The standard of health service rendered to the local native population incidentally would be raised to a very high level.

Opportunities are clearly in front of every one of us to affect the future course of progress in the South African medical world. If the present-day undergraduates come to realise their capacity and the nature of the contributions they can make to our medical future then, within a very few years, tremendous advances will ensue. The establishment of a mechanism for intensive research into native conditions, and the expansion of the health organisation to provide an adequate service to the natives will soon be accomplished facts. Last of all, these advances will be the means of giving to many medical men of the future a sense of security and happiness in the knowledge that they are finding their self-expression in a great co-operative effort of service.

THE "TRUE AGE" OF NATIVES.

Some time ago correspondence passed between Mr. Jeffreys, Resident Magistrate at Ndola, and Dr. Doke of the Bantu Studies Department, relative to the above subject. This correspondence was referred to Professor Dart who informed Mr. Jeffreys of our lack of knowledge concerning the question at issue, and requested his permission to submit his original letter to *The Leech*. Mr. Jeffreys kindly agreed to the suggestion and sent a further letter outlining the matters that urgently required resolution. In order that medical students and graduates might learn, at first hand, of the medico-legal necessity for this physical anthropological information, we publish these two letters.—*Editor*.

Office of the Resident Magistrate,  
P.O. Box 4, Ndola,  
27th June, 1935.

Dear Dr. Doke,

More than a month ago Mr. Cross very kindly gave me your address and he told me that he had written to you to say that I should be writing soon. A few days later the trouble on the Mines started and I have had little opportunity until now of taking advantage of the introduction.

Mr. Cross, no doubt, told you the nature of the subject in which I am interested *viz.*, the "true age" of natives, particularly the true ages of native children, adolescents and early adults.

I do not know whether there is any registration of births in the Native Territories of the Union of South Africa, or whether the average native in the Union knows his or her age.

In Northern Rhodesia, as you know, there is no registration of births of native children and very few natives know their age. Missionaries have recorded the births of children born on Mission stations and in the neighbourhood, native fathers who have learnt to write sometimes make a note of the date of birth of their children, but generally speaking natives do not know their age and all one can do is to estimate the "apparent" age of natives.

It may be that registration of native births has been in operation for many years in the Union; if that is so the difficulty of ascertaining the true age of natives may not exist today in your part of South Africa. But if that is the case at the present time I have no doubt that such difficulty was experienced in the past and I am anxious to know whether there has been any investigation in South Africa at any time of the true age of natives; that is to say how closely the "apparent" age of natives, judged by European standards, compares with the true ascertained ages of those natives.

The question is not merely of academic interest in Northern Rhodesia. It is often necessary that one should know the true age of a native in order to apply the Law; for instance, we now have a "Juvenile Offender's Ordinance" which makes provision for the special treatment of the "child," the "young person" and the "juvenile adult." According to this Ordinance:—

"Child" means a person under the age of fourteen years.

"Young person" means a person who is fourteen years of age or upwards and under the age of sixteen years (and certain other persons between 16-18 years in certain circumstances).

"Juvenile adult" means a person who is sixteen years of age and upwards and under the age of twenty years (also certain other persons between 20-25 years under some special classification).

As it is seldom possible to ascertain the age of natives, it follows that in deciding the age of natives who may possibly fall under one of the above classifications, all one can do is to estimate their "apparent" age.
Again, under the Penal Code, the true age of natives is important in certain instances, *e.g.*—

(a) no person under the age of eighteen years may receive more than twelve strokes with the cane by way of corporal punishment.

(b) a person under the age of eighteen years may be caned in addition to, or in substitution for, any other punishment (and in practice wherever possible a native under eighteen years of age is caned to avoid his being sent to prison).

(c) any person who unlawfully takes an unmarried girl under the age of sixteen years out of the custody or protection of her father, mother or guardian, against such person's will is guilty of a misdemeanour.

(d) it is no defence to a charge of indecent assault on a girl under the age of twelve years to prove that she consented to the act of indecency.

(e) any person defiling a girl under the age of twelve years of age is guilty of felony.

In such cases the true age is meant but, in fact, it seldom happens that the true age is known; all one can do is to hazard a guess.

I could quote a number of other cases where the local law refers to the age of persons generally, or natives in particular, without giving any indication of the method in which the age of a person concerned (if a native) is to be ascertained or estimated.

On the other hand certain Ordinances in dealing with matters where the age of natives is material, provide that the "apparent age" shall be taken (*e.g.* in the Native Registration Ordinance, the Native Tax Ordinance, etc). In such cases a fresh difficulty is experienced: how is one to compute the "apparent age"? Different persons have different ideas as to the growth and development of native children, adolescents and young adults; one person may estimate a certain native youth to be fourteen years, while another may consider the same youth to be several years older or younger.

Doctors and dentists in this Territory have told me that it is not difficult for them to make a fairly close estimate of the age of the average native by observation of the state of development, teeth, etc., but I am doubtful as a rule, of their estimates, for I know that generally such estimates are based on their knowledge and experience of European persons.

Before anyone can assess the age of natives in any part of Africa, it is essential to know whether the rate of development, growth and maturity of natives is the same as in the case of Europeans.

It is often stated, I believe, with some truth, that European children in South Africa tend to develop more rapidly than do children in, say, England and I have frequently heard it stated that native children in Northern Rhodesia reach maturity more quickly than do European children in South Africa.

While I have no definite proof, one way or the other, I incline strongly to the opinion that native children and adolescents in Northern Rhodesia reach puberty and maturity much later in life than most European people believe.

My own experience, and that of a number of others in Northern Rhodesia, whose judgment I value is that natives in this Territory up to the age of say 30-35 years, are generally several years older than "the man in the street" (*i.e.* the average European) would imagine. The native girl just reaching puberty may, in fact, be fifteen years of age when "we" think she can be only eleven or twelve years old. The native youth who one hesitates to say is of the apparent age of eighteen years (when he becomes liable to pay Native Tax) is often found upon inquiry to have been born twenty-two or twenty-three years ago.

I have had little opportunity of making any searching investigation of the matter during the five years I have been stationed at Ndola—routine work has occupied my time very fully—and years ago when I had more leisure in purely native districts, I did not apply myself as I might have done to the study of the problem.

During the last few years I have often turned the matter over in my mind and have considered on what lines any inquiry into the true age of natives in Northern Rhodesia (compared with their "apparent age") should be conducted. Any such inquiry would need the co-operation of many observers and investigators; one would look to Missionaries, Administrative Officers, Teachers in European and Native Schools, etc., to ascertain the true ages of natives (particularly those under the
age of 35 years) and to observe the relation between the true age of any given native and his “apparent age” (judged by ordinary European standards of age).

Any such inquiry to be of any value would have to be properly organized and directed; it would take a long time and cover a wide field. And if any inquiry of a similar nature has been made already in some other part of South or Central Africa, it might be a waste of effort to commence an inquiry here before studying the conclusions drawn from previous investigation elsewhere. It is possible that no inquiry would be necessary here if investigation elsewhere has shown that a certain formula or factor can be applied in this calculation of the true ages of natives.

It was with a view to ascertaining what, if anything, has been done in the direction indicated in South Africa (or the neighbouring Territories) that I asked Mr. Cross for an introduction to you, and I shall be grateful for any information that you can give me, or for the name of any person who has knowledge of or interest in the subject.

I shall be in South Africa on leave towards the end of the year, but whether I shall be able to visit Johannesburg is doubtful. I intend, however, to spend some time in Cape Town where I should like to get into touch with persons interested in native matters, particularly this matter of “age.” There will also be opportunities for referring to any relevant books in the Cape Town Library.

I must apologize for writing at such length but I am anxious to indicate to you clearly the nature of my inquiry. I am, yours sincerely,

R. S. JEFFREYS.

Office of the Resident Magistrate,
P.O. Box 4, Ndola,
19th August, 1935.

Dear Professor Dart,

Dr. Doke sent me your letter of 7th August, 1935, in the above connection, and I have already telegraphed you saying that you may certainly publish my letter to Dr. Doke in the next number of The Leech if you so wish.

I am pleased to hear that the question I have raised is of interest and I should like to take this opportunity of indicating the lines upon which organized investigation of the true age of natives might be conducted.

I have given thought to the matter and I believe that the method of investigation which I have in mind would be simple and effective, provided the investigations were carried out with care and patience over a sufficiently wide field, and provided the interests of Governments, Missionary Societies and scientific bodies were secured.

Briefly, for the purposes of investigation the following procedure would be necessary.

(a) first of all, to ascertain by a number of tests, the average percentage error (plus or minus) where Europeans are asked to estimate the age of European children of various ages, young persons, etc.

This would present no great difficulty.

Headmasters of schools, Matrons of Welfare Centres, parents of infants or small children would know the exact ages of children, and many of the latter would know their own ages. Half a dozen Europeans of ordinary intelligence would then be asked to look at a group of children, young persons, etc., and to estimate the age of each. These estimates would be recorded and the average “estimated” age would be calculated for each individual in the group. The “actual” age of each individual being already known, the average percentage error would thus be ascertained.

If this test were applied to a sufficient number of groups of children, young persons and early adults (i.e. persons whose ages range between a few weeks and say 25 or 30 years, whatever age may be decided upon as the maximum age to be investigated) a satisfactory table of the average percentage error for all such ages could be obtained.

(b) next, to collect corresponding groups of native children, young persons and early adults whose “true age” had been previously ascertained either exactly or with sufficient accuracy to justify inclusion in the group. Here great care would be necessary, for the value of the investigation would depend upon the accuracy of the true ascertained ages of the individual natives included in the groups.

In many cases in South Africa, the ages of individual natives would be exactly known, but in Southern Rhodesia and Northern Rhodesia, such cases would probably be comparatively rare.

Where the exact age was not obtainable, it would be necessary to make careful inquiry and only those individuals whose age was capable of approximate estimation could be included in a group.
There are outstanding events which are known to natives in all parts of South and Central Africa; other events are known to natives in local areas only; there are also the seasons of the year.

All these are useful aids in ascertaining age; they are but instances which I mention by way of illustration.

Wherever the investigation was proceeding, keen investigators would readily devise means of ascertaining the approximate ages of natives in a sufficient number of cases to form the necessary groups.

Half a dozen Europeans would, as before, be asked to estimate the age of each individual in the group and the results would be tabulated in the manner indicated in the case of European children.

(c) in addition, to record carefully, the height, weight and physical development of each European and native child included in the group.

As a result of these investigations valuable data would be obtained regarding
(a) the comparative development of Europeans and Natives in South and Central Africa.
(b) the relation between the true and the apparent age of Natives (and also of Europeans) (in each case, of course, only up to the maximum age covered by the inquiry).

It would be necessary to distinguish between males and females in each group and it would further be desirable to classify the various groups in categories, e.g.
(a) Town dwellers (Europeans)
(b) Town dwellers (Natives)
(c) Rural dwellers (Europeans)
(d) Natives in “European” rural areas
(e) Natives living under normal “village” (Kraal) conditions.

The results obtained by means of a properly organized investigation would be further of a great social and economic value and those values could be further enhanced if the investigators also examined diet, conditions of life and so on.

Perhaps it would be a mistake to include too much in a first investigation which, if successful, would no doubt be followed by others on similar lines.

I hope I have indicated with sufficient clearness the nature of the investigations I have in view.

I should welcome suggestions and criticisms.

Yours sincerely, R. S. JEFFREYS.

A FRESH FIELD OF RESEARCH.

N. D. ACHTERBERG.

Inspector of Native Education, Transvaal.

To the University of the Witwatersrand belongs the honour of having initiated the first large-scale intelligence test in South Africa. In 1925 Prof. R. F. A. Hoernlé gave his Witwatersrand Group Test of Mental Ability (Wugtma) to 20,000 European pupils in the Government schools of the Witwatersrand and Pretoria. The results and conclusions of the test were printed in pamphlet form and published by the Transvaal Education Department.

Prof. Hoernlé's pioneer work pointed the way towards a similar investigation among the Bantu pupils in the native schools of the Witwatersrand. The aim of such an investigation would not be to establish the mental superiority of the one race or the mental inferiority of the other. It would be given with the definite intention of establishing a comparison by which the standard of education and the efficiency of the instruction, as found in the native school, could be measured, defects in the system of Native Education indicated, and remedial measures suggested.

There were at least three ways of applying the test. Either the Wugtma could be given in its original form, i.e. in English, or it could be translated into the vernaculars spoken by the pupils or an entirely new battery of tests could be standardized (either in English or in the vernaculars).

After due consideration of all the issues involved, it was decided by the writer that the Wugtma should be given in its original form.

(a) the tests were to be limited to the upper classes of the schools (Standards IV, V and VI); (b) English was the prevailing medium of instruction in the schools; (c) the vernaculars spoken by the pupils did not as yet lend themselves to a type of test such as the Wugtma; (d) the enormous labour and prohibitive cost involved in standardizing tests in some seven main native languages; (e) the desirability of establishing a direct comparison between the mental ability of the European pupils and the Bantu pupils, on the basis of this test, which would not be possible if differing languages and material were employed. It is interesting to compare on this last point, Prof. Hoernlé's remarks in regard to the validity of comparing results
obtained by means of the same test, but in English and in Afrikaans.

The objections that may be raised where pupils are tested with material in a foreign language (since English is not the mother-tongue of the Bantu pupils) have not been overlooked, but this is not the place to discuss them.

To make the results derived from this comparative study of practical value, it is essential that as many factors as possible affecting native education and Bantu pupils be studied, so that their influence on the results obtained may be assessed and adjustments made, if necessary, in the conclusions drawn from such results.

Some of the factors to be considered are the use of a foreign tongue as the medium of instruction: the type and effectiveness of the teachers employed: the suitability of school buildings: lighting and ventilation of classrooms: seating accommodation and desks: the equipment provided: the social environment of the pupils and their home-life: the physical condition of the pupils.

Most of the factors enumerated can be evaluated by the educationist. He may even make an attempt to judge the physical fitness of the pupils by methods such as were employed in the Survey of Virginia Schools, e.g., the standard of defect in eyes to be the inability to read the 20-foot line of the Snellen’s Eye Testing Card at a distance of twenty feet: the standard of defect in hearing to be the apparent inability to hear the whispered voice, testing the ears separately, at a distance of twenty feet: the standard of defect in teeth to be the presence of cavities. But these are rough methods, for they leave the degree of defect and the cause out of consideration.

For a thorough study it is essential to have competent medical opinion, based on scientific testing, on the acuity of vision and the condition of the eyes: the acuity of hearing and the condition of the ears: the condition of nose and throat: the soundness of teeth and the health of the gums. In a community of low-wage earners, nutrition is bound to be a serious problem. The extent to which hookworm disease is rife among Bantu pupils is unknown. Opinions in regard to the incidence of syphilis are conflicting. When missionaries, who live among the Bantu, assert that from 75 per cent. to 95 per cent. (depending on the nearness of distance of a location from industrial centres) of the people are infected with syphilis, it seems desirable that the statements be tested and that precautionary and remedial measures be made known. In this connection the writer wishes to refer to a textbook on hygiene (by Rev. A. Jaques, of the Mission Suisse Romande), for the use of Bantu pupils in native schools, which is frank on the subject to an extent that would horrify European parents.

Recently the Transvaal Education Department has laid down age limits for admission and for leaving for pupils in native schools. As there is no compulsory registration of Bantu births (or, if there is, it is clearly not enforced), many parents are unable to supply accurate information on this point. In such cases an approximation is often reached by referring to some notable event which occurred in the year of birth, e.g., a pupil may have been born in the year of the “Drie-dag” (Three-days) by which the Bantu refer to the influenza epidemic of 1918, when it seemed to them to need three days only between falling ill and being buried. Such a pupil is reckoned as being 17 years old. A reliable test for arriving at the age of pupils is needed.

Provision is made in European schools for medical inspection, but thus far it has not been applied to native schools, nor does it appear at all likely that it will be extended to these schools within the next decade or two.

The writer discussed the matter of obtaining reliable medical statistics on Bantu pupils with Professor Dart. His attention was directed to the enormous virgin field of medical research lying fallow practically at the very doorstep of the Medical School. It must be mentioned, in parenthesis, that the general question of medical research among the Bantu had not escaped his notice, though the proposal, made by the writer, that the Witwatersrand University, through its Medical School, should conduct the pioneer medical examination of Bantu pupils in native schools was a novel and attractive one. He realized the importance of such an investigation and its value as a potential field of research for graduate and post-graduate students. It is on his suggestion that the writer here outlines the position of, and the material available for, medical research among Bantu pupils, in the hope that before long our young medical men