has medicine in the new social order? These are the problems I intend to discuss. The Soviet Union, being the first socialist state in the world, gives answer and practical demonstration to these questions. I shall mention what I have seen, and describe what has been achieved in the twenty years since the Revolution. But I shall also discuss tendencies, trends, plans. Twenty years are but a minute in the building of a new world. It is the principles that count and they interest me. This book is not meant to be a report but a sociological study. . .

"In order to understand the Soviet Union one has to take the long view of things. Historical analyses are extremely helpful. Many basic concepts are totally different from what we are accustomed to find in capitalist countries. However, as soon as we approach them historically, they appear in an entirely different light. . ." (1937:19).

"The Soviet system of health protection is one and not the least aspect of this new civilization. I have studied it for five years and I could not have completed this study in so short a time if I had not been familiar with the socialist literature since my early student days. It is important to have been in the Soviet Union, to have breathed its atmosphere, to have been with the people when they were working and when they were resting. And yet, it is obvious that a few weeks of traveling in so vast a country will not make an expert. I have met foreign specialists who had worked for many years in the Soviet Union and yet had not the slightest notion of what was going on around them. It is important to have traveled in the country but it is much more important to have studied its economic and social background. Nobody should write on the Soviet Union unless he is thoroughly conversant with socialism. The Soviet Union is no longer a curiosity to be described in travel books. What we need now are solid studies on the various aspects of Soviet life" (1937:21).

Sigerist was extremely thorough in his study of the Soviet health services. He describes the process in the preface to the second edition of his book, *Medicine and Health in the Soviet Union* (1947:xii – xiii):

> I spent three years, from 1932 to 1935, learning Russian and studying the literature not only on the medicine but also on the history, social and economic structure, and institutions of the USSR. Then, in 1935, I spent an extended summer in the Soviet Union. The visit began with several months in Moscow, where I studied the central organization of medicine and visited the various types of health institutions. I found the authorities most cooperative and had an ideal opportunity to discuss problems with a large number of health officers, medical scientists, physicians, students and patients. I attended meetings of health committees in many plants, sat in on classes in medical schools, was present at graduation exercises and thus had a good opportunity to become acquainted with the organization and functioning of medicine in the capital. Later, I traveled extensively through the Ukraine, Caucasus and Armenia, in order to see other cities and to study rural conditions and rural medical problems and services.

In the autumn, I returned to America with the boxes full of literature that I had collected. I continued my studies, then returned to the USSR for another summer of field work in 1936. Unwilling to rely on first impressions, I revisited a number of institutions, inspected others for the first time, had many more interviews, filled gaps and traveled in sections of the country which I had not visited before, notably the Tatar Republic.

After five years of intensive investigation, I felt ready to publish the results of my studies. I wrote a book that was issued in 1937 under the title *Socialized Medicine in the Soviet Union.* Then, since Soviet medicine was developing rapidly, I felt that I should endeavor to keep track of developments. I undertook my third survey tour in 1938. I would have visited Central Asia and Siberia in 1940 had the war not interfered with my plans.

Characteristically, the first 80 pages of *Socialized Medicine in the Soviet Union* (1937) are devoted to the background and principles of Soviet medicine, including a brief review of Marxist philosophy, the historical background of the revolution, the characteristics of the new socialist society, the development of health services prior to 1917, and the basic principles underlying the socialist organization of health services.

Both this book and the updated *Medicine and Health in the Soviet Union* (1947) fulfill Sigerist's previously quoted comment that (1937:21) "What we need now are solid studies on the various aspects of Soviet life." They are thorough, detailed, and provide an excellent understanding of the theory and practice of the Soviet national—or rather multinational—health service. Sigerist wrote a number of shorter papers on the subject, among which "Medical Care Through Medical Centers in the Soviet Union (1943a)" is an outstanding contribution. A brief overall review is "Twenty-Five Years of Health Work in the Soviet Union" (1960k).

In 1935, on the way back from his first visit to the Soviet Union, Sigerist spoke at the International Medical Week being held at Montreux, Switzerland. His subject was "Current Unrest in the Medical World" and he concluded with these remarks (1960l:85–88):

I have just returned from a study tour of three months in a country where I did not find unrest in the medical world, but on the contrary an enthusiasm and optimism without limit: the Soviet Union.

A trip to the U.S.S.R. is a very dangerous experience that I do not recommend to those who are afraid of thinking or who cherish certain traditional views. One returns overwhelmed, and one has

great difficulty in understanding the world in which one lives. I have often tried to explain to Russian friends why, in the United States, twenty-two million citizens live on alms or why hospitals are closed at a time when they are greatly needed. I assure you that it is very difficult to make this understandable. Needless to say I made this trip without any preconceptions. I went to the U.S.S.R. as a physician, historian, and sociologist who wanted to learn. I studied social and medical conditions not only in the large cities but also in the country, in the valleys of Caucasia and Armenia. I was able to see everything that I wanted to see. I never found a door closed.

I regret that time does not permit me to draw for you a picture of Soviet medicine. All that I can do is to tell you some observations that I made and some reflections that came to me during my stay in the U.S.S.R.

What has happened in Russia is that a philosophy elaborated long ago has been brought to life. A new political, economic, and social order has resulted from it, which naturally has modified the forms of medical service profoundly.

The general idea is that all men are brothers and that each individual, whatever may be his capacities at the time he works, has the right to have his share of earthly goods. One of these benefits is health. There will always be suffering in the world, for man is a frail creature, but it is indecent for a civilized society to tolerate one of its members' suffering from certain elementary causes like hunger, cold, or avoidable sickness.

Since health is a benefit that must be available to all, medical service is free. The physicians are salaried, but their salaries vary with their functions. The funds necessary for financing the health service come either from the government directly or from social insurance, the funds of which are administered by labor unions. Contributions to the social insurance are not paid by the workers directly but by the industrial enterprise. They represent a part of the surplus from the labor of the worker which in other countries serves to pay dividends to stockholders.

Preventive medicine has top priority, and medical supervision begins from the pregnant woman who is examined at least once a month, who two months before and two months after delivery is excused from all work without any loss of wages. The newborn child is examined regularly. During working hours, the mother can entrust her child to one of a number of nurseries or, after three years of age, to a kindergarten. Medical supervision of youth continues in the schools and does not stop at puberty. On the contrary, young people who enter higher schools are examined not only by the regular physician but also by a psychiatrist, a measure of mental hygiene.

Medical care is given to the population by local physicians or

more and more by medical centers, dispensaries, polyclinics, ambulatory care centers, preventive centers that one finds in every locality and which have a place in all large industrial establishments. . . .

In all nations, the medical faculties organize refresher courses, but it is not easy for the rural doctor to attend them. Either he has to sacrifice his vacation or else he must abandon his patients for a certain time, which is always a rather heavy sacrifice. In the U.S.S.R., the doctors are summoned every three years for courses of this type, which often last several months. Their salaries are paid, as well as their travel expenses, and they are even given the most important new medical publications free. . . .

Another aspect of Soviet medicine that impressed me strongly is the organization of rest and recreation. It is not enough to reduce the hours of work, to have five days of rest per month instead of four, to give every worker paid vacations of two to four weeks and sometimes more; the worker must be given the possibility of spending his leisure time in such a way that his health and his cultural development profit from it. Soviet cities are proud of their parks of culture and rest, which with their theatres, concert halls, meeting rooms, libraries, with their places for all sports, their children's villages, are really what their names indicate.

Physical culture has become popular. I will never forget a free day in Moscow, when 120,000 gymnasts, men and women, workers of Moscow, marched on Red Square before their leaders, radiant, in robust health—individuals who under the old regime would have dwelled in unclean hovels in an atmosphere of filth, tuberculosis, and alcohol. And I am certain that Romain Rolland, who a few steps from me was attending the festival, was equally impressed.

Vacations must serve to heal the sores of work. I visited many rest homes and many sanitoria in Russia, the Ukraine, the Caucasus, and Crimea, where workers were cared for and regained their strength.

The philosophy which is at the base of the Soviet state is a materialistic philosophy. It does not spring from a vulgar materialism, but from dialectical materialism, a philosophical materialism. It is thus a rational philosophy which excludes mysticism and is based on natural sciences and political economy. In such a situation, medical science has the best chances, and a whole generation is at work with an ardent fervor. I visited many scientific institutions, and I admired the plans of the Institute of Experimental Medicine that is now being constructed near Moscow. The government gave 200,000,000 rubles just for the buildings, and the institute, which already employs more than 600 persons, will undoubtedly be a world center of medical research.

It would be absurd to expect everything to be perfect in Soviet

> medicine. A new world is not built in fifteen years. The resources are far from being complete. The number of doctors is not yet sufficient. But the physician who goes to the U.S.S.R. without preconceived ideas cannot help but be impressed by what has been accomplished in so short a time. And what is important is to observe that the system works and that it seems to work very well.
>
> I have returned from my trip with a conviction that Soviet medicine represents a form of health service adapted to the conditions of the industrial society of our day, and that what is happening now in the U.S.S.R. is the beginning of a new period in the history of medicine.
>
> The future will tell us if this system will be applicable in other countries and if its advantages are verified.

Sigerist's studies of health services in the Soviet Union were among his most significant contributions to health service organization, for they enlarged the horizons of health workers to include new alternatives: group and team practice in health centers instead of the isolation of the solo practitioner; emphasis on promotion of health and prevention of disease rather than treatment; and a national health service instead of health insurance.

"In What Direction We Are Marching"

Health Services

Perhaps the most comprehensive account of Sigerist's views on the future organization of medicine and the role of the physician was given in *Medicine and Human Welfare* (1941:143–145):

> History points out the direction in which medicine is moving. The physician's knowledge is no longer based on theology or philosophy but on science. Scientific research will therefore remain the rich source that supplies the physician with ever-improved views, methods, and techniques for the protection of health and the fight against disease. Research must be promoted by all means available. But scientific knowledge alone is not enough. Physician and patient do not meet on a lone island but are both members of a highly differentiated society. Hence scientific research must be supplemented by sociological research which studies the life cycle of man in his social environment and investigates factors favorable or detrimental to health and methods of social readjustment.
>
> Medicine already is sufficiently advanced to give the physician the means necessary for the practice of preventive medicine on a

large scale. Prevention of disease must become the goal of every physician whatever his status may be. The barriers between preventive and curative medicine must be broken down.

The general practitioner will remain the core of the medical profession, but alone, left to himself, he is lost and cannot possibly practice scientific medicine. He needs the backing of a health center or hospital and a group of specialists whose help and advice he can seek. Practice tomorrow will of necessity be group practice, organized around a health center which will have health stations as outposts in strategic points of the district. The people need more than a family doctor; they need a family health center where physicians will not wait until a sick man calls on them but from where they will go out into the homes and working places in order to help the people before illness strikes. No longer will the doctor be economically dependent on his patients, forced to exploit their illness and suffering. Whether such a health center should be financed through taxation or compulsory or voluntary insurance is a secondary consideration which will depend on circumstances.

I am convinced that medicine, like education, will ultimately become a public service in every civilized country. All trends are in that direction. Under such a system medicine can fully apply all scientific means at its disposal and can reach the entire population. Under it, moreover, the risks are spread among the largest possible number of people and their resources are pooled.

At what time such a point will be reached in the various countries will depend on economic, social, and political developments. It may be sooner than we commonly expect. The war which broke out in 1939 will destroy the laissez faire attitude once and for all and will force social adjustments that have been neglected in the past.

The scope of medicine has indeed broadened. There is today hardly a field of human endeavor that does not require the physician's advice at some time or other. No longer a shaman, priest, craftsman, or cleric, he must be more than a mere scientist. We begin to perceive the outline of a new physician. Scientist and social worker, prepared to cooperate in teamwork and in close touch with the people he serves; a friend and leader, he will direct all his efforts toward the prevention of disease and become a therapist when prevention has broken down—the social physician protecting the people and guiding them to a healthier and happier life.

These conclusions were based on Sigerist's historical investigations and his observation of contemporary health services in various parts of the world. His studies of the Soviet health services were particularly important in this regard. As he had stated in *Socialized Medicine in the Soviet Union* (1937:308), "Nobody can

deny that Soviet medicine, in the short period of twenty years and under most trying circumstances, has stood the test and has created powerful measures for the protection of the people's health. It has demonstrated that socialism works in the medical field too, and that it works well, even now, in the early beginnings of the socialist state. It is a system that is full of promise for the future—for a very near future.

"I have approached this study as a historian, in the same detached manner in which I have studied developments and conditions in other countries and in other eras of history. And I have come to the conclusion that what is being done in the Soviet Union to-day is the beginning of a new period in the history of medicine. All that has been achieved so far in five thousand years of medical history, represents but a first epoch: the period of curative medicine. Now a new era, the period of preventive medicine, has begun in the Soviet Union."

Civilization

Sigerist was deeply concerned with the future not only of medicine but of civilization as well. In a moving Epilogue to *Civilization and Disease* (1943b:243–244), he observed that "It seems futile to write about civilization at the very moment when it appears to be collapsing, when a war is raging that embraces the globe, and when all the resources of intelligence, of human skill, and natural wealth seem to be mobilized for destruction. And yet we must always remember that civilization is a very young phenomenon in the history of mankind, and that reversals into primitive savagery are bound to occur. Much has been achieved in the short period of five thousand years. Cultural values have been created that no bomb can destroy. There is more freedom, more justice, more health in the world than in the past—yet still not enough, and that is why there is a war.

> What happened in the limited field of medicine seems to have happened in the world at large: technology outran sociology. We have created ingenious machines but not the social and economic organization that an industrial society requires. We have built means of transportation that overbridge the continents, but not the apparatus that ensures peaceful cooperation between nations. While we reduced the size of the world, we also confined our thinking in terms of narrow and selfish nationalism. The machine age calls for social and economic adjustments not just in the medical field but everywhere.

> Terrible as this war is, its very destructiveness shows symptoms that appear as the birthpains of a new world. It is a revolutionary war. Oppressed nations and oppressed groups are or will be fighting for political and economic independence, for freedom and justice, for the right to work and through their labor to acquire the security that was denied them in the past.
>
> We do not know how long this war will last, whether it will be the final or only one more episode in the conflict that became acute in the beginning of our century. We are impatient because our span of life is so short and we would like to see the outcome. But history beats in longer periods than a man's heart.
>
> The more I study history, the more faith I have in the future of mankind, and the less doubt as to the ultimate result of the present conflict. The step will be taken from the competitive to the cooperative society, democratically ruled on scientific principles, to a society in which all will have equal duties and equal rights, not only on paper but in fact. We may not see it, but our children or their children will. While we are struggling, the foundations are being laid for a new and better civilization.

Two years later, in *The University at the Crossroads* (1946:154–155), he declared that "There can be no doubt as to the final outcome of the present conflict although nobody can foretell how many years the process will take. This is an age of democracy. The common men, the laborers in factory and farm, the office workers, the scientists and the scholars, they will shape the world of tomorrow and will create the institutions of learning that every nation needs."

Sigerist's Impact on Health Service Organization

In assessing Henry Sigerist's impact on health service organization, it is useful to consider separately his influence in the United States and in other countries. Although he had considerable impact in the United States, his own judgment was that it was greater abroad, and the available evidence indicates that his judgment was correct.

The United States

Some measure of Sigerist's influence may be obtained from the farewell dinners and other affairs that preceded his departure for Switzerland in 1947: 80 students at one, his seminar (about 40 stu-

dents and wives) at another, the City Department of Public Welfare at a farewell luncheon, a reception in New York attended by the American-Soviet Medical Society, a party at the Hamilton Street Club in Baltimore, and finally, in his words (Beeson, 1966:209), a "big banquet in New York with 300 people, very moving."

The 112 sponsors for the banquet (Bulletin of the History of Medicine, 1948) included many persons from the field of health service organization: George Baehr, Leona Baumgartner, Ernst P. Boas, Allan M. Butler, Michael M. Davis, Leslie A. Falk, Allen W. Freeman, Channing Frothingham, John A. Kingsbury, Thomas Parran, John P. Peters, Kingsley Roberts, Milton I. Roemer, George Rosen, and C.-E.A. Winslow. Frederick Mott and Leonard Rosenfeld joined the Premier of Saskatchewan in a telegram sent to Dr. Sigerist at the banquet.

Most of the younger people in health service organization were at the dinner party in Baltimore given by the 40 or so seminar students and their wives. Some were current students, but most were graduates of Sigerist's course who were working in Baltimore and Washington, D.C. A number of these, among whom Richard Weinerman was an outstanding example, were also graduates of the Association of Medical Students and the Interne Council of America. Sigerist was very much interested in medical students and young physicians and the organizations they had created; he spoke at their conventions, wrote for their publications, and gave them a great deal of moral support. It was no accident that he dedicated his first book on Soviet medicine (1937) "to the young medical workers in whose hands the future of medicine lies."

Sigerist lectured widely. He was, indeed, as he later remarked (1956:70), "in the forefront of those who fought for health insurance." In great demand as a speaker by both medical and nonmedical organizations, he once complained to me, with a sheaf of letters in his hand, that if he were to accept all or even most of the invitations there would be no time for scholarly work. Shryock mentions that in one year Sigerist was invited to give some 200 lectures.

One reason for the invitations was his thorough scholarship and enormous erudition. He studied 14 languages in order to read source material in the original for his unfinished masterwork on the history of medicine. A number of stories are told about the breadth of his culture, but the best known was related by Alan Gregg (1948:33) at the farewell banquet in New York City. During a din-

ner party, Gregg had asked a group of professors of The Johns Hopkins School of Medicine how many of the Hundred Great Books they had read. The range was 16 to 32. "Then I pressed Sigerist for his score. With charmingly apologetic discomfort he admitted that he had read 94—adding that six of these he had not read in the original."

There were other reasons for Sigerist's popularity as a lecturer and the tremendous impression he made on his listeners. He literally captured his audiences. One reason was his serious preparation for every speech. Another was the simplicity and clarity of his style. A third was his natural ability as a speaker. And finally, there was his personality, the outgoing friendliness which had so impressed William H. Welch and which had impelled Harvey Cushing to send Welch a telegram which began (Bulletin of the History of Medicine, 1948:10): "Sigerist has captivated everyone here by his modesty, learning, lively interest in everything, and personal charm," and ended by urging Welch to offer him the chair at Johns Hopkins.

Sigerist wrote extensively, not only books but many articles; over 500 publications are listed in his bibliography (Miller: 1966). One example of his writing for non-medical audiences is his paper (1960e) on "The Realities of Socialized Medicine" which was published in *The Atlantic Monthly* in June 1939, included in two collections of college readings, and then reprinted and sold as a five-cent pamphlet by organizations favoring national health insurance. His writing was clear, graphic, engagingly simple, and eminently readable.

It is, of course, difficult to judge the impact of Sigerist's speeches and writings, since the influence of the spoken or written word is not easy to trace or identify. This is particularly true in the United States, where Sigerist's ideas, for reasons which he had outlined with great clarity, had little chance of being realized. His proposals for the reorganization of health services and the reform of medical education were incongruent with the conservative temper of the country, and his influence on men's minds could not therefore be translated into deeds.

Latin America

Sigerist's influence was worldwide. As will be indicated later, this was related primarily to the publication of his books. Another factor, less easy to measure but nevertheless significant, resulted

from the fact that the Institute of the History of Medicine at Johns Hopkins was across the street from the School of Hygiene. Many of the current leaders of public health in Latin America and Asia trained at The Johns Hopkins School of Hygiene, and a fair proportion of them were students at Sigerist's weekly seminar.

During the early 1940s, for example, at least 15 Chileans came to study at the School of Hygiene. When they returned home they established the University of Chile School of Public Health and assumed leading positions in the Chilean health services. A number of these attended Sigerist's weekly seminars, and one was Dr. Gustavo Molina, who was there in 1941. Dr. Molina founded the Chilean Public Health Society in 1947, was Professor of Public Health Administration at the School of Public Health, and was one of the architects of the Chilean National Health Service in 1952. He served with distinction as Chief of the Division of Public Health of the Pan American Health Organization. More recently, during the Unidad Popular government of Salvador Allende, he was Director of the Fifth Health Zone of the Chilean National Health Service, which includes Santiago and serves one third of the population of Chile. In this position he played a very important part in restructuring the Chilean health services to make them responsive to the needs of the people.

The military junta imprisoned Dr. Molina in an Air Force installation. Eventually he was released to a convalescent prison. At this point he asked his wife to bring him the two volumes of Sigerist's papers, one edited by Roemer (1960) on the sociology of medicine, and the other by Marti-Ibáñez (1960) on the history of medicine. In order to use the time in prison productively, Dr. Molina then proceeded to select, edit, and translate 20 of Sigerist's papers into Spanish. This collection has now been published in Bogota, Colombia (Molina: 1974) and has been widely distributed in Latin America.

A few of Sigerist's works were published in Latin America (see Miller: 1966). *Medicine and Human Welfare* (1941) was translated and published in Buenos Aires in 1943, and *Civilization and Disease* (1943b) in Mexico City in 1946. A very interesting and perhaps predictive event was the publication in 1944 of *Socialized Medicine in the Soviet Union* (1937) in a Spanish edition in Havana. This edition appeared under the auspices of the Cuban-Soviet Society of Medical Sciences, and included not only the original introduction by Sigerist but a new introduction which he had prepared specifically for the Cuban edition.

Asia

The second edition of Sigerist's book on Soviet medicine, *Medicine and Health in the Soviet Union* (1947) was published in Bombay in 1947, and Osaka in 1952 (see Miller: 1966).

China showed considerable interest in Sigerist's writings (Miller: 1966). As early as 1936, his *Einführung in die Medizin* (1931) had been translated from the English edition (1932) and published in Shanghai with four introductions, by Henry E. Sigerist, William H. Welch, G. Canby Robinson, and Hu Shih. In 1949, *The University at the Crossroads* (1946) was translated and published in Peking. A year later *Medicine and Health in the Soviet Union* (1947) was published in Shanghai. Sigerist described the circumstances in a letter (1951b) to Milton Roemer as follows:

"You'll be interested to hear that my book 'Medicine and Health in the Soviet Union' was translated by the Deputy Minister of Health of East China personally. Since June 1950 the book had three editions with a total of 22,000 copies. They ask me all the time if I have new literature on Russian medicine which shows that they are not spoon fed from Moscow. The Deputy Minister Dr. Gung Nai-chuan is in charge of the administration of health of a population slightly larger than that of the United States. He has a splendid record for the work he did during the Japanese war, organizing health services for the partisans and later for the Army. He apologized to me for not having asked for my permission to translate the book and the reason why he did not do it was that at that very moment he was with the People's Liberation Army crossing the Yangtze river which soon thereafter liberated the whole mainland." A fourth printing of the Chinese edition, of 3,000 copies, was issued in May 1951 (Miller, 1966).

In 1953, Sigerist was invited to make a medical survey of China, but his plans to do so were interrupted shortly thereafter by the illness which led to his death (Roemer, 1958).

Europe

Einführung in die Medizin (1931) was translated and published in Stockholm, London, Paris, Leiden-Amsterdam, and Florence; *Grosse Aerzte* (1932) in London and Barcelona; *Medicine and Human Welfare* (1941) in Stuttgart; *Civilization and Disease* (1943b) in Frankfurt am Main-Berlin, and *A History of Medicine, Vols. 1 and 2* (1951a, 1961) in Zurich (see Miller, 1966).

The most influential of Sigerist's books, at least in Great Bri-

tain, was *Socialized Medicine in the Soviet Union* (1937). It was published by Victor Gollancz in a regular edition and a special Left Book Club edition which sold for three and a half shillings. Sigerist (1947:xiii) commented that "My book was given a very favorable reception when it appeared in Great Britain. At that time, the Left Book Clubs were flourishing, and the book was widely read and discussed from one corner of the British Empire to another. A French translation was being considered, and a German translation, to be published in Switzerland, was ready in manuscript when both projects had to be abandoned because of the war."

A condensed version of the Left Book Club edition (Miller, 1966:22) "was published by the Belgian underground under the title *Dr. Antoine, a propos d'une cas d'ulcus duodénal.* 28 mimeographed pp., folio. Over 4000 copies were issued, of which 500 were seized by the Gestapo. Two workers were killed in the ensuing fight."

There can be little doubt that the wide distribution and discussion of Sigerist's book on the Soviet national health service had a significant effect on British public opinion and the creation of the British national health service. How great this impact was it is difficult to say. We know that the Soviet experience, as reported and interpreted by Sigerist, influenced the Socialist Medical Association in its campaign for a national health service, and that the SMA had considerable influence because of its affiliation with the Labour Party. Judging from a distance and with no direct knowledge of the situation at the time the National Health Service was established in Great Britain, I am nevertheless persuaded that Henry Sigerist played a far more important role in its creation, through his influence on men's thoughts and actions, than is generally realized in Great Britain or abroad.

Epilogue

Sigerist usually ended his books with an epilogue, and the term is appropriate for these concluding observations. It is now 28 years since Sigerist left the United States to return home to Switzerland, and 18 years since he died. We have had much time to think about the man and his work and try to place them in perspective.

Looking back, several things become clear. One is that Sigerist was among the fortunate few who are blessed with genius.

Most of us are competent, we are intelligent, we do our work well. Sigerist's abilities were at a much higher level, and his extraordinary erudition, as well as the depth and breadth of his thinking, were symptomatic of the difference.

Another is that the United States was fortunate in that for 15 years, the most active and productive period of his life, Sigerist lived and worked here. Hundreds of students were inspired by his teaching, and many thousands of Americans by his books and speeches. Most important of all, he brought a new and original dimension to American medicine and American culture. No one has said it more aptly than Alan Gregg (1948:32): "Beyond and above anyone else Henry Sigerist made us aware of the fact that medicine is the study and application of biology in a matrix that is at once historical, social, political, economic, and cultural. The practice of medicine is a part of sociology, and a product of sociological factors. We were not aware of that—nor of the vistas unrolling in such a comprehensive view." Further, Gregg noted (1948:33), "Were you to ask me if anyone in the past fifteen years has been eager to make us Americans understand the richness, and the power, and the beauty, and the meaning of scholarship, and the potentialities of the University, I would think first of Henry Sigerist."

Because of these enduring contributions to the intellectual life of the United States, Sigerist's ideas have become an organic part of its cultural heritage. Here is where the great bulk of his writing occurred, where it was published, and where it is readily available to scholars and the general public. Internationalist though he was, Sigerist wrote inevitably from an American perspective, concerned in the first place with the problems of health services in the United States. These problems have not been solved, and that is why Sigerist's writings on the subject remain fresh, pertinent, and still the best available guide to action.

Sigerist's greatest contribution to all who were fortunate enough to know him, to hear him speak or to read his books, was one that can be made only by that *rara avis* in the United States, a committed intellectual. Gregg (1948:33) put it simply by noting Sigerist's "relentless insistence that what we choose to do now with our present lives, is history in the making." This view was highlighted in Sigerist's speech (1960m:32) to the Third Eastern Medical Students Conference in 1936, when he said:

> Whatever the future will be, the life of your generation will not be an easy one. And yet, what does it matter? To have a "good

> time" is the ideal of an animal and not a human ideal. What counts in life is to be able to do some creative work, to be able to give one's share in forming the world, in improving it. And this is easier today, when everything is in the process of transformation, than ever before. It may be objected that you have no experience yet. This is true, but what is needed at the present time just as much is enthusiasm, courage, and an iron will to create a better world.

Sigerist (1946:155) envisioned an age of genuine democracy: "The common men, the laborers in factory and farm, the office workers, the scientists and the scholars, they will shape the world of tomorrow . . ." This world, in his view, will take the step (1943b:244) "from the competitive to the cooperative society." It will move to socialism (1937:308), "a system that is full of promise for the future—for a very near future."

In a country and a profession submerged in commercialism, Sigerist had the singular courage to stand for idealism. Medicine is an honored and honorable profession (1934:184). "Those whose minds are on riches had better join the stock exchange." Instead of money grubbing, he urged medical students and physicians to do creative work, to help change the world, to consider themselves (1946:113) "in the service of society."

In the service of society. This is the key to Sigerist's thinking, and to his greatness as a man, a scholar and a physician. Now, nearly half a century after Sigerist wrote *The Great Physicians* (Grosse Aerzte, 1932a), it is fitting that we add his name to the list, to Hippocrates, Galen, Rhazes, Vesalius, Harvey, Jenner, Bernard, Virchow, Pasteur, Koch, Lister, and the others described in his volume. Henry Sigerist, the great protagonist of social medicine, stands with them now in the pantheon of the immortals.

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