INTRODUCTION
SECOND INTERIM REPORT (ABBREVIATED) OF THE SOCIAL AND PREVENTIVE MEDICINE COMMITTEE,* ROYAL COLLEGE OF PHYSICIANS, LONDON

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Introduction
Parliament has under consideration far-reaching plans the adoption of which will, it is hoped, replace necessity and uncertainties due to the ill-ordered social economic system of a recent past, by a sense of security. That hopes of social security may not be disappointed, all economists agree that the industrial production of the country must be efficient: it cannot be efficient unless the producers are contented; they cannot be contented unless the conditions of their work guarantee the highest attainable level of physical and mental health. This has been recognized in association with economic plans for reorganizing the medical services of the country. It would be hard to say which item of this vast programme is the most important: when, however, it is remembered that a very large majority of citizens are employed in factories large and small, in offices, in shops, in transport undertakings, in catering establishments, where they pass a third of their working years, it must be clear that the medical-hygienic regulation of those working hours is a matter of importance. When it is further realized that this regulation is now haphazard, sometimes drastic, sometimes negligible, the responsibility of different authorities or of no authorities, the case for a reconstruction of what will be called the Industrial Health Service seems overwhelming.

It must be realized that what happens in the factory affects family life and good health and home environment influences factory life for it is the whole life of a human being which is in question: one or other side cannot be given primacy. If one physician cannot see the life of the worker as a whole, the partial observers must pool their knowledge, that is why again and again the need of co-ordination is emphasized and prominence given to university centres of teaching and research where medical graduates differently employed can barter the results of experience, can learn and teach on equal terms. It is hoped that many young physicians and surgeons in the forces or in the enlarged factory service which war industry has imposed will find an interest in industrial medical work.

For these reasons it is urged that an Industrial Health Service should be planned in a bold manner without much regard for traditional arrangements. Factory legislation should be strengthened and extended in order to provide for the needs of smaller industries and non-industrial undertakings. The Industrial Health Service should be an essential part of the National Health Service with ultimate responsibility vested in the Minister of Health and the Chief Medical Officer of the Ministry of Health as the Chief Medical Officer of the Industrial Health Service.

There should be uniform conditions of service, rates of remuneration, pensions and so forth. Its general administration should be delegated mainly to the Ministry of Labour and Industry; this arrangement might still be carried out within the general framework of the Service by such bodies as the Ministry of Fuel and Power, the Ministry of War Transport and the General Post Office. The existence of special technical...
to be desired, even when allowance is made for war-time difficulties and improvisations. The principal authority for the industrial health service in peace-time was the Home Office, but most of its functions in this respect have been handed over to the Ministry of Labour and National Service. The Ministry of Supply, in its capacity of factory employer, has now developed a medical service on its own account, and the Ministry of Fuel and Power has provided a medical service. It may be anticipated with confidence that the new Ministry of National Insurance will create a central medical staff, with the result that there may be, after the war, at least seven Government Departments with independent medical staffs, all imposing duties on all, whatever is designated by the word "Medical," and all prescribing report forms of their own devising. Unless some co-ordination of central departments can be achieved, it is bound to mean that local conditions will tend to remain chaotic with impairment of efficiency.

The aim of the new national health service will be to provide every person, or better still every family, with a personal or family practitioner who will be able to become familiar with the circumstances of those in his care—in the home and at work. * This statement is in full accord with the ideals of modern social and preventive medicine. It lays a just emphasis on the family as the unit for medical care, and it extends the application of medicine to man in his environment—in his work as well as in his home. This is the only basis of a health service and it is sincerely hoped that even the temporary exclusion of industry from the proposed scope of a national health service will not be adhered to. Indeed, as a subsequent quotation shows, the ultimate aim of the national health service is to provide for an important part to be played by medical practitioners of every kind in the industrial field. This is fully in accord with the whole object of the present report.

The Aims of this Committee one of the immediate requirements of the people of this country is an industrial health service which includes provision for all who need it most—not merely the large and complex industrial concerns, but also the small factory and workplace, the building industry, the transport services, offices, hotels and catering establishments. In other words, the industrial health service of the future must be comprehensive, and national in its scope. If this view is accepted, then it is clear that the family doctor has a vital part to play in the service as a part-time industrial health officer, and that he must be trained for this function. It is equally clear that there must be a nation-wide service of medical officers of consultant rank who have specialized in the problems of occupational diseases and of industrial health. The Committee appreciate the desirability of appointing whole-time industrial medical officers for the larger industries, and in suitable cases a combination of full-time and part-time service, but they must emphasize again their view that in a comprehensive industrial health service the general practitioners who will be in the front line of the proposed national health service, "the first source of help on which the individual will rely," will also be the main body of the industrial health service. There would be obvious difficulties if they were employed by two separate Government Departments.

Outline of a National Industrial Health Service

In the past the industrial health service has been confined too narrowly to the establishments coming within the scope of the Factory Acts. The reason for this is historical, because the original purpose of legislation was to secure for the factory worker minimum standards of safety and working conditions. The end of last century inspection was technical rather than medical. Since that time, however, increasing attention has been paid to the personal health of factory workers and to the creation of an environment conducive to health. In addition, great advances have been made in the prevention of occupational diseases, but the time has come to review the position in the broader terms of the prevention of sickness and the promotion of health. During 1938, for example, nearly 20,000 workers or their dependents received compensation for disablement caused by industrial disease; but it has been shown that the industrial workers lose about fifteen times as many working hours from non-disability and accident as from occupational accident and disease. This takes no account of the effects of subnormal health upon efficiency and proneness to accident. It is evident, therefore, that occupational disability causes only a fraction of the total morbidity of the industrial worker and is in no way sufficient as such as takes a comparatively minor role in an industrial health service.

The industrial health problem, as has been shown, extends beyond the Factory Acts. The new National Health Act and other legislation carries its scope further than the prevention of sickness and accident to the restoration of full working capacity, therefore providing for those who have been disabled by sickness or accident.

The Aims of an Industrial Health Service.—The main objectives of the service should be:

(a) To promote the general health of the worker by the provision of a good working environment and by fitting the worker into that environment.

(b) To prevent occupational disease.

(c) To assist in the prevention of injuries at work.

(d) To organize and supervise a service for the emergency treatment and care of injured and sick workers at their place of work.

(e) To take an active part in the restoration to full capacity of workers disabled by injury or disease; and resettlement of workers suffering from the result of their injuries.

(f) To educate the workers in the preservation of health and promotion of well-being.

(g) To promote investigation.

Means of Attainment. Working Environment.—Much of the preventable sickness which affects the worker is associated with causes that lie in his working environment. Housing, economic stress and lack of education. Nevertheless, a good working environment can do a great deal to improve the health of the worker and so to some extent redress the balance of unfavourable factors elsewhere. The industrial health service should be primarily concerned with working environment, and for this purpose continuous investigation is necessary, in co-operation with other departments of management.

Fitting the individual into his working environment will entail inquiry into his physical and mental capacity, as well as some knowledge of what is required for efficient and safe performance of the various jobs available. Entrants into industry are of varying strength, intellectual ability and aptitudes, their past medical history may throw doubt on the suitability of some kinds of employment for them; and it is for the industrial medical officer to see how their abilities and disabilities affect the choice of desirable work. The doctor's share in selection and allocation is not restricted to those entering industry for the first time; it is equally necessary when workers enter a new occupation, or when they change their job within the factory, such as in the case of recent or persistent illness. The degree of precision with which the worker can be matched to his job need not be as great as that for minute physical and psychological examination, but it should be sufficient to avoid the waste and the damage to health sometimes caused in the past by allowing an unqualified worker to be employed. This may be avoided by good time to undergo training or attempt to carry out unsuitable work. There is no longer room for the belief that it is the industrial medical officer's business to examine new workers to weed out if possible all but the physically and mentally fit, leaving those who are in any way handicapped to find a livelihood in some lower-grade occupation where standards are low or non-existent. In the past this attitude towards the medical examination of recruits into some efficient and progressive industries was in part determined by factors such as the operation of private insurance and pension schemes, which were in themselves entirely entitled for the personal benefit, but it could be unjustifiable and indeed impracticable for such a policy to be widely adopted, nor is it in keeping with modern conceptions of health and industrial medicine and in industrial psychology.

The Prevention of Occupational Diseases.—In this part of the service—the restricted sphere of occupational disease and its prevention and treatment. The work of clinical consultants and scientific research workers must take an increasing part. Investigation and medical care should be organized both centrally and regionally, and in this respect the industrial medical officer acts as general practitioner, supported by ready access to the specialist and the laboratory.

The Prevention of Injuries.—In this part of the service the work of the Factory Inspectorate has been of outstanding value, and in recent years the technical officers in the various industries have contributed a great deal towards the prevention of accidents. There is need for more co-ordination of health
and safety measures, especially in large constructional works, such as hydro-electric schemes. More attention also should be given to the training, supervision, and placing of workers in suitable jobs, in picking out "accident-prone" workers, and in providing the optimum conditions of lighting, ventilation, and temperature in order to reduce as far as possible the liability to accidents.

Treatment.—It is the duty of the industrial medical officer to organize a service for general health supervision, and for the earliest treatment of illness and accident. Early treatment of injuries must provide for serious and urgent calls as well as for minor injuries. Normally, the continuous attention to the sick and the scope of the industrial medical officer, duty in remote and thinly populated areas, where there are no hospital facilities, it should be the duty of the service to make all necessary provision for the care of the sick and injured until they can be safely removed to hospital. In such areas ambulance facilities are essential.

Rehabilitation.—As provided under the Government schemes, rehabilitation will help to link together the three essentials of national life—health, education, and industry. Rehabilitation, as the Tomlinson Committee pointed out, is a continuous process from the moment of disability until the worker is restored to full earning capacity, if possible in his own job. It will be quite impracticable to secure efficient rehabilitation and resettlement without the closest ties between the proposed national health service and the industrial medical officer. The final stage of rehabilitation should be carried out at the place of work, old or new, and the service should make full use of the industrial medical officer.

In this connection, the Committee strongly support the Government White Paper on Workmen's Compensation (Cmd. 6551), as the new proposals would go far to make rehabilitation a valuable part of the nation's health services and they will remain valuable in the past an unfortunate barrier to success in this field.

There are many workers who after injury or illness are not restored to full health and earning capacity, but are nevertheless capable of work. The resettlement of these permanently handicapped workers calls for the same continuity and medical and industrial linkage of services as does the rehabilitation of those who return to full earning capacity; it also demands an awareness on the doctor's part of the available jobs which may be satisfactorily carried out, with or without treatment to health, by the worker who is handicapped in respect of a particular bodily or mental function. It is another aspect of the industrial medical officer's share in the selection and allocation of those who enter industry or change their occupation.

Co-operation. It should be emphasized that an industrial health service must be a co-operative undertaking to ensure success. The key personnel must be trained either as doctors or as special auxiliaries, such as nurses and welfare workers, but there can only be security that they work in close co-operation with both management and employees. During the war the increasing interest of the public in health and the increasing knowledge of public hygiene, and this attitude should be encouraged among the "consumers" of the industrial health service. These views have already been expressed, as one of the terms of such a service of coordination of health education, and there is no doubt that the workers and technical staffs in industry on their part, are, in addition, capable if given the day to day working of the service.

As a medium for these functions in the individual factory or other establishment, we suggest the joint management-labour committees, such as joint production committees or factory health and safety committees, mentioned later in connection with appointments of medical staff. Such committees, intimately related on the one hand to the departments in the establishment concerned with health, and, on the other hand, to the workpeople and management, can provide a focus for discussion of local current health issues for education and the dissemination of information, and— no less important—the collection of problems requiring investigation. In this way, the co-operation and confidence of the workpeople and management will be achieved and the service will have a firm basis.

Scope of the Service

The industrial health service must not only be unified, it must be universal. It must provide a medical service for all industry, including mining, agriculture, forestry, building undertakings, agriculture, fisheries—in fact, any place of work except when that work is done at home. Thus, within the limits of a worker's working environment the service would provide early inspection,早 inspection, medical advice after casualties, and the prevention and treatment of industrial diseases, and carry out the aims already outlined. It would be closely connected with welfare organizations concerned with the maintenance of personal comfort in the home, the Ministry of Labour and the Department of Health for the Prevention of Accidents, and the Ministry of Health's Health Services (Ministry of Health). The proposals of the General Medical Council for the establishment of the industrial health service, and the view that this service should be connected with the Ministry of Labour and National Service and other bodies in order to maintain close contact with the lay inspectorate, but it would be desirable for the Chief Medical Officer of the Ministry of Health to hold the same position in this regard in the industrial health service as he does in relation to the Ministry of Education.

In the absence of knowledge of how the proposed national health service will be administered locally, it is impossible to set out a detailed proposal, but, broadly, the peripheral authority should take in the general scheme of things to which the people of the area are accustomed. The general principles laid down centrally are followed. It is an important part of the local work to be obtained information as to the causes of sickness, to investigate the causes of deaths, to find the means of cure and the remedy, and to apply the latter. There is little doubt that, as a result, much valuable information will be obtained about illnesses associated with particular industrial processes, or with particular factors or places of work.

The reasons which led the Committee to adopt these views on organization are briefly as follows: (i) the health of the individual at home and at work cannot normally be separated; (ii) it would be impossible to secure efficient rehabilitation, unless there were the closest link between the two services; (iii) in the development of the national health service on sound lines requires direct access to the wealth of knowledge accruing from observations of health in industry, and (iv) the new industrial health service must spread its influence far and wide into work which is much more closely associated with home and family than the factory.

Staffing

(i) Central. The value of the central Medical Inspectorate is universally acknowledged, and the Committee hopes that their number will be increased to meet the needs of the wider service contemplated. One of the most important functions of the central medical staff is to maintain close contact with their lay colleagues and with other non-medical specialists. But an increase in number must not mean any decline in the high standard
which at present exists, for the medical inspectorate will have an even greater responsibility in the future than it has had in the past, a responsibility which it has splendily discharged.

(ii) Local. The local organization should be designed to fit in with the general pattern of the national health service. It should exercise general supervisory functions over industrial health as a whole, and it should provide a special health service for industrial establishments (including businesses, offices, transport services), which are unable, either singly or in combination, to appoint medical officers of their own. This local organization should be very closely linked with the public health service of the area. The local division of industrial health, as outlined above, should be the normal centre for field investigations into the health and welfare of all workers in the area, in whatever kind of work they are employed. In University centres in which there is a Department of Industrial Health there should be a close co-ordination of field investigation and research. A clinic (to which beds should be attached) and a research department should be associated with the medical teaching school and staffed by medical men and women of consultant or specialist rank.

(iii) Personnel. The industrial health service would consist of medical and lay personnel; under the former heading are included the following.

(a) Consultants in Industrial Medicine. These would include the medical inspectorate associated both with the central and the regional aspects of the administrative structure, together with the close links with University Departments of Industrial Medicine and there should be inpatient facilities at selected hospitals with beds under the charge of the consultants.

(b) Research Workers. Plans for research are outlined below. In accordance with established practice the word research is used here, but it should be noted that there is a distinction between research and investigation which is not merely pedantic. Those undertaking investigation or research in close association, and often identical with the consultants mentioned in (a).

(c) Whole-time Industrial Medical Officers. (i) Serving one factory or undertaking. (ii) Serving a group of factories or undertakings, either under one firm or under different firms.

(d) Part-time Industrial Medical Officers. These should be general practitioners with special training and experience in industrial medicine. The non-medical personnel of the service should include industrial nurses (for whom special post-graduate training is necessary), social workers, welfare workers, technical specialists (anthropologists, etc.), and lay inspectors. The last-named would obviously require great extension and specialization to embrace the many industrial undertakings whose health it is suggested should be brought within the scope of the reformed service.

Terms of Service and Finance

The general plan of remuneration, terms of service, pensions, etc., for the medical personnel of the industrial health service should be nationally established after negotiation with the appropriate medical organizations.

The finance of the service requires careful consideration and the Committee is not competent to elaborate this aspect of the subject in any detail. But there are certain general considerations which can be usefully set out as well as certain alternative methods whereby the service might be financed.

In the first place it is necessary to dispose of the point of view that industry cannot afford a health service. Surely, the opposite is the truth: industry cannot afford to be without a health service if efficiency and output are to be maintained. It is pathetic that the lessons learnt painfully during the 1914–18 war regarding industrial fatigue, the length of working hours and the maintenance of output, were not remembered. It is only recently that experience has shown the necessity of the provision of proper facilities in times of peace. Where an industry in a boom and where the costs of illness and accidents have increased, any attempt to cut down expenditure on health services and safety precautions can be disastrous. The Committee is of the opinion that there are no substantial grounds for such an attitude and that industrial medical officers have loyally served the workers in the past despite just such objections. It must be remembered that it is in the interest of the industry, and of the country, to provide a proper health service; otherwise the workers will be abandoned to the evil consequences of a campaign. Small undertakings, shops and offices could clearly not afford the direct payment of medical officers, except with elaborate pooling arrangements.

It therefore seems advisable that some other method of finance be adopted. It is possible that if a close link between a national health service and an industrial health service is obtained, as this report urges, the payment of medical and other personnel might be made part of the general health service. The implications of this course of action are obvious. Moreover, the cost of the industrial health service might be met by a levy on output or profits, similar to the levy now made in the mining industry for the provision of pithead baths. The levy could be made on the basis of an agreed sum paid each year per number of workers involved. This last suggestion would met the obvious difficulties presented by the large number of industrial concerns where the problems of industrial health and hygiene are no less important for the worker than in the large factory. Some combination of two or more of these methods should also be considered and the possibility of the sharing of cost between industry and central funds might offer a satisfactory solution to all concerns.

It should be arranged, however, that any firms or industrial undertakings, including Government undertakings, which are allowed to make private arrangements if desired provided that such arrangements conform to national standards and that the medical officers appointed are approved by an appropriate body.

Appointments to the Service

The question of appointments is closely allied to that of finance. Indeed, it might be urged that the workers’ suspicions are as much concerned with the identity of the income of the medical officer comes from as with who makes the appointment. From the medical officer’s point of view it is most desirable that he has security of tenure and cannot be dismissed because, for example, his advice is unpalatable to the management. Here again, the Committee wishes to put forward certain alternatives for detailed consideration by the Government when the national health service has reached a later stage in its development.

Appointments, in the case of large undertakings, or selection of medical officers in the case of small undertakings, might be left as at present to the management or owners with the proviso that such appointments must be approved by the appropriate central, regional or local part of the administrative scheme. Dismissal would also require approval by a similar body. A Local Health Services Council, as outlined in the White Paper on a National Health Service, might be an appropriate body if its membership included industrial representatives, or it might have an industrial health services sub-committee. The extension of this suggestion would be that appointment or selection might be limited to a chosen panel or short list of approved medical officers. In either case it is to be hoped that both employers and workers would be represented on the necessary regional or local bodies concerned with the industrial health service. For large undertakings, the Joint Production Committee idea might be elaborated to embrace some sort of joint health and welfare committee where representatives of employers and workers would take part and make the necessary appointments. Factory Health and Safety Committees, as advocated by the Chief Inspector of Factories, have already been proved very successful, and it is felt that the sort of body the Committee has in mind. Whatever scheme is adopted, and possibly different methods might be chosen for different industries throughout the country, it seems clear that the workers should be given some opportunity for taking part in the appointment of medical officers in industry, so that any possible suspicion of partisanship can be avoided.
However appointed, medical officers in industry should have direct approach to the Board of Directors or owners. In large concerns their everyday work will fall largely in the realm of the personnel managers, but degree of independence for the medical officer is desirable. Moreover, industrial nurses and any other lay personnel of the health service should be directly under the control of the medical officer. All medical records should be regarded as strictly confidential and details only revealed with permission of the workers concerned in so far as they affect their working life.

Education of Medical Staff
The training of medical officers for industry obviously requires careful planning. In time it is hoped that on general practitioners will have had, in their under-graduate and post-graduate training in both preventive and industrial medicine, at least one year's experience. But such improvements may be some years away. Medical education must move forward gradually, and the essential steps can be taken, such as the appointment of teachers with industrial experience, the establishment of departments of industrial medicine in medical schools, and by the giving of courses in industrial health and the preparation of syllabuses which would be recognized and understood by industrial firms. The chief disadvantages are that the multiplication of diplomas is apt to cause confusion, and that it would be very difficult to plan a syllabus to cover the many and varied aspects of industrial medicine, with the risk that the diploma would become based upon a course of instruction too specialized and too elementary to be of much value.

The Committee feel that it is not possible to reach a final decision on this point until the wider question of post-graduate diplomas in medical subjects has been fully considered. Provided that the training in industrial health is kept on a broad basis and that Universities establishing departments of industrial health are encouraged to undertake teaching as well as research, the planning of a sound course of instruction in this subject should not present any difficulties.

It is probably advisable that the granting of any diploma in industrial health be restricted as with other diplomas. The Royal Colleges, but the Universities might well consider making industrial medicine an alternative subject for the M.D. degree. For the consultants and specialists in industrial medicine some further training is required. The three Royal Colleges have issued their criteria for the recognition of consultants and specialists and these can readily be adopted for consultants in industrial medicine. The training for general practitioners requires, in addition to the obtaining of a higher degree or diploma in general medicine and a period of three years of specialist work which should include a junior post in a University Department, some experience in research and possibly some experience abroad. The developments of University Departments will greatly facilitate the training of consultants and specialists in industrial medicine.

Research
One of the essential elements in an industrial health service is research. Up to the outbreak of the present war the Industrial Health Research Board carried out pioneer work which promised great benefits to industrial organizations if the findings had been more widely applied, especially in the small industries. The urgency of war have brought about a great change. Both employers and workers have been taking much more interest in the results of industrial health research and there has been a tremendous development in the application of research to the immediate problems of war industries. In the post-war world there will be an increasing need for industrial health research in both field and laboratory, and probably an increasing tendency to encourage studies which have an immediate application; but it is of the greatest importance that these investigations, valuable as they are, should not be allowed to obscure the need for more fundamental research. This is particularly true at the time when teaching schools are considering the creation of Departments of Industrial Health and the establishment of Chairs at Universities. University Departments should train workers for fundamental research, for education cannot flourish unless there is the urge in each Department to pursue knowledge for its own sake.

It must be emphasized that the close and cordial co-operation of industry itself is essential for the success of any investigation or research in industrial health. In the opinion of the Committee the promotion of such research should be carried out at three levels:

First, there is a continuing need for an Industrial Health Research Board, responsible for investigating problems of national significance and, in addition, problems relating to local industries which cannot be carried out owing to lack of special facilities by research teams in the various regions.

Secondly, the University teaching schools which establish Departments of Industrial Health should be charged with fundamental research, including field investigation, especially in relation to problems of their own region.

Thirdly, there should be in each local administrative area under a national health service a division for field investigation working in close liaison with the Industrial Health Research Board and the local Factory Department. On the one hand, and with Universities and local authorities on the other.

Recommendations
That an industrial health service be planned as an integral part of the national health service with arrangements for close association at all levels, central, regional, and local, with other branches of the national health service. Such an industrial health service should be national in its scope and apply to every variety of employment. Such an industrial health service should be staffed by medical inspectors, consultants in industrial medicine, full-time and part-time medical officers, together with the necessary non-medical personnel, all of whom will have received training suitable for the type of work undertaken. Proposals for such training are indicated in the report.

The essential feature of administration of an industrial health service should be a close association everywhere with the body responsible for the peripheral administration of the national health service and with University Departments of Industrial Health, where such exist.

Clinical facilities, including beds for the consultants and research workers in industrial medicine, should be provided. The aims of such a service should include the establishment and maintenance of hygienic environmental conditions; the prevention of disease and accidents in industry; the rehabilitation of the injured worker; and the education of the workers in the preservation of their own well being.

Research into industrial health should be given every possible encouragement administratively, and by the industries themselves.