

THE ECONOMICS OF PUBLIC HEALTH AND MEDICAL CARE¹

by RAY LYMAN WILBUR, M. D.

IT is eminently fitting that a meeting devoted to the economics of public health and medical care should be held under the auspices of the Milbank Memorial Fund. Many of America's great foundations have demonstrated a keen and unwavering interest in medical problems of one sort or another. But few of them, I believe, have been any more interested in the health of the people and particularly in the economic aspects of our present methods for preserving and safeguarding that health than the Milbank Fund. Through its excellent department of research it is adding new knowledge to our present precious store, and it is criticizing and analyzing the progress of public health work to make sure that this work is directed toward important problems and rests on sound bases.

It was in considerable part through the timely and generous support of the Milbank Memorial Fund that the Committee on the Costs of Medical Care was able to start its five-year program of research in an endeavor to formulate a plan for providing adequate, scientific medical service to all the people, rich and poor, at a cost which can be reasonably met by them in their respective stations in life. The Fund was quick to recognize the significance and the desirability of carrying forward the Committee's program, and we of the Committee have always felt we could obtain not only financial support but also intelligent cooperation and valuable advice at 49 Wall Street. What is perhaps more important, we knew we didn't have to follow the advice given.

¹Dr. Wilbur's address was given at the tenth annual dinner meeting of the Boards of Counsel of the Milbank Memorial Fund, March 17, 1932.

Tonight I wish to address you not only as chairman of the Committee on the Costs of Medical Care but also as a physician, fallen from grace, if you will, but a physician nevertheless. Let us speculate a little about the future development of medicine and public health in the United States.

MEDICINE AND GOVERNMENT

To do so, we ought to review briefly the temper of the American people toward medical service and particularly their attitude toward governmental activity in this field. Governments were originally organized to carry on war and expedite commerce. Education was for the favored few and skilled medical care was a prerogative of the Crown. The rest of the populace found such consolation as it could in the ministrations of midwives, bone-setters, and barber-surgeons. With the expansion of economic well-being and the concomitant increase in power, however, there came a demand from the lower classes for more education and more medical service. Bismark felt the force of this demand. Anxious to appease the populace so that he might win support on issues closer to his heart, he instituted a system of sickness insurance and made it compulsory for the lower income groups by government edict. Although it is true that the German government makes no financial contribution to the insurance and probably does not supervise it any more closely than our American states supervise life insurance companies, nevertheless this action has had a profound psychological effect both in Germany and in other countries in Europe. Most of them have now adopted some form of governmentally-supervised sickness insurance, voluntary in a few instances and compulsory in the remainder, and the people now look to their central governments to protect them against the hazards of sickness.

AMERICA'S UNIQUE OPPORTUNITY

In the United States our history has been somewhat different. When the war for independence was concluded, the thirteen isolated colonies found themselves faced with the task of forming a common government for peace time. Each colony was independent, sovereign, and jealous of its own rights. So hostile to a strong central government had the colonies been that they had on many occasions seriously hampered the prosecution of the war and only the genius of a relatively few brilliant and faithful men saved the struggle from utter collapse. When peace was secured, the colonies framed Articles of Confederation which left each state practically undisturbed in the exercise of its powers. With the adoption of the Constitution and its expansion by Chief Justice Marshall, a far stronger central government was established; there has ever since been a struggle between the forces of centralization and the forces for local home rule. The success of the North in the Civil War again strengthened the hand of the central government, and the subsequent rapid development of the country and growth of interstate activity have further increased its power.

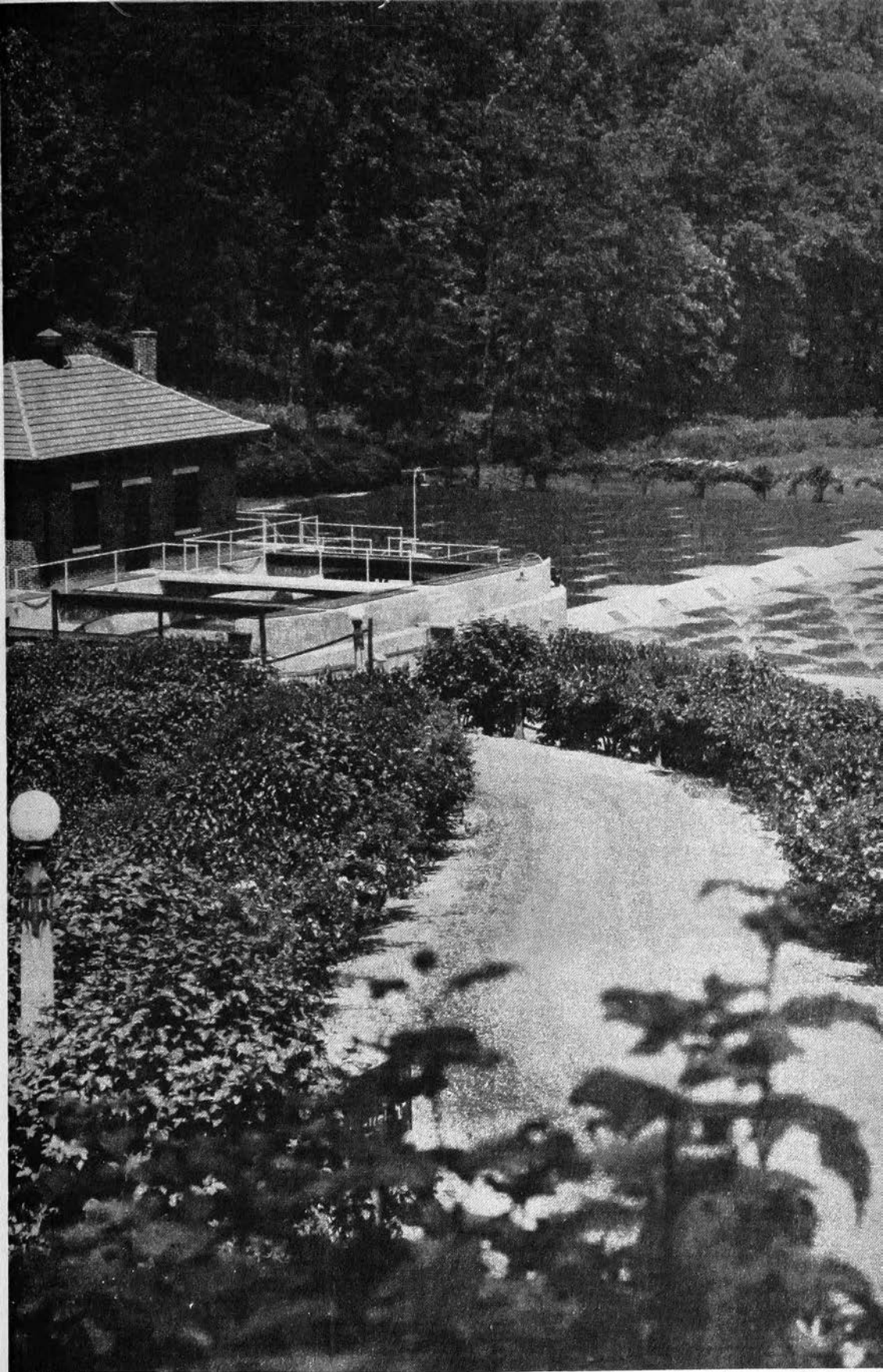
In spite of the vast concentrations of power and authority now in Washington and the growing and dangerous tendency of the people to turn to the Capitol for all necessary reforms, we have retained in America a healthy local responsibility and control over two important functions—education and medical service. Insofar as these functions are supported by taxes, the funds are assessed, collected, and disbursed locally. The Federal Government has never attempted to control or to finance education, except insofar as advisory and consultant services have been made available on request of local officials. Likewise in the field of public health and medical service, until the Veterans' Bureau was established, the Fed-

eral Government confined itself largely to those few services, such as quarantine, the care of lepers, and of army, navy, and merchant marine personnel, which obviously could not be done with even minimum efficiency by the individual states.

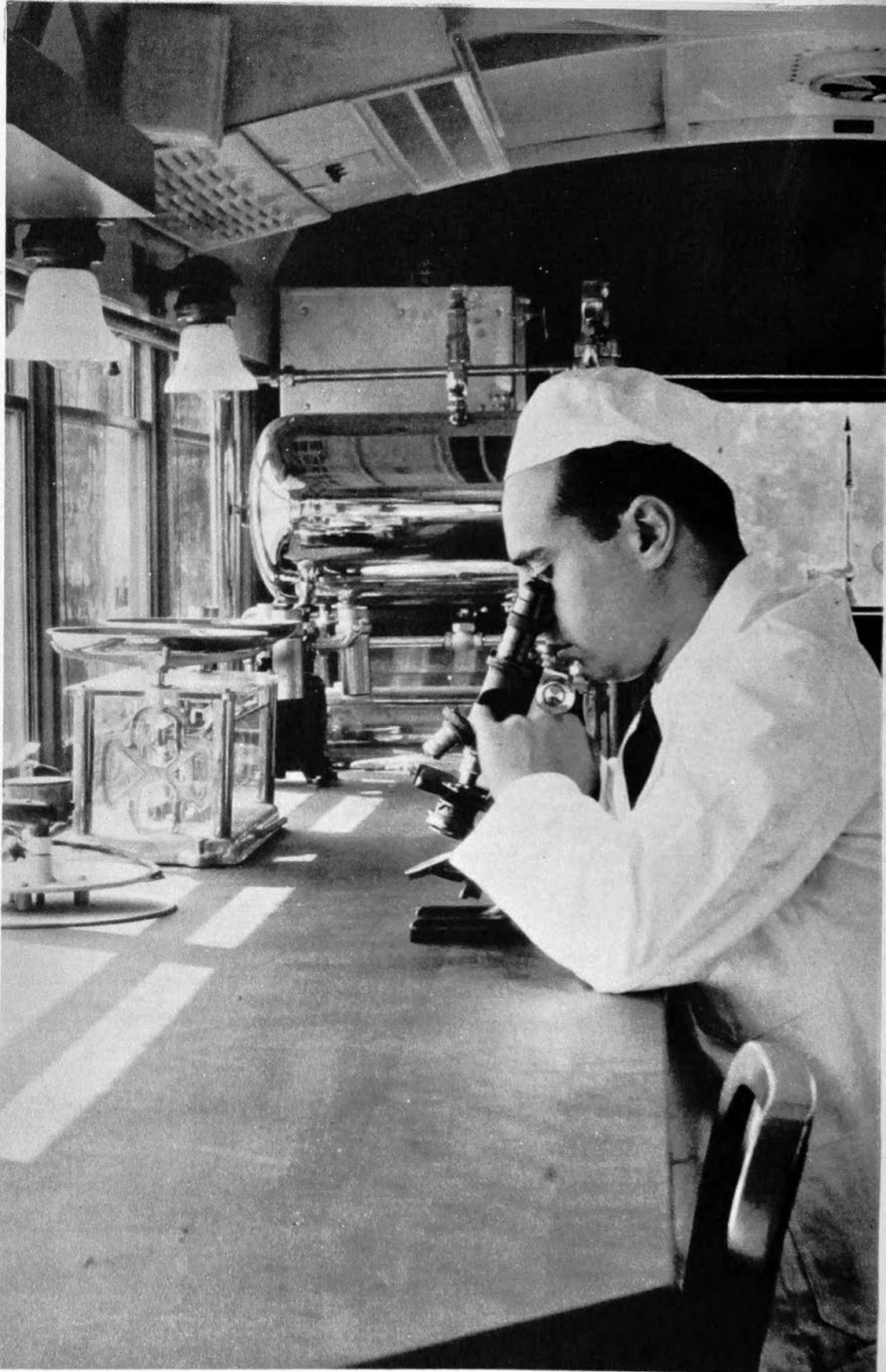
As a result we have in this country a unique opportunity. With no central authority attempting to force uniformity of action on all parts of the country, we can try out a great variety of plans. If state action is necessary, we have forty-eight laboratories in which to find out what action is most effective; if city or county action is called for, we have several thousand "experiment stations." We have no tradition that impels us to consider health matters as a federal concern. We have no need ever of tying ourselves hard and fast to any one type of proposal. This freedom, this opportunity for diametrically opposed types of experimentation, this chance to blend various factors in various ways to obtain a new result is a distinctive New World advantage.

Of what service is this unique opportunity, when we are considering the economics of public health and medical care? To answer that question we must first determine what are the problems in medicine which merit our attention. Why is it that both medical and lay periodicals abound with discussions of one aspect or another of the provision of medical service? Why has the Committee on the Costs of Medical Care devoted five years and nearly a million dollars to finding out the facts about the present provision of medical service in the United States and possible ways of improving it? Why has the Committee's work aroused such a widespread popular interest? These are fair questions. Let us examine the problems involved.

When one first begins to study the economics of medical care in the United States, he feels himself a Hercules battling the Hydra. Everywhere he looks a new problem appears.



*A typical water purification plant
in Monroe County, New York*



Interior view of one of the mobile laboratories maintained by the New York State Laboratories for the inspection of milk and cream supplies

If, however, he can secure a truce in the battle long enough to analyze these problems, he will probably realize that the Hydra's heads arise from two main trunks.

ADVANCES IN MEDICINE

The first of these two major problems is the provision of adequate, modern, scientific medical service to the people. It is true that during the last century we have made remarkable advances in medicine. Smallpox, which as late as the middle of the eighteenth century was, according to one English physician, "the terror and destroyer of the greater part of mankind," now causes less than 0.1 death per 100,000 yearly; and its virtual eradication awaits only the more widespread use of vaccination. From 1800 to 1879, every year witnessed an outbreak of yellow fever in the United States. Today yellow fever is not even listed as a "principal cause of death" by the Bureau of the Census. Typhoid fever now causes only 6.8 deaths per 100,000 population annually, yet a few years ago it was one of the major communicable diseases. Some communities in the South have recently been economically and socially transformed by the partial elimination, due to scientific treatment, of hookworm disease and malaria. The children of the future, if properly safeguarded by antitoxin and toxin-antitoxin, should be practically freed from the dreaded diphtheria. Recent discoveries promise greater freedom from scarlet fever. Preventives have been found for gonorrhoeal ophthalmia, and progress has been made in the control of pellagra, endemic goiter, and diabetes. To modern scientific measures the United States owes its freedom from cholera, typhus, and bubonic plague.

From 1880 to 1930 the general death rate in the United States dropped from 19.8 to 11.3 per 1,000, and there was a corresponding increase in the expectancy of life.

Our care of the sick has grown on ancient forms of magic, empiricism, and faith. The profession of medicine has built on these and has far transcended its early historical antecedents. Discovery after discovery has been brought into everyday use. The hospital has been given a new and indispensable place in human society. The trained nurse has become a fixture in our medical service. The possibility of widespread preventive programs is now generally recognized. Research on a multitude of subjects is going forward in universities, in clinics, in commercial organizations, and in the private offices of practitioners. The literature of medicine is copious and stimulating. Professional societies throughout the land devote a considerable part of their funds and even more of their time to the educational advancement of their own members. As a profession we have just cause for pride in our accomplishments.

NEED FOR WIDER DISTRIBUTION OF BENEFITS

Measured by what is possible, however, in the light of present medical knowledge and technology, much remains undone. "We know infinitely more than we do." Many of our people are untouched by the possibilities of preventive medicine. Some of them, we must admit, receive only second-rate care when ill and others are entirely without scientific care. In a recent survey, 35 per cent of the cases of illness, excluding colds and other minor digestive disturbances, were not seen by a physician. Untrained, ignorant, and superstitious midwives bring nearly 15 per cent of our future citizens into this world each year. Few of us enjoy the benefits of a complete annual physical examination. We have seen the tremendous growth in the number of dentists in our country and in the quality of the services which they render; yet from 80 to 90 per cent of school children on examination

by dentists are found to have carious teeth. Only one-third of the American people, if those in Vermont and in San Joaquin County, California, are representative samples, receive any dental attention whatsoever during a year. Physical defects which could be corrected nevertheless persist and lay their toll of inefficiency and discomfort on the people.

Nurses we have in such abundance that unemployment constitutes one of their major problems; yet there are many people who need skilled or semiskilled nursing who cannot afford to purchase it. In rural districts there is still a paucity of hospitals and, increasingly, a lack of physicians' services immediately available. (Of course the extension of good roads and telephones has an important bearing on this last problem.) Some of our doctors are working today with the education given them thirty years ago. They are antiques that need repolishing. Our facilities for postgraduate work are still inadequate. In view of the opportunities we possess for developing the highest type of postgraduate instruction, our present offerings seem feeble indeed. Even if they were adequate, however, we should have to find a method whereby the doctor could leave his practice for one to six months and, on his return, find it still waiting for him.

Because medicine is so highly individualized it is, from the point of view of society, wasteful. Patients frequently spend much time going from one physician's office to another before they receive the necessary examinations or treatments. This is especially true if the disorder is obscure and difficult to diagnose. Sometimes the advice of different specialists conflicts and the patient doesn't realize that his greatest need is for a sane, well-trained general practitioner. Frequently examinations are repeated within a brief time. Over a period of years various physicians may have extensive records of a particular patient, records which duplicate each

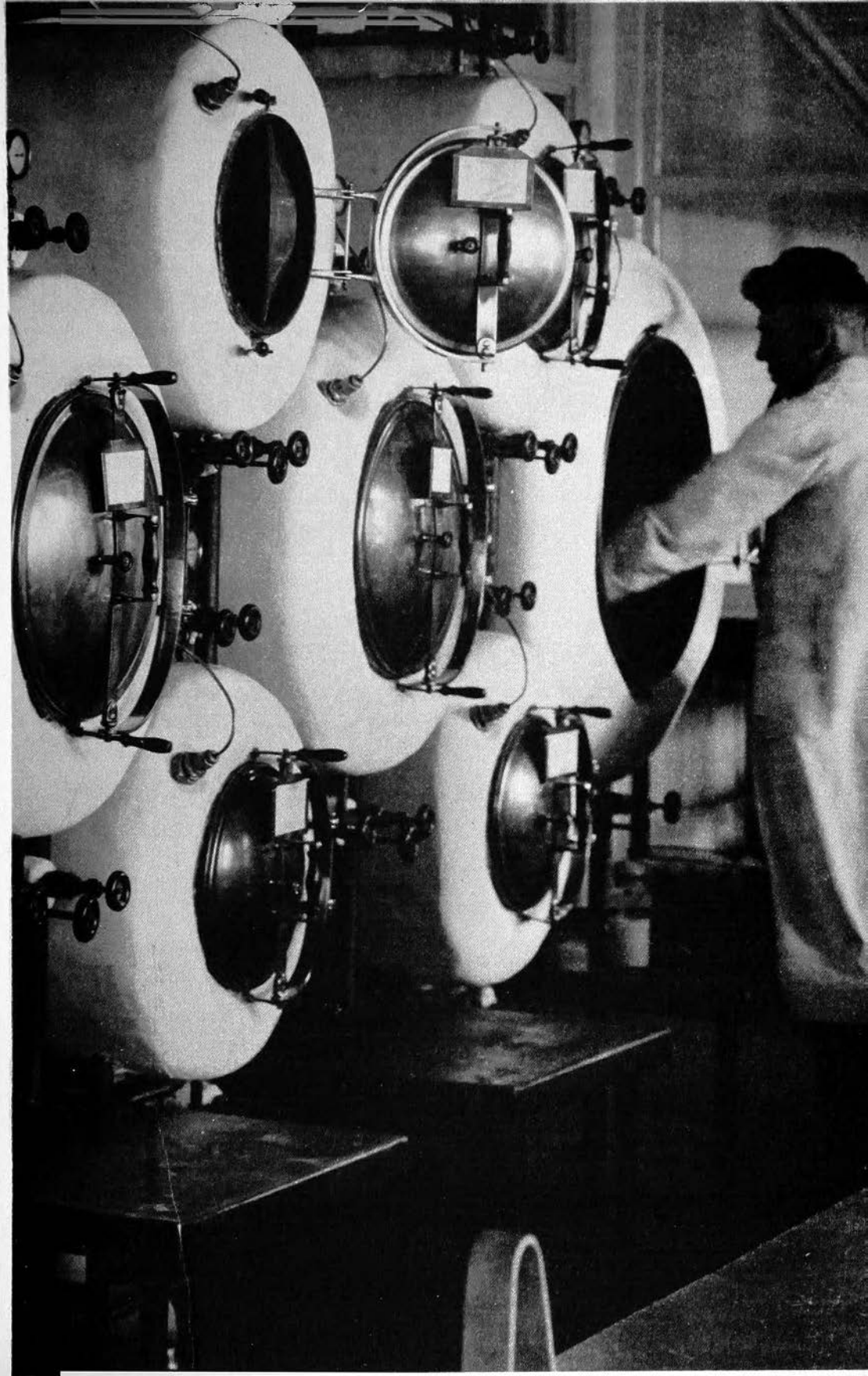
other in part but none of which is complete. Sometimes, although there may be several physicians engaged on a single case, instruction regarding minor but important details are not given to the patient.

The evidence is conclusive that our people do not yet receive all of the benefits that they could from modern medicine. For the rich and the near-rich there is no real problem since they can command the very best that science has to offer. The indigent and the near-indigent are usually, although by no means universally, given a good grade of service by their local governments. Among the majority of the population, however, there are great islands of untreated or partially treated cases—patients who receive a larger or smaller part of the benefits of present-day skill but who cannot partake fully of the feast before their eyes. Although it is a principle of far-reaching and, perhaps, of revolutionary significance, I think there are few who would deny that our ultimate objective should be to make these benefits available in full measure to all of the people. We reach in that direction today, but we still fall short.

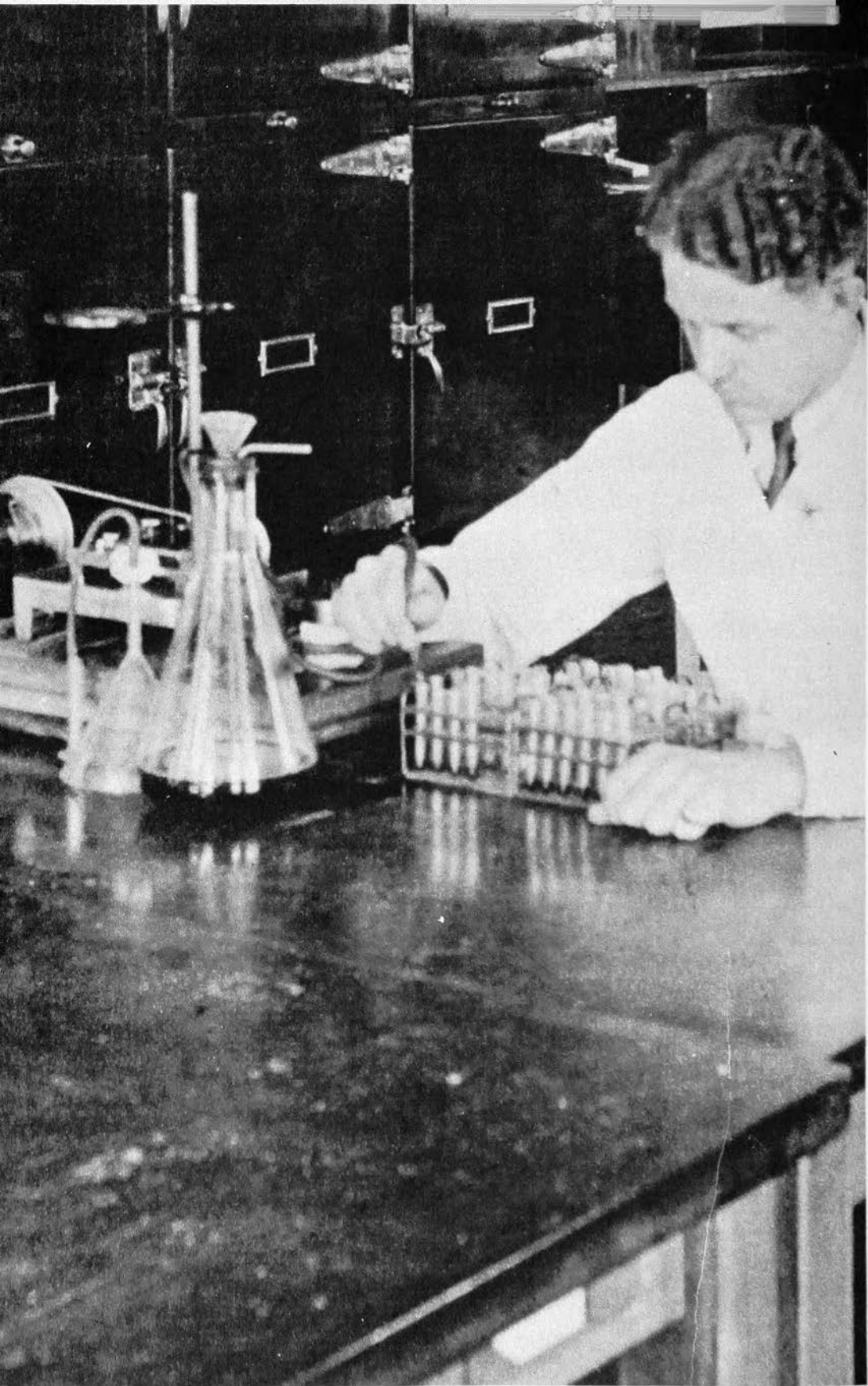
THE PAYMENT OF MEDICAL COSTS

The second aspect of the problem is the payment for medical service. Obviously the provision of service and the payment for it are interrelated. But for convenience of discussion we can profitably separate them. Some data recently made available indicate, in part at least, the nature of the problem from the patient's point of view.

Among 4,560 families who kept records of their total medical charges during a year, we found a wide range of charges per family. There were 1,788 of these families whose total annual incomes for the year were under \$2,000 per family. Forty per cent of these low income families incurred medical



A battery of autoclaves in the New York State Laboratory



*A serological laboratory in the
New York State Laboratories*

costs for the entire family of less than \$25 for the year, 20 per cent had charges from \$25 to \$50, 21 per cent from \$50 to \$100, 14 per cent \$100 to \$250, 4 per cent \$250 to \$500, 1 per cent \$500 to \$1,000, and 0.2 of 1 per cent \$1,000 to \$2,500. Eighty-one per cent of this group had bills of less than \$100 for the year and, we may assume, could pay their medical charges without serious hardship, but the remaining 19 per cent must impair their living standards, draw on savings, or borrow money if they are to meet their expenses. The 81 per cent paid only 36 per cent of the total bill of the entire group, while the 19 per cent were faced with 64 per cent of the amount, making the average per family eight times as high in the latter group. Among the higher income groups, the situation is roughly similar. In any particular year most families have moderate medical expenses in view of their total incomes, while a few families, perhaps 20 per cent of the total, are taxed beyond their means. Next year, fortunately, a somewhat different group of families will constitute the 20 per cent.

The essential fact is that medical charges fall with great unevenness on different families during any given year and on the same family during the course of several years.

SIZE OF PROFESSIONAL INCOMES

No well-informed student of medical economics believes for a moment that the patient's difficulty in paying medical costs is primarily or basically due to excessive fees on the part of physicians and other practitioners. There are a few "gougers" in medicine, of course, just as there are in all walks of life, but any impartial analysis of the incomes of physicians leads to the conclusion that in view of the time devoted to training and education, and the responsibilities assumed, there is no general overpayment of practitioners.

Let me give you a few facts about professional incomes. The seventy-nine practicing physicians in San Joaquin County, California, had a median net income in 1929 of \$5,500; in Philadelphia 245 representative physicians reported net incomes for 1928 for which the median was \$4,200; 137 Vermont practitioners reported net incomes for 1929 with a median of \$3,400; and thirty physicians in Shelby County, Indiana, had a median income in 1928 of \$3,100. Some unpublished data regarding physicians south of the Mason-Dixon line indicate that conditions in certain large areas of the South are such that large numbers of physicians in 1930 received net incomes of less than \$1,000. On the average the general practitioners reporting have net incomes about half as large as the specialists. Dentists in twenty states reported median net incomes for 1929 of \$4,000.

Most of these figures are for 1928 or 1929. In 1930 physicians' incomes fell off appreciably, and last year and this year the situation is doubtless even worse. In fact, one of the most significant aspects of the practice of medicine in the United States is the financial precariousness and insecurity of the major practitioners concerned.

WHY IS PAYMENT A PROBLEM?

It is obvious that we cannot assume that the payment problem arises primarily because physicians receive incomes that are too large. Its roots go deeper than that. It rests on two principal bases: first, the physiological nature of the human structure, and the resulting uncertainty, so far as the individual is concerned, of the time, and the place, and the nature of the illness or illnesses which will affect him; and second, the uneven distribution of wealth in the United States and the apparent inability of a considerable number of people to do more than meet their current expenses. We

feel reasonably confident when we say with Hermann Biggs, "Public health is purchasable." Our experience has been that if we perform certain tasks faithfully and conscientiously our mortality and morbidity rates will fall. But to the *individual*, we must be much more guarded in our promises. We may assure him that he can avoid diphtheria and smallpox and probably typhoid fever and certain other diseases. We can point out the benefits of sane, wise living, of reasonable exercise, of adequate rest, and of proper diet. We can suggest an annual physical examination. Yet, although the individual may faithfully follow our advice, we can not assure him that he will escape all expensive illness. For the *group* we can now predict with a fair degree of certainty the incidence, duration, and severity of the illnesses which they will have; for the *individual* definite prophecy is impossible.

In the light of this uncertainty it is easy to discern the psychological barrier to saving money in anticipation of an uncertain attack of illness which, if it comes, will cost an unpredictable amount. Even if a family does save, it has no way of assuring itself that the saving will be adequate.

But the uncertainty and the resulting adverse psychology are not the only obstacles. We must also face the fact that we distribute the fruits of our economic harvest in such a way that numerically important sections of our people have little surplus after paying even minimal amounts for food, clothing, and shelter. In 1926, according to a careful estimate, 32 per cent of the families here in New York received annual incomes of less than \$2,000 per family and 48 per cent received less than \$2,500 per family. In a large majority of cases this income represents the earnings of more than one member of the family. Most of these people can pay something for medical service and, if fully employed, they are able to pay their medical expenses during times of normally

good health. But a serious illness involving hospitalization and special nursing as well as the services of one or more physicians quickly bankrupts them.

Paradoxically enough the problem has been sharpened by the very advances in medicine on which we pride ourselves. As automobiles have improved in quality, they have been more widely sold, and, as a result, have decreased in cost. But the greatest danger an economist runs in probing the economics of medicine is that he will expect to apply the automobile techniques and criteria and will not realize the deep significance of the difference between a personal, professional service and an impersonal, manufacturing or commercial process. In medicine as our methods of measurement, of observations, and of treatment have grown in objectivity and precision, they have of necessity in many cases become more, rather than less, costly. The saddle-bag day of medicine has passed and the new era has brought us new problems. We cannot disregard modern methods. Although we all realize that complicated laboratory equipment is no substitute for the careful, thorough attention of a skilled mind, we also realize that if we are to practice medicine scientifically, if we are to do our best for each patient, we must have available many expensive tools and must utilize many procedures that were unknown to our grandfathers. Good medicine today has to be more costly than the good medicine of even twenty-five years ago.

HOW SHALL WE PAY?

Granted that good medicine is costly, I don't see how we can avoid paying the price. If we organize our talent for producing medical services economically and efficiently, a task well within the scope of America's peculiar genius, if we give thought to our navigating problems and plan our

course to take fullest advantage of the wind, the waves, and the strength and speed of our ship, we shall undoubtedly find that the cost is not too great for our present society. For inadequate medical services, produced with all the wastes inherent in individualized practice, we now pay about \$30 per capita annually. With organized, coordinated effort we should be able to provide ample medical services of good quality to all the people and with proper remuneration to the professional personnel for a cost of somewhere between \$20 and \$50 per capita per year. (I am purposely leaving a wide latitude in this figure. At the present time I don't pretend to know or particularly care what the precise figure is. The Committee on the Costs of Medical Care is carrying on some studies of organized medical services in industrial, university, and military groups which will enable us to make very close estimates under various given conditions.)

Whatever the figure may be, the real nub of the economic problem is to determine whether the cost of good comprehensive medical care is within the reach of our people. If all but the indigent can pay the price, we merely face the technical task of devising suitable methods of collecting the charges. Undoubtedly in cooperation with our industrial, fraternal, insurance, church, trade union, school, agricultural, or other existing organizations we can find or devise inexpensive and efficient collection methods. That is a problem for the technician.

On the other hand, if we find that there are substantial groups of our people who, though not indigent, nevertheless have so little surplus over the bare essentials of life that they cannot reasonably be expected to pay the cost of decent medical service, economically provided, we face a different and somewhat more vexing problem. Our sympathy, our sense of "fair play," and our desire for self-protection and

self-preservation all unite in demanding that we reject emphatically any suggestion that these people should be given an inferior service—a service that we cannot label “good in quality and reasonably adequate in quantity.” If we expect charity to meet the cost, we are faced with the fact that charity, when obviously labeled as such, is distasteful to self-respecting people and is too erratic and inadequate to meet such a large national problem. May we, in such cases, turn to the local and, perhaps the state government, and expect that it will meet a sufficient share of the cost to bring the charge to individual families within their reach? May we expect that local officials will agree that the protection of the people’s health is as important, although not as costly, a social responsibility as the education of their minds? May we assume that methods can be worked out that will enable the local government to help carry the financial burden without placing the *morte main* of official red tape or politics on scientific progress and skilled service?

WHITHER ARE WE MOVING?

Today there are many trends in medical practice some of which move along the lines we have been suggesting. All of them indicate attempts of one kind or another to surmount some of the difficulties in present-day medical economics. In the first place, medicine is increasingly being regarded as a cooperative enterprise. The Lindbergh type of practice is inevitably yielding to the Admiral Byrd type. More and more, physicians are practicing in hospitals, where they not only have better facilities than they could provide as individuals, but where they have a constant contact with professional colleagues. Clinics and dispensaries have increased prodigiously and the practice of medicine is affected by their extension. Most of them are organized as charitable

or semicharitable institutions and restrict their clientele in one way or another. The advantages of group association, however, are so patent that private group clinics are developing independent of any charitable tradition. A few of these private group clinics, moreover, are actually located in hospitals, and most of them are closely connected with one or more hospitals. In the larger cities physicians and dentists are concentrating their offices in particular buildings, so that they can more effectively work together.

There is manifest an increasing public feeling that the health of the community is a major concern of local and state governments. In addition to the traditional services in connection with sanitation, communicable disease control, and vital statistics, departments of public health (in cooperation frequently with departments of education) are supervising the health of school children, even, if necessary, to the extent of correcting their physical defects, are operating maternal and infant welfare clinics, are providing tuberculosis clinics, sanatoria and preventoria, are offering laboratory services to private physicians, are giving dental treatment, particularly to children, and are treating cases of venereal disease and cancer. At least one health department is considering seriously the necessity of assuming a larger responsibility for the care of chronic cases of all kinds, especially those like arthritis which are expensive to treat. Others are supplementing and strengthening the services provided for the indigent. Some municipalities have built general hospitals to which they admit the nonindigent as well as the indigent.

Universities, standing as they do *in loco parentis*, have in many instances provided systematically for the health of their students. There has been a substantial growth of such work since the war, and on January 1, 1931, there were 153 colleges or universities with organized, student health services.

The industries of America are evincing a decided interest in the health of their employees. In Philadelphia, in 1929, at least three-quarters of a million dollars was spent by 102 industrial plants in carrying on various kinds of health work for their employees. A large part of this work consisted of examinations of applicants for positions or periodical examinations for placement or transfer. Most of the plants had only part-time service, and some of them only first-aid workers. In a large majority of these Philadelphia plants the medical service is given only in the plant itself. Some industries, however, are providing medical service that goes far beyond the simple examination of employees and treatment of accidents. At the Endicott Johnson plant in New York State a fairly well-rounded service, including medicine, dentistry, nursing, hospitalization, and the provision of drugs, is provided to the 15,000 workers and their families. No charge is made to the employees for this service, and in 1928 it cost the company \$25 per capita for those persons in families that used the service. In the railroad, mining, and lumbering industries, particularly in the South and Far West, the old company doctor has frequently given way to an organized, coordinated medical service which is rendered to employees at a monthly charge. In some instances, the employee's dependents are eligible.

The provision of medical care on a monthly fee or contract basis has been offered by a number of private group clinics. One clinic in Los Angeles has contracted with several employee groups (totaling about 7,500 families) to provide practically complete medical service for \$2.00 per person per month. With the exception of dentistry and home nursing, practically all medical services are included.

The Baylor University Hospital in Dallas, Texas, is selling a form of hospital insurance to school teachers and other

groups for approximately 50 cents a month. In Grinnell, Iowa, the local hospital offers hospital insurance for \$8.00 per year. In Vermont, the Brattleboro Mutual Aid Association offers two types of insurance to citizens of that community. Insured patients needing hospital surgery pay the first \$30.00 of their expenses and then are reimbursed for all expenses including the surgeon's fee thereafter up to a maximum of \$300. Patients needing nursing service obtain it at one-third or one-half of the usual fee.

It would be easy to multiply instances of outstanding experiments. These are just a few samples. The important thing is to realize that a tremendous ferment is working in our medical system. Both doctors and laymen are reaching out in various directions to find methods of leveling the cost of medical service and of providing a better quality of care than has previously been available. Where this evolution will take us, we know not. That it contains dangerous as well as hopeful possibilities is apparent.

CONCLUSION

In summary then I think we can agree that our present methods of providing and paying for medical service are unsatisfactory on four different grounds: First and most important, all the people do not obtain all the care which they really need, either quantitatively or qualitatively. Second, the cost is unevenly distributed among the people, causing hardship to some while others pay little or nothing, and this unevenness is of such a character that families of moderate means or of low incomes cannot fully overcome its effects merely by individual family budgeting. Third, the incomes of practitioners are frequently so uncertain, irregular, and low as to constitute a grave problem—a problem with social well as individual consequences. Finally, our present

methods of providing and paying for medical service are, from the social point of view, wasteful and uneconomic.

For four years the Committee on the Costs of Medical Care has been working to analyze these problems, to define their magnitude, and to search for constructive and practicable suggestions for improvement. Next fall we expect to present to you a final report with our recommendations.

When our report is published, our staff discharged, and our Committee disbanded, the responsibility will fall on other shoulders. The Committee can, after all, only blaze a trail. Whether the five years' intensive labor and the million dollars which it has cost are actually to stimulate a better provision of medical service in the United States depends upon the degree to which the professions and the public are willing to assume their responsibilities. No edict from Washington will ever settle these problems. They will only be settled when and to the degree that physicians, dentists, public health officers, educators, industrialists, labor leaders, civic workers, hospital trustees and executives, and other persons in positions of authority and influence understand and accept their own individual responsibilities.

The present temper of our people favors social experimentation and adventure. The lure of the untried is strong. If we can capitalize this attitude, if we can give honest and intelligent leadership to the forces of social discontent, if we can act with courage and vigor at the right moment, we will, I am convinced, be able to inaugurate various improved methods of providing medical care to the American people. We neither desire nor expect a mushroom growth but we do wish to make available as rapidly as possible more adequate medical service to a larger number of our people. No other course of action holds greater promise of enriching American life and benefiting every phase of our national welfare.