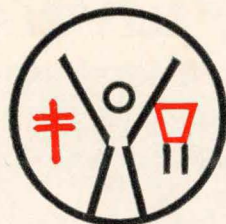


NEWS BULLETIN



The Sanatorium Board of Manitoba

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MAY, 1969

TB Control — The Problems Don't Change

It must again be emphasized that tuberculosis continues to be a health problem in Manitoba, Dr. Reuben Cherniack told the annual meeting of the Sanatorium Board of Manitoba on April 25. Last year 225 new active cases were found among residents of the province — and this, he pointed out, is an 11 percent increase over the number reported in 1967.

It is interesting that while the medical director of our Tuberculosis and Respiratory Disease Service was reviewing last year's problems with the Board members and staff, physicians at the D.A. Stewart Centre were busily investigating several new ones that will go down in the record for 1969.

Over a period of three weeks in April, four men turned up at the Stewart Centre for examination — and while they came from different parts of Winnipeg and had never

Such incidents as these fortunately are not daily occurrences at the Stewart Centre, but they happen often enough to make us deeply aware of the unpredictable and far reaching problems that are associated with tuberculosis control. Tuberculosis is an insidious disease that still sneaks into all segments of the population, and whenever it occurs, it sets up a

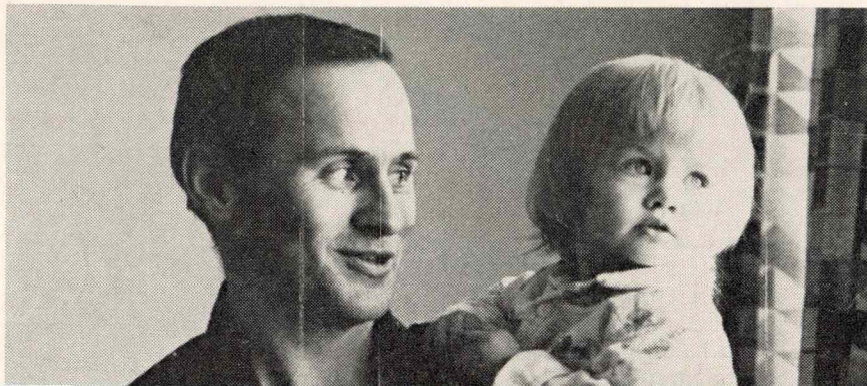
chain reaction that takes months, even years, to resolve.

Last January, for example, the D. A. Stewart Centre had several admissions somewhat similar to the four last month. On this occasion it was four young working women with active disease.

Continued on Page 2

Many Benefited From '68 Services

- 1,803 patients were admitted for treatment in Sanatorium Board hospitals in 1968.
- 62,963 visits were made to our out-patient departments at the Manitoba Rehabilitation Hospital, D. A. Stewart Centre and the Manitoba Sanatorium.
- 154 persons were admitted to the Board's special rehabilitation program for socially and vocationally handicapped adults at Pembina House, Ninette.
- 129,473 free examinations were provided to the people of Manitoba through our early detection facilities, the greater part of which are paid for by Christmas Seal contributions.
- 1,398 additional examinations were conducted at the Brandon Tuberculosis Clinic.
- Treatment days for all our in-



E. S. Hershfield, showed some rather arresting coincidences.

All were middle-class citizens. None had had chest x-ray examinations in their life; two had never seen a doctor, and two had not received health check-ups for many years. All had been sick for a comparatively long time — and all had far advanced bacillary disease.

Here, briefly, is a little of their histories:

Mr. A., a single man in his mid-thirties, employed. He had felt sick since December, experiencing cough, shortness of breath and excessive sputum. By the time he called a doctor in early April, he had lost 30 pounds in weight. The doctor referred him to the Stewart Centre.

Mr. B., retired, lives with his son, daughter-in-law and grandchildren. He had been sick for 10 years, the last four of which he had been bothered by cough and sputum. During the past year he lost 40 pounds of weight. He was admitted to the Stewart Centre from a general hospital casualty ward.

Mr. C., also retired, lives alone. After feeling very ill for six weeks (and losing 35 pounds in one year) he asked for help at a general hospital out-patient department.

Mr. D. is in his early forties, is employed and married (with several children). He also was troubled by a cough and shortness of breath and had felt sick for about two months. Eventually he sought the advice of a doctor who referred him to our physicians.



ANTI-TUBERCULOSIS DRUGS, first introduced to treatment 25 years ago, saved lives, divorced patients from hospital and, in the case of one of them, have helped to prevent development of disease. An account of how the drugs changed the tuberculosis picture, appears in the next chapter of the Story of the Sanatorium Board on page 3.

(Photo by Barbara Moss)

Winnipeg Team Wins Four Trophies

The Sanatorium Board heartily congratulates the participants in the First Western Canada Wheelchair Games held in Saskatoon May 2 to 4.

The 15 Winnipeg contenders — most of whom are former patients at the Manitoba Rehabilitation Hospital — returned triumphantly with four first place awards, which included the Top Team Award for the highest aggregate standing and the basketball and riflery trophies.

Joe Smithson took the award for top male athlete; and Irene Miller and Donna Wruth tied for second place in the female standings.

Frank Prouten placed next to Mr. Smithson in top male standing. Ted Misanchuk and Orene Bourne tied for third place. Adam Salamandyk came away with the highest score in the rifle competition.

In all, the Winnipeg team returned with an impressive number of first, second and third place standings in competitions that also included table tennis, shotput, wheelchair slalom,

swimming and wheelchair races.

Their achievements were the result of a lot of hard training over the past year — and in no small measure were due to the coaching assistance of Lynne Humphreys (M. R. H. gymnast), Marg Catchpole, Gil Baggley, George O'Neill and Dick Flower, and to the enthusiastic support of the team's medical officer, Dr. B. J. S. Grogono.

Address all communications to:

THE EDITOR, SBM NEWS BULLETIN
800 Sherbrook Street, Winnipeg 2, Manitoba
Second Class Mail Registration Number 0324.

Sanatorium Board's Services to the people of this province in 1968, were presented at our annual meeting on April 25.

At the meeting Frank Boothroyd was re-elected chairman of the Sanatorium Board and R. L. Bailey was again named vice-chairman. Other elected members are J. F. Baldner, Keith Campbell, Gordon Fyfe, Dr. T. W. Fyles, D. S. McGiverin, H. L. McKay, E. B. Pitblado Q.C., S. Price Rattray, Dr. H. H. Saunderson, H. T. Spohn and E. P. Stephenson, all of Winnipeg; W. B. Chapman, The Pas, Ed Dow, Boissevain; J. B. Craig, S. A. Magnacca, F. O. Meighen Q.C. and W. A. Paton of Brandon.

Dr. F. Hartley Smith was made an honorary life member of the Board for his many fine contributions to the growth of our services. He represented the Manitoba Medical Association on Committees involved in the early concept and planning of the Manitoba Rehabilitation Hospital, and since 1962 served as chairman of our Medical Advisory Committee.

Practice and Perseverance Overcome Stuttering

Adam B. is what most people would call a nice, all 'round fellow. He has above average intelligence, holds a good job, is a responsible father and husband, and enjoys mixing with others.

Adam B., in other words, is as happy and contented as hundreds of other successful men. The only difference is that, to achieve this state, he had to work about a thousand times harder learning to cope with a disorder of speech commonly referred to as *stuttering*.

Mr. B. didn't work on his problem alone. Few people can. He had a lot of help over a long period of time from other people who stutter and from a speech clinician who conducts regular group therapy sessions out of the Manitoba Rehabilitation Hospital.

The Manitoba Rehabilitation Hospital was the first (and is still the only) agency in the province to offer organized assistance for adults with a stuttering handicap. When the hospital was opened in 1962 and a Department of Communication Disorders set up as a main treatment service, group therapy sessions for stuttering were started for a small number of teenagers, and two years later, under the direction of speech clinician Mrs. Marijke Vogel, this treatment was extended to adults. Except for a brief period when they had to be discontinued for lack of staff, both programs have forged ahead, with Miss Lisa Smith now holding weekly classes for a dozen teenagers and Mrs. Vogel in charge of twice-monthly sessions for 15 adults.

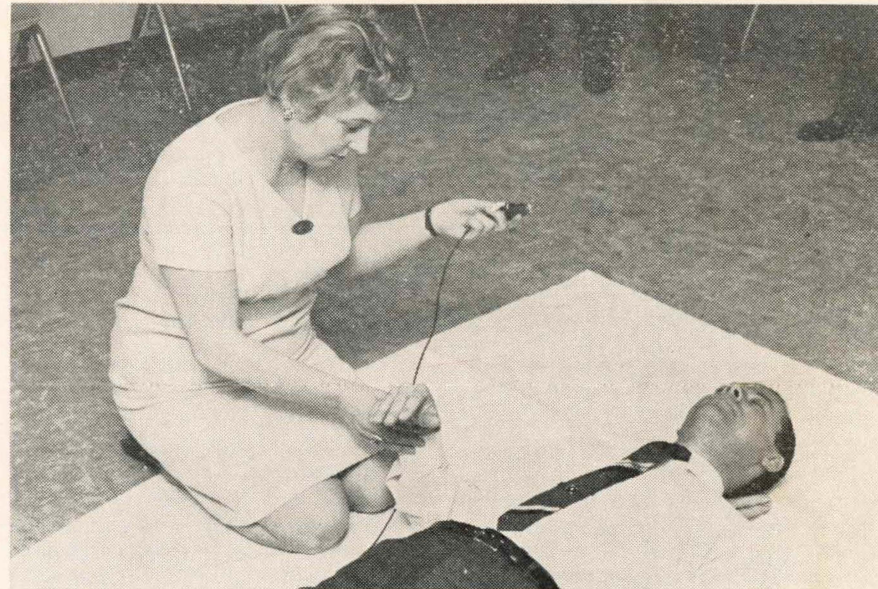
Mr. B. is one of the outstanding

that in varying degrees affects nearly every aspect of his life.

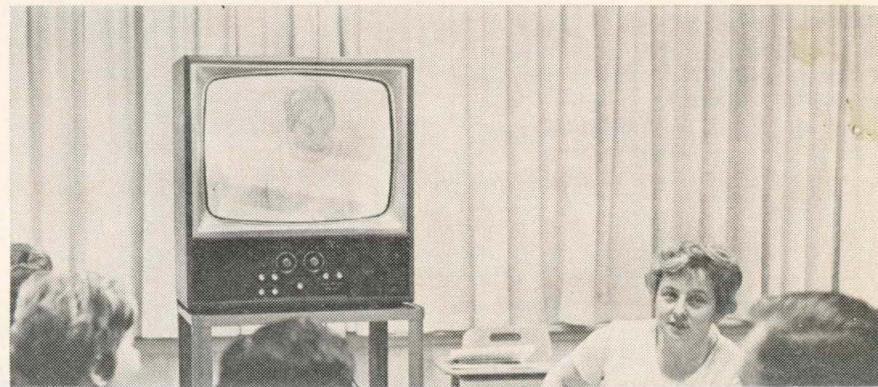
Since stuttering (or stammering as it is also called) is a habit, and since it is generally accepted that stutters as a group do not differ from other people with respect to intelligence, condition of health, organs of speech, or capacity for social adjustment, the disorder is treatable — provided that the individual does not expect an instant cure and is willing to work very hard.

Like other speech clinicians, Mrs. Vogel views stuttering as an iceberg. What people see and hear when the individual speaks, she points out, represents only a small part of his distress. Underneath are the root problems behind his stumbling — the tensions, lack of confidence and other feelings related to his speech — which he goes to great lengths to conceal.

Bringing the iceberg above surface and keeping it there is therefore the primary aim of treatment. To achieve this, the clinician works first on the individual's attitude towards his stuttering; then on specific aims to help him face his stumbling blocks.



Group therapy begins with exercises to help patients relax.



class. But like everyone else who has enrolled in the sessions, he did not achieve graduation easily, nor did he attain perfect fluency of speech. With therapeutic direction, encouragement, constant practice and what was probably some agonizing self analysis, he slowly learned to become a *cheerful* stutterer who does not worry so much about his problem and as a consequence, hesitates a good deal less in his speech.

The first important thing Mr. B learned is that stuttering is not a primary speech disorder, but rather a defect in conversational attitude — a learned process that began back in childhood or in rarer instances, in the teens. Hesitancy and stumbling in speech, according to Mrs. Vogel, is as normal a part of learning to speak as falling is in learning to walk. About 992 children out of 1,000 surmount these speech blocks and grow up to become normal speakers. The remaining eight never quite manage the hurdle. Because of a general lack of knowledge, some parents and teachers interpret this normal process as abnormal. The child is made to feel to conscious of his stuttering, so it increases, and by the time he reaches adulthood he has a handicap

TB CONTROL

(Continued from Page 1)

Follow-up investigation showed that their children had become infected — and so all these youngsters are now receiving prophylactic treatment and continuous surveillance in the hope of saving them lengthy hospitalization and all the expense and hardship that this age-old disease inflicts.

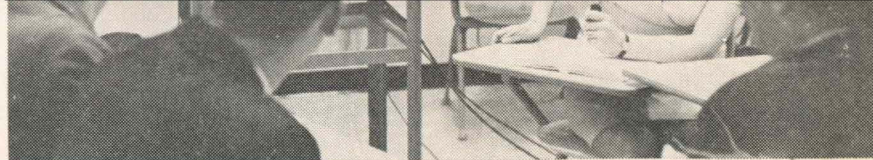
the clinician encourages the patient to step up his contact with others. Before treatment, says Mrs. Vogel, patients often avoid situations that force them to speak. Many will not take part in social activities, some will not use the telephone, and a few will not enter a store and ask for things directly.

"Pick up the telephone and talk to the dial tone," she advised one man who had all these problems. "When you have mastered that, call a friend once, then twice every day. Talk or read aloud by yourself, then with a partner. Don't point to the things you want to buy. Look the clerk in the eye and tell her what you want."

The patient obediently did all these things and eventually was so encouraged by his success that he asked his boss for a raise.

Treatment, of course, is not really as simple or as precise as this, but varies according to the individual and the nature of his problem. Individual therapy enables the clinician to establish good rapport with the patient and to work on specific difficulties. Group therapy does much to bring the patient out of his shell, to the point where he finds himself discussing his problems with others. Videotape recordings — a recent introduction to the Tuesday evening sessions — enable the group to observe themselves and each other in the act of speech. Relaxation exercises — demonstrated in group and individual therapy — help immeasurably to relieve the inside tension that gives rise to speech hesitancy and facial grimaces.

Patients are usually amazed to dis-



Videotape equipment — rented from the Children's Hospital — was recently introduced to Mrs. Marijke Vogel's Tuesday evening sessions so that patients could see as well as hear themselves speaking.

— Photos by Photography Department,
Children's Hospital of Winnipeg

cover that they do not look or speak as badly as they think they do. A person with a severe stutter, according to Mrs. Vogel, stumbles only about 25 percent of the time, but until he actually sees and hears himself speaking he believes he stumbles all of the time.

The patient learns that when he struggles not to stutter he aggravates the situation. For this reason, he learns to keep going in his speech, taking the blocks as easily as he can and proceeding right on. He is also encouraged to increase his vocabulary, tackle words he fears, concentrate on eye contact with people, and not hold his breath or tense his jaw when speaking.

The person who successfully passes the course is one who realizes that stuttering fluctuates from time to time, from person to person, and from situation to situation. He further accepts the fact that some stuttering and relative fluency may remain with him for the rest of his life.

"I stutter but that does not mean that I cannot speak," said Mr. B. "Nor does it mean that I am different."

This last aspect is rather important to Mr. B. and the members of Mrs.

Vogel's group therapy class, and this month, as a means of promoting interest in the problems of stuttering and as a social outlet, they formed a club which will be known as *Speech Unlimited*.

We want the public to know, the group announced, that stuttering is treatable and that people who stutter can enjoy life as much as anyone.

Holland-born Mrs. Vogel, who has 17 years of extensive experience as a speech clinician, concurs. "In Austria, Germany and other parts of Europe, work with people who have this speech disorder has been going on for three generations," she says. "Here in Manitoba where speech therapy is new and speech clinicians in very short supply[Ⓞ], there is still an enormous lack of knowledge about stuttering.

"Perhaps those who have the problem will themselves do something to correct the situation."

1. In Canada only three universities offer degree courses in speech pathology and in order to go on with postgraduate work, clinicians must go to the United States or elsewhere. It is hoped that the improvement of treatment facilities in Manitoba will soon be accompanied by the establishment of a school for the training of speech pathologists and audiologists.

The Story of the Sanatorium Board of Manitoba

With the tremendous advances in treatment during recent years, the challenge to find all existing tuberculosis has never been greater. There are few other diseases of major importance that are subject to such ready and early detection, and it is our duty to take full advantage of the knowledge and technical facilities at our disposal. If we fail to do this and if tuberculosis within the next 25 years has not been reduced to the minor role of many other communicable diseases, we will be largely responsible.

—Dr. E. L. Ross, medical director of the Sanatorium Board of Manitoba, at the Commonwealth Tuberculosis Conference, London, 1955.

PART SEVEN

Widespread case finding and free treatment, plus isolation of infectious patients and various measures to ensure rest of the lung all had an effect on tuberculosis control in the twentieth century; but it took the great chemotherapeutic breakthrough beginning with streptomycin in 1946, followed soon after by PAS and then by the synthetic compound INH, to bring down this ancient killer. Tuberculosis workers often refer to the modern period as *Before the Drugs* and *After the Drugs* with about the same fervor as one compares the Middle Ages to the Renaissance. In the years before the drugs, according to our physicians, the majority of patients entering sanatorium had about a 30 percent chance of dying and a 30 percent chance of living on as chronic invalids.^① After the drugs, deaths were cut in half, then in half again, and most of the patients went out from sanatorium to resume a normal life.

The discovery of the wonder drugs ended a long frustrating search for

nitrogen through the needle into the space, he induced temporary collapse of the lung. Thus the procedure known as artificial pneumothorax was born. With the advent of the chest x-ray a few years later, pneumothorax was refined and used increasingly in all parts of the world, and eventually it led to the develop-

year I spent at Ninette I had pneumothorax twice, then once every week, and for two years after discharge once every three weeks." What was pneumothorax like? "Not bad. You got used to it," said this ex-patient. But Horatio P. McNasti, a fictitious scalawag whose adventures were recounted in early issues of the Sanatorium Board's *Messenger of Health*^②, had a somewhat different point of view.

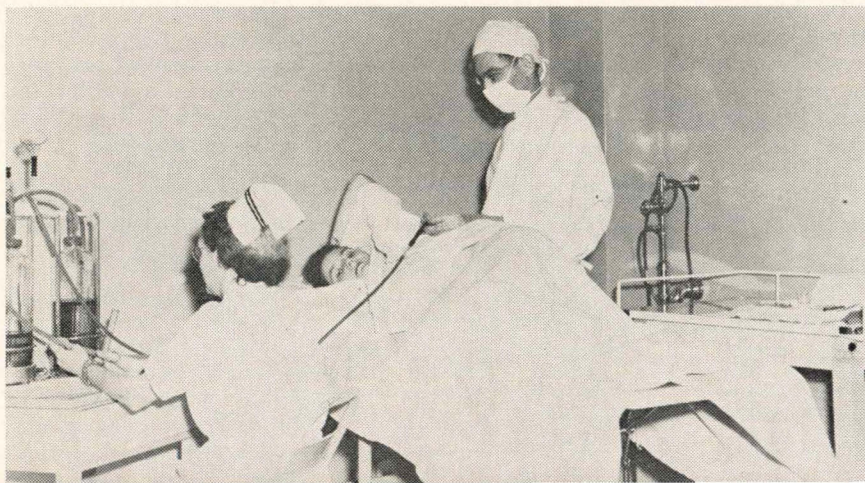
In this room, which is no doubt the noono-room, they have a bunch of high-polish machinery, a couple of stretchers, a couple of Docs, and also a couple of nurses working the gadgets. They asks, "Who is first?" and I gives one of the goggle-eyed ginks who is with me a shove, and he steps smartly forward, almost fall-

the measures. "Attitude counted for a lot in those days," Dr. Ross pointed out. "Patients co-operated through fear — and why not, when around one out of five patients discharged from sanatorium was discharged dead." The discovery of the antimicrobials, however, brought about a change in attitude and, somewhat to the physician's dismay, this fear all but disappeared.

The Big Three

Streptomycin, an extract of a mold and the first substance found to be effective against the tubercle bacillus, was discovered in 1944 by a Russian-born American, Dr. Selman Waksman, who as professor of microbiology at Rutgers University Agricultural School had been delving into the mysteries of microbes of the soil. Small amounts of this new drug were tested on groups of tuberculosis patients over the next year and as the product became refined and the results appeared increasingly promising, it went into general use.

Like the other drugs that followed it, streptomycin did not actually kill the tubercle bacillus but suppressed its growth, enabling the body to build up a natural defence against the disease. It was a potent, impressive drug, but it also had some drawbacks. During 1946 and 1947, for example, it could not be thrown



... through the years, as tuberculosis hung on as a leading cause of disability and death, numerous drugs and medicines were tried, but the tough fatty coating that encases the germ comfortably resisted them all. "Of late years, one has indulged the hope that some drug might be found to arrest the nodules of tubercle," wrote an eminent physician at the turn of the century. "But iodide of potassium, quinine, perchloride of mercury, salicylic acid, iodoform, turpentine, creosote and guaiacol have all been tried and . . . found wanting." Another lamented the fact that whenever a drug was found capable of killing a germ, it usually also killed the patient.

Gold salts were used extensively during the early part of the century but these proved worthless, as did tuberculin, a substance composed of dead or greatly weakened bacilli, which was administered to patients in the hope of increasing their resistance to disease. Later, when the sulpha drugs and penicillin became available, these were hopefully applied in the treatment of tuberculosis, but they also proved of no value and were abandoned. Curiously, the only treatment that endured was a collapse of the lung technique developed by an Italian physician in the same year that Robert Koch announced his discovery of the tubercle bacillus.

Back in 1882 Carlo Forlanini, a surgeon from Pavia, decided that complete rest was the only way to heal lung cavities; so he inserted a hollow needle between the ribs into the space between the lung and rib cage and by introducing a liter of



Before the drugs, pneumothorax (shown here) and other collapse measures saved the lives of many patients who would have died on rest treatment alone.

ment of other surgical techniques. "No more hopeful ray of sunshine has ever come to illumine the dark kingdoms of disease than that introduced into the path of the consumptive through the discovery of artificial pneumothorax," Dr. E. L. Ross, medical superintendent of the Manitoba Sanatorium, wrote in the 1930's.

Promoting rest of the lung by maintaining a cushion of air around it or, when this failed, by removing portions of the ribs to cause collapse of the chest wall (thoracoplasty) served as the most effective adjuvants in the treatment of tuberculosis for many years at Ninette.® In 1940 Dr. Ross noted that 90 percent of the patients had such treatment. As an indication of the benefits, he said, around 80 percent of the patients who received it improved and of these nearly 70 percent were presented with a good chance of ultimate cure.

"Pneumo", in particular, was accepted by patients as their one great hope for recovery and although the procedure sometimes led to lengthy complications and always required numerous "refills" as air was gradually absorbed into the body, those who had this treatment counted themselves lucky to escape the more drastic and dangerous thoracoplasty, which required several sessions under the surgeon's knife and mutilated the body for life. "Pneumo virtually became a part of our daily life", recalled an ex-patient. "During the

ing on his face, being as he has his legs crossed when I shove him. These Docs get him up on the stretcher and the nurses takes off his pyjama coat and then they snatch another guy which I helpfully push in their direction, and do the same to him, too. The dance is on now and I set back to watch what's going to happen to them before committing myself to the same dose. I ain't so dumb as I look. They slobber some junk and then some iodine on their side under their arms and then pick up a little hoojacapivvyay full of some junk saying, "This may hurt a little," more cheerful than the guy feels on the table, whose tongue is by now hanging out and whose face has got a kind of sick smile on. Some antics they go through, I'm thinking — first a pinch or two and then squirt a couple of shots under their skin with the needle, and then some more pinching. I figure to do some pinching myself if they pull the same stunts on little Horatio. Next comes a needle without anything in the glass gadget which is on it, and they shove this right in between the ribs, which fetches a loud grunt out of one guy, and a treble squeak out of the other, and the thought out of me whether to run now, or later. However, the both of them still seem to be alive, so I figure they is most likely just sissies and stick around to see what's next. A rubber hose is hooked up to the needle which the Docs take the hoojacapivvyay off, and then they turn on the juice at the machine which I mention before. There's a gadget like a thermometer on the front and they watch this for a while and finally say, "That's enough for now. Next." Well, I figure that's enough for Horatio P. too and turn around to ease away, but they snatch me back saying, "Now, now, there isn't anything to it. Is there, boys?" Which the birds that has just been done ain't saying anything to, but just give a kind of sickly grin and are wheeled out.

Unlike the peevish McNasti, most patients went along willingly with treatment, no matter how drastic

erculosis in Canada simply because it was not free and until federal health grants were introduced in 1948 it was usually only the few who could afford the \$10 daily injections who got them.

Within a short time physicians also discovered that in about half of the patients receiving streptomycin, the tubercle bacilli rapidly became resistant to it and began to flourish and multiply as much as ever. So they learned to cut the daily dose and extend the treatment period well beyond the customary 42 days. And, in most cases, the drug was reserved for the acutely ill or for patients who were becoming worse in spite of other measures. "If additional drugs had not been developed it is doubtful whether the outlook for the average tuberculosis patient would have been appreciably enhanced because of streptomycin," commented a doctor.® "Tuberculosis requires prolonged and continuous treatment whether the treatment is drugs or rest. Streptomycin was effective for a time; but it was not effective long enough to make a radical change in the course of the illness."

The second anti-tuberculosis drug was introduced in Manitoba in 1949 and 1950. It had been known for some time that certain salicylates had some effect on the growth of bacilli in the culture medium, but the full value of one of these — para-aminosalicylic acid (PAS) — did not come to light until 1946. A Swedish scientist, Dr. Jorgen Lehmann, discovered that while PAS has only a slightly inhibitory effect on the tubercle bacillus when used alone, it has the

(Continued on Page 4)

Story of the Sanatorium Board of Manitoba

Continued from Page 3

remarkable property of delaying the development of resistant strains when used in combination with streptomycin. Thus, after initial tests, a second antimicrobial went into general use and once more things began to look up for the TB patient.

The last of the *Big Three*, isonicotinic acid hydrazide or INH, first appeared on sanatorium drug shelves in 1952. Related in chemical structure to one of the B vitamins, this synthetic compound was first synthesized in Prague in 1912 and then tragically forgotten because no one knew what to do with it. In the early 1950's INH was rediscovered simultaneously and independently by chemists in the United States and Germany, and when tested on patients, it was found not only to have high efficacy, but it was also easy to administer (by mouth), it had only rare side effects, it was very cheap, and proved even more useful than PAS in delaying resistance.

In the beginning, INH was hailed as the drug to end all drugs and wipe out tuberculosis, and it is said that patients danced in the sanatorium corridors when newspapers splashed glowing reports of its discovery across front pages. Within a short time, however, everyone learned that like the other drugs, INH did not work a swift cure by killing the germs directly; it again only incapacitated

zens of the province, and thus in many instances when disease was found early, patients who could not afford a lengthy hospital stay stayed away. The second drawback was that only large film was available for mass surveys and the procedure was too costly and time consuming to extend this service to everyone.

An act of the provincial government instituting free treatment for all Manitobans in 1944, and the perfection of a miniature film technique developed by Brazilian physician Manoel de Abreau, in 1936 opened the way for a massive preventive effort in the 1940's and 50's. Around 1943 the Winnipeg Health Department, under the spirited leadership of Dr. Morley Loughheed, joined the anti-tuberculosis campaign by undertaking x-ray surveys of city schools and industries. And in 1946 the Board stepped up its own efforts in prevention through the acquisition of two big vans and 70 mm x-ray equipment with funds donated by the Associated Canadian Travellers of Winnipeg and Brandon. In that year medical direction of the tuberculosis control program was moved from Ninette to Winnipeg and Dr. Ross announced plans to x-ray citizens in all parts of the province every two to four years.

Thus, between 1947 and 1956 the Board's preventive program was car-

treatment centre for people suffering all types of long-term illness. Finally, with the conversion of the St. Boniface Sanatorium in 1961 and the closing of Clearwater Lake Hospital at The Pas four years later, Manitoba was left only one main treatment hospital at Ninette and the Central Tuberculosis Clinic in Winnipeg.

Even yet the situation changes as plans go forward to consolidate tuberculosis control in one facility in Winnipeg and in the words of our new medical director of Tuberculosis and Respiratory Disease Services, Dr. Reuben Cherniack, "bring the prevention, investigation and treatment of tuberculosis into the mainstream of respiratory disease and medicine as a whole." In accordance with these plans the name of the Central Tuberculosis Clinic was changed last year to the D.A. Stewart Centre for the Study and Treatment of Respiratory Disease, surveys again reverted to mass chest x-raying in order to find other chest conditions, and the Sanatorium Board entered wholeheartedly into a partnership with the Joint Respiratory Program of the University of Manitoba Faculty of Medicine.

Tuberculosis has declined. That is true. Yet there is irony in the fact that 25 years after the discovery of the first anti-tuberculosis drug and all the tools we need to seek out the disease, we have still to achieve the

BULLETIN BOARD

Four members of the Sanatorium Board's Prosthetics and Orthotics Research and Development Unit flew to Montreal this month to attend the yearly meeting of rehabilitation engineers and clinicians engaged in this work across Canada. Projects completed by the Winnipeg unit over the past five years and proposed research for the next five years (which includes a modular system of prosthetics for upper extremity amputees, up-grading of the new Winnipeg modular system of lower extremity prostheses, new designs in braces and surgical implants for the control of artificial limbs) were presented at the meeting by our Technical Director Jim Foort, engineer Reinhart Daher, prosthetics technician Ian Cochran and the unit's medical director Dr. F. R. Tucker. The sessions were held May 13 to 16 at the Rehabilitation Institute of Montreal.

★ ★ ★

Dr. R. H. McFarlane was re-elected president of the Active Medical Staff of the Manitoba Rehabilitation Hospital at their annual meeting on April 21. Dr.

But even though INH has not lived up to early predictions, it has nevertheless proved the most valuable of all TB drugs, both in treatment and, in recent years, as a prophylaxis to prevent the development of active disease. INH divorced a good many patients from the hospital, enabling them to take treatment on an out-patient basis. In other cases it saved patients who had been going downhill in spite of streptomycin and PAS and cut the number of deaths dramatically. In 1943 in Manitoba, before the era of chemotherapy, the tuberculosis death rate stood at 49 per 100,000 population. By 1949 the rate had dropped to 28.9 per 100,000 and in 1954, two years after the discovery of INH, it plunged to 3.6. Today with other drugs on our shelves (but with INH still at the head of the list), the tuberculosis death rate is 2.5 per 100,000 population.

Case Finding

The introduction of the drugs was accompanied by a surge in case finding, which resulted in more patients starting treatment at an earlier, more curable stage of disease and in a gradual decline in the number of new cases.

For some years the Sanatorium Board had sought to deal with the general tuberculosis problem by holding mass x-ray surveys in areas where severe outbreaks had occurred or the incidence of tuberculosis was high, but there were several obstacles to developing the program fully. The first of these was that tuberculosis treatment was not free[©] for all citi-

eral public every year. Well over 200,000 people were x-rayed annually by Christmas Seal financed community and industrial surveys; another 85,000 to 100,000 were screened each year by a hospital admission x-ray program; and between 14,000 and 17,000 ex-patients and contacts were examined by our travelling and stationary clinics.

When first started the community surveys yielded a high return of one active case of tuberculosis out of every 1,000 apparently healthy people examined. Gradually the findings diminished to one in every 4,000 in 1953 to one in every 6,000 in 1958 — and so, to cut costs, the Board again began to concentrate on areas with a higher than average prevalence of disease. In addition, in order to gather more information about infection, tuberculin skin tests were brought into the general survey program and chest films were reserved for positive reactors.

Empty Beds

With aggressive case finding and treatment now paying off, sanatoriums began to close. In 1954 the King Edward Hospital, which had been opened by the City of Winnipeg in 1912, was used for other purposes and three years later the 50-bed Indian hospital operated by the Board at Dynevor was closed. In 1959 and 1960 tuberculosis patients at the Brandon Sanatorium were transferred to Ninette and the Board, drawing on its long experience in the care and rehabilitation of chronically ill persons, changed the name of the institution to the Assiniboine Hospital and converted it into an extended

Tuberculosis in the western world has lost its pre-eminence as *The Captain of All These Men of Death*, but it crops up again and again in many parts of the province and in all social strata. Indeed, a glance at the rise in new cases last year gives one the certain feeling that this tough old germ will continue to smoulder in the population for a long time to come. The battle, it seems, is far from over.

(To Be Concluded)

1. It should be noted that most of the patients entering sanatorium at this time were in an advanced stage of disease.
2. Resection — removal of part or occasionally all of the lung — was a relatively new surgical development which came with the introduction of drugs and improved methods of anaesthesia.
3. James Glen Dempsey, who now edits a weekly paper in Calgary, was the author of the McNasti series. While he was a patient at Ninette, he shared a room with T. A. J. Cummings, originator of the Messenger of Health.
4. Dr. Nicholas D'Esopo, chief of the Pulmonary Disease Service, V. A. Hospital, West Haven, Conn., in an article distributed by the National Tuberculosis Association.
5. Since 1914 patients from the rural areas who could not afford treatment were aided by a levy paid on an equalized assessment basis by individual Manitoba municipalities. In 1942 the first free treatment for city patients was instituted when the city of Winnipeg, under considerable pressure from City Health Officer Dr. Morley Loughheed, provided for free treatment for her citizens, and two years later free treatment for everyone in the province became compulsory by statute. Cities paid a per patient per diem rate, while other municipalities paid as a group through the equalized Municipal Commissioner's levy. Costs for patients from unorganized areas was met by the province, which also made a statutory grant per diem for all sanatorium patients.

Dr. P. N. Porritt, past president, and Dr. R. A. Davis, secretary. The new chairman of the Medical Standards Committee, Admission and Discharge Committee and Credentials Committee are Dr. J. F. R. Bowie, Dr. D. A. Kernahan and Dr. R. K. Hay respectively.

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Miss E. L. M. Thorpe, Sanatorium Board nursing consultant and administrative assistant, will attend a meeting of the National Nurses' Institute, Canadian Tuberculosis and Respiratory Disease Association, in Vancouver May 28 and 29. Miss Thorpe was elected chairman of the ad hoc steering committee as well as a member of the Nurses Resolutions Committee at the 1968 annual meeting of the CTRDA.

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Edward Dubinski, SBM assistant executive director, and Bill Evans, plant superintendent of the Manitoba Rehabilitation Hospital, attended the annual meeting of the Upper Midwest Hospital Conference in Minneapolis May 7 to 9. Mr. Dubinski, a past president and member of the Board of Trustees, chaired one of the general sessions.

SBM Information Officer Mrs. Pat Holting attended a public relations institute for non-profit organizations in New York City May 21 to 23.