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TB SURVEY IN HANOVER — At the opening of the tuberculosis and x-ray survey of Hanover Municipality August 17, Reeve John H. Harms of Hanover was the first to receive a free skin test. He was followed by Councillor John Vogt (centre), who served as chairman of the survey in Steinbach, and Mayor Leonard Barkman of Steinbach. Dr. William Ross of the Red River Health Unit (standing at left) looks on while Miss Prested, senior nurse at the health unit, administers the test. (See story on page 3).

—Photo courtesy of the Carillon News

Prevention is Cheaper than the Cure

The most notable fact about tuberculosis today is the great difference between the cost of preventing the disease and the cost of treating it.

For example, a small culosis epidemic in a remote northern community last year will cost \$145,000 for the treatment of the 28 victims.

of it had been at all puble, it would have been far cheaper to have prevented the outbreak. But this time full participation in our tuberculosis surveys came too late," said T. A. J. Cunnings, executive director of the Sanatorium Board.

The place of the flare-up was Thicket Portage at Mile 185 on the Hudson Bay Railway Line. In late November of 1963 two children with tive tuberculosis were mitted from the community to Clearwater Lake Hospital at the Pas. Right away an x-ray survey of thicket Portage—the double to be conducted there that year—was organized by the Sanatorium Board with the assistance of Dr. H. C. Rolfe of Northern Health Services, The Pas, and Mrs. Ruby May, senior nurse.

Conducting a tuberculosis survey of a scattered popula-

tion in remote northern areas is always a very difficult job. In previous yearly surveys of Thicket Portage the Sanatorium Board's technicians were often unable to examine more than half of the residents, since the other half would be away fishing or out on their traplines. During a routine survey of the Thicket in April, 1963, for example, only 150 of the community's some 275 inhabitants were examined, and no tuber-culosis was found.

But because of the extreme urgency of the survey early last December, Mrs. May used a ski-mobile to bring in entire families for x-rays. In some cases there wasn't sufficient clothing for children to attend together. Mrs. May dressed a few, took them down to the school house for examinations, returned them home and put their coats and boots on the other children.

All but 83 residents of Thicket Portage and the surrounding area were x-rayed in December and 16 active cases of tuberculosis were unearthed. In January the

provincial Public Health Unit at The Pas arranged to bring the remaining 83 residents by train from Thicket Portage to Clearwater Lake Hospital for examination. As a result of this survey, six more patients were admitted to hospital for treatment.

Finally, as part of the routine survey of the north last April, Thicket Portage residents were again examined. This time four new patients went into hospital.

Today, 25 of these victims are still in hospital, with an average length of treatment of 18 months. The cost of treating all the patients from this one small community will be about \$145,000.

"With new tuberculosis epidemics reported in the country every year — with nearly 300 new active cases turning up in Manitoba annually — we cannot afford to ignore tuberculosis and stay away from TB surveys," said Mr. Cunnings.

said Mr. Cunnings.

"We still need an adequate system of constant watch and supervision. And while tuberculosis surveys are expensive and time-consuming, their cost is but a small fraction of the bill for lengthy sanatorium treatment."

Four Big TB Surveys Planned for Winnipeg

Four big tuberculosis surveys — financed by the annual sale of Christmas Seals — are planned for the Winnipeg area this fall by the Sanatorium Board of Manitoba.

The largest of these surveys will be the screening of all residents in the City of St. Boniface next month. The others include a tuberculin and x-ray survey of some 4,000 employees of the Canadian National Railways in Winnipeg (now under way), a survey of 2,100 civil servants employed by the Manitoba Government (from September 23 to October 5), and a survey in November of all faculty members and students at the University of Manitoba and a f filiated colleges.

The survey in St. Boniface, to take place October 13 to November 18, has been organized by the Sanatorium Board's Surveys Officer Jim Zayshley and a special steering committee consisting of: Ald. Joseph E. St.-Hilaire general survey chairman; Mayor Joseph Guay, honorary chairman; Maurice Prud'Homme, city clerk; and Dr. W. R. French, medical director of the St. Boniface Health Unit.

Mrs. George C. MacLean has again volunteered her services as the General Convenor of the Women's Committee. Co-convener is Mrs. S. W. Caughey. The area chairmen for the ten districts to be tested are: Mrs. W. J. Watson, Mrs. W. A. Fields, Mrs. E. Simard, Mrs. A. J. Janssens, Mrs. E. E. Proulx, Mrs. E. Sutherland, Mrs. M. Johnston and Mrs. L. Grainger.

Plans for the St. Boniface survey be gan last spring when, during a census of the city, residents were notified of the free tests to be offered this fall. City Clerk Maurice Prud'Homme then prepared special records for the survey from the census findings, and in the past few weeks a message from Mayor Guay, along with a complete timetable of the survey and appointment cards, has been mailed out to every home.

So far, the survey of St. Boniface appears to be one of the best organized antituberculosis campaigns in the Board's history. With such splendid support from the mayor and city council, the health unit and the volunteer workers, it may well be the most successful.

Address all communications to:
THE EDITOR, SBM NEWS BULLETIN,
800 Sherbrook Street, Winnipeg 2, Manitoba
Authorized as second class mail, Post Office Dept., Ottawa,
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JAMES DOUGLAS ADAMSON

The Sanatorium Board records with regret the death of an old friend, James Douglas Adamson, B.A., M.D., F.R.C.P., M.R.C.P. Dr. Adamson, who died on September 4 at the age of 74, had been associated with the Sanatorium Board for many years. His interest in tuberculosis work dated back some 50 years to the time when, as an undergraduate medical student, he was the first of a long line of junior internes to take part in a special training program in tuberculosis diagnosis and



treatment at Manitoba Sanatorium, Ninette. Later he became first medical superintendent of St. Boniface Sanatorium, an elected member of the Sanatorium Board from 1942 to 1962, and chairman of the Board's Medical Advisory Committee from 1953 to 1962. He was also a former president of the Canadian Tuberculosis Association and for the past two years he has been an honorary life member of our Board.

Born in Nelson, Manitoba, Dr. Adamson obtained his B.A. from St. John's College in Winnipeg and his medical degree from the University of Manitoba in 1914. During World War I, he served for five years as a captain with the British Field Ambulance and the Royal Army Medical Corps, and in the Second World War he was a consultant in medicine, with the rank of colonel, to the Canadian army at Ottawa.

Following his discharge from the army after the First World War, Dr. Adamson spent two years as a medical assistant at our Ninette sanatorium. In 1922 he returned to Great Britain to do post-graduate work in medicine. He received Membership in the Royal College of Physicians (Edin.) in 1928 and became a Fellow of the Royal College of Physicians (Can.) in 1929.

From 1924 to 1939 Dr. Adamson was chief of the medical staff (in charge of teaching) at St. Boniface Hospital and when St. Boniface Sanatorium was opened in 1930 he became medical superintendent of that institution. He was professor of medicine at the University of Manitoba from 1943 to 1952 and chief of medicine at the Winnipeg General Hospital and Deer Lodge Hospital, Department of Veterans' Affairs, until his retirement in 1959. In 1958 he was appointed medical consultant to the Manitoba Hospital Commission.

Dr. Adamson was a highly honored and respected member of his profession and his valued counsel was most helpful to many voluntary health organizations and medical associations. Apart from his outstanding contribution to the Sanatorium Board and the campaign against tuberculosis in Manitoba, he was closely associated with such organizations as the Manitoba Branch of the Canadian Arthritis and Rheumatism Society (past president); Winnipeg Medical Society (past president); Canadian Medical Association (honorary life member); and the Manitoba Branch of the Canadian Mental Health Association (past president).

Dietary Staff Complete Course

Four members of the Sanatorium Board's dietary staff have successfully completed an 11-week course in Food and Beverage Cost Control, sponsored in Winnipeg by the Manitoba Hotel Association in co-operation with the Manitoba Branch of the Canadian Restaurant Association.

Certificates were presented recently to Miss Nan. Tupper Chapman, Sanatorium Board Director of Dietary Services (who passed with distinction) and to Ben Mayo, Barry Scott and Claydean Le-

wis, all members of the dietary department at the Manitoba Rehabilitation Hospital.

The first of its kind to be offered in Manitoba, the course was designed to increase the efficiency of food services in hospitals and restaurants. It was attended by some 80 managers, dietitians and personnel of Winnipeg hotels, restaurants and hospitals.

The hotel and restaurant associations hope to hold similar courses in the future for other people interested in improving food service.

AROUND OUR INSTITUTIONS

TB Rehabilitation in Poland

Throughout the world the unskilled tuberculosis patient is becoming increasingly difficult to rehabilitate. Here in Manitoba the Sanatorium Board rehabilitation officers have tried to solve the problem by providing prevocational instruction (in

all grades from one to 12) while patients are in sanatorium, and then following their discharge to arrange for further academic schooling and or vocational training. In some cases, where they have the educational qualifications, sanatorium patients may be enrolled in vocational courses through correspondence.

On the whole, the system works fairly well. But there is one drawback in the length of time it sometimes takes befor the patient can be successfully placed in a skilled job.

Some countries have tried to speed up the rehabilitation process by combining treatment with vocational training right in the sanatorium. Such is the case in Poland, and we were very glad to have the opportunity in July to speak with Kazysztof Hirszel, a Polish psychologist who for the past seven months has been on a United Nations scholarship tour of Canada, the United States and Sweden.

Mr. Hirszel's work in Poland is connected with a 300-bed rehabilitation sanatorium located about 50 miles outside Warsaw. It is highly specialized facility designed primarily to provide vocational training for patients who have no job skills or who, for reasons of health, must acquire training in another field.

Patients from all over Poland may be admitted to the rehabilitation sanatorium following an initial period of treatment in an acute hospital, Mr. Hirszel told us. Then, while they continue treatment, they are given the opportunity to take, for example, two years of training in bookkeeping or laboratory assistant work, or one year of instruction in book binding, leatherwork, TV and radio repair, x-ray technology or drafting.

Generally the patients, whose average age is 25 years, are not discharged from sanatorium until they complete one of these courses. They spend nearly a full working day in school and every six weeks their progress is reviewed by members of the rehabilitation team.

For those who lack the academic qualifications for training, the sanatorium provides instruction in the primary school grades. The patients then get further instruction at regular schools outside the sanatorium, after which they return to the sanatorium for vocational training or for help in obtaining it elsewhere.

How successful is the scheme? Here are Mr. Hirszel's statistics for the year 1960:

Seventy-one percent of the sanatorium's patients were placed in new jobs; seven percent returned to their old jobs; four percent were still ill; five percent died; 13 percent were not placed for reasons familiar to us all—e.g. lack of interest, patients were able to obtain pensions, patients lived too far from employment opportunities.

In Poland, where the tuberculosis situation is still much worse than our health officials are faced .. a number of very big polems. Their method of taking this one is interesting and we were happy compare notes.

Dr. B. K. Joe Joins Our Assiniboine Sta

A warm welcome is tended to *Dr. Byung-Kil* who on September 1 assum the post of staff physician our Assiniboine Hospital Brandon.

Dr. Joe, who came Canada from the Uni States two years ago, recently been engaged thyroid research at McC University.

He was born in In-Ch Korea, and received medical degree in Seou. 1950. Afterwards he to three years of residen training in internal medic at the Bird S. Coler (gen tric) hospital in New Yo City.

Following a year of po graduate work in intermedicine at the Gradu School of Medicine, U versity of Pennsylvania, Joe was awarded fe'llowsh in endocrinology Hahnemann Medical Coll and Hospital in Philadep from 1961 to 1962, and Queen's University, Kingst from 1962 to 1963.

Other recent additions the staff at Assiniboine H pital include Miss Darl Ohlinger, general staff nu Miss Anne Janzen, lice practical nurse, and A. Gladys Vera Camsell, ass tant admitting clerk.

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(Cont. on page 3)



NINETTE MEETING — A group of doctors, their wives and sanatorium staff members are pictured in the garden side the home of Dr. A. L. Paine, medical superintendent of Manitoba Sanatorium, following the meeting of Manitoba Thoracic Society last June. Some 40 doctors from all parts of the province drove to Manitoba Sanato to attend the meeting, which took the form of a symposium on pulmonary fungal infections.

Clearwater Hospital Expands **Extended Treatment Services**

→ h e Sanatorium Board unces the re-establishment on a more adequate basis of our facilities for extended treatment care at Clearwater Lake Hospital, The Pas

An unexpected influx of tuberculosis patients during the past year led to a temporencroachment on the beds in the hospital's extended treatment section. But with the diminishing need for tuberculosis beds at Clearwater Lake Hospital it is planned to make the former extended treatment unit available immediately. Physiotherapy services, under a lly qualified physiother-aport, will also be resumed.

The Extended Treatment Unit at Clearwater Lake

Hospital is designed for the care and rehabilitation of short and long-term patients suffering from illnesses other than tuberculosis. A particularly important service is the treatment of respiratory diseases, both acute and chronic.

Dr. S. K. Warma of Flin Flon has been appointed consultant to the extended treatment service at Clearwater. Dr. Warma, who received his medical degree in Calcutta, India, is a specialist in general surgery and a Fellow of the Royal College of Surgeons of London and of Canada. Until recently he was director of the Paraplegic Unit at the Manitoba Rehabilitation Hospital in Winnipeg.

AROUND OUR INSTITUTIONS

(Continued from page 2)

Miss Ohlinger, who recently completed her nurses' training at Grace Hospital in Winnipeg, was the recipient of a \$400 nursing bursary from the Sanatorium Board. During the past few years the Board has awarded a number of these bursaries to Manitoba girls who wish to become registered nurses or licensed practical nurses.

Clearwater Lake Hospital

Miss Jacqueline Savoie, who received a Sanatorium Bard bursary to enable her omplete her training as a licensed practical nurse at St. Boniface Hospital, will soon be joining our nursing staff at Clearwater Lake Hospital. Savoie was formerly a ne is' assistant on the hospital staff.

Clearwater also welcomes back to the general nursing Miss Cora L. Scott. Miss S& first joined our staff in August, 1962, then left her post last summer to nurse in England. She was born and educated in Jamaica and trained as a nurse at Hare field Hospital in Middlesex, England.

Other new staff members at Clearwater include Mrs. Marlene G. Garland, clerk -

Rehabilitation Hospital

At the Manitoba Rehabilitation Hospital in Winnipeg, we welcome Mrs. Marguerite Ranger to our social service tment. Mrs. Ranger is a ate of the University of Manitoba School of Social Work and for the past four years has been a district supervisor for the provincial Department of Welfare.

Miss Gillian Margaret Tew, a graduate of the Occupational Therapy Centre and Training School in London, England, is the latest addition to our occupational therapy department. New general staff nurses are Mr, and Mrs. P. C. Philip, who last month transferred from Clearwater Lake Hospital at The Pas.

Mrs. Patricia Jones has succeeded her daughter, Jennifer, as secretary to the hospital manager. Jennifer was married September 4 to James Andrew Foster of Winnipeg and will soon be taking up residence in Grand Forks, North Dakota.

Executive Offices

Miss Shirley Shanks, who has served for five years as a senior licensed practical nurse on our Sanatorium Board tuberculosis surveys, has resigned her post to take up new duties with the Manitoba Branch of the Canadian Mental Health Association. The new licensed practical nurses on our surveys staff are Miss Mae Oakley and Miss Mary Nikkel.

Miss Margaret Emke has been appointed secretary to the Sanatorium Board pur-chasing agent, and Mrs. Mrs. Siunn L. Anderson is the new IBM tabulating machine operator in our accounting department. Miss Emke succeeds Mrs. Pat Scott, who moved to Toronto last month, and Mrs. Anderson succeeds Mrs. Adeline Popadynetz who resigned this month to await the birth of her second child.

Manitoba Sanatorium

Out at Manitoba Sanatorium, Ninette, a hearty welcome is extended to Miss Gladys Marlene Drader who has joined the staff of licensed practical nurses.

Report Record Attendance At **Hanover Survey**

The Sanatorium Board congratulates the people of Hanover Municipality who last month gave outstanding support to a tuberculin and x-ray survey. Jim Zayshley, Sanatorium Board surveys officer, estimates that over 80 percent of the municipality's population turned out for the free tests. The survey, he said, was the most successful conducted by the Board so far this year.

Altogether 8,045 people took advantage of the survey, held August 11 to August 28. This sets a new record attendance for the municipality. In a previous TB survey of Hanover in 1959, a total of 5,600 people were tested.

A total of 7,181 residents received tuberculin skin tests in the August survey, and 1,357 were x-rayed. Chest given only to x-rays were those people who were positive to the tuberculin test either in this survey or in the previous survey.

In the town of Steinbach (population: 3,739), 4,105 people were examined in three days at clinics held at Kornelsen School.

John J. Vogt, town counci lor, served as general chair man of the Steinbach survey. Committee chairmen assisting him were: Mrs. H. A. Neufeld, who was in charge of the receptionists; Mrs. H. Braun, who arranged to send out appointment notices; and Mrs. L. Barkman who enlisted the support of the churches and community organizations.

Every home in each community was canvassed and a timetable of testing dates was left with the householder. In each town in the municipality, a town councilor appointed a committee to organize the survey.

The numbers tested in other Hanover centres are as follows: Niverville tuberculin tested, 139 rayed; Kleefeld — 3 6 2 tuberculin tested, 100 x -362 rayed; Bothwell - 366 tuberculin tested, 52 x-rayed; Chortitz — 146 tuberculin tested, 39 x-rayed; Rosengard — 221 tuberculin tested, 24 x-rayed; Blumenort — 317 tuberculin tested, 35 x-rayed; Blumenhof — 242 tuberculin tested, 39 x-rayed; 120 tuberculin tested, 31 xrayed; Sarto — 146 tuberculin tested, 44 x-rayed.

Appoint Hospital Chaplains







THE REV. F. J. McKAY

Two full-time chaplains to serve patients in the Manitoba McKay, representing the Protestant faith, will make regular visits to each of the hospitals in the medical centre area and will be on call when needed.

Father Joanisse and Mr. McKay have training in hospital chaplaincy. Mr. McKay has taken special courses in Clinical Pastoral Training both at the University of Minnesota and the University of Iowa, and as part of this training he worked as a hospital orderly.

Mr. McKay was born in Winnipeg and is a graduate of United College. As a student and as pastor of Maclean United Church he did a great deal of mission work in Central Winnipeg. More recently he was pastor of the United Church at Glenboro.

Sunday morning services, to be conducted by Mr. McKay and other members of the Winnipeg clergy, will be held each week at 9 a.m. in our Manitoba Rehabilitation Hospital auditorium. Mr. McKay will also visit the rehabilitation hospital and the Central Tuberculosis Clinic at the fol-

Tues.—1:30 p.m. to 5 p.m.
Wed.—9:30 a.m. to 12 noon
Fri.—9:30 a.m. to 1:30 p.m.

At other times Mr. McKay may be contacted at Office F200 at the Winnipeg Gen-

Medical Centre, Winnipeg, were appointed this month by the M.M.C. Committee. The Rev. Gerard M. Joanisse, pastor of Holy Rosary Roman Catholic Church, and the Rev. F. J. eral Hospital. Telephone SP 4-6511 — Local 298.

Father Joanisse may also be contacted at the same office at the same telephone

Confessions will be held at the Manitoba Rehabilitation Hospital at 10:30 a.m. Sundays, followed by Mass at 11 a.m. During the week Father Joanisse will visit patients at the rehabilitation hospital at the following times:

Mon.—10:00 a.m. Wed.—11:30 a.m. 3:30 p.m. to 5 p.m. Fri. — 3:30 to 5 p.m.

Weekly visits to the Central Tuberculosis Clinic are scheduled as follows:

Thurs.—3 p.m. to 5 p.m.

A native of Quebec, Father Joannisse studied at the University of Ottawa and the University of Milwaukee and was ordained a priest in Florence, Italy. He later obtained a degree in education (with special studies in psychology) from the University of Pretoria, Union of South Africa.

For 14 years, Father Joanisse served as a missionary in the British protectorate of Swaziland and for the past six years he was chaplain at Ottawa Civic Hospital and the Royal Ottawa Sanatorium. He came to Winnipeg last June.

Are You Positive?

Do you know for sure if you have ever been infected with tuberculosis? You can find out by taking advantage of the Sanatorium Board's free preventive services, financed by the annual sale of Christmas

- Community and industrial tuberculin and x-ray surveys.
- Free tuberculin skin tests and chest x-rays week days at the Central Tuberculosis Clinic, Winnipeg; at Manitoba Sanatorium, Ninette; at Assiniboine Hospital, Brandon; and at Clearwater Lake Hospital, The
- Free chest x-rays during any week day at the National Employment Service Building, Winnipeg.
- Hospital admission x-ray examinations. Be sure you know where you stand against tuberculosis! Have a TB check-up periodically.

General Hospitals Have Big Role in Control Program

If every patient admitted to any department of a general hospital were tested for tuberculosis, Manitoba could go a long way towards the elimination of this communicable disease.

The general hospital is a tremendously important area of tuberculosis control, according to Sanatorium Board officials. The proof of this is that in 1963 more than one-third of the new active cases of tuberculosis reported in the province — and nearly one-third of the reactivated cases — were uncovered by the Sanatorium Board's general hospital admission x-ray program.

Last year 79 hospitals participated in the provincial program. The tuberculosis findings were as follows:

Among the non-Indian population, 81 of the 218 new active cases of tuberculosis reported for the year were found by general hospitals — 23 of these through pre-admission films, 14 through out-patient examinations, and 44 through chest films given after the patient's admission.

Of the 68 Indians who were found to have new active tuberculosis last year, 19 were picked up by the general hospitals.

And of the 64 reactivated cases of tuberculosis reported among both non-Indians and Indians, 19 were discovered in general hospitals.

One interesting fact brought out by hospital admission x-ray findings was that during the past four years no cases of tuberculosis were discovered among the hospital staffs who were also x-rayed as part of the program.

This seems to prove that the admission x-ray program is not only an important means of case finding, but it is also an effective method of protecting the hospital staff.

In the days before this program was established (in 1949), a large number of our sanatorium beds were occupied by doctors and nurses who had contracted tuberculosis from undetected infectious patients in general hospital wards. In the hospitals which take part in the Board's special control program today, patients with tuberculosis never reach these wards. Instead they are transferred to sanatorium where they belong.

What Causes Tuberculosis?

Following are extracts from a transcript of an address given by Dr. W. R. Barclay, professor of medicine, University of Chicago, and president of the American Thoracic Society, to the public health staff of the Metropolitan Health Service of Greater Vancouver in October, 1963. The entire transcript of Dr. Barclay's address was distributed by the Continuing Medical Education Programme of the B.C. Tuberculosis Society.

If I ask a Grade 8 student what is the cause of tuberculosis, he will say, "the tubercle bacillus". Of course he will be wrong. The tubercle bacillus is only one of the many factors that cause tuberculosis. Even though it is the essential factor — without it you cannot have the disease — you do not necessarily have the disease when you have the tubercle bacillus.

Whether or not the tubercle bacillus causes the picture that we know as the disease tuberculosis depends on many factors. The intensity of the infection is one of these. One does not contract tuberculosis by being casually exposed to the inhalation of tubercle bacilli. Not only must there be a certain intensity of exposure, but there must also be a minimum number of exposures. It is very unusual that just one bout with the tubercle bacillus will cause tuberculosis, b u t repeated exposures will lead to the disease.

A Teeter-Totter

Once the tubercle bacillus has entered the body in sufficient numbers and sufficient numbers of time to possibly cause the disease, we then reach the problem as to whether or not the person so infected can develop adequate immunity or resistance. We have a sort of balance here: on one side, the tubercle bacillus assailing the host in a certain number and a certain number of times, and on the other side of the balance or teeter-totter, the ability of the human being to develop resistance. If he can develop resistance to this invasion of organisms, the the organisms cannot multiply. They cannot spread, they do not produce caseation, cavitation and illness.

Immunity

The factors that govern immunity in the human being are poorly understood. They are many in number and they are extremely complex. There a r e some, however, that we think we understand.

Nutrition is an important one. A person may have a n infection with tuberculosis and then develop the disease if his nutrition becomes poor.

Again, you can break down the concept of nutrition into a number of sub-factors. One may suffer from malnutrition because of poverty. . . and everyone knows that poverty is a predisposing cause of the disease TB. One may develop malnutrition because of alcoholism, and we do see a high incidence of tuberculosis among the alcoholics. One can develop malnutrition because of great social forces, such as economic depressions or war, and we know that these large fluctuations in our social pattern are reflected in fluctuations in the incidence of tuberculosis.

Inter-Current Illness

Immunity is also affected by inter-current illness. Someone may be able to withstand the onslaught of the tubercle bacillus for many years, but then fall prey to it because of a severe bout with influenza. A child may be doing extremely well until he develops a measles pneumonia. There are many illnesses, and many of them preventable illnesses, which predispose toward tuberculosis.

There are iatrogenic causes. The physician himself is often the factor that weighs the balance against the patient, in favor of the tubercle bacillus. This is commonly seen in the practice of medicine when a physician prescribes high doses of cortico-steroids for a patient for a long period of time for example, in the treatment of rheumatoid arthritis or ulcerative colitis. In the case of the ulcerative colitis patient, the physician not only adds steroids to the situation but he also has balanced against the patient an unfavorable nutrition.

The physician may prescribe x-ray treatment for a carcinoma and unwarily flare up tuberculosis.

Infection and Disease

We have talked about two conditions which may exist: a condition called infection, and a condition called disease. Infection means that the person had living tubercle bacilli within his body, and the manifestation of this is a positive tuberculin test in most cases.

Infection may become disease: that is, the tubercle bacillus multiplies, destroys tissue, spreads to other organs, is expectorated or urinated or discharged from the surface of the skin, and is

passed to another human being.

There are two ways in which disease may develop. One of these is a progressive, primary tuberculosis and is always exogenous. In other words, it is a disease inflicted from the outside on the patient. This we see in children generally, but we may also see it in adults. A person who is tuberculin negative is exposed to a highly infectious person, say with a cavity. He gets an overwhelming number of tubercle bacilli in his lungs and he gets them repeatedly. He develops the tuberculous disease. It is progressive. It makes him ill. The bacilli came from outside his body, so it is exogenous. It is progressive, primary tuberculosis and it accounts for 25 to 35 percent all new tuberculosis in the United States and, I presume, in Canada.

The other kind of disease is *re-infection tuberculosis*. This is, someone who has living tubercle bacilli in his body, who is tuberculin positive, who breaks down.

Individuals can break down in two ways. They can be exposed a second time to someone who is highly infectious and therefore get reinfection exogenous tuberculosis.

Or the bacilli they carry within their body may start to multiply because their resistance drops and they infect themselves from within. This is called endogenous re-infectious tuberculosis and accounts for between two-thirds and three-quarters of all new cases reported.

* * *

Tuberculosis, I think, is our greatest public health problem today. If one had to sum up the magnitude of the problem one would have to say it is very, very great. It is very great no matter in which perspective one views it. One is sobered by the thought that tuberculosis in North America kills more people than all other infectious and parasitic diseases combined. In the United States tuberculosis kills approximately 10,000 people per year and it causes more than 50,000 new cases. In Canada there are approximately 6,000 new cases per year. If we were to view the tuberculosis problem from the point of view of Canada and the United States alone, it is very great. If you add Mexico in, it is a tremendous problem.

Bulletin Board

The Sanatorium Bexpresses appreciation to the Kinsmen Club of St. Boniface, Norwood and St. Vital for the gift of an electric typewriter to be used in the treatment program for paraplegic patients at the Manitoba Rehabilitation Hospital.

Dr. L. H. Truelove, chief of medical services of the Manitoba Rehabilitation Hospital, flew to Paris this month to attend the Fourth International Congress of Physical Medicine and Rehabilitation, September 6 to At the congress Dr. To love presented a paper entitled, "The Treatment of Rheumatoid Arthritis in a Rehabilitation Hospital: Results of a St. Program.

Special guests at the Sanatorium Board's executive offices last month were Dr. a nd Mrs. Harvey Boughton of Saskatoon, Sask. Dr. Boughton devoted 40 years of his life to the work of the Saskatchewan Anti-tuberculosis League and from 1925 until his retirement in 1959 served as medical superintendent of Saskaton Sanatorium. At present he is editor of "The Valley Echo", which gives news of the sanatoria in province and of devekments in the tuberculosis control program.

The Sanatorium Board expresses sympathy to and Mrs. A. L. Pame, Ninette, on the death of Mrs. Paine's mother, Mrs. Ingunn Marteinsson, on September 5.

A call for more workers has been issued by our Volunteer Services at the Manitob based. During the busy months ahead, the department would be very happy to have the assistance of any women interested in doing active volunteer services, in the mornings. Inquir should be directed to M. W. E. Barnard, Director of Volunteer Services, at SPruce 5-0181.

T. A. J. Cunnings, e utive director of the Sanatorium Board attended the 15th Chicago Advanced Institute, held in Chicago, September 14-18 by the American College of Hospital Administrators.