surgeon, owing to the close-knit social system of the Bantu. In farming areas, on the contrary, practically all the Natives - not to mention European bywoners - are regarded as paupers in respect of district surgeon services. In the large towns the out-patient services provided by public hospitals and, in locations, by local authorities have relieved the district surgeoncy system very considerably. There are 33 whole-time and some 350 part-time district surgeoncies in the Union. In addition to their purely curative functions in respect of paupers, the district surgeons carry out medico-legal work and undertake investigations into actual or suspected outbreaks of infectious disease.

Corresponding to the district surgeoncy system, but dating only from 1935, is the subsidised district nursing system. This takes the form of direct subsidies to nurses and midwives - as distinct from part-refunds to agencies employing them - which enable them to practice in areas where otherwise they could not make a living. There are 41 European, 100 Native and 2 Coloured

subsidised district nurses and midwives.

In response to the basic recommendation of the Gluckman Report, the Union Government is now establishing Health Centres in various parts of the Union. These are a considerable advance on the district surgeoncy system, in that their main purpose is to provide preventive personal health services, and each centre is staffed not only by one or more full-time medical officers specially trained in the techniques of social medicine, but also by a number of auxiliaries, the latter being as far as possible of the same racial composition as the community to be served. However, the health centres provide out-patient curative services as well. These at present are restricted (the preventive services are not so restricted) to those who cannot afford to pay. All Natives are regarded as falling within this category. Some 17 Health Centres have already been established and are distributed over all four Provinces, in urban and in rural areas, and among European, Native, Coloured and Indian communities,

namely / ....

namely -

Newlands Health Centre, Durban

Tongaat Health Centre, Tongaat

Springfield Health Centre, Durban

Government Health Centre, Alexandra, Johannesburg (distinct from but working in co-operation with the "Alexandra Health Centre" under university auspices)

Grassy Park Health Centre, Grassy Park, Cape

Walmer Health Centre, Port Elizabeth

Thaba 'Nchu Health Centre, Thaba 'Nchu

Cradock Health Centre, Cradock

Knysna Health Centre, Knysna

Native Health Unit, Bushbuckridge, Transvaal

Polela Health Unit, Bulwer, Natal

Lady Selborne Health Centre, Pretoria

Grahamstown Health Centre, Grahamstown

Fort Beaufort Health Centre, Fort Beaufort

Port Shepstone Health Centre, Port Shepstone

White River Health Centre, White River

Evaton Health Centre, Evaton, Transvaal.

Many more Health Centres would have been established but for the grave difficulties in the way of securing accommodation. Provision

of / .....

of new buildings for Health Centres has had to take an inferior place, on the Building Controller's list of priorities, to houses and to even more urgently required Government offices of various sorts. Consequently the establishment of Health Centres is dependent to no small extent upon the availability of makeshift premises for hire. In some cases Army Huts surplus to military requirements have been transferred to Health Centre sites. These huts are required also for many other purposes, including emergency European housing.

A special Training Scheme for Health Personnel - of all races - was established in Durban early in 1946, and as this Scheme comes fully into operation health centres will be established at a geometrically progressive rate. It is probable that eventually health centres will incorporate all district surgeoncy services, district nursing services and out-patient services detached from hospitals.

(4) Services under the Workmen's Compensation Act.

These are specially mentioned, not because they are separately organised, but because of the special financial

arrangements relating to them. Ever since 1934, workmen[x] injured on duty (by accident, or by contracting certain scheduled industrial diseases) have been entitled to full medical treatment at the expense of their employers, who (since 1943) have been compelled to meet this (and other obligations under the Act) by contributing to a special Accident Fund. The injured workman has free choice of doctor and of public hospital, except in a few cases where the employer has specially provided a medical service approved by the Workmen's Compensation Commissioner.

B. HOSPITAL SERVICES.

Whereas medical services outside hospitals are still, in the main, provided or organised by agencies other than the State, the majority of hospital services are provided by public authorities. For this reason, the order in which extra-institutional medical services have just been described will now be reversed, in order that the principal agencies may be dealt with first.

(5) State/....

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x The definition of 'workmen' and other points connected with the administration of workmen's compensation are dealt with on page.....

(5) State Hospitals.

(a) Hospitals under the Central Authority:

Although the Constitution of the Union assigned "hospitals" to the control of the provincial councils, this has never meant, in practice, that all hospitals are provided or even controlled by the Provinces. Both the Union Government and the local authorities play a considerable part in the provision of hospitals. Those provided by the central Government all come under the control of the Department of Health, except a few military hospitals which are under the Department of Defence.

Mental Hospitals.

There are 10 hospitals for mentally disordered persons, catering for all races, and 2 hospitals for mentally defective persons, catering for Europeans only. Provision is made for voluntary patients at these institutions, but the vast majority of the inmates are persons certified under the Mental Disorders Act of 1916. There is a very serious shortage of beds and of nursing staff. A comprehensive programme of new building has been announced, together with the conversion of several military hospitals built during the

1939-45 War. Patients (or their relatives or guardians) who can afford to do so, contribute the whole or part of the cost of their maintenance. From this source is derived a little over £100,000 a year, the balance of £1½ million being met entirely by the Union Government.

Leper Institutions.

There are 5 institutions in the Union, 4 of which cater solely for Natives. Apart from negligible contributions in respect of a few Europeans, the entire cost of approximately £200,000 a year is met by the Union Government. The segregation of lepers in these institutions is compulsory. Here they are treated, by the most modern methods, until their disease is arrested, whereupon they are allowed to return home and are kept under surveillance for 6 years. Those who have been crippled by their disease receive maintenance grants for life. This system of leprosy control has kept the incidence of the disease at a very low level, particularly in comparison with other African territories.

Tuberculosis/....

Tuberculosis Hospitals.

Under existing legislation the primary responsibility for the provision of infectious diseases hospitals rests upon the local authorities, but in respect of T.B. and V.D., the Union Government also may make provision; and the tendency now is for it to make the principal provision. The Union Department of Health maintains the following hospitals: Springfield in Durban (1000 beds for non-Europeans); King George V in Durban (130 beds for Europeans); Rietfontein near Johannesburg (250 beds for non-Europeans); Nelspoort Sanatorium near Beaufort West (200 European, 70 non-European); West End, Kimberley (300 non-European); Westlake, Capetown (200 beds); and further large hospitals, for non-Europeans, have been authorised at Mossel Bay, Umtata and Matatiele. The Macvicar Hospital at Lovedale (100 beds for non-Europeans) and Rentzkies Farm Hospital at Capetown (275 beds for non-Europeans) are examples of hospitals conducted by local authorities; and there are 21 other such hospitals. Some 40 mission hospitals make provision for T.B. cases and are paid, at cost, by the health authorities for so doing.

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In all, some 1,000 beds have been provided for Europeans and over 3,000 for non-Europeans, but the latter falls far short of what is required in view of the very high incidence of T.B. among Natives becoming urbanised under unfavourable conditions. Unfortunately, many beds stand empty owing to lack of nurses. The Union Department of Health has instituted a special type of non-European T.B. nurse-aide to meet this situation. These aides are being trained (Std. VI minimum plus 3 to 6 months special course) by the Department itself. Indian and Coloured girls, as well as Natives have come forward for training.

Whichever authority maintains the T.B. hospital, cost of treatment is met one-eighth by the local authority from whose area the patient comes, one-quarter by the Province, and five-eighths by the Union Government. The patients themselves are liable to contribute as much as they can afford.

V.D. Hospitals.

The Department of Health maintains a large hospital at Rietfontein, outside Johannesburg, which caters principally for Native V.D. patients from the Witwatersrand. Formerly one-third of the cost

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of maintenance was contributed by local authorities, but since 1946 the entire cost has been met by the Government. At Vryburg and King William's Town much smaller V.D. hospitals are maintained, solely for Natives.

Hospital Accommodation for Smallpox, Plague, etc.

The Rietfontein Hospital also provides accommodation for cases of smallpox and plague (all races) which are described legislatively as "formidable epidemic diseases". The costs are borne entirely by the Union Government. When surplus accommodation is available, Rietfontein also provides for Native cases of infectious diseases other than those already mentioned (T.B., V.D., and F.E.D.), and the local authorities contribute one-half of the net cost. The Government also maintains quarantine stations at Durban and Capetown in connection with port health work.

(b) Hospitals under the Provincial Authorities.

There are two classes - "General" hospitals, and chronic sick homes. The general hospitals cater for non-infectious diseases (although accommodation is often provided, against payment by other authorities, for infectious diseases as well) and maternity cases. All races are provided for,

sometimes/....

sometimes in the same hospital, sometimes in separate hospitals. There are, however, no special chronic sick hospitals for Natives or Indians. The King Edward VIII Hospital in Durban and the Coronation Hospital in Johannesburg, both for non-Europeans, are among the best-built and best-equipped in the Union.

In Natal, the general and chronic sick hospitals have always been under the direct control of the provincial administration. In the Cape and Transvaal only the chronic sick homes, and in the Orange Free State only the two largest general hospitals, have been under direct provincial control. For the rest, general hospitals have been under the control of local hospital boards which, however, are themselves under the close control of the respective provinces and largely dependent upon them for their finances.

Important changes are about to take place in the administration of general hospitals in the Cape and Transvaal. All general hospitals are to be brought under the direct control of the Province. Accompanying this change are others. The system of "honorary" visiting physicians and surgeons is to

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be replaced by a system of whole- or part-time paid appointments. Local financial responsibility will cease. All patients will receive free accommodation, nursing and medical attention, unless they wish to choose their own doctor. In the latter event they will have to pay the doctor themselves and, moreover, although they will not have to pay for accommodation and nursing they will be restricted to the use of beds reserved for this particular category of patient. As the primary purpose of general or public hospitals is to meet the needs of the poorer sections of the community, it is not likely that the reservation made will be equal to the demand upon it. Those who cannot secure one of the reserved beds will, therefore, either have to surrender their free choice of doctor or go to a private nursing home. At the latter the maintenance charges are usually at least double those of public hospitals.

In Natal ~~and the Orange Free State~~ no provision has yet been made for free general hospitalisation, and there the system will continue (which hitherto obtained in the other Provinces as well) of making charges according to the capacity of the patient to pay, as assessed by the hospital almoner or other official. Under this system/....

In the Orange Free State there is free hospitalisation (in public hospitals) for all married persons with incomes below £600 p.a. and all single persons with incomes below £300 p.a.

system nearly all non-Europeans already enjoy free hospitalisation, and in respect of Europeans the line below which free services are given is generally drawn at a much higher economic level than that of indigency.

In terms of the Financial Relations Act the Union Government provides half the cost of the hospital services provided by the Provinces. Moreover, direct payment is made, from the insurance funds, on behalf of injured workmen coming within the purview of the Workmen's Compensation Act.

(c) Hospitals under Local Authorities.

These are hospitals for the isolation and treatment of persons suffering from infectious diseases, including only the communicable forms of T.B. and V.D. They frequently take the form of blocks or wards at general hospitals, administered on behalf of the local authority by the general hospital authority - province or board. They cater for all races. The nett cost is subject to part-refunds by the Union Government: 100% for V.D. and formidable epidemic diseases; 62½% (plus another 25% from the province) for T.B.; and 50% for other infectious diseases, whether ~~certifiable~~ notifiable or not.

(6) Private Hospitals.

(a) Hospitals provided under Statute.

The chief of these are the mine hospitals, provided, in terms of the Native Labour Regulation Act, at the cost of the employer. Bed accommodation must be in the ratio of 1 to every 40 Natives housed in a labour compound. The construction and equipment of these hospitals vary considerably, from excellent to very poor. They are inspected by officers of the Departments of Native Affairs and of Health. The Indian Immigration Hospitals, now reduced to four in number (from the original 14), are provided from a special fund to which employers of Indians in Natal contribute compulsorily. They are controlled by the Department of the Interior. The Cottesloe Hospital, provided by the Rand Mutual Assurance Company for (European) mineworkers entitled to treatment in terms of the Workmen's Compensation Act, also belongs here.

(b) Benefit Society Hospitals.

Entabeni Hospital in Durban (S.A.R. & H. Sick Fund) and White Lodge Nursing Home in Pretoria (Iscor Benefit Society) cater primarily for the (European) members of the societies concerned, but make any surplus accommodation available to non-members.

(c)/ Private ....

(c) Private Nursing and Maternity Homes conducted "for gain".

There is a considerable number of these, varying greatly as to size and standards. They cater only for Europeans. They are controlled by special regulations made under the Public Health Act and enforced by inspections carried out by professional staff of the Department of Health. In Natal, powers of inspection have been delegated to the Province; and in towns where there is a full-time medical officer of health, they are delegated to him. In total, the nursing homes constitute a very considerable supplementation to the public general hospitals, providing some 4,000 beds as against double that number provided in public hospitals. In places where there is no public hospital the Province frequently makes a grant to the local nursing home.

(d) Mission Hospitals.

These also are "private" hospitals, but are not conducted "for gain" in the sense of profit-making. Except for one or two maternity homes which serve Coloureds and Europeans, they cater for Natives. As they are not conducted by hospital boards constituted in terms of the provincial hospital ordinances (except for the Victoria Hospital at Lovedale), they have not

been/....

been eligible for financial assistance on the scales laid down in those ordinances. Instead, they have been placed in the category of "charitable institutions" and, in three provinces, have been given block grants which can only be described as niggardly, particularly in view of the fact that they are, in effect, public hospitals which relieve the pressure on adjacent public hospitals. Only in the Orange Free State are grants paid to mission hospitals on an equitable and rational basis, namely, on an in-patient-day basis. The mission hospitals also often cater for infectious diseases, including V.D.; and when they do, they receive from the Department of Health full refund of their costs. Since 1929 there have been paid special grants, from the S.A. Native Trust, to those mission hospitals which train Native nurses, midwives and "nursing assistants" (the latter take a three-year course based on a lower entrance standard than ordinary nurses).

However, all these sources combined were quite insufficient to maintain the mission hospitals, which therefore were compelled to charge fees (always subeconomic, and often remitted) to their Native patients, to go understaffed, and to depend upon support from overseas' and local churches. During the war many of

the overseas' churches (some of which were European continental) could not keep up their contributions, and under these circumstances the Native Trust made special grants towards maintenance and, in some cases, extension. In 1946, when the whole question of the control and support of hospitals in general was under discussion, the Department of Native Affairs intimated that it was not prepared to sponsor grants from the Native Trust towards the support of mission hospitals which, as indicated above, fulfil the functions of general hospitals and are, therefore, entitled to support from the provinces - which at the time of the release of the Gluckman Report had strongly insisted that "hospitals" were constitutionally their responsibility. In response to these representations the provinces have agreed to give increased support to mission hospitals, but not on the same basis as for ordinary public hospitals. It appears that mission hospitals will still have to depend, to no small extent, upon charity or upon fees from patients, or upon both, in order to make ends meet. This will be anomalous, if not unjust, in that at least some of the provinces propose to levy a special hospital tax on all Natives, whereas it is only for Natives in the towns (and for Europeans everywhere) that free hospital services will be

provided by the provinces.

SURVEY OF REHABILITATIVE HEALTH SERVICES.

During the 1939-45 War, a National Readjustment Board was set up to deal with the rehabilitation of injured soldiers; and it is hoped that the machinery the Board has established may in due course be utilised for the rehabilitation of injured civilians as well. At present, however, the only kind of rehabilitative service available to civilians is that now being commenced in a few of the large general hospitals, mental hospitals and T.B. hospitals by occupational therapists. It is interesting to note that the Workmen's Compensation Act contains a provision whereby assistance may be given from the accident fund to schemes for rehabilitating injured workmen.

PERSONNEL FOR HEALTH SERVICES.

In relation to its potential and even its actual needs, the Union is suffering from a grave shortage of personnel for health services. This is partly due to the virtual cessation of immigration of ready-trained personnel from overseas (where there are also shortages), but principally to the increasing demand for health services from the non-European population.

At the outset it may be remarked that the authorities responsible for the examination and registration of personnel

for health services have never discriminated in any way against non-Europeans. There is no reason, other than the lack of adequate facilities for their training, why non-European doctors, dentists, nurses, etc. of the same professional standards as the Europeans should not provide for the needs of their own people. As will be apparent, the Union is already far in advance of any other African territory (except, perhaps, Egypt) in the training of Africans for health services.

Medical Practitioners. The combined annual output of the three medical schools in the Union is approaching 300. Some authorities maintain that this is sufficient to meet the effective demand under the present economic set-up in relation to medical services. The present over-all Union ratio is 1 doctor to 3,000 population, with variation from 1 to 400 or 500 in the largest urban centres (which, however, serve also a considerable hinterland, especially in respect of specialist services), down to 1 to 30,000 in the more backward Native rural areas. If medical services are to be supplied in accordance with the actual needs, a ratio of 1 to 1,000 or 1,500 will be required. Whichever figure is adopted, it is reasonable that non-Europeans should serve their own people. Hitherto non-Europeans could qualify as doctors only by going overseas, but facilities are now available within the Union, and in 1945 two Natives graduated in medicine at a South African university. These are

being followed by others, at the rate of at least six or seven annually. It may be mentioned that a Native doctor holds the appointment of part-time District Surgeon in a Native rural area; two hold whole-time appointments in municipal health departments; and yet another is part-time medical officer of health to a large Native township.

Dentists. The shortage of dentists is even graver than that of doctors, and all authorities are agreed that many more are urgently required. There are only 700 in the Union, and only one dental school. The whole problem has recently been investigated by a Government Committee whose report is not yet public. There are no non-European dentists and no facilities for training them.

Pharmacists. The number of pharmacists in the Union appears adequate for present demands, but an extension of medical services commensurate with potential needs would require many more pharmacists. There are no facilities for the training of non-Europeans.

Nurses and Midwives. The shortage of nurses and midwives is acute in the Union and throughout the world. Many hospital beds stand empty, not through lack of patients or of equipment, but of nurses. The training of general nurses is necessarily a function of general hospitals, although specialised types (mental, mental defective, fever nurses) are trained at the appropriate hospitals. The training of nurses has not

been organised in such a way as to make the best use of all the hospitals available. Under the stimulus of the South African Nursing Council (which controls the education, examination and registration of nurses and midwives), changes are now taking place which will bring about qualitative improvements as well as quantitative increase in the output of nurses.

Mission hospitals took the lead, 40 years ago, in the training of Natives as nurses, to the same standard as that of European nurses. Since that time hundreds of Native and Coloured women have demonstrated their ability not only to qualify as nurses and midwives, but also to render able and devoted service under a great variety of conditions. No Indian has yet qualified as a nurse, although a few are now in training at the McCord Hospital. Non-European nurses are placed on the same register as Europeans, so that there is no ready means of ascertaining the actual number. Non-European nurses and midwives more frequently carry on their work after marriage, so that there is less "wastage" from this source among them than among Europeans. The official registers do not indicate which nurses and midwives are still practising. It may be estimated that a sixth of all practising nurses and midwives in the Union today are non-Europeans, and the proportion is increasing steadily.

Nursing Assistants. Mine hospitals and mission hospitals, not capable of giving full training, have trained Natives as nursing assistants, usually in a 3-year course (on a Standard VI or VII entrance). Several hundreds of these have done and are doing much useful work both in hospitals and in district nursing services in rural areas. A special type of training has recently been established by the Department of Health for non-European T.B. nurse-aides. These receive a short, practical training in the nursing of T.B. patients. Three hundred of them are being produced in the first instance in order to help staff the large numbers of T.B. beds already available and soon to be made available.

Medical Aids. This is the somewhat misleading title (due to the historical origins of the training) given to persons who have qualified B.Sc.(Hygiene) and thereafter spent a year in field work under the Department of Health. A better title would be "Hygiene Officer". Thus far, only a few Natives have taken the degree (teaching facilities are available only at the S.A. Native College) and still fewer have qualified as medical aids. Thirty-two of those who have qualified are employed by the Department of Health; the rest have gone on to take full medical training.

Health Visitors/....

Health Visitors. These are nurses or midwives who have undergone special additional training - a six-months part-time course at a technical college. The supply falls short of the demand. A few non-Europeans have qualified.

Health Inspectors. There is an insufficient supply of this type of personnel, who are essential for efficient non-personal health services. They are trained in two-year part-time courses (matriculation entrance) at technical colleges. Despite great difficulties in securing training, several non-Europeans have qualified in recent years. The Department of Health gives special grants in aid of the training of non-Europeans.

Health Assistants. Originally this title was given to Native men trained by certain municipal health departments as a kind of auxiliary health inspector. The term is now being used to describe personnel being trained, and employed, by the Department of Health for work in health centres. The full training will take three years (minimum entrance Std. VIII). Both men and women of the three non-European groups will be trained, but among Europeans, women only. Health assistants will be the front-line workers in promotive and preventive health services, particularly among non-Europeans.

SUMMARY AND DISCUSSION.

(1) The Incidence of Ill-health and its Fundamental Causes.

Vital statistics provide the most accurate criteria of the efficiency of health services. Unfortunately, vital statistics are lacking, or unreliable, for the greater part of the population. There is no compulsory registration of births and deaths for non-Europeans outside the urban areas. In the rural areas registration of non-European births and deaths is optional, and deaths of Natives, even those due to notifiable diseases, are seldom reported. However, sample surveys and estimates by experienced persons give some indication of the position. The figures about to be cited are taken mainly from the Gluckman Report.

The inherent vitality of the people of the Union is shown by a European birthrate which, at 25 per 1,000 population, is higher than in most Western European countries and in Australia and Canada; and by a Native birthrate which is approximately 40.

The death-rate for Europeans, which is slightly less than 10 per 1,000, is as low as any in the world, but for non-Europeans it is 20 or over. Other mortality and morbidity rates reflect similar differences between

European/....

European and non-European. The infant mortality rate for Europeans is less than 50 per 1,000 live births; for Natives it is "not less than 150 anywhere and in some areas as high as 600 or 700". The maternal mortality rate, of 4 to 5 per 1,000 births, for non-Europeans is twice as high as for Europeans. The incidence of malnutrition ranges from 40% for European schoolboys to 70% for Bantu children. Dental caries afflicts over 90% of European children in many areas; the incidence is probably less among Natives and Indians and greater among Coloureds. Intestinal parasites are very common among Natives. Bilharzia and malaria affect 100% of Native children in endemic areas, and about one-third of the Europeans. Venereal disease afflicts 25% to 30% of the Native and Coloured population, although much of it is latent; and the incidence of tuberculosis is so high and is rising so rapidly among non-Europeans that it constitutes probably the gravest health problem in the Union today.

The kinds of ill-health specifically mentioned above have their roots in poverty or ignorance, or both together. It is for this reason that their incidence is so much greater among non-Europeans. A mere increase of curative and even of personal preventive health services cannot diminish this incidence. There must also be simultaneous,

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or indeed antecedent, increase of promotive health services as well. First and foremost there is the need for improved nutrition of the people. All else is secondary, including the medical services themselves.

However, it would be unfair not to give recognition to what has been accomplished by the medical, particularly the public health, services of the Union. Despite the difficulties of dealing with a large Native population, illiterate and dispersed over wide and difficult terrain, the public health services have succeeded in keeping down several infectious diseases which in other parts of Africa and of the East frequently attain epidemic proportions. The incidence of leprosy is lower in the Union than in any other African territory. Smallpox, typhus and plague - which are all endemic - cause relatively little loss of life, thanks to the unceasing vigilance of district surgeons and health inspectors whose work is rarely publicised. Malaria is under a control which becomes more effective every year.

There remain two diseases of major importance which have not yet been brought under effective control among the non-European section of the population. They were probably both introduced in the first instance by the European; and they have been and are being spread by factors consequent upon economic developments induced by the European.

These diseases are syphilis and tuberculosis, the incidence in each of which is probably higher than in any other country in the world claiming to be civilised. The principal cause of the high incidence of syphilis is the destruction of normal family life and the disturbance of the old tribal social customs consequent upon the system of migrant labour. This statement is being borne out by detailed statistical studies undertaken at health centres. The principal cause of the high incidence of tuberculosis is the rapid industrialisation of the non-European at a time when housing and nutrition are hopelessly inadequate. Overcrowding in grossly unhygienic slums favoured the spread of infection, and chronic malnutrition provides the soil upon which infection flourishes.

Neither syphilis nor tuberculosis can be overcome by establishing clinics or building hospitals, although these services are of course necessary to deal with existing cases. The over-all campaigns must include radical changes in the socio-economic system under which non-European labour is recruited, housed and fed.

(2) Economic Considerations.

The Gluckman Commission estimated that £14 millions are spent annually on personal health services - approximately £1.3 p.a. per head of population. The cost of an

organised/....

organised national health service for Great Britain is estimated at approximately £5 p.a. per head. The Gluckman Commission estimated the cost of a national health service for the Union at £20 millions annually, or less than £2 per annum per head. This low figure is accounted for by the assumptions that (a) an organised national health service would immediately lay emphasis on preventive services and thus rapidly reduce the bill for the more expensive curative services; (b) mainly non-European personnel, at lower salary scales, would be used for non-Europeans; and (c) hospital buildings and maintenance would be less costly for non-Europeans, and in the milder and drier climate of the Union, than in Britain.

As was insisted upon by the Third Interim Report of the Industrial and Agricultural Requirements Commission (U.G. 40 of 1941), adequate health services are not a luxury. They are an indispensable pre-requisite to the full development of the economic potential of the Union. People cannot achieve their maximum productive capacity when they are suffering from chronic anaemia and toxaemia induced by malaria, bilharzia and intestinal parasites (50 - 100 per cent. of the non-European population is suffering from one or the other, sometimes two or three); nor when they are

suffering from chronic syphilis (25 per cent of non-Europeans) which so frequently produces physical break-down in middle life; nor when they are suffering from tuberculosis, which today is killing off non-Europeans - mainly in early adult life, before they have a chance to become productive at all - at the rate of 20,000 a year. Can a country already short of labour afford this continuous and increasing drain upon its manpower?

(3) The Provision of Personnel. There cannot be adequate health services without adequate health personnel. The present acute shortage is well-known. One of the most hopeful signs for the future of health services in the Union is the beginning which has been made with the provision of facilities for the training of non-Europeans as doctors, as nurses, as medical aids, as health inspectors, as health assistants, as social workers. It is the one field in which there is no colour bar to qualification and - more important still - to service. There is only one serious gap, namely, that there is no provision for the training of non-European dentists.

(4) Research and the Institute of Hygiene. The most hopeful sign of all is the new orientation towards problems of health, indicated by the establishment of health centres

practising social medicine and by the ~~promised~~ assured establishment (adumbrated by the Training Scheme for Health Personnel at Durban) of an Institute of Hygiene which, in addition to continuing the training of personnel, will carry out research into the problems of social medicine in relation to the varying types of community, economic and racial, to be found in the Union.