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RECENT DEVELOPMENTS IN THE FIELD OF HEALTH IN INDIA*

BY

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The Health Survey and Development Committee, under the chairmanship of Sir Joseph Bhore, after a painstaking survey of health conditions in India, submitted towards the end of 1945 detailed proposals for a planned programme of development designed to provide the country with modern health services on a comprehensive scale. At that time the war had ended and high hopes were entertained that, as soon as India could settle her political problems and secure an adequate measure of independence to shape her own destiny, the national effort would be concentrated on programmes of development in health, education, and other fields. India had practically escaped the horrors of the war on her own soil, and while the repercussions of a conflict between nations on a global scale could not but affect her to some extent, she had emerged from the war with her financial status greatly enhanced and with the possibility of utilizing the assets she had built up for the improvement of the health and welfare of her people.

The settlement of political problems, which ended with the division of the country into two Dominions, India and Pakistan, occupied a period of two years after the cessation of hostilities, and during this time the attention of the leaders of the nation was so concentrated on the transfer of power that social reconstruction did not receive adequate attention. The birth of the two Dominions again marked a stage of high hopes of a determined drive by the Governments and the people to promote health and educational developments, to raise the economic status of the people, and to make life fuller and richer for all. But independence brought in its train an unprecedented catastrophe—namely, a large-scale exchange of population between India and Pakistan as well as widespread outbreaks of communal clash between Muslims and non-Muslims, resulting in bloodshed and suffering over large parts of the country.

The refugee problem and the communal trouble naturally took precedence over other matters, and all the available resources of the central Government and of those provincial Governments which were concerned had to be mobilized to meet the difficult situation. The exchange of population involved the movement of several millions of men, women, and children under extremely trying conditions of hardship, many having to travel some hundreds of miles on foot. There followed the establishment and maintenance of camps for these displaced persons with provision for their housing, feeding, clothing, and medical

care. The largest of these camps was at Kurukshetra, and at one time it housed about 300,000 refugees. Other camps of varying but smaller size were distributed all over North-Western India, including the Provinces of the East Punjab, Delhi, the United Provinces, and many Indian States. Communal clashes brought into being emergencies which necessitated the mobilization of medical and surgical aid without notice and in different areas at almost the same time. All these put the heaviest possible strain on the country's health services.

The fact that major epidemics of a devastating nature did not take place is a matter of great satisfaction and gives some indication of the stupendous efforts made to prevent such disasters. Nor has the problem of displaced persons reached anywhere near its solution. The task of rehabilitation is only beginning, and with the hundreds of thousands of families uprooted from their homes and distributed widely over the length and breadth of India the winning back of these people to normal social life and their absorption into the communities among whom they have settled will take many years and will tax the resources of the country to the utmost.

I have briefly referred to these matters because it is against a background of such conditions that the country's efforts in the field of health within the past few years have to be viewed if a proper assessment of them is to be made. With the best intentions to press forward with the execution of plans for improving the health and welfare of the people the central and provincial Governments found it impossible to concentrate effort on such matters in the face of the overwhelming demands that the refugee problem made.

Present State of Public Health

Before reviewing the recent developments in health administration in India I shall briefly describe the existing conditions. The vital statistics that I quote relate to what was known as British India—that is, the territory which used to comprise India and Pakistan without the 600-odd States under the administrative control of Indian princes. The reason for doing this is that mortality rates for British India will probably be safer to use than those based on estimates of population for India alone. Our last census was in 1941, and, following the territorial changes and exchange of population on the partition of the country in 1947, any estimates may accordingly be subject to considerable error. The exclusion of the States is inevitable, because most of their vital statistics have not even that degree of accuracy which the figures for British

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India possess, while in the case of some of them no statistics are available. Even so, the exclusion of the States need not be considered to detract unduly from the value of the picture presented, because they lie interspersed with Indian territory in such a manner that their health conditions and those of the rest of the country are continually acting and reacting on one another.

The death rates for the inhabitants as a whole and for infants in British India and in certain other countries are shown in Table I. India will have to travel a long way

TABLE I

Country	General Death Rate per 1,000 of Population	Infantile Death Rate per 1,000 Live Births
British India	24.1 (1944)	169 (1944)
England and Wales	11.9 (1944)	46 (1944)
Australia	11.2 (1943)	36 (1943)
United States of America ..	10.6 (1944)	40 (1944)
New Zealand	9.9 (1944)	30 (1944)

on the road to health before she reaches the milestones already passed by Australia and New Zealand. The progress achieved in those two countries in the reduction of infant mortality is remarkable. In India neonatal mortality claims nearly half the total number of infantile deaths, and as death in the first month of the child's life is largely influenced by prenatal causes and by adverse factors associated with the confinement of the mother it becomes clear that the country's efforts to reduce infant mortality should concentrate on antenatal care and on adequate measures to provide skilled attention during confinement. Nearly half the deaths at all ages in India take place among children under 10 years, and about one-half of these deaths occur within the first year of life. In England the corresponding percentages are about one-fifth of those of India. A conservative estimate of the maternal mortality rate places it in the neighbourhood of 20 per 1,000 confinements. It is not possible to estimate the number of women who suffer from varying degrees of discomfort and disability resulting from child-bearing. A rough calculation based on the experience of other countries with better-developed health services shows that there must be four to five millions of such women in India.

The high rates of mortality in the different sections of the community are, as may be expected, accompanied by a wide prevalence of disease. For instance, it is estimated that at least one hundred million individuals suffer from malaria every year. The number of tuberculosis patients who are definitely ill and can transmit the infection to those who come in contact with them is said to be in the neighbourhood of 2.5 millions, while the annual mortality from this disease is estimated at half a million. There are about a million cases of leprosy, of which about one-quarter are infectious and probably help in propagating the disease.

The extent of prevalence of venereal diseases cannot be stated. An estimate made by a former Director-General of the Indian Medical Service (Sir John Megaw) about 17 years ago places the combined rate of incidence of gonorrhoea and syphilis at about 37 per 1,000 of the population. It seems almost certain that conditions arising out of the war must have contributed towards an enhancement of the rate. Both these diseases are responsible for much blindness, while syphilis accounts for a large amount of mental deficiency as well as for a considerable proportion of the abortions and premature births. Gonorrhoea produces a number of conditions affecting the genito-urinary organs in men and women as well as joint trouble, and in

women it may cause sterility. The importance of these two diseases from the point of view of the public health is therefore evident.

India is regarded by other countries as an endemic centre for cholera, smallpox, and plague, and various quarantine measures are in operation against the movement of goods and passengers from India in order to prevent the entry of such infections into those countries. These diseases do not, however, make an impressive contribution to India's mortality, as they are collectively responsible for perhaps less than 5% of the total number of annual deaths. Nevertheless, the spectacular manner in which epidemics of these diseases rise and spread through wide tracts of territory invests them with considerable importance, and a large part of the effort put forth by provincial public health staffs is directed towards their control.

Nutrition.—This is an important contributory factor in the prevailing state of subnormal health in the community. In India the diet of many millions is insufficient and ill-balanced. In order to indicate how far existing levels of production of essential articles of food fall short of the requirements of the country the words of the Bhoré Committee may be quoted. "In India about 80 to 90% of the food consumed by the people consists of cereals. Such figures as are available suggest that the average annual production of cereals in the country in 1939–43 fell short of the necessary requirements of the population by about 22%. In regard to other articles of diet, such as vegetables, fruits, milk, meat, fish, and eggs, the quantities now produced will have to be increased several times before adequate amounts become available for the proper nutrition of the people."

Health Services

The existing provision for medical relief for the people is definitely low in comparison with the more progressive countries of the West, as may be seen from the numbers of doctors and of hospital beds in relation to the population of the United States of America, England and Wales, and British India. The death rate in each country during 1944 is shown in Table II.

TABLE II

Country	No. of Doctors per 10,000 of Population	No. of Beds per 1,000 of Population	Death Rate per 1,000 of Population
U.S.A.	13.0	10.48	10.6
England and Wales	10.0	7.14	11.9
British India	1.6	0.24	24.1

About 70–75% of the doctors available in India are practising in urban areas, yet the rural population is about eight or nine times larger than that of the urban. Some idea of the inadequacy of medical institutions in the rural areas may be gained from the fact that in 1942 the average population served by a medical institution in the United Provinces was about 105,600, while the average number of villages for a rural population of this size is 224. The extent to which the personnel employed on preventive health duties are inadequate has been clearly stated by the Bhoré Committee: "The total number of sanitary or health inspectors employed in British India is about 3,000, while it has been estimated that the number required will be in the neighbourhood of 12,000. The existing number of midwives is probably 5,000, while, for adequate service to the people, 100,000 are considered necessary. The total number of health visitors in the country is about 700 or 750, while, for the supervision of the work of 100,000 midwives, about 20,000 health visitors will be required.

The number of women doctors with special training in maternity and child welfare work is about 70 or 80, and of these only a dozen are women graduates in medicine with adequate special training in maternity and child welfare work."

Bhore Committee's Plan for a National Health Service

The foregoing brief discussion on existing health conditions indicates that in the development of a national health programme certain matters require special consideration. These include, among others: (1) an expansion of health services throughout the country, particularly in the rural areas; (2) special provision for the health and welfare of children and mothers; (3) an all-round improvement of environmental hygiene so as to produce healthy living conditions for the community; and (4) a substantial rise in the standard of nutrition of the people. The plans put forward by the Bhore Committee give adequate recognition to all these matters.

The committee has taken the administrative district as the basis for the development of health services and has described the district health organization as follows:

"The district health organization will have as its smallest unit of administration the primary unit, which will normally serve an area with a population of about 10,000 to 20,000. A number of such primary units (about 15 to 25) will together constitute a secondary unit, and a varying number of the latter (about 3 to 5) will form the district health unit, the designation by which the district health organization will be known. At each of the headquarters of the district, secondary, and primary units will be established a health centre as a focal point from which the different types of health activity will radiate into the territory covered by each type of unit. The district health centre will possess general and special hospitals with a total bed strength of about 2,500, and all consultant and laboratory services required for the diagnosis and treatment of disease on up-to-date lines. The administrative staff of the district health organization will be located here and will exercise supervision over the district as a whole. Similarly, the secondary health centre will be provided with hospital accommodation of about 650 beds and with equipment and other facilities on a generous scale, although not up to the standard of the district health centre. The administrative staff of the secondary unit will be attached to the secondary health centre and will exercise supervision and control over the primary units included in it. The primary health centre will have a 75-bed hospital, and health administration over the area included in the primary unit will radiate from this centre."

This represents the ultimate stage of the district health organization when the committee's long-term programme, probably requiring 30 to 40 years, is completed. At the start inadequacy of trained staff and of funds will necessitate the development of the plan on more modest lines, and the committee has put forward a short-term programme which has been worked out in some detail for two successive stages of five years. A primary unit under the short-term programme will serve a population of 40,000 as against 10,000 to 20,000 when the long-term scheme is completed. The staff, equipment, and number and variety of medical institutions will all be on a limited scale during the early years, but the health plan has an organic unity which ensures continuity of development, its successive stages of expansion helping to promote the range and effectiveness of the services made available. In addition to general health services, detailed suggestions have been put forward for organizing adequate measures for the protection of special groups, such as mothers and children, the school-going population, and industrial workers, as well as for controlling the incidence and spread of certain widely

prevalent diseases—e.g., malaria, tuberculosis, leprosy, venereal diseases, smallpox, cholera, and plague.

Recent Developments

In the light of this survey of the state of the public health in India and of the comprehensive proposals of the Bhore Committee I shall review briefly such developments as have occurred during the past few years. At a conference of the central and provincial health ministers, which was held in October, 1946, the proposals of the Bhore Committee were accepted in principle by all the Governments, although it was recognized that, owing to the many difficulties due to post-war conditions, the rate of progress in implementing the proposals might be slower than suggested by the committee. The events that followed the partition of the country in 1947 made the position even more difficult. Nevertheless, provincial Governments have made some attempts to expand their health services on modern lines and particularly to provide rural medical relief by opening more dispensaries and appointing trained doctors to man them. All provincial Governments have given priority to an increase in the existing facilities for the training of both medical and ancillary personnel.

The central Government, in spite of its preoccupation with refugee medical relief during the past two years, has not been slow in making its contribution to the health programme. Grants from the central Exchequer have been available, from 1946 onwards, to provincial Governments for approved schemes of development. Further, during the last two years the central legislature has enacted important legislation pertaining to health. The chief among them are: the Employees' State Insurance Act, amendment of the Factories Act, the Dental Act, the Indian Nursing Council Act, and the Indian Pharmacy Act.

The Employees' State Insurance Act is intended to confer on industrial workers some measure of social security through the provision of cash and medical benefits in respect of sickness, injury, and disability, and, in the case of women workers, maternity benefit. In due course the provisions of this Act can be extended to all classes of workers, including agricultural workers, and the medical services under the scheme to their families also. Thus in course of time the medical provision made available under this Act will probably cover about 80–85% of the population. The scheme will be worked by a quasi-governmental organization, the Employees' State Insurance Corporation. The expenditure in connexion with the scheme will be met from the Employees' State Insurance Fund, towards which employees and employers will contribute.

Side by side with these developments the newly amended Factories Act has made comprehensive legal provision for promoting the health, safety, and welfare of workers in factories. The definition of the term "factory" has been extended in order to bring in a much larger number of workers, and provision has been made for preventive measures inside the factory, for adequate medical attention following accidents, and for the medical examination of workers before employment. The age for the employment of children has been raised from 12 to 13½ years, and adolescents are to be protected adequately against employment in hazardous occupations.

The three Acts relating to the professions of dentistry, nursing, and pharmacy are intended to promote uniform and satisfactory standards of training in these subjects and to regulate the practice of these professions on proper lines.

Mention may also be made of the Drugs Act, which was passed in 1940 and was brought into operation in April,

1947. It is an important legislative measure, particularly in view of the fact that during recent years the Indian market has been flooded with all kinds of spurious medicines. The central and provincial Governments are co-operating in the development of the necessary control measures.

In view of the growing menace of tuberculosis the Government of India has, among other measures, embarked on a B.C.G. vaccination programme with the help of the World Health Organization and of the International Children's Emergency Fund. A laboratory for the manufacture of B.C.G. vaccine has been established by the central Government at the King Institute, Guindy; and vaccination, which was started in August, 1948, in a rural centre in South India, has now been extended to a number of large cities such as Calcutta, Bombay, Madras, Delhi, Baroda, and Amritsar, where the incidence of tuberculosis is high. Six teams of foreign experts are working in India, and a number of local teams are being trained in each place under their care. Thus it is expected that the vaccination campaign will make progress. It may also be mentioned that Dr. Holm, who is the adviser on tuberculosis to the United Nations Children's Emergency Fund, visited India recently, and, on his suggestion, the idea of starting one rural and four urban centres for antituberculosis work, with special emphasis on the preventive aspects of the problem, is being seriously considered. It is expected that the Fund will give substantial help towards this scheme.

These developments are, it is true, likely to touch only the fringe of the problem; even so, it is felt that a start on sound lines is being made, and the intention is that in each of these centres there should eventually be developed a complete antituberculosis scheme in which preventive work and treatment in the homes of the people, controlled by a dispensary with adequate diagnostic facilities, hospital isolation, and aftercare, would all be provided. Apart from the benefit that these centres will confer on the local people, they are intended to play an important part as training organizations for the various types of tuberculosis workers that are required.

Other Committees

In addition to the activities just described I may refer to the work of a number of committees which the Government of India appointed. They are:

1. An Upgrading Committee for the purpose of reporting on the steps to be taken for increasing the facilities for postgraduate medical education and research in the country by improving particular departments in existing medical colleges and research institutes in order to make them centres of training on an All-India basis.
2. A Vital Statistics Committee for reporting on the steps that are to be taken by Governments for improving the collection, tabulation, and study of vital statistics and for the continuous investigation of population problems.
3. A Leprosy Committee, which has been entrusted with the task of putting up proposals for the establishment of an All-India Teaching and Research Leprosy Centre.
4. An Environmental Hygiene Committee to advise the central and provincial Governments on problems relating to environmental hygiene in rural and urban areas.
5. A Rural Health Committee for putting forward proposals for modifying and simplifying the district health organization suggested by the Bhore Committee for providing an integrated curative and preventive service to the people, with special reference to the rural areas.

The Upgrading Committee's proposals were received by the Government of India recently, and steps are being taken to carry out its recommendations. The Bhore Committee

suggested a threefold programme to make India largely self-sufficient in postgraduate medical training. The first is the establishment of an All-India Medical Institute designed to provide teaching and research facilities of a high order in all the major branches of medicine and of certain allied professions. The second is the improvement of selected departments in existing medical colleges and research institutes in the Provinces so as to enable them to serve as teaching centres on an All-India basis. The third is the establishment of special teaching and research centres for some of the diseases which constitute major health problems in the country, the location of these institutes being determined by the availability of adequate clinical material and of facilities for research.

The creation of the All-India Medical Institute has been accepted in principle by the Government of India, and a special committee appointed for the purpose has described in detail the plan of its development. There may be some delay in its establishment because of the large expenditure that is involved, the difficulty of construction owing to the shortage of building material, and the large demand that the institute will make for teaching staff of the requisite quality. The Upgrading Committee's programme deals with the second recommendation of the Bhore Committee, and the improvement of existing institutions in different parts of the country will help to distribute postgraduate training facilities and will also promote the production of teachers and of research workers who will later become available for the All-India Medical Institute.

The third recommendation asks for the establishment of special institutes for some of the major diseases. The Malaria Institute of India is one such institution, and the contribution it has made to research in that subject and to the training of malaria workers has been considerable and has received recognition in India and abroad. The Leprosy Committee, to which reference has already been made, has put forward suggestions for the creation of a leprosy teaching and research centre, and it is expected that these recommendations will receive early consideration by the Government of India. The establishment of a Tuberculosis Institute has also been accepted. Thus the threefold programme of development envisaged by the Bhore Committee will, it is anticipated, be fulfilled without delay.

It may also be mentioned that the question of adequate control over postgraduate medical education has received consideration. At a recent conference of the vice-chancellors of all the universities in India as well as of representatives from the medical faculties of these universities it was decided that the Inter-University Board of Vice-Chancellors should nominate an All-India Council of Postgraduate Medical Education, which would perform the function of co-ordinating and regulating postgraduate medical training in the country in the same manner that the Medical Council of India performs a similar function in the field of undergraduate training. It has also been proposed that the central Government should help postgraduate medical education through grants to the institutions concerned, the wise distribution of these grants being another method of promoting the development and maintenance of adequate standards of instruction. This Council is being established, and is expected to start functioning at an early date.

Proposals of the Committees

I shall now say a few words about each of the five committees mentioned above.

Upgrading Committee.—After visiting a number of medical colleges, research institutes, and special hospitals such as those

for cancer and mental diseases, this committee put forward proposals for raising the standard of existing departments in a number of these institutions. The subjects include anatomy, physiology, pathology, paediatrics, mental diseases, industrial health, tuberculosis, thoracic surgery, venereal diseases, microbiology, social medicine, and cancer research. The places where these institutions are located are Calcutta, Madras, Vellore, Bangalore, Bombay, Delhi, and Ranchi. It will be seen that, as the result of the proposed developments, there will be a wide distribution of postgraduate training facilities. The committee has recommended that the professorial staff employed in the departments of non-clinical subjects such as anatomy, physiology, and pathology should be whole-time and that they should be debarred from private practice. As regards clinical subjects two suggestions have been put forward. The staff can either be whole-time and without private practice or they can be employed on the basis of a lower salary with private practice restricted to the institution at certain fixed hours in the week and with rates of fees prescribed by the authority concerned in each case. The whole cost of the scheme is to be shared by the central and provincial Governments. The implementation of the scheme will, it is expected, be started shortly. The necessary funds have been provided in this year's budget.

Vital Statistics Committee.—The second conference of the central and provincial health ministers, held in August, 1948, thought it essential that immediate steps should be taken to improve vital statistics, and the committee appointed by the conference for this purpose has submitted a plan which modifies, from the point of view of cost and personnel, the comprehensive proposals put forward by the Bhoré Committee for establishing the registration and study of vital statistics on a sound basis as well as for the continuous study of demographic problems. Both these committees stressed the importance of appointing a registrar-general at the centre and registrars in the provinces in order to combine the functions of vital statistics, the census, and population studies under the same organization. A registrar-general was appointed a few weeks ago by the central Government, and it is intended that the provinces should be asked to appoint corresponding officers for their own territories. Various other recommendations have also been put forward by the Vital Statistics Committee, and these are receiving consideration. It is hoped that the carrying out of these proposals will help to improve vital statistics and to promote the study of population problems in India on sound lines.

Leprosy Committee.—The report of this committee was submitted to the Government of India a few weeks ago and is receiving its serious consideration. The committee has proposed: (1) the establishment of an All-India research and teaching centre at Madras; (2) the training of selected workers from the different Provinces so as to enable them to start leprosy research centres in their own areas; and (3) the organization of epidemiological, pathological, biochemical, and other studies in leprosy on a comprehensive scale. It is anticipated that the establishment of the institute will be started during the present year.

Environmental Hygiene Committee.—This committee is faced with the difficult task of putting forward practical proposals for a graded programme of action for the improvement of living conditions, taking into account the difficulties regarding finance and building material that the country has been facing during the post-war period. The committee is expected to submit its report at an early date.

Rural Health Committee.—This committee is called upon to suggest to the Governments a modification of the scheme of health services which the Bhoré Committee put forward three years ago, in view of the fact that inadequacy of trained personnel and insufficiency of funds have made it difficult for the health authorities to execute that committee's scheme in full.

Rural Health

Without anticipating the findings of the Rural Health Committee I may put forward certain suggestions in regard to the development of a modified rural health programme.

While it is recognized that the establishment of the health services outlined by the Bhoré Committee even in its short-term programme may present difficulties in the next few years, it is considered that, with necessary changes in regard to details, it should not be difficult, at least in certain parts of the country, to mobilize existing resources in institutions and personnel and to organize a health service which will preserve the main outlines of the Bhoré Committee's plan. For instance, existing district headquarters hospitals may, wherever necessary, be enlarged into institutions of at least 200 beds, while at the headquarters of the subdivisions and of taluks smaller hospitals may be organized out of existing ones without undue expense. The most important part of the programme is to provide primary units which will give the rural areas reasonably sound health protection, particularly on the preventive side.

In certain Provinces there already are a large number of rural dispensaries, and these can form the centres round which the primary health units are built. There also exist rural health organizations for preventive work, consisting of health officers, sanitary inspectors, health visitors, midwives, vaccinators, and special staff for the control of epidemics. The present numbers of such personnel will no doubt be too small for any attempt at the organization of a Province-wide scheme. In selected areas, however, the existing staff, supplemented by a few additions, can be utilized for creating primary units, even though these units may be in a less complete form than that recommended by the Bhoré Committee. Such primary units should make it possible to carry out control measures against preventable diseases in a manner designed to demonstrate adequate results within a reasonable period of time. The enforcement of such measures should help to reduce the existing morbidity in the country by 50 to 60%.

It is interesting to note in this connexion that the results of an intensive antimalarial campaign in Ceylon have gone far beyond the control of that disease and that a general rise in the standard of health of the people has become evident, presumably because the devitalizing effect of malaria and the consequent tendency to contract other forms of sickness have been materially reduced. A similar encouraging report has been received from Kanara district of the Province of Bombay, where intensive antimalarial measures have been in progress for the past few years.

Indigenous Systems of Medicine

All these developments are in the field of modern medicine. It should be mentioned that there is a demand from certain sections of the people for the resuscitation of the indigenous systems of medicine—the Ayurvedic and the Unani—as well as of homoeopathy. In deference to their wishes the Government of India appointed two committees, one for indigenous medicine and the other for homoeopathy. The report of the former was published a few months ago and that of the latter will be available soon. It is expected that the Government of India will then declare its policy towards these systems.

While I have no right to anticipate and define what this policy will be, my impression is that the Government of India will fully recognize that, both from the standpoint of its international health obligations and from that of providing adequate health services to the people, modern medicine has inestimable advantages in that its interpretation of health and disease and its elaboration of measures for the diagnosis and treatment of ill-health and its prevention are based, to a progressive degree, on the utilization

of the resources that physical and natural sciences make available to us. At the same time there is no reason why research in indigenous medicine should not be stimulated so as to secure from those systems all that is scientifically proved to be valuable to mankind, whether it be in the realm of drugs, principles, or special practices. Thus it may well be that modern medicine will in due course emerge enriched by all that is demonstrably good in our ancient systems.

I would also add that India's active participation in the work of the World Health Organization is further evidence of her interest in modern medicine and of her desire to utilize it fully for the good of the people. If she was really opposed to the practice of modern medicine she would not have pressed for the location of the headquarters of one of the Regional Bureaux of WHO in India. Indian medical scientists are serving on the expert committees of that organization dealing with cholera, plague, trachoma, venereal diseases, malaria, tuberculosis, and maternal and child health. India has undertaken to carry out extensive investigations into various problems relating to cholera at the request of the Expert Committee on Cholera, and that committee is being invited to hold its next meeting in India towards the end of the year.

As has already been pointed out, a large-scale programme of B.C.G. vaccination is in progress with the assistance of the World Health Organization and the United Nations Children's Emergency Fund, and these two organizations as well as the Food and Agriculture Organization are helping India with teams of experts and equipment for starting centres of active work on modern lines in respect of malaria, tuberculosis, venereal diseases, and maternal and child health. Lastly, I may mention that during the past three years a scholarship scheme sponsored by the Government of India has sent abroad to the United Kingdom and the United States a few hundred medical men and women for postgraduate training in various subjects.

It is pertinent to quote here the remarks on indigenous systems of medicine which the Hon. Rajkumari Amrit Kaur, Health Minister with the Government of India, made in the Dominion Parliament in 1948 during the debate on the health budget:

"I do want members to realize that there can be no question of the indigenous systems supplanting the modern scientific system. Science, as I have said once before, knows no barriers of race or clime. Knowledge gained through research and practical application may not be ignored. It would be folly for us to dwell on or rest content with our achievements in the past and shut the windows of our understanding, as it were, to the light of modern scientific achievements in the vast field of medicine and surgery. I am sure it would be wrong on the part of any State not to try to afford the best and most scientific medical relief to the sick and suffering committed to its charge. It does not follow that the cheapest is the best. If we have not been able to afford adequate medical attention and relief so far, that is surely both our fault and our misfortune. It is not the fault of any system. Scientific knowledge of chemistry, of physics and biology, of the structure and functions of the various tissues and organs of the body, sufficient knowledge of surgery, of sepsis and a sepsis, of bacteriology, x rays, electrotherapy, dentistry, and modern public health—these are the minimum essentials for anyone who can claim to attend to sick and suffering humanity. The important thing for us to consider is in what condition the indigenous systems of medicine to-day are and what is necessary to make them a progressive scientific art. We may not, we dare not, be content with less. There is ample room for research. Whatever in either the Ayurvedic or Unani systems of medicine or in homoeopathy stands the test of scientific scrutiny must and will be translated and synthesized in modern scientific medicine and added to the

fund of world knowledge, and I would beg of the House to agree with me that it is in the spirit of the quest for truth—and what is science but a quest for truth?—that we must go forward and see to what extent indigenous systems can be developed and regulated for medical relief in the country, and not in any spirit of rivalry with allopathy."

The Prime Minister of India holds equally strong views regarding promotion of the scientific approach towards the study of health problems and their solution. In the circumstances it seems to me quite unlikely that India will turn her back on scientific medicine and follow for sentimental or even mystical reasons any other form of medical practice.

MATERNITY AND THE NATIONAL HEALTH SERVICE*

BY

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The maternity service, unlike all the other medical services save only those dealing with child welfare, is in a very special sense concerned with health. In any area its function is the promotion and the maintenance of the health of a group of individuals for the most part in the prime of life and whose numbers, and therefore whose needs, can be estimated with considerable accuracy. A maternity service succeeds in the measure in which it exercises a continuing and enlightened care of the woman and child throughout pregnancy, labour, and the lying-in period. It is bound to fail in proportion as it permits this care to be broken at any stage or when it allows it to pass into the wrong hands.

At a time when we were on the average losing between four and five out of every 1,000 pregnant or parturient women there were throughout the country many examples of large maternity practices which showed year after year a death rate of 1 per 1,000 or less. It is well known that such practices were always those in which the administration was based upon a unity of control and direction of the various component elements of the service—midwife, clinic, health visitor, doctor, consultant, and hospital. It was apparent to all who gave thought to the matter that the high national mortality rates persisted, despite the experience of these scattered areas in which local enterprise was saving mothers and babies, because of the low standards which continued to prevail throughout the country generally. It is important to note that the low mortality and morbidity rates of mother and child characterizing these efficient practices were being obtained before the advent of sulphonamides brought down in a remarkable way the loss of life from puerperal sepsis and from 1936 onwards led to the first real downward trend in the total maternal death rate. This saving of life was in no sense due to an improvement in the standards of midwifery. There was as much puerperal infection due to the same cause as before, but this infection and these causes were concealed by the life-saving properties of the new drugs.

It was also notorious that these high annual death rates persisted despite the great improvements which occurred in the training of midwives and doctors, the increasing attendance of women at the antenatal clinics, and the rapid

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