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The British National Health Service

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This paper is an attempt to present a factual account of the British National Health Service, based upon study of the National Health Service Act, 1946,¹ the regulations made under authority of the act, administrative directives and other official documents, publications of the British Medical Association and newspaper reports, and upon observations made in England during the period immediately preceding the coming into operation of the act. No attempt is made to pass judgment on either the desirability or feasibility of the program, or to appraise its operation; the latter would require observation at some future date when the adjustments of the transitional period are completed.

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Scope and Background

The National Health Service came into operation in Great Britain on the "appointed day",² July 5, 1948. The public learned in a

¹ The National Health Service (Scotland) Act, 1947, enacted by Parliament somewhat later but coming into effect on the same date as the English Act, provides the statutory basis for a similar health service in Scotland. This paper deals with the health service for England and Wales; the relatively few points of difference of the Scottish Act do not warrant special discussion in a paper of this scope.

² This term is used in the act to denote the day on which the act was to come into operation. The date was not specified in the act but was fixed by an Order in Council.

leaflet (1) distributed to every household during April, that the Service

“will provide you with all medical, dental, and nursing care. Everyone—rich or poor, man, woman or child—can use it or any part of it. There are no charges, except for a few special items. There are no insurance qualifications. But it is not a ‘charity.’ You are all paying for it, mainly as taxpayers, and it will relieve your money worries in times of illness.”

Looked at in more detail from the patient’s viewpoint, what does the new service offer?

General Practitioner Care

For more than half of the adult population the method of obtaining family doctor services remains virtually unchanged. Since 1912 nearly all employed adults have been covered under National Health Insurance for this portion of their medical care. The arrangements are very simple for the consumer: He selects a doctor from the local list of those who have agreed to participate, fills out an application form and gives it to the doctor chosen. From then on he is eligible to receive general practitioner care from that doctor, or from any other participating doctor in an emergency or when away from home. He may change to another doctor by giving written notice. He visits or is visited by his general practitioner for all general care required, but pays no fees. A major change from National Health Insurance is the fact that all persons—not merely employed adults—are now eligible. All members of a family do not necessarily select the same doctor, although children under 16 have theirs chosen by their parents.

Hospital and Specialist Care

Hospital and specialist care were not included at all under National Health Insurance. Hospital care was available to persons of low and moderate income through a variety of channels. Many persons in the lower income groups voluntarily subscribed to the local contributory plans, somewhat like Blue Cross in the United States, paying a few pence a week to be eligible for ward care without charge in a voluntary hospital. In recent years counties and some municipalities have had public hospitals at which the charges made to local residents were in proportion to their ability to pay, but never exceeded actual cost. The quality of such municipal hospital care available varied in different localities. Higher income groups have customarily been served by private “nursing homes” usually operated on a profit-making basis and seldom as well equipped as the larger voluntary and municipal hospitals.

In the years before the war, groups of private rooms were added to some voluntary hospitals, so that the specialist staff would have

accommodation for their private pay patients in the institution where they did their "charity" work. The private rooms will continue to be available for patients who wish to pay for their care privately, and private nursing homes may still operate entirely outside the public service. Everyone, however, is entitled to hospital care without charge, and it is certain that only a relatively small fraction of the population will elect to pay for private care. The portion of the public most conscious of the change, perhaps, is the middle-class group which has been ineligible for free care in voluntary hospitals but has found the cost even in municipal hospitals very burdensome.

Except for the private consulting practice serving the upper income groups, specialist care in England has been rendered chiefly through hospital in- and out-patient service. Now that specialists are paid from public funds, it is expected that specialist care will be available to many persons who have not had access to it in the past. Arrangements for specialist and hospital care are made by the general practitioner when he deems such care necessary.

Drugs and Appliances

Prescription drugs are furnished without charge as a part of the general practitioner service. Eyeglasses and necessary appliances such as hearing aids and artificial limbs are provided also, through appropriate medical channels.

Preventive and Special Services

Preventive public health services continue in the new service to be provided by local health departments, although the patient may now ask for some of these personal services from his family doctor. Local health departments may furnish certain services and equipment required because of illness in the family. Domestic help may be provided—at cost if the family can afford to pay for it—and special sick-room equipment needed for home care supplied. Nursing in the home is now furnished without charge, to an extent limited by available staff. This service in the past has been provided chiefly by district nursing associations, and paid for by voluntary contributions plus a nominal charge for services rendered. Large numbers of people have contributed on a regular weekly basis to the district nursing associations; these contributions are no longer necessary for eligibility for free service. Ambulance and other transportation necessitated by illness is also included.

Dental Care

Dental care is mentioned in the quotation above. In relation to population, dentists are even scarcer in England than in the United States. A person seeking dental care must find a dentist willing to under-

take the required work, and the dentist's fee is paid from public funds at no cost to the patient unless he elects to have more expensive types of fillings or dentures than are required on clinical grounds.

Background

Review of the background of the National Health Service indicates that it is not nearly so great an innovation for Britain as would a similar plan be in the United States. National Health Insurance has been in operation since 1912, and although at its inception it was viewed with suspicion, especially by the medical profession, it has been accepted for many years by the public and by the profession as a great improvement on what preceded it. In 1930 the British Medical Association proposed extension of N. H. I. to cover dependents of insured persons and this proposal was repeated by the B. M. A. in 1938 (2). Legislative action, but not study of the problem, was prevented by the war, and in 1942 the Medical Planning Commission (appointed jointly by the B. M. A. and other medical organizations), recommended in its report a comprehensive health service (3). The Churchill coalition government published in 1944 a White Paper in which it proposed that

“the care of personal health should be put on a new footing and be made available to everybody as a publicly sponsored service” (4).

During the same year the coalition government issued a White Paper on social insurance in which a broad program designed to implement the well known Beveridge plan was proposed. Thus the National Health Service Act and the National Insurance Act, which came into operation simultaneously, represent reforms which were generally accepted as desirable. The details of the legislation passed by the labour Parliament differed at many points from the White Paper proposals, but the general principle of a comprehensive health service was not challenged by any political party or by the B. M. A.

After passage of the National Health Service Act in November 1946, vigorous opposition was voiced by the B. M. A. to certain provisions of the act and of the regulations which the Minister of Health proposed. Four major points were at issue, three of which were largely resolved by compromise by the end of May 1948, when the representative body of the B. M. A. met and gave approval to participation in the service (5). These points were: (1) Payment of a “basic salary” of £300 to all general practitioners, specified in the regulations. The B. M. A. feared that this would be but a first step toward a fully salaried service. The regulations were amended to allow the annual £300 payment only to practitioners requesting and giving justification for it, and an agreement was reached to amend the act to prohibit introduction of a salaried service by regulation. (2) Power of

the Medical Practices Committee to prevent a doctor's locating in the area of his choice, a power which will remain, but will be administratively limited to a few "overdoctored" areas. (3) Prohibition of sale and purchase of medical practices. Many doctors favored this provision of the act, but it was feared that its application would result in limiting freedom to choose partners, assistants, and successors. The government gave assurance that these limitations would not be imposed. (4) Right of a practitioner to appeal to the courts against dismissal from the service by the Tribunal; no concession was made on this point.

When the Health Service came into operation, a large majority of the medical profession had agreed to participate, and the government in consultation with the B. M. A. was drafting a bill to effectuate the compromises which had been reached and to clarify portions of the act on which questions of interpretation had been raised.

Professions and Institutions

General Practitioners

The new service will greatly decrease the amount of private fee-earning work, but will increase payments to doctors from public funds. The general effect will be to decrease the variation in, but by no means equalize, general practitioners' incomes, because the doctor receives his pay, as under National Health Insurance, on a capitation basis—that is, a fixed amount per quarter per person on his list. The extent to which the individual doctor will feel the change will depend on his type of practice. In industrial areas, the private patients a doctor will lose will be mostly dependents of wage earners, who were able to pay little in the past. In return, he will gain payment on behalf of these patients from public funds. In wealthier neighborhoods, some doctors will find that their loss of private fees is not fully replaced by income from the public service.

Quantitative evaluation of the change to be expected in general practitioners' incomes is complex and difficult. The expressed aim of the government is to implement, by the scheme of payments, the recommendations of the Spens Committee (6) which have been accepted by the British Medical Association. These recommendations would increase substantially the income of most general practitioners.

The act may have an important influence on general practice by abolishing the custom of buying and selling practices. The prevalence of this custom in Britain has been closely related to the existence of N. H. I.; when an insurance practice changed hands, the patients on the retiring doctor's list automatically became patients on the new

doctor's list. Although the transferred patients were notified of the change, and were permitted to transfer to any other doctor, very few actually transferred. Thus a doctor purchasing a practice with a substantial number of insured patients was virtually assured of an immediate income corresponding to that number of capitation fees.

The cash purchase of practices meant that the young doctor entering general practice had to make a substantial capital investment to procure a practice. On the other hand, the elderly doctor counted on selling his practice on retirement (or having his widow sell it, if he died before retiring) to provide him (or his widow) with a cash retirement fund. The statutory prohibition of sale of practices will relieve young practitioners of the need for capital, and a universal pension scheme will protect the retiring doctor. In addition, the law provides cash compensation, payable on death or retirement, to all doctors enrolled in the program at its inception on July 5, for loss of the right to sell their practices.

Doctors are concerned not only with remuneration. There is also fear that free service will increase the practitioner's patient load, perhaps to an extent not consistent with a good standard of medical care. Since many doctors were overworked before July 5, this fear is not without foundation. But there is another view of this hazard—to quote the *Lancet*, the doctor can now

“allocate his efforts more according to medical priority. The money barrier has of course protected him against people who do not really require help, but it has also separated him from people who really do: and only time can show the relative proportions of the two classes”(?).

What will be the effect on a doctor's freedom to practice where and as he chooses? Doctors in practice on the appointed day have a statutory right to continue where they are. Those entering practice for the first time, or changing their location after the appointed day do so subject to the approval of the Medical Practices Committee, seven of whose nine members are medical. Only if the number of practitioners in an area is already adequate, however, may the Committee refuse to admit a doctor to that area. Since at present very few areas in England are “overdoctored,” it is expected that this power of “negative direction” will only rarely be exercised. Usually doctors will move to fill vacancies caused by death or retirement, just as they have done in the past.

Partnership arrangements have been very common in British practice. The government has given assurance that doctors will be free to choose their partners and assistants as in the past.

The proposal under the new act to build “health centers” at public expense to furnish office accommodation and ancillary help for groups of practitioners and for public health activities has been looked upon

with general favor. However, because priority for building materials and labor is being given to dwellings, only a few experimental health centers can be constructed during the next several years.

The majority of general practitioners have been familiar with insurance practice and its professional and administrative routines during all or most of their years in practice. Under N. H. I. they have dealt administratively with the local "Insurance Committee," which has now been replaced by a body known as the Executive Council. This local council has a much larger representation of the professions concerned than did its predecessor. The old insurance committees, which had from 20 to 40 members, had as few as four medical members, and no dentists or pharmacists, whereas the new executive councils, with 25 members each, must have at least 7 medical, 3 dental, and 2 pharmacist members. Much of the work of the executive council, such as maintenance of lists of doctors and patients, making payments to doctors, etc., will be very similar to that of the insurance committees. Most of the former officials of the insurance committees are now employed by the executive council of the corresponding area, so that practitioners will usually deal with the same individuals in the administration of the new service.

The terms of service to which participating general practitioners must subscribe, the method of payment, and arrangements for handling complaints and discipline are virtually unchanged from the old system, so that doctors who have had insurance patients in the past will find little that is unfamiliar in administrative procedures. Perhaps the most fundamental difference is that there will now be little medical work outside the public service; thus a doctor who does not wish to participate may find difficulty in making a living unless he is exceptionally well established. In these circumstances it is very important that the doctors have a strong professional organization with long experience in negotiating with the government, and that they are well represented in the various administrative and advisory bodies concerned with the health service.

Hospitals

Consideration of the effect of the act on hospitals requires a brief description of the hospital system before the appointed day. Hospitals were divided into three main categories—"voluntary," local government, and private—on the basis of their sources of financial support. Voluntary hospitals, organized on a nonprofit basis, were originally supported chiefly by large endowments and bequests, but in more recent years have relied heavily on the voluntary contributory plans referred to above, as well as on annual fund-raising drives. It should be emphasized that the voluntary hospitals in England have not

generally received nearly as large a proportion of their funds from payments by patients as do American hospitals. In most instances they have offered only ward service, and have not been able to charge private patients enough to help pay for the care of nonpaying patients. Although during the war they received substantial government help through payment of costs for care of many patients under the Emergency Medical Service, falling investment income as well as increased operating costs have brought these hospitals to increasingly difficult financial straits.

The voluntary hospitals were administered by self-perpetuating boards of trustees or governors, serving without pay, while day-to-day operations were in the hands of a paid superintendent, usually a layman. Professional services to patients were provided generally by specialists serving on a part-time voluntary basis, with a staff of house officers assisting in the care of patients in the course of their internship and residency training.

Undergraduate medical teaching was carried out mostly in the large urban hospitals, many of which had their own medical schools, usually associated with a university. The University of London has several hospital medical schools associated with it, as well as numerous special hospitals which teach special clinical subjects but do not themselves contain medical schools. Graduate medical teaching is similar to that in the United States, through house appointments corresponding to internships and residencies.

Hospitals operated by local governmental units (referred to in England as local authority or municipal hospitals) were expanding rapidly when new construction was stopped by the war in 1939. These institutions included general hospitals, especially in the larger cities and counties, and special hospitals for maternity, infectious diseases, tuberculosis, mental disease, and the "chronic sick." These hospitals were financed from "rates" (local taxes), since payments by patients, at charges varying from actual cost to nothing, never met full operating costs. These institutions were managed by the public health or public assistance committee of the local government council (or by a subcommittee of the council's public health committee). The larger hospitals commonly had a medical superintendent, and mental hospitals were required by law to have one.

The mental and tuberculosis hospitals operated by local authorities were generally staffed by full-time salaried doctors. A few of the general hospitals in this category were similarly staffed, but the prevailing arrangement was employment of senior staff on a part-time basis, with full-time resident house staff.

The third type of hospital was the "nursing home," operated for profit by a private individual, partnership, or corporation. These homes furnished most of the private-room care in British institutions,

although in recent years there had been a tendency to increase private accommodations in some voluntary hospitals. Specialists caring for ward patients in voluntary hospitals usually had to take their private patients to nursing homes for surgery or other treatment requiring hospitalization.

Church hospitals played a very minor role in England, as compared with the United States. Most of them were more like nursing homes than community hospitals.

The term "cottage hospital" needs a word of explanation. Cottage hospitals are those in which patients are under the charge of general practitioners rather than specialists, although the latter may, of course, be called in consultation. These hospitals are usually small, and tend to be located in the smaller towns.

All voluntary and local authority hospitals became the property of the central government on the appointed day. The first effect of this change in ownership was to relieve the voluntary hospitals of a burden of increasing deficit which could not have been borne much longer. The local authority hospitals were of course already dependent to a large extent on public funds, but the deficits of many voluntary hospitals were so serious that the government in effect had to advance funds to keep the hospitals in operation even before the appointed day. One of the major problems of administration of the voluntary hospitals—fund-raising—has thus been eliminated. This activity required a large amount of effort on the part of the boards of trustees and the administrative staffs of hospitals. In addition, the hospital contributory schemes, some of which were operated directly by hospitals, others as independent organizations in contract with hospitals, are no longer needed as a source of hospital revenue. Some of them will no doubt continue to offer insurance contracts to pay for supplementary cash benefits or for private beds in hospitals and nursing homes.

Another important change is the removal of eligibility requirements for admission to specific hospitals. In the past, voluntary hospitals admitted chiefly persons of low income. The local authority hospitals, on the other hand, limited admissions strictly to the residents of their city or county areas, with unfortunate results in some instances. For example, in the county area surrounding a large city, patients have been transported to a distant county hospital because they were ineligible for admission to the good hospitals of the nearby city. Eligibility is now unrestricted, and admission will depend on medical necessity and the suitability of a given hospital for care of the particular patient.

The introduction of the new service will undoubtedly increase the work load of hospitals. Persons who have postponed elective surgery, for example, because of its cost, are now eligible for surgical care free of charge. Moreover, some general practitioners, no longer having

a direct financial interest in continued treatment of their patients, may tend to refer them more freely to hospitals for out-patient specialist care or in-patient study and treatment. The most critical problem of overload is feared in the care of the chronic sick, since institutions for this type of case were already full before the appointed day, and there will now be much pressure for admission of patients cared for under difficulties in the home.

The problem of overloaded hospitals is the more serious because of the very small amount of new hospital building which can be undertaken in the near future, and critical shortage of staff, especially nurses. Because of these staff shortages many hospital beds were out of operation before the appointed day.

Although the increased pressure for hospitalization will create many problems for hospital administrators and professional staff, the service will introduce other factors which may result in more effective utilization of the admittedly limited facilities. With removal of financial barriers and geographical eligibility requirements it should be possible to admit patients to hospitals on the basis of medical need, thus increasing the usefulness of hospitals. Planning on a regional basis the part which each institution is to play in the whole scheme, if effectively done, can also increase efficiency in the use of beds and specialists. Greater mobility and transferability of staff will result from uniform pay scales and pension rights in all hospitals in the service, and some impetus may be given to recruitment of married and otherwise retired nurses.

Special provision is made in the act for the administration of teaching hospitals, as will be described below. Some of these hospitals will lose administrative identity through amalgamation with others, but little change in clinical or teaching functions is anticipated. It is hoped that closer working relationships will be developed between teaching and nonteaching hospitals to the benefit of both.

Specialists

Specialists, from the standpoint of the purely professional aspects of their work, will find little change under the new service. They will continue to do most of their work in hospitals and out-patient clinics, seeing patients referred by general practitioners. Some individuals may be asked to concentrate their work in a smaller number of hospitals than in the past, and some may be asked to visit hospitals which have not heretofore had adequate coverage. These efforts toward rationalizing the use of specialists will necessarily come gradually, as the needs become apparent to the boards and committees responsible for administration of the hospital and specialist service.

Financially, specialists will find many changes. Their pay from hospitals in the past has varied from the traditional free service to

substantial sessional or operative fees. A few municipal hospitals have been staffed with whole-time salaried specialists, but the commoner practice of municipal hospitals has been payment on a sessional basis. Voluntary hospitals have been slower to adopt any scheme of payment, although during the recent war the central government began paying specialists for services rendered to hospital patients under the Emergency Medical Service (for civilian casualties, evacuees, etc.). Under the new arrangements, all specialists will receive payment, in accordance with nationally negotiated scales of payment and terms of service, for the public work they undertake. The general scales of pay to be aimed at have been set forth in the report of another Spens Committee (8), but the details of payment to individuals are yet to be determined. In the meantime payment is being made on a simple interim arrangement, subject to retroactive adjustment when the negotiations are completed.

It seems likely that private work will decline to an extent which may mean net loss of income to many specialists. On the other hand, the median income of specialists will be increased, chiefly because of equalization of scales among the several specialties.

An important feature of the Spens Committee recommendation is that doctors undergoing hospital training for specialty work (corresponding to American residency appointments) will receive substantial salaries instead of the nominal stipends traditional in both this country and England. These salaries, in the opinion of the committee, will make it possible for able individuals without independent means to get full specialist training, and will justify scales of pay during later years somewhat lower than when great financial sacrifice had to be made during the years of training.

Dentists

It is more difficult to anticipate the effect of the new service on dental than on medical practitioners; whereas a large portion of the work done by the latter was under National Health Insurance, the dental benefits under N. H. I. were limited.

As in the case of general medical practitioners and specialists, the remuneration of dentists was investigated by a special committee which considered the levels of payment to be aimed at in a general dental service. The committee found that the earnings of most dentists during the prewar year studied (1938) were quite inadequate in relation to the training and professional status of dentists, and insufficient to produce enough recruits to the profession. It therefore recommended that scales of remuneration in the public service be set at levels which would result in substantial increases in most dentists' incomes. (9).

The act places no controls on the geographical distribution of

dentists, or on the sale of their practices, but it does require prior approval of certain types of work by the Dental Estimates Board. The dental organizations have expressed fears of interference with the clinical freedom of dentists, although they recognize that some controls are necessary to prevent possible abuses by a small minority of the profession.

In the past the patient loads and incomes of most dentists have been limited by the amount of money which people were willing and able to pay for dentistry. The N. H. S. will probably increase the work load of participating dentists to capacity, and in the long run should result in a larger number of dentists. With substantially augmented funds available for dental care, it is expected that recruitment to the profession will be stimulated, and the young dentist entering practice will have reasonable assurance of an adequate income without undue delay.

Administration

Central responsibility for the health service is placed by the act upon the Minister of Health. There are three main branches for administrative purposes, each with quite separate channels: the hospital and specialist services, under part II of the act; the local government health services, under part III; and the general medical, dental, and pharmaceutical services under part IV.

Central Advisory Body

The act sets up, as advisory to the Minister, a central health services council, with 41 members drawn from the medical, dental, nursing, midwifery, and pharmaceutical professions, and from persons with experience in hospital management, mental health services, and local government.³ The Minister is also empowered to create standing advisory committees to advise him and the council.

Hospital and Specialist Service

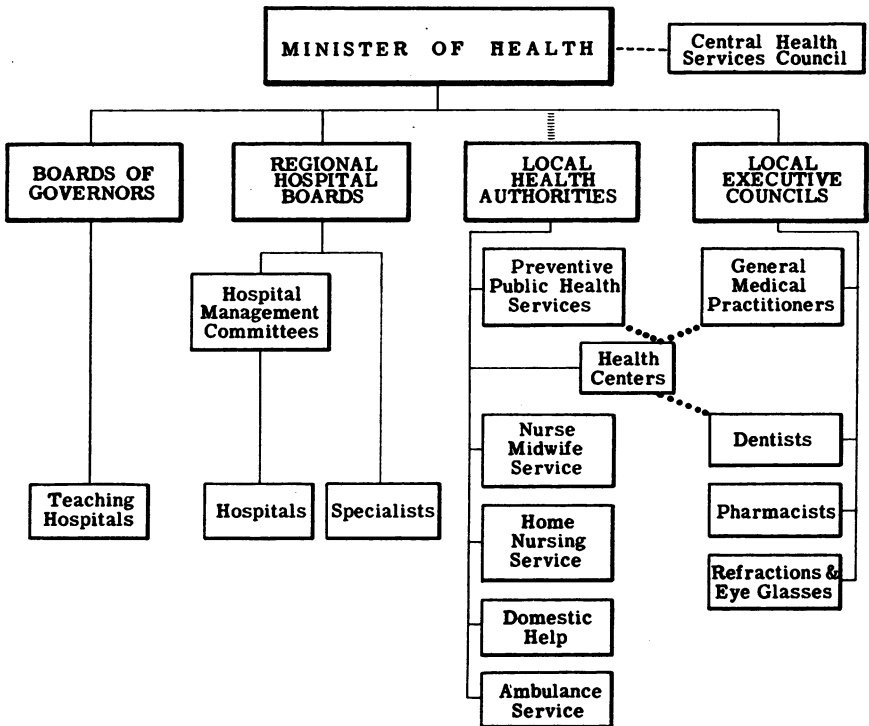
Under part II of the act, all voluntary (nonprofit) and public hospitals and their equipment became central government property on the appointed day, but their administration is decentralized. There are 14 regions, each containing a university medical school and following so far as possible natural hospitalization boundaries. The regions differ greatly in geographical area and vary in population from about 1½ to 4½ million.

Regional Hospital Boards—A regional hospital board, appointed by the Minister, administers the hospital and specialist services of each

³ The statutory requirements as to the membership of the council are given in the act, first schedule. The names and positions of the members initially appointed are given in the *Brit. Med. J.*, Aug. 14, 1948 p 350.

region. The board's primary function is to see that the facilities and services are planned on a regional basis, whereas the day-to-day detailed management of the hospitals is under hospital management committees appointed by the board. For example, the board is responsible for the senior specialist staff, which must be organized on a regional basis if the needs of one hospital are to be balanced against those of another. The local management committees are responsible

ADMINISTRATIVE RELATIONSHIPS in the National Health Service



NOTE.—This simplified administrative chart does not show all the advisory and administrative committees mentioned in the text. Note that the Central Health Services Council is advisory to the Minister, and that the local health authorities do not stand in the same administrative relationship to the Minister as do the other major administrative bodies. These authorities are administratively autonomous elected local government councils, but their programs for discharging their statutory duties under the act are subject to the approval of the Minister. Health centers are a direct responsibility of the local authorities so far as their construction and maintenance are concerned, but will be functionally closely related to the provision of personal health services, both preventive and therapeutic. It is not feasible to show on the chart the cross representation and overlapping of membership which exist between the various bodies and are intended to help coordinate their respective activities.

for appointment of resident medical staff, nurses, and other employees, for admission procedures, and for housekeeping and maintenance operations.

The regional hospital boards vary in size from 21 to 31 members, plus the chairman. The act required the Minister, before appointing the boards, to consult with the university having the medical school of the region, the medical profession, the voluntary hospitals, the local health authorities, and "such other organizations as appear to the Minister to be concerned." The various organizations were asked to name candidates for board membership, but these candidates might or might not be accepted. The members selected were appointed as individuals of knowledge and experience in the field of hospital work, and not as representatives of the particular bodies which proposed them. Board members serve voluntarily without pay.

As an example, one of the boards is constituted as follows:

It has 30 members in addition to the chairman. Seven members were, when appointed, chairmen or active members of voluntary hospital boards. Seven are chairmen or members of city or county council health committees, and are thus familiar with local public health work and municipal hospital services. Eight members are medical, including two consultant physicians, a surgeon, an obstetrician-gynecologist, a general practitioner, a mental hospital superintendent, a radiologist, and the dean of the medical school. The remaining eight members include a professor of dentistry, two mental hospital committee chairmen, a nursing school instructor, an industrialist, the top official of a county council, the chairman of a county nursing association, and a labor union official. The chairman of the board is a retired local government official with a distinguished record in both local government and voluntary hospital work. Four of the members, including one of the specialists, are women.

The work of the board requires a full-time paid staff. This staff is headed by a medical man and includes as a minimum a regional psychiatrist, one or more assistant medical officers, a secretary (often a man with legal training), a treasurer, and clerical personnel.

The boards appoint their own standing and special committees to study and report on policy problems requiring board action. Special professional advisory committees include specialists who are qualified to give advice on planning the various specialty services in the region and selecting the specialist staff. These advisory committees include many specialists who are not members of the board.

Specialist staff—Regulations prescribe the method of appointing specialists, both for new positions and for vacancies. For each appointment, an advisory appointments committee is constituted by the regional board consisting of seven members, of whom at least five must be professional. Two of the professional members must

be specialists in the field in which the appointment is to be made, and one of these must be in practice outside the region concerned. The hospital management committee (or committees) concerned nominate one lay and one professional member, and the university must also be consulted.

The vacancy must be advertised in two or more suitable journals, and from the applicants the advisory appointments committee selects the candidates considered suitable (if any) and submits their names, with appropriate comments, to the board. The board cannot appoint except from the list submitted by the committee, but either the committee or the board may reject all the applicants, and readvertise the position.

This procedure applies to both medical and dental specialist positions, full or part-time, whether clinical or laboratory, in the hospital service. It does not apply to junior staff (i. e., interns and residents) who are appointed by the hospital management committees. Nor did it apply to the initial appointments made on the appointed day when existing hospital staff became officers of the regional boards.

Hospital Management Committees—The hospital management committees are appointed by the boards, after consultation with the local professional and other groups concerned. Their size is variable, being generally between 15 and 20 members. In appointing these committees, the boards have drawn heavily on the membership of the governing bodies of voluntary and public hospitals, but the groups concerned with public health and general practitioner services are represented as well.

Like the boards, each management committee has its paid staff to carry out the detailed work of running its hospital or group of hospitals. This staff is, of course, much the same as the previously existing administrative staff of the same institutions. In some instances the chief officer of the committee is a medical administrator, but medical hospital administrators are less common in England than in the United States.

The number and size of hospitals grouped under the management of each committee vary greatly. The object is to group functionally related units so that they can be administered jointly as a general hospital. For example, two moderate sized general hospitals, a maternity home, a children's hospital, an isolation unit, and a tuberculosis sanatorium located in a single large town might be under one committee. Small general practitioner ("cottage") hospitals are usually included in groups containing larger specialist-staffed general hospitals. Mental hospitals are generally grouped together, or, as is often the case, an individual mental hospital is large enough to justify its own committee. A figure of 1,000 beds has been used as

a general guide to groupings, but wide deviations above and below this figure result from geographic and other special situations.

It is intended, by delegation of a high degree of autonomy to management committees, to decentralize effectively the day-to-day administration of the hospital service. An individual hospital may in some instances have its own subcommittees with functions relating to the special characteristics of the particular institution.

Scope of the hospital service—It is to be emphasized that this two-tier administrative structure has responsibility not merely for operating the physical and housekeeping aspects of general and special hospitals, but for providing the whole range of specialist services for ambulatory as well as bed patients. These services include such special items as the regional blood transfusion service, clinical laboratory and pathologic service, provision of hearing aids, artificial limbs, and other appliances, and clinical care (but not epidemiologic control) of tuberculosis and venereal diseases. To the extent that specialist consultations are medically required in patients' homes these must be furnished.

Teaching hospitals—In recognition of the special functions of university medical and dental teaching hospitals, the act places their administration under boards of governors rather than under the regional hospital boards. Each board of governors is responsible for a functionally associated group of hospitals designated by the Minister, after consultation with the university. The boards are appointed by and responsible directly to the Minister. Their membership varies from 20 to 30 persons, of whom one-fifth are nominated by the university, one-fifth by the regional hospital board, and one-fifth by the senior teaching staff. The remainder are appointed by the Minister after consultation with the other bodies concerned. With respect to its group of hospitals the board has the functions of both the regional board and the management committee. It must, of course, work closely with the regional board, since the teaching hospital, in addition to its teaching functions, is an important source of beds for the medical care of patients. The overlapping membership in the two bodies is important in this respect, and both, of course, are responsible to the Minister.

Special provision has been made for the endowments held by teaching hospitals before the appointed day. These funds were transferred to the respective boards of governors, thus remaining with the individual hospitals, in contrast to the provision for nonteaching hospitals whose endowments were transferred to a central pool to be subsequently distributed to the several regional boards and management committees.

The operating costs of the teaching hospitals are borne out of public funds, but the medical schools associated with them retain their sepa-

rate identity both legally and fiscally. The cost of teaching as such is therefore not charged to the Health Service, although a large portion of it has for many years come out of public funds through government grants to the universities.

Gifts—Regional boards, boards of governors, and management committees are permitted to accept gifts to be used for hospital purposes, including research. Such gifts do not reduce the public funds available to the hospital or group of hospitals but permit activities additional to those provided for in the public budget.

Mental health services—Before the new act, mental health services were almost entirely in the hands of the larger local authorities, which were responsible for operating mental hospitals and institutions for mental defectives, for certification of persons as insane or mentally defective, and for domiciliary supervision of such persons on leave from institutions. With the transfer of the hospitals to the Minister, the administration is divided between the regional boards and the local health authorities.

A very considerable degree of supervision and control over mental hospitals was exercised under the Lunacy and Mental Treatment and the Mental Deficiency Acts by a special agency of the central government known as the Board of Control. Extensive amendments were made in these acts by the National Health Service Act, and most of the functions of the Board of Control were transferred to the Minister of Health. At the national level responsibility for the mental health service now comes under one agency, although the Board of Control remains responsible for matters concerned with "the liberty of the subject," that is, admission and discharge and protection of the rights of persons committed to mental institutions.

Each regional hospital board has a mental health committee, responsible to the board for the discharge of its functions with respect to mental hospitals. At the local level, most mental hospitals have their own management committees. Thus it is quite possible for the traditional separation between mental and general hospitals to continue, although coordination is also possible if the board as a whole is interested in the mental service and if management committees of general and special hospitals have overlapping membership.

Professional care in mental hospitals will be virtually unchanged, since it was largely provided in the past by full- or part-time salaried staff. Regionalization may be expected to result in some economies in the use of highly specialized personnel. Out-patient clinics for psychiatric advice and treatment will be a part of the mental hospital service, although some of these clinics will be located in general hospitals.

The local health authority (see below) will be responsible for determining whether mentally ill or defective persons are in need of institutional care, and for making the initial arrangements for such care; for

supervising and training defectives who remain in the community; and for preventive and after-care services for mentally ill and defective persons. Mental hospital patients who are discharged "on trial" under out-patient care, however, remain under the jurisdiction of the hospital.

It is evident that close cooperation between the hospital and the local authority services is essential. The local authority will call on the hospital service for specialist opinions, and the hospitals will depend on the local authority's social workers for knowledge of patients' home conditions. The regional hospital board and the local authority will appoint jointly some of the staff concerned.

Research

The act gives the Minister of Health broad power to conduct or assist any person to conduct research into matters relating to causes, diagnosis, treatment, or prevention of disease. In addition, boards of governors, regional hospital boards, and hospital management committees are authorized to conduct research. These powers supplement those of the Medical Research Council, which for many years has been a coordinating body for research in the medical sciences.

Local Health Authority Services

Part III of the act is concerned with health services provided by local health authorities, that is to say, the councils of counties, and of municipalities having county borough status. There are 145 such units in England and Wales. They have been responsible for certain of the preventive public health services, but many of the sanitary services have been in the hands of the smaller local units of government—the noncounty boroughs and urban and rural districts.

The effect of the act is, in brief, to relieve local health authorities of their hospital duties and to increase their responsibilities in other fields. Some of their new duties are transferred from the authorities of smaller government units, and some were formerly nongovernmental or nonexistent.

The local health authority—The county or county borough council, a locally elected body which is the administrative authority of the local government unit, is referred to in the act as the "local health authority." The authority appoints a health committee to which all health matters are referred. Persons may be co-opted to the health committee, but at least a majority of the members of the committee must be members of the authority—i. e., elected members of the council. Co-option enables the health committee to include technical experts, such as members of the medical or other professions. Although the law does not require co-option of medical members, the Minister has urged local health authorities to do so.

The health officer (the "medical officer of health") and his staff are responsible to the health committee, and through the committee to the local authority. These employees actually carry out the duties of the local health authority.

Duties of the authority—These duties include the following:

1. Maternal and child health activities—prenatal and postnatal care, well-baby and preschool clinics, and priority dental care for expectant and nursing mothers and children under five. Some of these services may be taken over gradually by the patients' family doctors, but the health authority will be responsible for seeing that they are available either in this way or through organized clinics.

2. Home delivery service by trained nurse midwives, backed up by medical aid as required. Obstetrical care by certified midwives has long been accepted practice in England, and provision of such service in the home has been a duty of local health departments since 1936.

3. Health visitor service—the health visitor, a specially trained nurse, is the approximate equivalent of the American public health nurse.

4. Home nursing. This service has been carried out in most areas by voluntary district nursing associations. The act makes it a duty of the health authority to provide home nursing service. Many authorities have arranged with the existing D. N. A. to continue to provide home nursing, the cost now being borne out of public funds.

5. Vaccination against smallpox and immunization against diphtheria. These services have been organized separately in the past: vaccination of infants has been "compulsory" and carried out by "public vaccinators," whereas immunization against diphtheria has been carried out under the auspices of the local health department, on a voluntary basis. The experience in recent years has been that many more babies receive diphtheria prophylaxis under the voluntary program than are reached by the "compulsory" smallpox program, which has many loopholes. Both programs will now be under the same administration and it is anticipated that use of the highly successful techniques of the antidiphtheria campaign will improve the vaccination program.

6. Prevention of illness, care, and after care. The act confers broad powers under this heading, which are intended at present to be exercised chiefly with respect to tuberculosis control, but may be extended widely to other illnesses. Clinical diagnosis and treatment of tuberculosis, whether ambulatory or in sanatoria, is the responsibility of the regional hospital boards. Follow up of contacts, arrangements for special employment, advice from public health nurses, etc., come within the purview of the local health authority. Coordination of these two phases of tuberculosis control will be effected by having

the tuberculosis medical officer jointly appointed by the regional hospital boards and the local health authority.

7. Domestic help may be provided for persons needing it because of illness in the home, and the local health authority may recover charges for this service. The local health authority is permitted but not obliged to set up a domestic help scheme, but all of them have done so. Similar schemes have already been in operation as a part of the maternal and child welfare program.

8. Ambulance service. It is the duty of local health authorities to provide or arrange for ambulance or other transport for persons suffering from illness or mental defectiveness, and for expectant or nursing mothers. In the past, ambulance service has been provided by a variety of public, voluntary, and private agencies. Many municipal authorities have had emergency ambulance services for casualties, and the larger hospitals, both voluntary and municipal, have operated their own ambulances. In many areas, especially the less densely populated areas, ambulances have been run by such voluntary organizations as the St. John Ambulance Brigade and the British Red Cross Society. In many areas these organizations will continue to operate the ambulance service as agents of (and with the costs borne by) the local health authority. Hospitals will keep ambulances only in occasional instances where they are required for transport of patients between units of a large institution. It is to be noted that not only ambulances but cars for transport of "sitting cases" are to be provided. No charge may be made to any person for ambulance service.

9. Health centers. It is the duty of local health authorities to provide, equip, and maintain premises for the provision of general medical and dental services, as well as for any of the local health authority services enumerated above. Except for practitioners furnishing general medical or dental services the local health authority will staff the health center, providing nursing, pharmacist, and ancillary staff, as well as medical and dental personnel furnishing services under part III of the act (e. g., maternal and child health clinics). The health center is intended to form a basis for grouped general practice, closely associated with preventive public health activities. It is to be emphasized that this concept is one of general practice only, quite different from the specialist or mixed specialist and general practitioner groups characteristic of group practice in the United States.

The present restriction on building of nonresidential housing in Britain relegates the health center program to the future, except for a few experimental centers. The administration of these centers will be complicated by the fact that the local health authority will own the building and employ much of the staff, but a major function—general practice—will be carried out by personnel who are responsible to the

executive council. It seems probable that a special administrative committee will be set up for day-to-day operation of centers, so that the doctors and dentists will have a proper voice in administration (9).

10. Mental health services. The mental health duties of the local health authorities have been described above because of their close relationship to the mental hospital service.

General Medical Services

Some idea of the scope of the general medical services under part IV of the act has been given above. Their administration is patterned closely on National Health Insurance. The chief differences are related to the increased scope of the new service, which now includes dentistry and fitting of glasses, and is available to the whole population instead of to employed persons only.

Executive Council—Local administration is carried out by the executive council, a statutory body set up for each local health authority area. This body has 25 members, of whom 12 are appointed by representatives of the professional groups taking part in the service, 5 are appointed by the Minister, and 8 by the local health authority. Members of the council serve without pay on a voluntary basis, but a paid staff is employed to carry on its routine business.

The executive council contracts with medical and dental practitioners and pharmacists who wish to participate in the service. Public lists are maintained of these practitioners. Each medical practitioner is responsible for the patients who choose and are accepted by him, and the number of such persons is the basis for the major portion of the doctor's pay. The council must therefore keep a current record of the persons on each doctor's list. The doctor notifies the council of deaths, and newborn infants are added to a doctor's list at the request of the parent. Machinery is also set up for keeping track of transfers from one doctor to another both within and outside each council's area. The administrative procedures and records required are greatly simplified by two facts: all persons are eligible for service, and payment to doctors is made on a capitation basis.

The executive council is responsible for periodic reports regarding needs of its area for additional practitioners, and when two or more doctors apply for a single vacancy, may express its views as to which candidate should be selected. The decision on admission of additional practitioners and on filling vacancies is made by a central body, the Medical Practices Committee.

Under the act, doctors are entitled to accept or refuse any patient, but provision is made for patients who cannot find a doctor willing to accept them. The council is empowered to assign such a person to a practitioner, though experience under National Health Insurance suggests that this power will only rarely have to be exercised.

Professional Committees—In addition to the presence of 12 professional members on the council, the professions are strongly represented on various local committees which have advisory or administrative functions. These committees include:

1. **Local Medical, Dental, and Pharmaceutical Committees.** These committees are formally recognized by the Minister as representative of the respective professions of the area. They are formed by election among the practitioners of the area; their size varies with the size and character of the group represented. They have statutory power to appoint professional members to certain bodies, to consult on certain matters with the executive council, and to investigate some types of complaints.

2. **Medical, Dental, and Pharmaceutical Services Committees.** Each consists of a chairman and six members, of whom three are appointed by the local medical, dental, or pharmaceutical committees and three by and from the lay members of the council. The chairman is appointed by the six members from the lay members of the council. The appropriate service committee investigates any complaint by a person or by the executive council against a medical or dental practitioner or pharmacist alleging failure to comply with the terms of service.

3. **Joint Services Committee.** This committee has a similar function in those cases where more than one profession is involved. It consists of a chairman and eight members, two laymen and two from each of the three professions.

4. **Local Obstetric Committee.** This committee determines which general practitioners may be included in the special list entitled to larger fees for maternity service. It is entirely professional, consisting of the local medical officer of health, a consultant obstetrician appointed by the local medical committee in consultation with the regional hospital board, and two general practitioners appointed by the local medical committee.

5. **Ophthalmic Services Committee.** This committee administers the supplementary ophthalmic service on behalf of the executive council, as described below.

The doctor's "terms of service"—The practitioner making application to the executive council agrees to be bound by the "terms of service" contained in the regulations. The details of the terms of service were developed after discussion between the Ministry of Health and the British Medical Association, and they follow very closely the corresponding terms which had been developed by experience in National Health Insurance.

The practitioner is responsible for proper and necessary treatment of patients whom he has accepted, or whom he may be called upon to treat in an emergency, provided that the treatment "does not involve

the application of special skill or experience of a kind or degree which general practitioners as a class cannot reasonably be expected to possess." If the patient needs treatment of specialist character, the practitioner is expected to advise and assist the patient in obtaining hospital and specialist care.

The practitioner is required to hold regular office hours, to provide proper office accommodation, and to visit patients in their homes when medically necessary. He must supply drugs needed for immediate administration, and prescribe other drugs and appliances to be obtained from a pharmacist. He is required to issue without charge any certificate reasonably required by a patient "for the purpose of any enactment," for example, a disability certificate required for social security benefit. Provision is made for consultation with a medical officer of the Ministry of Health on questions regarding certification.

Records of treatment must be kept on a standard form. A patient's record must be sent on request to the council so that it may be forwarded to the new doctor when the patient changes doctors.

Practitioners must arrange for coverage when off duty. When practicing in partnership, either partner may treat the patient, "if reasonable steps are taken to secure continuity of treatment."

A doctor is prohibited from demanding or accepting any fee for treating patients on his own or his partner's list. Exceptions may be made for service of a specialist character, with the consent of the executive council.

Disputes and discipline—The disciplinary procedures in the general-practitioner service is quite similar to that under N. H. I. Complaints by patients are investigated by the medical services committee, which makes a fact-finding report, together with recommendations for action, to the executive council. The council is empowered to take minor disciplinary action, but in more serious cases can only recommend action to the Minister or the Tribunal. In every case the practitioner has a right of appeal to the Minister. Purely professional questions are referred in the first instance to the local medical committee, an exclusively medical body, which makes recommendations to the council and the Minister as to action.

Three types of disciplinary action may be taken against a practitioner: imposition of a special limit on the size of his list, monetary fines, and removal from the council's list, which prevents his participating in the service. As indicated above, serious fines can be imposed only by the Minister, and only a special body, the Tribunal, can take the most drastic action: removal of the doctor from the service. In these procedures the doctor has the benefit of the local medical representation described above, and in cases considered by the Minister, the latter is advised by a medical advisory committee

of six doctors. One of the three members of the Tribunal is medical; its chairman is a lawyer of at least 10 years standing, and the third member is appointed after consultation with the Association of Executive Councils.

Any person can make representations to the tribunal that a practitioner's name should be removed from the list, but investigation by the Tribunal is optional except when the complainant is an executive council. If the Tribunal orders the practitioner's name removed, he may appeal to the Minister, but the complainant has no appeal from a finding by the Tribunal in favor of the practitioner.

The regional medical officers of the Ministry of Health play an important part in forestalling many possible disciplinary actions as they have long done under N. H. I. The chief function of this officer in each locality is to examine patients in consultation on questions of disability certification. He also consults with practitioners regarding prescription costs when records suggest that an individual's costs are substantially higher than average, and may review clinical records in connection with either activity. Under N. H. I., this consultation was sufficient to clear up the difficulty in most cases.

When the trouble persists in spite of his efforts, the regional medical officer may become responsible for initiating formal investigation of a practitioner's prescription costs, record keeping, or certification. But the investigation is primarily in the hands of the local medical committee—the practitioner's professional colleagues. The decision of this committee is subject to appeal by the practitioner or by the Minister, to an independent group of three persons (at least one a medical practitioner) appointed by the Minister. Thus the decision as to whether the practitioner has been professionally at fault is made by the local medical committee (or, on appeal, by the referees), whereas the executive council and the Minister, respectively, recommend and fix the penalty.

Remuneration of general practitioners—The act does not specify the amount or method of payment of doctors, and even the regulations do not give full details. Thus the flexibility necessary to the process of negotiating the details with the profession is permitted. Generally, the basis of payment is very similar to that under N. H. I., but there are notable differences.

A central fund is set up on the basis of 18 shillings⁴ per head for 95 percent of the population, on the assumption that about this proportion will eventually use the service. A deduction is made for the mileage fund, and the balance of the fund is distributed to the local executive councils in accordance with a formula which adjusts for persons not yet enrolled on a doctor's list, but who will enroll when they become ill. This formula distributes the fund in proportion to

⁴ 1 shilling equals approximately 20 cents at the current pegged exchange rate; £1 equals 20 shillings or \$4.03.

the number of persons actually on doctor's lists plus one-third of those not on lists in each executive council area. Thus a definite amount is allocated quarterly to each executive council, out of which all payments (except mileage) to general practitioners must be made. From this amount deductions are made for payment for emergency treatments, temporary residents, anesthetics, and fixed annual payments, and the balance is distributed among the doctors in proportion to the numbers of persons on the list of each. The actual capitation fee payable to the doctor per person on his list will vary from area to area, depending on the proportion of people enrolled in the area and on the relative amount of noncapitation payments required in the area.

Special payments for "mileage" are made from a central mileage fund (deducted from the total 18-shilling pool) which is distributed to rural and semirural council areas on the basis of their geographical characteristics, and to individual doctors in proportion to points scored for patients residing varying distances over two miles from his office. The mileage payment is thus analogous to the capitation fee in that it is fixed in relation to the patients for whom the doctor is responsible and unrelated to the actual number of visits made to distant patients.

The "fixed annual payment" of £300, originally proposed for all practitioners, will now be made only to those applying for it and showing justification for it; e. g., young doctors starting in practice, or elderly doctors able to carry only a small load. Since these payments come out of the local pool, the capitation fee is reduced in an area as the number of fixed payments increases. The doctor receiving the payment has the number of patients on his list reduced by one-seventh in computing his capitation payment. Thus the effect of the fixed payment is to increase the pay of the doctor with a small list, whereas the doctor with a large list would receive more pay without the fixed payment and would not apply for it.

Payment for emergency treatments and anesthesia is made on a fee-for-service basis out of executive council funds, whereas payment for "temporary residents" is a capitation fee adjusted to allow for the fact that persons away from home for periods of under 3 months are unlikely to enroll with a doctor until they actually need treatment.

A special fund is set up centrally (in addition to the central pool) to be used for "inducement payments" for practitioners in areas with insufficient doctors, especially where low population density will make doctors' lists too small to permit adequate income otherwise. This fund will be equivalent to 1 percent of the central pool. Special payments will also be made to selected practitioners who undertake to train assistants.

Maternity service is not included in the capitation fee and extra

payments are made for each case for which the doctor accepts professional responsibility, whether or not he is actually called to the confinement by the midwife.

General practitioners are included in the "superannuation," or pension plan, which covers all health service personnel. There is a compulsory deduction of 6 percent of the practitioner's "net" income, to which is added a contribution of 8 percent by the government. From the fund thus created retirement benefits, including widow's pension, are paid. The government contribution in effect adds about 5 percent to the doctor's gross remuneration from public funds.

The Dental Service

The executive council has general responsibility for the dental service in its area. Dentists wishing to participate enter into a contract with the council, in which they agree to abide by the regulations, and the names of these dentists are published for the information of the public. Payment for service is made by the council, but the review of bills is carried out by a separate body, the dental estimates board. In handling complaints and disputes the council plays a role similar to that in the general medical service.

Procedure—The patient wishing to have dental work done may choose any dentist from the list who is willing to accept him as a patient. If he accepts the patient, the dentist examines the mouth, determines what work is required, and agrees with the patient what is to be done. The dentist fills out a chart of the mouth on a special form, noting the proposed work and an estimate of its cost. The dentist may proceed at once with most kinds of treatment, and when the course of treatment is completed, the dentist forwards the form as his claim for payment to the dental estimates board for approval. The board, after reviewing the form, certifies to the council the amount payable to the dentist.

Certain treatments require the approval of the board before the dentist may carry them out. These include extractions requiring the provision of dentures (except in emergency conditions), extensive gum treatments, gold fillings, inlays, crowns, oral surgery, and furnishing dentures and special appliances. Thus the dentist may proceed at once with all ordinary conservative treatment, such as prophylaxis, amalgam or silicate fillings, emergency extractions, X-ray examination, and repair of dentures.

The service is free for all treatment and appliances which are clinically necessary. Patients desiring treatment or appliances more expensive than clinically required (e. g., gold inlay fillings where amalgam would suffice) may pay the extra cost of such treatment. Such cases require the approval of the dental estimates board, and the extra charges may not exceed prescribed limits.

The regulations permit considerable latitude in the size of fees which the Board may approve in cases requiring orthodontia, special appliances, splints, and oral surgery.

Terms of service—The terms to which a dentist agrees when he participates in the service require that he shall “employ a proper degree of skill and attention” and that he shall “provide the treatment necessary to secure dental fitness that the person concerned is willing to undergo.”

The dentist is expected to complete treatment “with reasonable expedition.” He must not ask for or accept any payment from the patient for treatment rendered under the service. He is required to keep records.

The dentist is required, on reasonable notice, to admit a dental officer of the Ministry of Health to his office to inspect it. The patient is also under obligation to submit to examination by a dental officer if the dental estimates board so requires.

Professional safeguards—It has been noted previously that there are three dentist members of the executive council, appointed by the local dental committee, which represents the dentists of the area. Complaints by patients against a dentist are referred for investigation to the dental services committee; the procedures in investigation of complaints and in fixing penalties are similar to those described above with respect to medical practitioners. There is, in addition to the local dental representation, a dental advisory committee to advise the Minister in appeals cases, and a dentist sits on the Tribunal in cases involving dentists.

Dental Estimates Board—This board's position in the administrative structure has been indicated above; its function is to protect public funds and to prevent deterioration of the quality of service. It is composed of seven dentists, of whom one is chairman, and two laymen. Unlike most of the boards, committees, and councils concerned with the administration of the N. H. S., its members are paid; five of the dentists are full-time, and two dentists and the two laymen are part-time. There will be, in addition, a large staff of clerical workers.

Priority dental service—Recognizing that the shortage of dentists will make it impossible for some persons to obtain needed care, the act requires local health authorities to set up, as part of the maternal and child-health program, an organized dental-care program for expectant and nursing mothers and preschool children; a school dental program is operated by the education authorities. If local health authorities are able to employ sufficient dentists to implement the program, the eligible categories of patients will be able to get complete service without having to find a dentist in the general service. This program is intended to ensure that these groups, for whom dental care is considered especially important, will be able to receive it without undue delay.

Supplementary Ophthalmic Service

The hospital service provides specialist diagnosis and treatment of eye diseases, but since it would be unable to cope with the anticipated demand for sight testing and prescription of eyeglasses, the act provides for a supplementary service for this purpose, administered by the executive councils through their ophthalmic services committees.

Medical practitioners with special ophthalmic experience and ophthalmic opticians (optometrists) examine patients and prescribe eyeglasses, which are furnished by opticians. A patient wishing to have his sight tested must obtain from his general practitioner a recommendation to that effect, but further medical recommendations are not required when the question of reexamination arises. However, if the patient needs repair or replacement of his glasses within 2 years, he must bear the cost himself unless he can prove that the need was not due to carelessness. After 2 years a new examination is required.

Payment for examination and for furnishing eyeglasses is made by the executive council per item of service on the basis of a centrally negotiated fee schedule. The patient has his choice of several types of frames which are fully paid for out of public funds, but he may have certain more expensive frames if he wishes to pay the extra cost himself.

It should be emphasized that this service is intended to be temporary, and the act provides that the Minister may discontinue it in any executive council area when he is satisfied that adequate ophthalmic services are available in the area through the hospital and specialist service.

Cost of the Service

The estimates available of the cost of the National Health Service are for the 9 months between the appointed day and the end of the government fiscal year (March 30). These estimates include items connected with the transitional period so that they are not to be considered as representing nine-twelfths of the normal annual cost.

Estimated Cost of the National Health Service

England and Wales—July 5, 1948, through Mar. 30, 1949

Hospital and specialist services.....	£107,197,000
Local health authority services.....	7,500,000
General medical, dental, pharmaceutical, and eye services.....	49,292,000
Miscellaneous (including compensation, purchase of supplies, etc.)..	16,186,000
Total.....	180,175,000

The act authorized a total sum of £66,000,000 for compensation of general practitioners for the loss of the right to sell their practices, but only a small portion of this will be payable during the initial period, since it is not paid until the practitioner dies or retires.

Sources of National Health Service Funds

England and Wales—July 5, 1948, through Mar. 30, 1949

Exchequer (general taxation).....	£132, 425, 000
Local authorities (local taxation).....	3, 750, 000
Transfer from National Insurance contributions.....	24, 000, 000
Miscellaneous (charges for pay-beds, pension contributions, etc.)..	20, 000, 000
Total.....	180, 175, 000

It will be noted that local taxation meets exactly half the cost of the local health authority services, the other half coming from the Exchequer as matching grants. The use of pension contributions (shown in the last item above) for current financing represents postponement of an Exchequer obligation; when the pension system matures, all contributions to the fund will presumably be needed for paying pensions.

Relation of the Health Service to the Social Security Program

Four acts of Parliament, in addition to the National Health Service Act, came into operation on July 5, 1948: the National Insurance Act, the National Insurance (Industrial Injuries) Act, the National Assistance Act, and the Children Act. The Family Allowances Act had been in effect since August 1946. Together this legislation constitutes a comprehensive social security program.

The National Health Insurance Act, which was repealed by the National Insurance Act, provided both medical benefits and cash disability benefits. Although parts of a single program, the medical benefits were administered through local insurance committees, whereas the cash benefits were handled by the "approved societies"—private nonprofit insurance organizations which were given statutory recognition. Under the new program the National Health Service is independent of the cash benefit insurance program, and eligibility for health services is universal, and not related to insurance status.

The National Insurance Act requires contributions from everyone between the ages of 16 and 65 (men) or 60 (women), whether employed or not, except married women not employed outside the home. Employers make a nearly equal contribution for each employee. The Industrial Injuries Act, which supplants the Workmen's Compensation Acts, requires additional contributions by both employee and employer, and the combined amounts are collected together as pay-roll deductions. The Ministry of National Insurance administers the cash benefits of both programs, which include sickness, maternity, and industrial injury benefits, unemployment benefit, widow's benefit, retirement pension, and other special grants and allowances. Some of the "friendly societies," which long antedated National Health Insurance as voluntary insurance societies, and became "approved societies" under that program, may continue to offer voluntary insur-

ance to supplement the cash benefits of the new governmental program. The National Insurance Act provided, however, for absorption of the personnel of these societies into the central and local offices of the Ministry of National Insurance.

The cash benefit programs assume that all necessary medical and rehabilitation services (including those for industrial injuries) will be available to everyone through the N. H. S., and they depend on the professional personnel working in the N. H. S. to furnish the certificates of sickness and disability necessary for the administration of the benefits. It is perhaps worth noting in this connection that much of the "paper work" with which general practitioners in England are burdened is related to the cash insurance program (and rationing and commodity controls) and is not an intrinsic part of the health service.

About one-tenth of the insurance contributions is transferred from the National Insurance fund to the health service, and will amount to approximately 13 percent of the cost of the latter.

The Family Allowance Act provides weekly cash allowances to families for each child except the first, thus helping large families to compensate for the flat rates of contributions and benefits in National Insurance.

The National Assistance Act provides cash assistance to persons not able to meet minimum living expenses from their own resources including insurance benefits, and puts upon local authorities the duty of providing living accommodation for aged and infirm persons. The health service, of course, takes care of the medical needs of assistance recipients at no cost to the assistance authorities. In the case of certain persons needing institutional care, a shadowy line divides those who are chronically ill, and are cared for by the hospital service, from those who are merely infirm, and are the responsibility of the local authority. The latter group includes those who do not require continuous medical and nursing supervision, and such occasional medical attention as they may need is furnished under the general medical service. A given individual may, of course, shift from one group to the other.

Under the Children Act, local authorities are made responsible for care of orphans and children who are lost, deserted, or in certain other categories, by placement with foster parents or in an institution. Voluntary homes and institutions for the care of such children must register and must meet minimum standards.

Conclusion

The National Health Service represents the culmination of a long period of development of organized health and medical services in Britain. Its basic principle, that health services, like education, should be available to all as a public responsibility, had become essentially

noncontroversial in Britain before the act was passed. Its administrative structure was conditioned by the long-standing framework of public health administration, the 35 years of experience in furnishing a general practitioner service under National Health Insurance, and the British tradition of administration by voluntary boards and committees. Its details have necessarily had to fit into the framework of broad public policy determined by the government and Parliament in power at the time of its inception but, within this framework, have been developed in consultation and negotiation with the professional groups concerned.

The Health Service must be viewed as a part of the comprehensive system of social security which came into operation on the same appointed day. It is, in fact, the most comprehensive part of that system, since its coverage is universal, offering health services to persons reached by any, or by none, of the income maintenance programs.

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Report on Recent Outbreaks of Influenza

World Health Organization Influenza Information Center

Reports on a number of outbreaks of influenza as well as on the isolation of strains of influenza virus have been received by the Influenza Information Center at the National Institutes of Health, which administers the World Health Organization influenza study program in the United States under the joint sponsorship of the Army, Navy, Air Force, and Public Health Service. Although no serious epidemic of influenza has appeared within the United States during the present winter, the virus of influenza has been recovered from sporadic cases of the infection in several localities. On the other hand, rather extensive although mild epidemics of influenza have been reported from several places outside continental United States. Brief notations on reports recently received by the Information Center follow.

Within Continental United States

December 4, 1948. The isolation of three strains of influenza virus was reported from sporadic cases in the Pittsburgh area. All of the strains were identified as of the "A-prime" group. One strain was closely related antigenically to the FM-1 virus. In addition, one case of type "A" infection has been identified serologically in the Pittsburgh area.

December 30, 1948. Two sporadic cases of influenza "B" were reported among troops at Fort Sill, Okla. The infections were mild, and lasted only two days. The diagnoses were established by serological tests.

January 14, 1949. A report was received of four cases of influenza, diagnosed as of type "B", occurring during December 1948, among troops at Fort Ord, Calif.

January 17, 1949. An outbreak of influenza, of undetermined size, was reported in Seattle. Two strains of influenza virus, believed to be of type "B", had been isolated.

Outside Continental United States

Alaska. January 3, 1949, a small outbreak of upper respiratory disease, suspected to be influenza, was reported among troops at Big Delta, Alaska. The identity of the infecting agent was not at once determined. Acute and convalescent serums were to be shipped by air

from the affected area in Alaska to the Sixth Army Area Medical Laboratory at Fort Baker, Calif.

Puerto Rico. November 17, 1948, the isolation of an influenza virus was reported from patients with respiratory disease in Coamo, Puerto Rico. The Coamo strain of virus was subsequently identified to be of the "A-prime" group.

Venezuela. December 8, 1948, the Information Center was advised of a recent epidemic of influenza in Venezuela, reported to be caused by a type "B" virus.

Italy. December 22, 1948, the Information Center received a report of an outbreak of an estimated 500,000 cases of mild influenza in central, southern, and insular Italy. The virus responsible for at least part of the cases was believed to be type "B." The epidemic was said to be past its peak by the date of report. No cases were known among among American troops in northern Italy.

France. January 12, 1949, French authorities advised of an outbreak of mild influenza affecting approximately 20 percent of the population of France. The virus tests indicated that approximately half the cases were caused by the type "A" strain.

Holland. January 14, 1949, the Information Center was advised of an epidemic of type "A" influenza in southern, but not in northern Holland.

Other European Countries. No abnormal rise in the incidence of influenza has been reported from Scandinavia, Germany, Poland, Bulgaria, Albania, Greece, Portugal, Spain, or the British Isles including Ireland. An outbreak in the Austrian Tyrol was reported January 11, 1949. On January 14, 1949, thirteen cantons of Switzerland were said to be suffering an epidemic of the disease.

INCIDENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

REPORTS FROM STATES FOR WEEK ENDED JANUARY 22, 1949

A slight net seasonal increase was reported in the incidence of measles. A total of 13,392 cases was reported currently, as compared with 11,609 last week and a 5-year (1944-48) median of 5,490. An aggregate of 6,985 cases was reported in the New England, Middle Atlantic, and West South Central areas. States reporting the largest numbers are as follows (last week's figures in parentheses): Texas 2,005 (1,585), Massachusetts 1,373 (1,435), Pennsylvania 1,060 (689), New York 839 (1,005), Maryland 724 (537), California 685 (584), Oregon 550 (501), Wisconsin 511 (426). The total for the first 3 weeks of the year is 36,342, as compared with a 5-year median of 13,573 and 34,448, the largest corresponding figure of the past 5 years, reported in 1944.

A total of 4,585 cases of influenza was reported for the week, as compared with 11,687 for the corresponding week last year, which latter number was also the 5-year median. An aggregate of 3,820 cases, more than 80 percent of the total, was reported in 4 States (Texas, South Carolina, Virginia, and Arkansas), where 7,780 cases (66 percent of the total) were reported for the corresponding week last year. The total to date this year is 12,807, as compared with a 5-year median of 32,382, reported for the same period last year.

Of the total of 113 cases of poliomyelitis reported currently (last week 143, 5-year median 47), California reported 40 (last week 62), New Jersey 8, Texas 7, Michigan and Minnesota 6 each, and Florida and Washington 5 each.

Four cases of Rocky Mountain spotted fever were reported currently, 3 in North Carolina and 1 in Georgia. One case of psittacosis was reported for the current week, in Alabama, and a delayed report was received of the occurrence in October of a laboratory case of that disease in Illinois.

Deaths, all causes, recorded during the week in 94 large cities in the United States totaled 9,910, as compared with 9,896 last week, 10,305 and 10,012, respectively, for the corresponding weeks of 1948 and 1947, and a 3-year (1946-48) median of 10,181. The total for the first 3 weeks of the year is 30,596, as compared with 31,882 for the same period last year. Infant deaths for the week totaled 685, as compared with 716 last week and a 3-year median of 722. The total to date is 2,110, as compared with 2,233 for the same period last year.

Telegraphic case reports from State health officers for week ended January 22, 1949
(Leaders indicate that no cases were reported)

Division and State	Diphtheria	Encephalitis, infectious	Influenza	Measles	Men- ingitis, men- coccal	Pneumonia	Polio- myelitis	Rocky Mt. spotted fever	Scarlet fever	Small- pox	Tula- remia	Typhoid and para- typhoid fever d	Whoop- ing cough	Rabies in animals
NEW ENGLAND														
Maine.....	4			272		10			9				4	
New Hampshire.....			2	25					2					
Vermont.....				402	1				10				34	
Massachusetts.....	6	1		1,373	1				230		1		74	
Rhode Island.....				159		4			11				14	
Connecticut.....			1	236	1	47			44				6	
MIDDLE ATLANTIC														
New York.....	4		b 1	839	8	358			• 240			3	163	5
New Jersey.....	1		4	328	2	107			124				78	3
Pennsylvania.....	9		(b)	1,060	9				197			5	70	
EAST NORTH CENTRAL														
Ohio.....	10		1	51	1	39			326			3	34	13
Indiana.....	9	2	13	34	1	15			49				16	33
Illinois.....	5	2	4	40	5	99			196		3		37	4
Michigan.....	13		3	391	2	49		6	303			1	37	2
Wisconsin.....	3		47	511		9			77		1		20	
WEST NORTH CENTRAL														
Minnesota.....	4			26	1	13			95				3	
Iowa.....				16		1			56				2	
Missouri.....	5		3	380	1	34			52		1		6	3
North Dakota.....	1			170					12			2		
South Dakota.....									6					(1)
Nebraska.....	1		10	17		14			27				8	
Kansas.....	5		4	171	3	32			50				8	
SOUTH ATLANTIC														
Delaware.....				18	1				7					
Maryland.....	2		4	724		71			• 37				16	
District of Columbia.....	1			39		15		1	7				4	
Virginia.....	1		440	455	3	97		2	14			1	22	2
West Virginia.....	2		54	186	2	20			14			2	10	
North Carolina.....	9			162	2			3	18			2	16	
South Carolina.....	14	1	601	39	1	179		1	7			1	26	5
Georgia.....	5		21	86	6	72		1	46			1	7	7
Florida.....	15		4	53	1	20		5	9			1	13	2

Reports from State health officers—Continued

Division and State	Diphtheria	Encephalitis, infectious	Influenza	Measles	Meningitis, meningococcal	Pneumonia	Polio-myelitis	Rocky Mt. spotted fever	Scarlet fever	Small-pox	Tularemia	Typhoid and paratyphoid fever ^d	Whooping cough	Rabies in animals
EAST SOUTH CENTRAL														
Kentucky.....	5		6	97	3	38			34		1	5	17	10
Tennessee.....	5	1	106	136	8	97			75		7	2	20	
Alabama.....	11		250	250	6	39	1		26			1	7	5
Mississippi.....	8		24	22		43	1		5		1	2	6	
WEST SOUTH CENTRAL														
Arkansas.....	2		221	155		105	2		9					1
Louisiana.....	2		17	45	2	38	1		6			3		
Oklahoma.....	11		98	86	6	50			14		1	2		6
Texas.....	30		2,568	2,005	10	376	7		34		2	3		30
MOUNTAIN														
Montana.....	3		11	33			1		15					4
Idaho.....	4		16	54		14			23					2
Wyoming.....				8		3			2		1			
Colorado.....	3		38	182	1	37			29					15
New Mexico.....	2		4	130		8			12					3
Arizona.....	1		147	210		28			6			1		8
Utah.....	9		4	105		4	2		7					7
Nevada.....				1										
PACIFIC														
Washington.....	1		10	307		4			42					7
Oregon.....			10	550		33			24			1		19
California.....	19		32	685	5	40			120			1		59
Total.....	245	7	4,585	13,392	100	2,292	113	4	2,758		29	45	1,017	
Median, 1944-48.....	252	8	11,087	5,490	222		47		2,711	9	35	48	2,418	
Year to date 3 weeks														
Median, 1944-48.....	585	23	12,807	36,342	264	6,306	399	5	7,293	1	119	110	3,001	
Seasonal low week ends (1948)	988	20	32,382	13,573	693		128	1	7,816	22	87	(11th)	6,526	
Since seasonal low week.....	5,699	July 10	(30th)	(35th)	(37th)		(11th)		(32d)	(35th)		Mar. 20	(39th)	
Median 1943-48.....	8,554	July 10	49,077	88,735	1,108	27,726	27,726		Aug. 14	Sept. 4	Sept. 16	3,229	13,034	
		8,554	76,940	39,697	2,197	13,499	13,499		46,387	98		4,380	31,522	

* Period ended earlier than Saturday.
 b New York City and Philadelphia only, respectively.
 c Including cases reported as streptococcal infection and septic sore throat.
 d Including paratyphoid fever, reported separately, as follows: New York 1; Georgia 1; Louisiana 1; Texas 1. Salmonella infections, not included, were reported as follows: New York 2. *Pneumococcus*: Alabama, 1 case; delayed report, 1 case, Oak Park, Ill., onset Oct. 16, 1948. Patient reported to have handled virus in Illinois State Health Department laboratory, Chicago.
 e Alaska; Scarlet fever 1; whooping cough 1.
 Territory of Hawaii: Influenza 1; measles 401; lobar pneumonia 1; add to last week, measles 9.
 1. Correction: Rabies in animals, week ended Jan. 8, North Dakota, no cases (instead of 9).

DEATHS DURING WEEK ENDED JANUARY 15, 1949

[From the Weekly Mortality Index, issued by the National Office of Vital Statistics]

	Week ended Jan. 15, 1949	Correspond- ing week, 1948
Data for 94 large cities of the United States:		
Total deaths.....	9,896	10,200
Median for 3 prior years.....	10,200
Total deaths, first 2 weeks of year.....	20,686	21,577
Deaths under 1 year of age.....	716
Median for 3 prior years.....	673
Deaths under 1 year of age, first 2 weeks of year.....	1,425	1,505
Data from industrial insurance companies:		
Policies in force.....	70,630,370	66,858,967
Number of death claims.....	12,811	14,551
Death claims per 1,000 policies in force, annual rate.....	9.5	11.4
Death claims per 1,000 policies, first 2 weeks of year, annual rate.....	9.2	11.2

TERRITORIES AND POSSESSIONS**Puerto Rico**

Notifiable diseases—5 weeks ended December 31, 1948.—During the 5 weeks ended December 31, 1948, cases of certain notifiable diseases were reported in Puerto Rico as follows:

Disease	Cases	Disease	Cases
Chickenpox.....	7	Syphilis.....	259
Diphtheria.....	48	Tetanus.....	8
Dysentery.....	1	Tetanus, infantile.....	4
Gonorrhoea.....	214	Tuberculosis (all forms).....	690
Influenza.....	122	Typhoid fever.....	42
Malaria.....	115	Whooping cough.....	139
Measles.....	129		

FOREIGN REPORTS

CANADA

Provinces—Communicable diseases—Week ended January 1, 1949.—During the week ended January 1, 1949, cases of certain communicable diseases were reported by the Dominion Bureau of Statistics of Canada as follows:

Disease	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Chickenpox.....		39		127	608	69	100	104	158	1,205
Diphtheria.....			1	3	7	1	3	2		17
German measles.....		2		13	9		3	3	8	38
Influenza.....		48			4					52
Measles.....		33	9	82	171	111	26	74	112	618
Meningitis, meningococcal.....		1		2	5				1	9
Mumps.....		13	1	18	347	31	15	12	38	475
Poliomyelitis.....		1					1	2	1	5
Scarlet fever.....		10	1	72	85	3	6	10	15	202
Tuberculosis (all forms).....		3	7	47	39	13	11	49	23	192
Typhoid and paratyphoid fever.....				2						2
Undulant fever.....								1	1	2
Veneral diseases:										
Gonorrhoea.....		8	10	38	47	22	11	27	60	223
Syphilis.....		5	13	70	30	13	3	3	11	148
Whooping cough.....		1		48	23	1	3	1		77

JAMAICA

Notifiable diseases—5 weeks ended December 31, 1948.—During the 5 weeks ended December 31, 1948, cases of certain notifiable diseases were reported in Kingston, Jamaica, and in the island outside of Kingston, as follows:

Disease	Kingston	Other localities	Disease	Kingston	Other localities
Cerebrospinal meningitis.....		1	Erysipelas.....		1
Chickenpox.....	8	9	Tuberculosis (pulmonary).....	35	52
Diphtheria.....	1	2	Typhoid fever.....	13	89
Dysentery, unspecified.....	4	1	Typhus fever (murine).....	1	1

NETHERLANDS

Amsterdam—Psittacosis.—During the week ended December 4, 1948, 1 case of psittacosis was reported in Amsterdam, Netherlands.

REPORTS OF CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER RECEIVED DURING THE CURRENT WEEK

Note.—The following reports include only items of unusual incidence or of special interest and the occurrence of these diseases, except yellow fever, in localities which had not recently reported cases. All reports of yellow fever are published currently.

A table showing the accumulated figures for these diseases for the year to date is published in the PUBLIC HEALTH REPORTS for the last Friday in each month.

Cholera

India—Calcutta.—Cholera has been reported in Calcutta, India, as follows: Week ended January 8, 1949, 94 cases, 22 deaths; week ended January 15, 156 cases, 43 deaths. Due to the sharp increase in the number of deaths in the metropolitan area, cholera was declared epidemic on January 18, 1949.

Pakistan—Chittagong.—Cholera has been reported in recent weeks in Chittagong, Pakistan, as follows: Week ended January 8, 1949, 10 cases with 4 deaths; week ended January 15, 14 cases with 13 deaths.

Plague

Belgian Congo.—The following reports of plague in the Belgian Congo have been received: Costermansville Province, week ended January 1, 1949, 1 fatal case (pneumonic); Stanleyville Province, week ended December 25, 1948, 1 fatal case; week ended January 1, 1949, 1 fatal case.

India—Calcutta.—During the week ended January 15, 1949, 1 case of plague was reported in Calcutta, India.

Madagascar.—During the period December 11–31, 1948, 17 cases of plague with 16 deaths were reported in Madagascar.

Netherlands Indies—Java—Surabaya.—During the week ended November 27, 1948, 2 cases of plague were reported in Surabaya, Java, and 8 deaths from plague were reported during the same week.

Union of South Africa.—Plague has been reported in Union of South Africa as follows: In Cape Province during the week ended December 18, 1948, 6 cases, 2 deaths; in Orange Free State, week ended December 11, 1948, 1 case, 1 death; week ended December 25, 1 suspected case.

Smallpox

India—Ahmedabad.—During the week ended December 25, 1948, 27 cases of smallpox with 22 deaths were reported in Ahmedabad, India.

Indochina (French).—Smallpox has been reported in French Indochina as follows: Week ended December 25, 1948, 33 cases, 10 deaths; week ended December 31, 37 cases, 6 deaths.

Ivory Coast.—During the period December 21–31, 1948, 21 cases of smallpox with 2 deaths were reported in Ivory Coast.

Iran—Khoramshahr.—During the week ended December 25, 1948, 8 cases of smallpox were reported in the port of Khoramshahr, Iran.

Lebanon.—Smallpox has been reported in Lebanon as follows: Week ended December 18, 1948, 26 cases, including 2 cases in Beirut; week ended December 25, 34 cases, 1 of which was reported from Beirut; week ended December 31, 37 cases.

Netherlands Indies—Java—Batavia.—During the period January 10–17, 1949, 66 cases of smallpox were reported in Batavia, Java. The disease was stated to have been declared epidemic there, and vaccination of all residents of the city was begun.

Philippine Islands.—Smallpox has been reported in the Philippine Islands as follows: On Mindoro Island, week ended November 27, 1948, 64 cases, 7 deaths; week ended December 4, 15 cases, 4 deaths. Also 1 fatal case was reported in Baguio City on Luzon Island during the week ended December 4.

Turkey.—During the period November 1–30, 1948, 24 cases of smallpox with 3 deaths were reported in Turkey, and during the week ended January 15, 1949, 9 cases were reported from Maras Province, Turkey.

Typhus Fever

Germany—United States Zone.—During the week ended December 11, 1948, 4 cases of typhus fever (murine) were reported in the Bremen area of the United States Zone of Germany.

Guatemala.—During the period September 1–30, 1948, 39 cases of typhus fever with 15 deaths were reported in Guatemala. Of these, 2 cases were stated to have occurred in Guatemala City.

India—Bombay.—During the week ended December 25, 1948, 1 case of typhus fever was reported in Bombay, India.

Sierra Leone.—During the week ended November 6, 1948, 9 cases of typhus fever (murine) were reported in Sierra Leone, 8 of which were stated to have occurred in Freetown.

Yellow Fever

Belgian Congo—Stanleyville Province.—On January 1, 1949, 2 fatal cases of yellow fever were reported in the region of Paulis, Stanleyville Province, Belgian Congo.

Panama.—According to information received January 20, 1949, no new cases of jungle yellow fever have been reported in Panama. (See Public Health Reports for February 4, 1949, p. 158).