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EYE SERVICES IN THE NORTHWEST TERRITORIES

C O N T E N T S

REPORT ON EYE SERVICES IN THE NORTHWEST TERRITORIES

At its 33rd Session, Council requested that a report on eye services in the Northwest Territories be prepared by Dr. E.E. Cass. The following is Dr. Cass's report.

Before April 1st, 1958, when I arrived at Aklavik, eye services in the Territories were virtually non-existent. Visitors of two or three weeks duration, who saw few patients haphazardly, were all that was known. I was told that the area had been well surveyed. All that I found was a few rough notes on odd scraps of paper in nursing stations. Every one was as ignorant as I was about the ophthalmic conditions. In Aklavik school I found children walking about with one or both eyes screwed up against the light due to phlyctenular ulcers, an allergy due to tuberculosis. I was told that they spent their time in and out of hospital losing a great deal of school time, and that nothing could be done! East 3 was being built and our medical facilities were the two mission hospitals, i.e., the Anglican of 100 beds, 68 being for T.B. cases and the 50-bedded Catholic Hospital which had 30 T.B. beds. The staff of both were most helpful and co-operative and each put up extra beds to accommodate my patients.

I had brought apparatus and instruments with me and I established an out-patient clinic in the old federal building. It became evident that there was so much that was urgent I must not only examine but treat and that I would have to tackle eye surgery in extremely primitive conditions. I knew nothing of the people, nor the country when I arrived, but I learnt. Our difficulties even before considering ophthalmalogical ones were those of transport, weather, language and cultural barriers, fear and distrust of whites, and the nomadic existence of the people, as well as the lack of modern facilities. I had to learn about the country, the weather, the whereabouts of the people and when they would be in the settlements for the specialists have to go to the patient. I had to learn how to establish contact with the patients; to understand their culture and habits. I had to examine eyes in curious places and to learn some of each language because eye examinations are very subjective and it is essential that one can have some communication with the patient.

Between April and the end of September I had travelled by plane, by bombadier across the tundra and by dog team when nothing else was available, and had visited and completely surveyed MacPherson, Tuktoyaktuk, Reindeer Station, Arctic Red and Good Hope, East 3 and Old Crow, bringing back plane loads of people to Aklavik hospitals and mixing Catholics and Anglicans in both.

When I left there I went to Norman Wells, Fort Franklin and Fort Norman and everywhere they were amazed that I stayed about a week in each settlement. They were used to an occasional half hour session over which they shrugged their shoulders, and very few bothered to attend.

In November I arrived at Fort Simpson and also visited Jean Marie, Laird and Wrigley, learning new customs and languages. In Simpson we had a 50-beded hospital, the upper floor being filled with T.B. patients. By the end of February 1959 I cleared up this area and proceeded to Fort Smith and more civilized fields. By this time I had examined 1,540 Indians, 814 Eskimos, 310 Metis and 277 whites. I had admitted 108 cases to the Aklavik hospitals and 30 to Fort Simpson. I performed 84 operations on in-patients and 80 on out-patients. To do this I had often to work twelve hours a day. It was also a tedious process setting up a filing system and notes on each case so that we could have some follow-up. Also, the initial examinations on unknown people are of necessity more lengthy and are harder to perform.

An old and wise Indian superintendent told me in the east that on surveys one had to see everybody. The people would not understand if you told them you only wanted to see people who had something wrong with them and how right he was. The very people who needed you would hide. Therefore, I told them I would see everyone possible and in this way I gave them confidence, for the people with bad eyes hide and often send the others first to see what will happen. Many have a distrust of a new doctor. They like people they know and the older people do not like it unless you can speak some of their language; even if you only learn a few words badly, it helps.

I was told the total expenses of my first survey worked out at $5.00 per patient, which I consider was cheap at the price.

In 1959 I visited the Central Arctic Eskimo, Coppermine, Cambridge Bay and Bathurst and the new Inuvik school.

In 1960 I based myself in Fort Smith and visited Fort Rae, Fort Resolution and Hay River and again the Central Arctic for a short time.

In 1961 I toured the Inuvik area, Fort Simpson, Fort Providence, etc., again. It was not until 1963, due to various transport difficulties, that I first set my foot in a home in Spence Bay and Snowdrift. Yellowknife was extensively visited in 1962.

Now what was the result of the finding of my travels? Firstly was the evidence of past neglect and the appalling percentage of blindness binocular (both eyes) and monocular (one eye). On my first survey of the Mackenzie I found 1.4% of blindness as opposed to 1 in 10,000 in the U.K. and the States, with all their industrial disease. Why so high? The answer is that at least 50% or more need not have been blind if they had been seen and adequately treated at an early date. Many, although elderly, had been blind for many years. There were 14 blind people in the Central Arctic, Cambridge Bay and Coppermine; 50% of them were due to tuberculosis, some being the results of T.B. meningitis and tuberculoma.

After surveying the remainder of the Territories I found 34 more blind adults and 7 children; 62 more one-eyed adults and 6 children were found, making a total of 74 blind adults and 40 children. Many of these have since died but each year only one or two have been added to the list which is gradually getting smaller.

Our chief cause of monocular blindness is accident and T.B. binocular often combine the two.

Ocular disease in every country of the world follows the pattern of general disease. Here the Indian and the Eskimo did not suffer from the diseases which cause blindness in the whites, i.e., glaucoma which is rare, diabetes which was non-existent and high blood pressure. But untreated accidents, even untreated cataracts in the Indian and T.B. which was extensive and certain con-genital diseases which were rare in other parts of the world. By 1964 we had 13 blind from T.B. and 39 monocular blindness from T.B. However, on the credit side two children registered blind in Inuvik were taken off the blind list after anti-T.B. treatments of the eyes. A further two teenagers prepared for blindness due to the same cause were turned into useful citizens, again by the same treatment. One is now a nursing aid.

Con-genital cataracts were found at Resolution and have been carried by marriage with Crees into Fort Simpson, where I was able to operate on two women, both incompletely treated, and take them off the blind pensions. I found five children with similar conditions; one is adopted outside and I do not know the result but two now have almost perfect vision in both eyes. One, left late, had a severe visual loss but can get on at school; one with a loss due to other con-genital conditions and also to complete non-cooperation on the part of the parents will have to come under the blind act.

At the moment we have three groups of people and their different diseases to study:

1. Those living in the primitive age with their cultures.

2. Those in the transition stage, often living in the worst of two worlds.

3. Those who were living in a so-called modern civilization.

We also learnt the following:

1. That the Indian and Eskimo adult had very little error of sight but needed correction with glasses, but when the children of these people came into hostels or the parents migrated into town, the children developed shortsight: just as their teeth became bad, so their eyes failed. This we know now is largely due to a change from a high protein to an inadequate carbohydrate diet and change of way of life;

2. That the problem of disease was different from that of the white people;

3. That a large amount of untreated cases due to past neglect must be sorted out and if possible, treated;

4. Some means had to be found to give a regular ophthalmic service to these people and to develop preventive measures;

5. That a filing system must be set up,
   (a) to give accurate records so that a follow-up system be carried out, for it is waste of time and money if there are no records and the doctor has to begin all over again every time the patient is seen,
   (b) to avoid re-duplication such as in the case of a blind boy who was sent out three times from the Arctic due to the fact that there were no notes on him;

6. From this system statistics must be taken to ascertain courses of visual failure and how to prevent them and find the areas where the need was greatest. This system must be divided into such a manner that the notes we carry are separate and easily portable to the area by the doctor;

7. We must educate the people and not only them but the nurse and the doctor from whose curriculum the study of eye conditions and disease is often missed.

8. Our difficulties were:

1. A small population scattered over large territory in small isolated communities;

2. Travel, especially during break-up and freeze-up;

3. Many languages and language barriers and mistrust of whites;

4. Different cultural backgrounds, making it difficult for mutual understanding;

5. Fear of hospital which is still considered as a place where people go to die;

6. The breaking up of home by prolonged hospitalization.

What has been achieved? We have now examined and treated about 4,500 Indians, 2,500 Eskimo, and about 4,000 Metis and White. Yearly we have seen between 2,000 and 3,000 patients and have admitted between one and two hundred to hospital. This last year we have seen approximately 2,500 people. We have admitted to the hospitals in Yellowknife, Hay River, Fort Smith, Fort Simpson and Inuvik, 180 people for operations and treatment.

A filing system has been set up. Filing is done under areas and sub-divided into ethnic groups so that all the notes of patients of each area can be taken on surveys and can be found easily. The fact, however, that children come from many areas to a residential school and that they change their school from year to year necessitates obtaining school lists beforehand and four or five hours may be spent in searching for our children from various regions.

We have attempted to survey each area every <u>three</u> years. However, due to the peculiar and constant moving of school children to different residential schools, some get seen yearly and others not for four to five years and taking statistics on those seen yearly the average child needs change of prescription three yearly during the ages of 10 to 15 and less frequently after this.

<u>Adults</u> only require their glasses changed approximately once every six years.

Pre-school Indians and Eskimos have negligible errors of sight (except after ophthalmic diseases causing scarring) unlike the white child. In the isolated settlements, such as Nahanni, when I first went there, <u>not a single school child needed glasses</u>.

Before proceeding on a survey to any area estimates have to be made:

(a) of the amount of drugs required,
(b) of the amount of forms such as new ophthalmic examination sheets,
(c) of the amount of instruments and apparatus which it is possible to take,
(d) if one will be able to do any operating in the local hospital or not,
(e) packing has to be done in special fitted cases for all our apparatus.

After surveys, before leaving the area, lists of school children ordered glasses are left with the principal of the school. Lists of both adults and children ordered glasses and lists of patients for hospitalization, etc., are left with the school nurse.

Reports on every patient seen on surveys and also reports on in-patients in hospital are sent

1. To the appropriate zone office,

2. To the doctors,

3. To the public health nurse in charge of the area.

Also, in the case of school children, reports are sent to the regional education office to be put with the childrens' medical files. In cases of ocular T.B. or allergy, reports are also sent to T.B. control office.

Regulation of survey

To regulate an even-flow of patients whilst on survey school children are seen grade by grade. Adults are seen in alphabetical blocks. Notices are placed in the Bay and other stores with the hours of attendance of adults and pre-schoolers giving the days of the people whose name begins with certain letters of the alphabet.

Assistance required whilst on survey

If there is a health worker in the region he regulates the traffic, tells the people who can't read when to come, arranges the transport for the aged and infirmed; where necessary, in prolonged examinations, he does act as interpreter. This service is most essential, otherwise nobody comes or everyone comes at once and time is lost.

Clerical help

There must be clerical work during a survey.

1. The patients' notes must be found in the files.

2. Forms for new patients with particulars of ethnic origin, date of birth, age, band, etc., must be filled in.

3. Traffic in the schools must be regulated, i.e., only a few patients must be waiting at once.

4. Appointments must be given when they are to come again.

5. The clerk has to keep the lists of patients to be seen on certain days or people who require minor operations or treatments, or a second appointment.

6. The clerk must have the cards placed in appropriate envelopes ready for reports, i.e.,

(a) finished
(b) for glasses in each grade
(c) for operation, treatment, etc.

This can be done usually by a local girl or boy of high school level.

Surveys

1. Surveys must be as complete as possible and in most small settlements take from five days to a week.

2. It is also useless and expensive just to fly in and out of a place for a day.

How to benefit from the work that is carried out on the survey

The reports sent on every patient are most essential, otherwise no follow-up work is done. The nurse and the doctor do not know what has happened and the whole of the survey is completely wasted, both financially and in every other way.

Liaison with school authorities

Owing to the appalling carelessness of children and the breakage of glasses, liaison has been made with the regional superintendent of schools who each year sends a circular out to the teachers:

1. Asking the teachers to ascertain which children in their classes wear glasses;

2. Asking the teachers to make the children leave their glasses marked with their names on his desk on leaving the classroom and pick them up on return;

3. Only in the case of older and responsible children are they allowed to take glasses home or to the hostels;

4. To report all cases of breakage or loss of glasses to the principal. In this way the child can benefit from his glasses. If this is not done it is simply a waste of time surveying the school.

Ophthalmic service

There is a 24-hour service so that nurse and doctors can consult the ophthalmologist concerning emergencies or treatment any hour of the day or night. Emergency treatment is given by phone and the nurse is told whether to evacuate the patient or not. Arrangements are then made by the ophthalmologist to meet the patient and notify the hospital during the night. Her staff notifies it during the day.

Nurses, doctors and educators and the patients themselves can send glasses for repair or ask for replacement directly to the ophthalmologist's office, where the matter will be dealt with and the necessary forms filled in.

Minor breakages

In some schools we have requested sides and screws which have been supplied so that minor repairs can be performed on the spot to save the children being without glasses. This is an excellent practice and should be encouraged.

Sight-saving class

A special "sight-saving class" was arranged in Fort Simpson in 1961 but alas had to be disbanded in 1964 owing to the lack of specially qualified teachers. This is a very serious loss as often the child is handicapped unless taught by special methods and a partially sighted child's eyes may be made worse in an ordinary school. However, we have, with the aid of the Blind Society, been able to get stand magnifying glasses, etc., and some visual aids, i.e. special books.

Hospital services

Arrangements have been made so that when the ophthalmologist is in an area, the hospital serving that area will admit the cases for her to treat or operate upon, even though they come from an outside area.

Staff

Whilst I am on survey the reports of the last survey must be typed in my office and also there must be someone there to answer queries and arrange for the onward transmission of broken glasses, application for special treatment forms, etc., of which I will speak later. One clerk cannot do all the work. We have about 3,000 reports, (for some people need more than one report) a year and about 1,000 letters to do a year, to say nothing of requisitions, applications for special treatment forms, prescription for glasses, answering the telephone, billing, making appointments for out-patients, finding out-patients notes, writing out notes for new patients, filing and re-filing, fetching the mail, taking application forms to be signed in the government offices. (We have no transport).

When this service first started it was far easier from the point of view of clerical work. From the point of view of visiting patients naturally far more patients had to be seen and examination is far more lengthy if the doctor knows nothing about the patient and has no previous notes. However, as the ophthalmologist's work got relatively easier, the clerking increased, e.g., so many more people have been seen, so many queries are coming in for glasses, etc. It is obviously going to be a waste of the country's time and money if children are constantly seen and re-prescribed glasses unnecessarily. Children and adults often only need a repeated prescription. If the nurse has the prescription she can send out for it. If she has lost it she can send directly to the ophthalmologist's office. In this way expensive and unnecessary re-examinations of patients can be avoided.

Present Situation

How our work has fallen down through lack of staff

In 1963 owing to increase of work and my only having one clerk, a second clerk was provided. In this way all our reports were got up to date and all our filing was put in order. However, after we moved up to Inuvik in 1965 and Miss Campsell had left to get married the whole service was broken down. We cannot keep up with the reports. During the past year I have had inadequate and irregular help. I must have one steno at least and a clerk who can do all the oddments. One cannot concentrate on one's typing and do everything else and it is most essential that all the reports are kept up to date. At the present minute we are at least 2,000 reports behind. Apart from this, irregular, casual staff cannot learn and take time to learn procedure and difficult terminology. It is waste of the country's money when the work is done slowly, inadequately, and has to be repeated. It is also waste of an ophthalmologist to turn her into a rather inefficient clerk. During the past year I have concentrated on seeing patients. My office has often been neglected with one poor clerk working overtime and we are very much behind hand and I feel that the patients suffer. Also, the nurses, especially in isolated places, are very upset if they do not get early reports on their patients, and quite rightly so. Patients also suffer because they do not often get the follow-up or treatment that is required.

Waste of government money

Because there are constant changes of staff, and if the nurses are not aware that a patient has been seen, they may:

1. Send the patients unnecessarily for treatment or investigations already performed.

2. Ask for expensive tests for glasses by optometrists not knowing that glasses have recently been supplied and all they need to do is ask for a repeated prescription.

3. They may ask an optometrist to give glasses to people who do not need them or whose vision cannot be improved due to ocular disease.

Lists

1. We need to fully revise our lists for binocular-monocular blind and ascertain from N.A.N.R. who have died, etc. This has not been done since 1964.

2. At the present minute also we must have a list of phlyctens, allergy to T.B., up to date so that Dr. Galbraith (T.B. control) has a complete picture. Up to 1964 our lists were completed.

The importance is for two reasons.

(a) that up to 1964 in 686 children and adults seen with these eye conditions, we found 27 cases of active T.B.; in 1965 four cases and in 1966, 7 cases and this year, four cases. It is particularly necessary, not only for the sake of the sight, but also because Dr. Galbraith has informed me that they're working out a system for giving children found with phlyctens, anti-T.B. treatment as a preventative measure against the development and spread of active T.B.; such measures are already performed in the States.

(b) we need a complete cross-filing of disease so that at any moment we can tell the number of people in the Territories with a specific eye disease and we can tell if this particular disease is on the increase or not in any ethnic group.

Because many people have more than one disease and one person setting up this cross-filing system can only average about 300 cards a day, it would take one clerk approximately nine months to complete this cross-filing system.

Change in disease

With the changing way of life, and also with inter-marriages, the total picture of ocular disease in the Territories is changing. Indian and Eskimo are (a) developing ocular diseases similar to the white man and (b) developing errors of sight, chiefly short-sight due to change of diet, etc. If this goes on at the present rate, the increase in the number of children wearing glasses will be approximately doubled in five years and the expense of treating ocular disease and supplying of glasses will go up out of all proportion.

Poor distant vision impedes an individual from occupation in the north because owing to the weather conditions it is difficult to wear glasses outside and contact lenses cannot be given out to all; they are too costly. If the heads of the families cannot see to work all the family go on relief.

Preventative methods

1. At the present time glaucoma is on the increase and more regular examinations of people with glaucoma and suspected glaucoma should be carried out.

2. The three yearly surveys would be better if they were two yearly surveys in the most heavily populated areas. The small areas could probably still go with a three-year survey.

3. Education of the people is required so that they seek early advice for disease.

4. They should learn about the care of their eyes.

5. They should be advised on diet and how it can effect the eyesight of children.

6. They should be taught the difference between an optometrist and an eye doctor (ophthalmologist).

Differences required in ophthalmic services in the North from the services in the South

	South		North
1.	The people come to the ophthalmologist.	1.	The ophthalmologist has to visit the people.
2.	Special tests can be carried out in the office.	2.	All special tests cannot be carried out in small centres.
3.	The ophthalmologist does not travel.	3.	The ophthalmologist must travel over vast areas.
4.	People come regularly for check-up on certain diseases and special tests.	4.	The people cannot come regularly for such check-up and special tests.
5.	They have more trained staff.	5.	Staff is insufficient.
6.	Owing to the fact they do not travel and do not have to examine patients in unusual and unsuitable surroundings, they can deal with more patients, and ideally an ophthalmologist is adequate for 30,000 people, but he may have to service more.	6.	One ophthalmologist cannot deal with the same number of patients partly due to travel and areas in which he must work. (also see 7. and 8.)
7.	He is dealing with a population mostly of the same culture and language.	7.	He is dealing mostly with people of varied cultures and language.
8.	He is continuing an established service.	8.	He is dealing with cases due to past neglect.
9.	He does not have all the government forms to contend with.	9.	He has numerous forms for different ethnic groups in the north which take a lot of dealing with.
10.	The filing system in the south can be simple, i.e., under alphabetical order.	10.	The filing system in the North, due to the fact that the files have to be carried into different regions, has to be done under regions and under different ethnic groups so that they can be easily transported when the ophthalmologist goes on surveys. This leads to much more complicated filing.
11.	He does not fit frames.	11.	He has to fit frames because there are no opticians.

Improvements

Improvements Suggested

Ophthalmologists are in short supply all over the world. They are training para-medical personnel to do certain routine and clerical tests so that the ophthalmologists can see more patients. It is obvious that with this shortage it is uneconomical to try and impossible to service the North adequately except with one fulltime ophthalmologist, and that lay personnel should be trained to carry out certain tests, and no more than one ophthalmologist employed.

Optometrists , unfortunately, are not trained by medical people and they have no university degrees, and as they themselves say, they get most of their income from selling glasses; they do not want to be controlled by the ophthalmologists nor work under them. I have been informed by the medical association that in Ontario, the ophthalmologists have asked for a law to be passed that optometrists can only see cases referred by ophthalmologists, i.e., cases for testing for glasses. By their own by-laws the optometrists are supposed to refer cases with any signs of disease, but they are not qualified to diagnose and they certainly do not do this especially in the Northwest Territories. The whole situation can be very dangerous if the optometrist is not extremely scrupulous. In a survey done some years ago in the U.K. on 4 million people, records were given by both ophthalmologists and optometrists and it was found that:

1. 20% of all people coming to see an ophthalmologist simply for glasses had signs of ocular disease;

2. The optometrists, although they said that they always referred people to the ophthalmologists if they had any sign of disease in their eyes, only referred 1% of the cases they saw to them.

The conclusion is, therefore, that a number of cases of early disease were missed.

False Myopia

Many children here suffer from false myopia, i.e., short-sight due to spasms of their eye muscles. If refracted by an optometrist without the necessary drugs in their eyes they are often given myopic lenses which makes the condition worse. If seen by an ophthalmologist the simple use of a drug relieves the spasm and no glasses are required. Also, too strong myopic glasses can be given in myopia, making the myopia worse, if they are tested without these drugs.

Staff

The Carrothers Commission pointed out in their report that in the north more staff are required than in the South due to the peculiar difficulties of this place. The staff advised (at least for the present) is as follows:

1. An adequate stenographer who could learn not only to do all the reports on both in-patients and out-patients, deal with letters, requisitions, etc., but also learn how to do all the statistics so that after each survey statistics could be done. While the ophthalmologist is on one survey, reports from the last survey could be carried out.

2. A clerk whose duties should be to carry out the rest of the work as enumerated previously, i.e., filing and re-filing, requisitions for drugs and stationary for the year, making of appointments, dealing with all queries concerning glasses, packing of glasses, filling up of application forms for glasses, fetching of the mail, sorting the cards for children in residential school, and doing the various errands which are necessary in the department, having a liaison with other departments, arranging transport of patients, etc. This is a full-time job.

3. Para-medical personnel to assist, which we should train. This would give work to people in the Territories and would assist the ophthalmologist. We should train a Grade XII student who would go out to the Imperial Optical Company for at least three months to learn how to do all the fitting of glasses, all the minor adjustments, all special tests, fitting artificial eyes, etc.

The fitting of glasses alone adds an extra five minutes to the examination of all patients. If the ophthalmologist examined 200 patients you will see that there is considerable waste of time, and this is not an ophthalmologist's job. Also, a whole morning may be taken up doing a field and blind spot and a diplopia chart on one patient. This is uneconomical and can be done by lay people. The para-medical personnel could learn how to do all these tests. He could also learn how to service apparatus as we have no one to service my apparatus in the Territories and I am not an expert, and again this causes depreciation of apparatus which has to be sent out to be serviced. He could also learn how to pack all the apparatus and instruments which are very heavy and which sometimes I find difficult to lift to put in their cases.

We could arrange for him to go out to various places and do all the necessary field and blind spots on glaucoma patients, thus helping in preventative methods. At the same time he could do all the minor adjustments of glasses in the schools, etc. We could set up a regular schedule of three monthly visits in between the times when he was coming with me in the field. He might be able to do all the preliminary checking of vision which would save time, and if screening of the patients is done by one person only it is far more satisfactory than if it is done by various nurses or teachers.

I find in practice that the ordinary tests in schools are completely unsatisfactory:

1. due to poor lighting,

2. different distances,

3. non-knowledge of the patients, language, etc.

This would save my time for more ophthalmic work.

Clerks

We could also train and at the same time use ophthalmic clerks, that is that if any girl among the trainees showed promise she could come over and work in my department and learn some of the terminology, how to fill up ophthalmic reports and the meaning of words, etc., so that she could apply for a job as a receptionist or a clerk outside in an ophthalmologist's office. Such people are in short supply and often urgently needed and this would again give work to the people in the Territories.

A program should be set up where we have records of all the myopic children in this area and do a careful survey on diet, etc. Already an infinite amount of research work has been done on this subject of this "school myopia," both in the States, Japan, Australia and the U.K. This could be put at our disposal and from there we should be able to do, not only a survey, but we should take preventative methods so that this myopia or short-sight does not increase. This would not only be of great advantage to the patients but it would be less expensive for the government to have preventative methods than to give glasses to all the children with myopia.

Patients

We must consider the wishes of the patients. Most of them like continuity of doctors and if we can give them this we shall get better response. They do not respond to strangers and they are still very shy in outlying places and need infinite time and patience.

CONCLUSIONS

That in order to maintain the ophthalmic services in the N.W.T., there must be one permanent ophthalmologist but more than one is uneconomical. The eye services can be only carried out satisfactorily if this ophthalmologist has efficient and adequate clerical and para-medical staff. The number of assistants must be more than needed in the South due to the special difficulties of the North; that it is a waste of money and time to do short visits, with insufficient and incomplete examinations and numerous and frequent visits are unnecessary and uneconomical.