Tuberculosis Eradication Plan of
Minnesota Medical Association
(Thirty Seven Years of Effort)

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Beginning in the 1840’s, word was spread far and wide that the air of
Minnesota contained an elixir that would cure consumption, bronchitis and other
diseases of the chest. Pamphlets suggesting the best way to get cured from consumption
was to come to Minnesota were widely distributed throughout the eastern United
States and in some European countries. As a consequence, for several decades a tremen-
dous number of “consumptives” migrated to Minnesota. Each boat that docked
at the wharves and each train that puffed into the depots of Minnesota brought a
crowd of new sufferers, not only the usual numbers from New England, but dozens
of Scandinavians, Germans, Czechs, Irish, and a sprinkling of other nationalities.
Tuberculosis was present everywhere, not only among the invalid population, but
also among the native born and the newly arrived immigrants. As the President of
the State Medical Association in 1873, Dr. W. W. Mayo said: “Our state has become
a large suburban hospital, receiving from every part of the Union invalids who are
seeking relief from that fell destroyer, consumption. Upon this subject at least we
must furnish our quota of facts. Statistics also make an unfavorable showing in the
death rates from consumption, but this is only apparent for many in the last stages of
disease come to this State as a final resort, after all other hopes have failed—our death
average from consumption is 15 per cent; in England, 25; yet a large majority of
them come to this State to be relieved from disease of the lungs—.”

As late as 1911 the Minnesota tuberculosis mortality rate was 119.7 per 100,000
population (2522 deaths)—a rate exceeding that of any major nation today. How-
ever, by 1961 the tuberculosis mortality rate was 2.8 per 100,000 (97 deaths). All
but two deaths were in people of 45 years or older. The question often asked is, “how
did the citizenry of Minnesota solve so many problems so fast?” Two words—
coordination and cooperation—go a long way toward answering this query. The
methods now employed in this state have been evolving for approximately a century.
Members of the State Medical Association early felt the need for an official organiza-
tion to control contagious diseases and on March 1, 1872, the Minnesota State Board of
Health was formed. To considerable extent it was the influx of consumptives which
led the medical profession to recognize the need for a State Board of Health. From
the time of its organization until 1903, the State Board of Health carried the total
responsibility for controlling tuberculosis both in animals and in people. In 1903, the
Livestock Sanitary Board of Minnesota was established and responsibility for disease
among animals was transferred from the State Board of Health to this new organi-

Laymen Become Interested

The need for a concerted effort of laymen to assist in a tuberculosis control pro-
gram was acted upon by citizens of Willmar, Minnesota where a society was formed
in 1890. Apparently, this was the first tuberculosis organization of its kind in the
United States. The next such society in Minnesota was founded in Hennepin County
about 1903. Then came the statewide organization in 1906 presently known as the
“Minnesota Tuberculosis and Health Association.” In 1908, the St. Louis and
Ramsey County Tuberculosis and Health
A permanent organization was founded under the name of the Minnesota Trudeau Medical Society. This was preceded only by the Michigan Trudeau Medical Society. During the 37 following years, the Minnesota Trudeau Medical Society has held regular meetings and in 1960 became known as the Minnesota Thoracic Society.

In 1948, the Minnesota Chapter of the American College of Chest Physicians was organized.

In 1934, the Public Health Committee of the State Medical Association was reorganized into subcommittees, one of which was responsible for tuberculosis. This gave the chairman of the subcommittee on tuberculosis the opportunity to appoint to membership those persons who had previously been cooperative in developing a well-coordinated program with all organizations participating. This subcommittee held at least eight meetings annually under the direction of Dr. E. L. Tuohy of Duluth when he became chairman of the Committee on Public Health.

Inasmuch as only physicians are licensed to diagnose and treat tuberculosis, it seemed logical that the committee of the State Medical Association should be organized as a clearing-house for all organizations and that various recommendations should be channeled to the State Board of Health which is the state’s official agent. Therefore, from its beginning in 1924 until now, care has been exercised to have all tuberculosis organizations represented on this committee. This includes the State Board of Health, the Tuberculosis and Health Association, the Sanatorium Association, the Trudeau (now Thoracic Society), the Academy of General Practice, the Roentgen Ray Society, the veterinary professions and all others with tuberculosis programs. Such a clearing-house approach has enabled each organization to know exactly what activities were underway and what was contemplated by each of the other groups. This prevented over-lapping of work and assured a well-coordinated and
highly efficient program throughout the state.

**State-Wide Tuberculosis Control Program (The Meeker County Experiment)**

In 1939, the subcommittee discussed on several occasions the possibility of developing a statewide tuberculosis control program. Attention was called to the fact that for more than a decade the medical profession and its allies had at their command everything necessary to eradicate tuberculosis and that it only remained to proceed.

It was agreed that the best approach would be through a demonstration of an ideal program in one county where the committee would work with the local medical profession. Meeker County was chosen and on August 1, 1940, the committee instructed the chairman to meet with the physicians of that county to determine whether they were interested and were willing to undertake such a project. This meeting was held in the Litchfield Hospital on August 19, 1940. The Meeker County physicians unanimously approved and the first meeting to outline the plan of the project was held in Litchfield, Meeker County, on November 20, 1940. As far as could be determined, this was the first time that a medical organization adopted an all-out tuberculosis eradication campaign for an entire county. It attracted a great deal of attention and was given much favorable consideration, both locally and nationally.

To defray expense for nurses, materials, etc., the American Medical Association, the Minnesota Tuberculosis and Health Association, the Minnesota State Medical Association and the National Tuberculosis Association each contributed $1,000. W. J. Bryant, Foundry Manager of Northern Pump, who gave $500, was the first private citizen to contribute. The local physicians offered the tuberculin test gratis to every citizen of the county. Readings of tuberculin tests, taking and reading chest x-ray films and completion of examinations as indicated were donated by local physicians.

No where had such an intensive and extensive educational campaign been conducted as was done by the citizenry of Meeker County aided by the State Tuberculosis and Health Association directed by Dr. E. A. Meyerding.

This activity of Meeker County physicians and their allies attracted nationwide attention. *Collier's* magazine sent a representative to Litchfield who wrote a long article with illustrations in color entitled: "Worth More Than A Cow" which was published in *Collier's* on May 2, 1942.

The project was regarded as a most successful demonstration and the participating physicians unanimously recommended the procedure to physicians in every Minnesota county. In the 1943 annual report of the committee, it was pointed out that the Meeker County Project had demonstrated that local physicians are self-sufficient in solving their tuberculosis control problem.

Since the Meeker County survey, the committee has encouraged county-wide, municipal and community surveys. During the 1950's, Lincoln, Lyon, Kittsen and Cottonwood counties conducted such surveys and at least seven additional community-wide surveys were conducted. In the municipality of Hastings, with a population of about 6,000, approximately 90 per cent of the available population responded. On October 20, 1943 it was announced that for the first time in the history of Minnesota, county commissioners had voted financial support for a county-wide tuberculosis eradication campaign for all human beings. This occurred in McLeod County.

**Accreditation of Counties**

In 1941, the Committee established a method of accrediting counties with reference to accomplishments in tuberculosis control. Any county that met the qualifications set up by this committee, the State Board of Health and the Minnesota Tuberculosis and Health Association received an official certificate signed by the president of the State Medical Association, the executive secretary of the State Board of
Health, the executive secretary of the Tuberculosis and Health Association and the Governor of the state. Lincoln County was the first to qualify for accreditation and received its certificate on December 7, 1941. This project has also been continued. At present, 72 counties are accredited.

STATE INSTITUTIONS FOR THE MENTALLY ILL

Dr. H. A. Burns, a member of the Subcommittee on Tuberculosis, made the first survey of the tuberculosis problem by means of tuberculin testing, chest films of tuberculin reactors, and completion of examinations as indicated in the State's Hospitals for the mentally ill in 1934. It showed that 82 per cent of the inmates and 72 per cent of the personnel reacted to tuberculin, while 11.2 per cent of inmates and 5.2 per cent of personnel had demonstrable clinical lesions.

In 1938 and 1939, Dr. Herman Hilleboe conducted the first fluoro-radiographic study in Minnesota. This was done at the Anoka State Hospital for the mentally ill. Dr. W. P. Gardner, medical director of that hospital, welcomed, supported and participated in that study. The project was encouraged from the beginning by the Committee on Tuberculosis of the State Medical Association and the excellent report of this study under the title "Tuberculosis Case Finding in Institutional Populations."

In October, 1941, the Council of the State Medical Association referred a communication to this committee advising that it "look into the matter of isolation of tuberculous cases in state institutions for the mentally ill." It was estimated that there were approximately 1,400 cases of tuberculosis in the seven hospitals under consideration with 11,000 patients and 3,000 employees. The recommended procedure consisted of the tuberculin test for all inmates and for every new admission, x-ray film inspection of the chest of all reactors. This included personnel and was to be done periodically. On November 17, 1942, Dr. Burns was appointed chief of the newly established tuberculosis control unit of the State Division of Tuberculosis.

The Committee on Tuberculosis of the State Medical Association backed Dr. Burns on every move until he had all the tuberculous mentally ill in four different institutions and finally practically all in the Anoka State Hospital. This committee and Dr. Edmund W. Miller, Superintendent of the Anoka Hospital, initiated the movement and saw it through for the naming of the Burns Building at that hospital. Since Dr. Burns' death in 1949, the committee has continued to support this activity.

EXAMINATIONS OF HOSPITAL ADMISSIONS

In 1929, the Mayo Clinic instituted a requirement for x-ray film inspection of the chest of all admissions. One of the members of this committee, Dr. C. A. Stewart, of pediatric fame, initiated examination consisting of tuberculin test and x-ray film of chests of reactors of hospitals admissions in 1933. This was a two-month demonstration period in a private hospital. From that beginning, the committee has continuously promoted examination of admissions to hospitals.

For some time Dr. Karl Pfuetze served as chairman of a sub-committee to promote this project. He worked diligently, meeting with and speaking before various groups including the Minnesota State Hospital Association.

In 1951, it was announced that St. Joseph Hospital in St. Paul had adopted adequate examination for all admissions. This was the first private hospital in the state to place this project on a permanent basis. Now approximately 80 per cent of all persons admitted to hospitals in Minnesota are examined for tuberculosis.

PROVISION FOR RECALCITRANT PATIENTS

The recalcitrant tuberculous patient problem was first considered by the sub-committee in 1940. It was the consensus that tuberculosis cannot be controlled as long as persons with contagious disease are allowed to remain in their homes and mingle...
with others. "They are considered more dangerous to society than bandits because they leave a trail of illness and death whenever they come in contact with other persons." Obviously, such persons must be kept under guard, preferably away from other patients; in fact, they must be treated like prisoners and therefore, special provisions should be made for them. The solution of this problem was religiously promoted by this committee through the stage of placing such persons under lock and key in one or two sanatoriums until an adequate special unit in the Burns Building at the Anoka State Hospital was provided. The committee still solidly supports this activity.

**Regular Scientific Committee**

The Meeker County demonstration and many other activities of the Sub-Committee on Tuberculosis attracted so much attention throughout the state that Dr. B. J. Branton, President of the State Medical Association in 1941, strongly recommended that the Sub-committee on Tuberculosis be made a regular scientific committee. In appointing the membership of the committee, he carried out the original plan of including representatives of every organization in Minnesota having to do with tuberculosis. Therefore, this committee continued as the stabilizer for all tuberculosis activities in the state.

**Committee on Tuberculosis in Each County and District Medical Society**

In 1944, the Committee voted unanimously to recommend the establishment of a committee on tuberculosis in each of the 34 county and district medical societies which would look after the tuberculosis activities in their areas and at the same time would be considered sub-committees of the State Association Committee.

The report of the Committee to the House of Delegates in 1946 stated that such a committee existed in each county and district medical society. Minutes of the meetings of the State Committee have since been sent regularly to the sub-committees. Moreover, members of the sub-committees have frequently attended regular meetings of the Committee. These sub-committees have always been urged to organize so their society members could solve all tuberculosis problems locally as was done in Meeker County.

**Certification of Schools**

In 1941 it was pointed out that control of tuberculosis among the personnel of school systems had been instituted in a few places, and that "This is a subject which the tuberculosis committee proposed to support in every possible way until the schools of Minnesota are made safe for employees and students from the standpoint of contagious tuberculosis." When the Committee on Tuberculosis of the American School Health Association decided to initiate a nation-wide certification of schools project on the basis of tuberculosis control work in progress, Minnesota was selected as the demonstration state. This project was carefully studied and approved by the members of this Committee. A Minnesota Sub-committee was appointed consisting of Doctors E. A. Meyerding, L. S. Jordan and S. A. Slater, all members of this Committee. This Sub-committee in close cooperation with the Minnesota Tuberculosis and Health Association initiated the first certification of schools project on the basis of tuberculosis control work in progress in the world. The Northfield schools received the first certificate on October 15, 1945. From the beginning, certification has required at least 95 per cent participation of children and 100 per cent of personnel.

In 1947, it was announced that Dr. L. S. Jordan had the distinction of being the first physician in the nation to report a large number of schools in which no child reacted to the tuberculin test. All of the schools in his four-county sanatorium district have won and retained certificates. The certification program has been a continuous one. T. F. Mulrooney, as Case Finding and Rehabilitation Director of the Minnesota Tuberculosis and Health Association, recent-
ly stated that more than 4600 certificates have been issued and there is clamor in various parts of the state by those who wish to qualify for certification. This project has been adopted by tuberculosis workers in several other states. Wherever it is conscientiously employed, it spells the doom of the tuberculous teacher, janitor, busdriver, cook and the occasional high school student spreading bacilli to the students and other members of the personnel.

**Cooperation with Veterinary Profession**

Members of the committee have always recognized the great importance of the veterinary profession's program in eradicating disease in animals transmissible to people. It has been obvious that all three pathogenic types of tubercle bacilli must be eradicated since each one attacks animals and people other than those its name indicates. Therefore, the membership of this committee has always included one or more veterinarians. Their profession and its allies have kept tuberculosis eradication in cattle about 40 years ahead of that of physicians in human medicine. Veterinarians have established many facts about the tubercle bacillus and the disease it produces that are as useful in eradicating disease in people as in animals. Therefore, our committee has profited significantly from the advice and direction provided by our veterinary members. Drs. W. F. Feldman, A. G. Karlson, Ralph West and other veterinarians have served on this committee or worked with its members for many years. Moreover, several meetings throughout the years have been devoted to the veterinary profession and its work. Members of this profession in Minnesota have administered the tuberculin test approximately 30 million times since their tuberculosis eradication program began. Their success is indicated by the fact that they now find only one reactor in each 5000 animals tested. Nevertheless, they keep on testing and plan to do so as long as a single reactor remains. Dr. A. G. Karlson" said, "An animal that reacts positively to the tuberculin test is properly considered dangerous. . . . In spite of the great advance in control, there is a constant potential hazard as long as only a few infected animals exist."

**Establishment of Tuberculin Reactor Register**

Apparently, the first tuberculin reactor register in the United States was established in 1930 by F. E. Harrington, "Minneapolis Commissioner of Health. This register was found of great value. Advisors and later members of this committee prepared a resolution pertaining to the reporting of tuberculin reactors to health departments which was adopted by the Minnesota Trudeau Society in 1941. Item 2 of the resolution is: "That anyone with primary infection as demonstrated by the tuberculin reaction, with or without clinical or laboratory findings, should be reported as such in order to allow for proper epidemiological work including examination of all intimate contacts." From this beginning, tuberculin reactor registers have been established in other places including Iowa and Manitoba. This committee has always strongly supported reporting cases from tuberculin reactors through all stages of the disease.

**Cooperation with Military Services**

In 1942, Dr. Albert Chesley, Executive Secretary, State Board of Health, strongly desired that provision be made to examine adequately all draftees for pulmonary tuberculosis. On his recommendation, the committee unanimously passed a resolution which provided for tuberculin testing, x-ray film inspection of the chest of reactors for all Minnesota draftees before they were inducted and before they were discharged from military service.

Colonel Esmond R. Long, in charge of tuberculosis work for the Army, had accepted an invitation to attend the Committee meeting in April, 1943. He spoke at some length concerning the solution of the tuberculosis problem in the military services and the Committee offered to be of every possi-
ble assistance to him. Colonel W. G. Guthrie, then in command of the Army Station Hospital at Fort Snelling, also attended the meeting when the Committee expressed its willingness to serve him whenever its members might be helpful. In January, 1945, Colonel Leo Maguire, Medical Director of the Veteran's Hospital at Fort Snelling, presented the problem of 300 to 600 tuberculous veterans being discharged from service each month. The committee assured him of its full support and every possible aid in solving his problem.

Reaffirmation of Functions of Committee

In 1950, it was said, "Inasmuch as this Committee is composed of representatives from practically every organization and tuberculosis activity in the state, its members are in close touch with the programs of these various groups. This has resulted in the finest cooperation between them and the State Association's Committee on Tuberculosis. Excellent support has come from all of them.

The members of this Committee recognize the splendid privilege they have been granted to work under the direction of the Minnesota State Medical Association. At the same time, they are cognizant of their responsibilities to the Association and therefore have always solicited and greatly welcomed suggestions and criticisms which might enable them to improve the role which they are trying to play in the control and ultimate eradication of tuberculosis in Minnesota."

Support of Tuberculosis Program Among American Indians and Mexicans

In the 1930's, the Sub-committee gave its full support at several meetings to promote the work of Drs. Chesley and Burns in the control of tuberculosis among Minnesota American Indians. It was influential in helping to secure a special building for them on the State Sanatorium grounds.

In 1953, Dr. Chesley again called special attention to a bill which Representative Walter Judd referred to the Committee on Interior and Insular Affairs recommending that the administration of health services for Indians and the operation of hospitals for Indians be transferred to the United States Public Health Service. Our Committee unanimously passed a motion recommending to the Council that full support be given Representative Judd's bill and Dr. Chesley's program.

The tuberculosis mortality rate among Minnesota Indians dropped from 529 per 100,000 in 1937 to zero in 1955. It has not remained at zero, but has been relatively low since 1955. The committee's complete support of the tuberculosis eradication work among Minnesota Indians continues.

Mexican workers, especially in beet fields, and their families have caused the State Board of Health considerable concern. In 1933, Dr. James E. Perkins directed a survey among Mexicans in the Red River Valley. An inordinate amount of tuberculosis was found. A number of surveys have since been conducted among Mexicans including one reported by Dr. D. S. Fleming in 1960 on 467 migrant workers.14 All of these activities by the State Department of Health have been strongly supported by the Committee on Tuberculosis of the State Medical Association.

Drugs

In 1945, it was re-emphasized that three members of the committee, namely Drs. William Feldman, H. Corwin Hinshaw and Karl Pfuetze, had continued to perform a large number of animal experiments on the effects of various drugs to control tuberculosis, the latest of which was streptomycin. They had tested several sulfonamides and had observed encouraging results with promin. They then established the effectiveness of streptomycin not only among experimental animals, but also on clinical tuberculosis in people. The other members of the committee were highly
honored in that these three investigator members kept them informed of results of their studies. They were the first in the world to demonstrate the use of drugs which modify favorably and often dramatically the course of tuberculosis both in animals and in humans. Since 1941, this committee has supported to the nth degree all worthwhile activities pertaining to antituberculosis drugs.

**X-RAY FILM INSPECTION OF CHESTS**

Members of the Committee had used various methods and materials for making x-ray film inspections of chests prior to 1940. The limitations of the x-ray film had become so well known that mass x-ray film surveys had been almost abandoned. However, when photofluorograms were introduced in 1939, a wave of enthusiasm swept across the state for this method. Photofluorographic units were purchased by a few counties and the State Department of Health. The discussions concerning this procedure during several meetings became very heated at times since those who had made extensive studies of limitations of x-ray film stoutly maintained that diagnosis can never be made by x-ray shadows alone and the fundamental procedure consisting of making x-ray films only of tuberculin reactors had been thoroughly established. Nevertheless, they acquiesced with the understanding that mass photofluorographic surveys be used on an experimental trial. Through the years these surveys were abandoned except for special groups of the population in favor of x-ray film inspection of chests, only of tuberculin reactors, with complete examinations of persons presenting shadow casting lesions.

When the question of radiation hazard from x-ray exposure was first being considered, experts in radiology were invited to present all the information available before meetings of the Committee. The Committee gave its full support to the various recommendations pertaining to further study and to improvement of x-ray equipment. Reports at subsequent meetings indicated ordinary diagnostic procedures conducted periodically as usually recommended constitute no hazard.

**LEGISLATION**

The Committee has devoted much time to legislation—for example, in November 1944, it requested Attorney Manley Brist of the State Medical Association to prepare a bill pertaining to control of incorrigible tuberculosis patients for the state legislature. In 1948, it recommended that the legislature make provision for hospitalization of tuberculous patients regardless of financial standing. In fact, the Committee has supported every helpful bill pertaining to tuberculosis that has come before the legislature, including that of 1961 requiring adequate examination of all personnel in the schools of Minnesota.

**DISPLACED PERSONS**

On March 24, 1950, concern was expressed over the incidence of tuberculosis among displaced persons. It was stated that approximately 100 per cent of such individuals were infected and the incidence of clinical tuberculosis among them was much higher than among other citizens of Minnesota. Dr. Corrin E. Hodgson, Rochester, was appointed chairman of a subcommittee to study this problem. It was thought all displaced persons should be examined immediately, and annually thereafter. Inasmuch as records of locations of these individuals often were not available, much effort was required to alert all physicians and organizations of the state of the seriousness of the problem and to be on the lookout for every opportunity to examine such persons and make prompt arrangements for those found to have clinical tuberculosis. This proved to be an excellent example of cooperation of all concerned working through the State Medical Association Committee on Tuberculosis.

**ELDERLY PERSONS**

The problem of tuberculosis among elderly persons was recognized and given
consideration in the late 1920's. As time passed, the problem came into bold relief as the prevalence of clinical diseases continued in the elderly, but markedly decreased among the children and young adults. In 1950, Dr. Robert N. Barr called attention to the problem among elderly persons by pointing out that in 1939, 31 per cent of the deaths from tuberculosis in Minnesota were among persons of 65 years or older. Dr. Barr was then appointed chairman of a subcommittee to consider methods of managing the problem. The recommendations of this subcommittee consisted of such procedures as making periodic examinations of all elderly people including those in institutions such as nursing homes in an effort to find all who are infected and recommending procedures to keep their tubercle bacilli corralled. The Committee has continued to support this project, as it is known that tubercle bacilli will make their last stand among elderly people. In fact, in 1961 97.9 per cent of the deaths from tuberculosis occurred among persons of 45 years or older and 59.8 per cent were 65 years or over.

Rehabilitation

This has always been given careful consideration by members of the Committee. In 1957, a Committee was appointed on Rehabilitation for cardiac and tuberculous patients. The elaborate report made in 1958 contains the following, "This subcommittee recognizes that carrying out any approved recommendations will take time and effort and we willingly agree to accept responsibilities assigned to us until the time the Minnesota State Medical Association decides to follow-up specific points itself." This committee has continued to do excellent work.

Transmission of Information to Physicians and Allies

In 1941, the Committee had a request proposed by Dr. C. A. Stewart from the Council to make a careful study of the tuberculosis problem in Minnesota and to formulate an adequate program for its control. The same year the Committee voted unanimously in favor of preparing a pamphlet based on its work and recommendations to date." The Council requested the Committee to propose speakers and subjects for two symposia on tuberculosis to be presented at the annual State Meeting in 1942. Ten speakers appeared on the two symposia.

In June, 1945, the Committee recommended the appointment of a subcommittee to draw up an ideal procedure for county-wide tuberculosis control work and to include other activities that might be introduced in places where the ideal was not possible at the moment. Dr. Ruth E. Boynton was appointed chairman of the subcommittee. An excellent paper was produced.14

Dr. Karl Danielson, Litchfield, published an article in 1947 entitled "The Meeker County Tuberculosis Control Program." Before writing it, the physicians of his county had about five years to observe the post-demonstration activities and their effects on tuberculosis. Again this program was strongly recommended to the physicians of every county in Minnesota.

The work of the Committee was summarized in 1953 and attention was called to the fact that a gigantic problem lies ahead for the medical profession.15 The Council requested that the Committee prepare the material on tuberculosis for the February, 1945 "Packet of the Month." Five items were included in the Packet which was sent by the State Association to all physicians in Minnesota. These items included such subjects as tuberculosis in general hospitals, sanatorium care and statistical studies.

By 1949, diagnoses from x-ray shadows alone had led to so many errors with great inconvenience to the public and discredit to the medical profession that a subcommittee was appointed to set up essential procedures necessary in such cases to arrive at accurate diagnoses.16
Since 1952, whole series of editorials and other material on tuberculosis have been arranged for publication in *Minnesota Medicine*. A subcommittee prepared and published an article on case finding in 1957.

In 1958, a series of one-page articles was designed for publication in *Minnesota Medicine*. They emphasized the problem of tuberculosis to the general practitioner, the x-ray problems in tuberculosis, the use of the tuberculin test, the use of bacteriologic investigations, the absolute need for sanatoriums, the treatment of tuberculosis by drugs and surgery, the follow-up care of the patient after discharge from the hospital and the responsibility of the attending physician to both the patient and the public.

In 1960, the committee held three meetings devoted to what should be done concerning tuberculosis and its control. The recommendations were the result of the combined efforts of representatives from all organizations linked with tuberculosis in the state. Thus the eight state organizations involved demonstrated the importance of united effort in the attack on tuberculosis.

In addition to the numerous articles published in *Minnesota Medicine* and *Everybody's Health*, a number of papers pertaining to the work of this committee have been published in national and international journals including the *Journal of the American Medical Association* and *Today's Health* (*Hygeia*). Indeed many hundred articles on tuberculosis have been published by the members of this Committee.

In 1941, the Council requested the Committee to consider preparation of a scientific exhibit on tuberculosis for the next State Medical Association meeting. Such exhibits have since appeared annually at State meetings.

In cooperation with the State Board of Health and the Minnesota Tuberculosis and Health Association, a county-outlined map was produced in 1940 and bi-annually thereafter, showing mortality rates county by county for the previous five year periods. These maps were published regularly in *Everybody's Health* through which they reached large numbers of people including those in all schools and all physicians.

**Cooperation with State Department of Health**

From the beginning, this committee has worked closely with the State Department of Health. Dr. A. J. Chesley, Executive Secretary, attended committee meetings on a number of occasions. When he met with the committee on August 21, 1941 he said, "It is the work of the doctors to single out the cases of tuberculosis and make the individual feel that the protection of the health of other citizens is the important fact." He strongly endorsed the Meeker County program and said, "In my opinion, it is the ideal approach to the solution of the tuberculosis problem in Minnesota."

Because of the fine interest the Minnesota State Department of Health had taken in tuberculosis since its organization in 1872, and especially because of the work that has been done in more recent years under the direction of Dr. Chesley, the committee adopted a highly laudatory resolution at its September, 1941 meeting.

In 1949, Dr. Chesley sent the committee a letter containing the following: "We wish to take this opportunity as the year closes to inform you of the great assistance the Tuberculosis Committee of the State Medical Association has been in helping us prepare and carry out tuberculosis control plans throughout the state. It is interesting to note that the many visitors we had during the year have all expressed a very definite interest in not only your State Association Committee, but the extension of such committees into the component medical societies. Unfortunately for these people, their control programs have been ineffective for the lack of such coordinating committees.

"The frankness of the discussion of tuberculosis control methods in the Committee and the resulting sound advice derived from such complete discussion has enabled us to steer a straight path. We look forward with a great deal of enthusiasm to continue in our coordinated efforts."
The Committee has always had one or more representatives from the State Department of Health in its membership including Dr. Robert N. Barr, Dr. Dean S. Fleming and Dr. Hilbert Mark. When Dr. Chesley decided to establish a Division of Tuberculosis in the Board of Health, the Sub-Committee members supported the idea wholeheartedly and strongly recommended Dr. Hilbert Mark as director.

When it was observed that anti-tuberculosis drugs result in mutation of tubercle bacilli and mutants resist the drugs, the committee promptly recommended and strongly supported the idea of the State Board of Health establishing a laboratory where drug resistance could be determined in the event it was found feasible and funds could be procured for its operation. At the meeting in October, 1959, Dr. Fleming called attention to the Health Department's lack of adequate medical personnel and supervision for the county control program. He suggested two alternatives—one, to have a State Tuberculosis Control Officer operating full-time; two, to think in terms of some regional or district organization to provide medical consultative or supervisory service. The committee offered him its full support in carrying out the procedure he might consider most desirable and took great pleasure supporting Dr. E. P. K. Fenger's appointment as Tuberculosis Control Officer on a half-time basis with the State Board of Health, and the remainder of his time to the Medical Service Unit of the Minnesota Division of Social Welfare.

In 1960 and 1961, this Committee strongly supported the State Board of Health in its legislative projects. In fact, for more than a third of a century, there has been nothing in the field of tuberculosis desired by the State Board of Health that this Committee has not supported.

**Cooperation With Other Organizations**

The Committee on Tuberculosis throughout the years frequently invited or honored requests of various groups and organizations to attend meetings when subjects of their special interests were discussed. This enabled the committee members to keep well informed on and give consideration to numerous problems with a view to helping solve them. Special attention was called to this activity in the annual report of the committee in June, 1954. Meetings were held from time to time with the Minnesota Tuberculosis and Health Association. That organization, like all others in the state, was represented on the committee. Special meetings have been held with members of the State Board of Health, members of the Livestock Sanitary Board, those working with the mentally ill, members of the Department of Welfare, Legislators and those interested in occupational chest diseases leading to the development of occupational law. The 1956 annual report of the Committee contains the following:

"All physicians in the State of Minnesota are to be congratulated for their support of the tuberculosis control programs as they have been developed and furthered each year. Minnesota is unique in that, in this state, the State Medical Association and its Committee on Tuberculosis constitute the "channeling agency" for all voluntary and official health groups interested in tuberculosis. As a result of this method all agencies cooperate one with the other for the control of tuberculosis and do not compete one against the other, as can so easily happen. As a result, most effective measures have been developed at a minimum cost to all agencies concerned. The Committee is deeply indebted to all of these agencies for their fine cooperation and assistance in furthering the control of the disease in the state."

**Some Secrets of Success**

This brief sketch pertaining to the activity in tuberculosis eradication through the Committee on Tuberculosis of the State Medical Association, beginning in 1924, has been taken for the most part from minutes of the Committee meetings. Although numerous reports of the activities of this Committee have been published in *Minnesota Medicine* and elsewhere, many of the accomplishments have been forgotten by older physicians and those who are younger have not been informed of them.
This situation is now resulting in some duplication of effort or repetition of work well done many years ago. This is a criticism of the members of the Committee for not having kept numerous items constantly before the medical profession and its allies. Hence, this review should bring the medical profession and its allies to date so as to avoid repetitious work and to build on foundations and structures previously so well established.

In 37 years of the State Medical Association's tuberculosis eradication program, the accomplishments have been such that the procedures followed for the most part can be highly recommended not only to the continuing committee but also to medical organizations of other states and provinces. From the outset, one of the objectives of the Committee has been to provide every physician in this state with the best procedures available in the world for the eradication of tuberculosis. Members of this Committee have travelled to each state in this country and to practically all parts of the world. They have garnered every idea that could be found on every phase of tuberculosis control and eradication. The ultimate goal has been eradication of the tubercle bacillus.

The most important feature of this Committee has been representation of every organization in tuberculosis work. The Committee has always operated in a most democratic manner. It has never been dominated by any one person or any small group of individuals or any single organization. With all concerned, the work of all groups has been coordinated so they were usually working in harmony against the common enemy of mankind. This arrangement has permitted a very limited manifestation of selfishness and jealousy which could have led to people fighting people rather than the tubercle bacillus. It has permitted of no one organization, such as the Tuberculosis and Health Association, the Thoracic (Trudeau) Society or the State Medical Association dominating the program at the expense of the tuberculosis eradication movement. Every individual and every organization whose representatives have brought before the Committee worthwhile proposals have received its unanimous support. Those proposals that have seemed questionable have had careful and long consideration after which some have been voted as unsuitable while others have been approved for periods of study.

Not only has the perpetuation of well established valuable procedures been strongly recommended, but also numerous important projects designed to eradicate tuberculosis have been initiated by members of this Committee and promoted by the Committee as a whole.

One of the secrets of success has been that the Committee has met eight or more times each year and there has been continuity of membership to the extent that those members who obviously were dedicated to the cause, who participated in the activities of nearly every meeting, who were ready and anxious to carry out each assignment have usually been retained as long as they desired to work. This committee does not claim credit for anything more than initiating and promoting projects and serving as a stabilizer so as to keep most all tuberculosis groups working in unison. Everyone who has gotten the "go ahead" from this committee on items approved by the Council has had the support of all groups in the state.

The minutes of the numerous meetings of the Committee on Tuberculosis contain much practical information about tuberculosis. For more than 20 years, the minutes have been carefully preserved and a bound copy is on file in the office of the Executive Secretary of the Minnesota State Medical Association in St. Paul.

During a recent meeting of the Committee it was said: "The Minnesota Method of Tuberculosis Control still attracts visitors from all over the world. The committee hopes that it can continue to disseminate the philosophy of cooperation, not competition, between the various tuberculosis groups. Your committee has enjoyed the
spirit of cooperation with the result that all agencies confer with the committee. The problems are then resolved jointly.

REFERENCES
12 Harrington, F. E.: "The Evolution of Tuberculosis as Observed During Twenty Years at Lymanhurst," Published by Board of Public Welfare, Minneapolis, 1944.

LONGTERM ANTICOAGULANT THERAPY

Longterm anticoagulant therapy in the management of ischemic heart disease continues to be a keenly debated and highly controversial subject. The results in a personal series of 68 patients treated for up to 76 months have been analyzed critically. While no dogmatic conclusions as to its prophylactic value may be warranted, experience has shown that provided certain fundamental rules are observed, longterm anticoagulant therapy is practicable and that the risk incurred is not unreasonable in view of the prognosis of patients subjected to treatment.