

Chapter 11

Chronic Disease, Health Promotion

In 1973 the department's mission, as stated in Minnesota statutes, was changed by the Legislature. The charge to "protect and preserve" was replaced with a mandate for "protecting, maintaining and improving" the health of Minnesota citizens. This area was not a new one for the department but it was now formalized and emphasized.

Early efforts in health promotion and the prevention of chronic disease were often limited due to lack of funds. Dr. A. B. Rosenfield, special services director, was a strong proponent of health promotion and disease prevention. Despite the funding limitations, he was influential in initiating programs in nutrition, poison control, school health, family life education, mental retardation, emergency medical care services, human genetics, family life education, and maternal and infant mortality. In addition to these, in the 1950s the department already had programs addressing mental health, tobacco use, alcoholism, cancer, heart disease and dental health.

In 1951 the department sponsored a program "Exhibits on Tour," which focused on chronic disease, its prevalence and the need for early action. A truck with the exhibits traveled throughout Minnesota, stopping at communities. Exhibits were free and open to the public. Exhibits were created for heart disease, the seven warning signs of cancer, a baby's mental health, community preparedness for civil defense, suggestions for fire and accident prevention in the home, reminders of the need for safe water supplies and drainage systems, industrial health hazards and services for correcting them, and fluoride in the drinking water. During the first 10 months of 1951, the truck visited 42 communities in the state.⁹⁴⁸

Mental Health

One of the areas outside of non-communicable disease where the department tried to take an active role early on was mental health. Mental health had begun to receive greater recognition as a public health problem nationwide with the passage of the 1946 federal Mental Health Act.⁹⁴⁹ Federal funds for preventive mental hygiene were received, and in December 1947 the Board of Health created the mental health unit.⁹⁵⁰ It was placed in the preventable diseases division (later to become disease prevention and control).

⁹⁴⁸ BOH, *Minutes*, October 16, 1951, MHS, pp. 319-321.

⁹⁴⁹ P.L. 487, 79th Congress, app. 3 July 1946.

⁹⁵⁰ MDH, *Minnesota's Health*, Vol. IV, No. 1, January 1950, p. 4.

Gov. Luther W. Youngdahl supported mental health efforts, and the state's new mental health law was inaugurated July 1, 1949. Conditions for mental patients in institutions were improved. Restraints were removed; the number of staff increased, and there was a single standard diet for both staff and patients.

The board felt it should be involved in mental health. It felt this sent an important message, emphasizing the prevention aspects. The governor, however, directed U.S. Public Health Service funds for mental health to Social Welfare where Dr. Ralph Rossen was appointed commissioner of mental health. The board was not pleased with this decision and discussed it at its May 5, 1949, meeting:

Dr. Thomas Magath, President of the Board of Health: "The Governor, of course, has his troubles and I am sympathetic toward them, just as we have ours, but I think the thing that I find most difficult to understand is why he didn't call in the only agency in the State who has done anything about mental health for at least an expression of opinion. He was under moral obligation to give the State Board of Health an opportunity to express an opinion as to whether they thought the bill was good, bad or indifferent. He didn't do that, and that is my chief complaint."

Dr. Albert Chesley, Executive Officer: "You must remember that he was bedeviled from all points of view. If there was any attempt to change it, he was afraid he might lose the whole thing."

Magath: "He should have thought of that before he put himself out on a limb."⁹⁵¹

Dr. Chesley wrote a respectful letter to Gov. Youngdahl, sent May 9, 1949, asking for the active participation of the board in the preventive aspects of the state's mental health program under Chapter 512, Laws 1949. He specifically requested that the board be delegated to carry out the program. On May 19, Carl Jackson, director of public institutions at Social Welfare, sent a copy of an administrative order to the board. The order delegated Dr. Chesley as special assistant in the public institutions division with full power and authority to act for Mr. Jackson in the administration of the federal funds allotted under the 1946 Mental Health Act.⁹⁵²

The board was offered \$29,667 for mental health programs within the department. The board wasn't certain it wanted to accept the funds, however, as they would be administered through the department. Dr. Boynton spoke on the matter at a board meeting on June 30, 1950:

The thinking of the Board in times past is that the Board has never been in a position where any other State Department has dictated to it what it shall do. I am sure the Board does not want to be in that position, and I don't mean to infer that it wants to be. But I want some assurance of non-interference and cooperation and my feeling is that Dr. Rossen's reaction is that he wants cooperation. If we were to ask another agency for permission to expend money, that would be intolerable. As to continuity, again I got the impression that the opportunity of cooperation and continuity was good and was there. We must have Board action on accepting these funds and then after that, if we should continue the division as such.⁹⁵³

⁹⁵¹ BOH, *Minutes*, May 5, 1949.

⁹⁵² *Ibid.*

⁹⁵³ BOH, *Minutes*, June 30, 1950, MHS, p. 249.

The board voted to accept the funds, and during the next year the department continued activities and initiatives in mental health. The prevention of mental illness was the theme of the department's exhibit at the State Fair in 1949.⁹⁵⁴ Dr. Barr spoke on "Minnesota's Mental Health Needs" on KUOM radio in 1949.⁹⁵⁵ The department recommended mental health policy, sponsored lectures on mental health, and provided the services of a mental health consultant to public health nurses. "Mental Health Day" was held in Albert Lea in 1949, with 500 to 600 people in attendance.⁹⁵⁶

On December 16, 1949, the board changed and upgraded the status of mental health within the organizational structure. They created the preventive mental health services section, superseding the mental health unit created in 1947. William Griffiths, M.A., was acting chief of this new section.⁹⁵⁷ During the existence of this section through 1962, it had four other heads: Francis Gamelin, M.A.; Anne Marks, R. N., M.P.H.; William Ferguson, M.A.; and Genevieve Damkroger.

Though the department hoped to have greater involvement in mental health and fought for more participation, interactions with the public institutions division were not entirely satisfactory. The department had control over a very small percentage of the mental health funding and was limited in what could be done.

Eventually, the main programs for mental health were kept in Public Welfare/Human Services. On July 1, 1962, all funds for preventive mental health programs were transferred from the Board of Health to the Department of Public Welfare, and designated the Mental Health Authority in Minnesota. The Health Department's section of preventive mental health services, by this time located in the special services division, was eliminated. After July 1962, all requests for mental health speakers, films, pamphlets, etc. were directed to Public Welfare.⁹⁵⁸

Alcoholism

The Board of Health also had tried to be actively involved in the prevention of alcoholism. This effort was as old as the agency, in fact. In 1872, Dr. Hewitt, first executive officer of the board, recognized alcoholism as a public health problem. He produced a report on "The Duty of the State in the Care and Cure of Inebriates."⁹⁵⁹

In 1953, the Legislature made the department responsible for preventive work in the area of alcohol abuse. This activity was located in the mental health section. When this section was eliminated in 1962, the alcoholism unit operated as an independent unit under the leadership of Genevieve Damkroger, M.A. By 1966, activities related to

⁹⁵⁴ MDH, *Minnesota's Health*, Vol. III, No. 8, August 1949, p. 3.

⁹⁵⁵ MDH, *Minnesota's Health*, Vol. III, No. 2, February 1949.

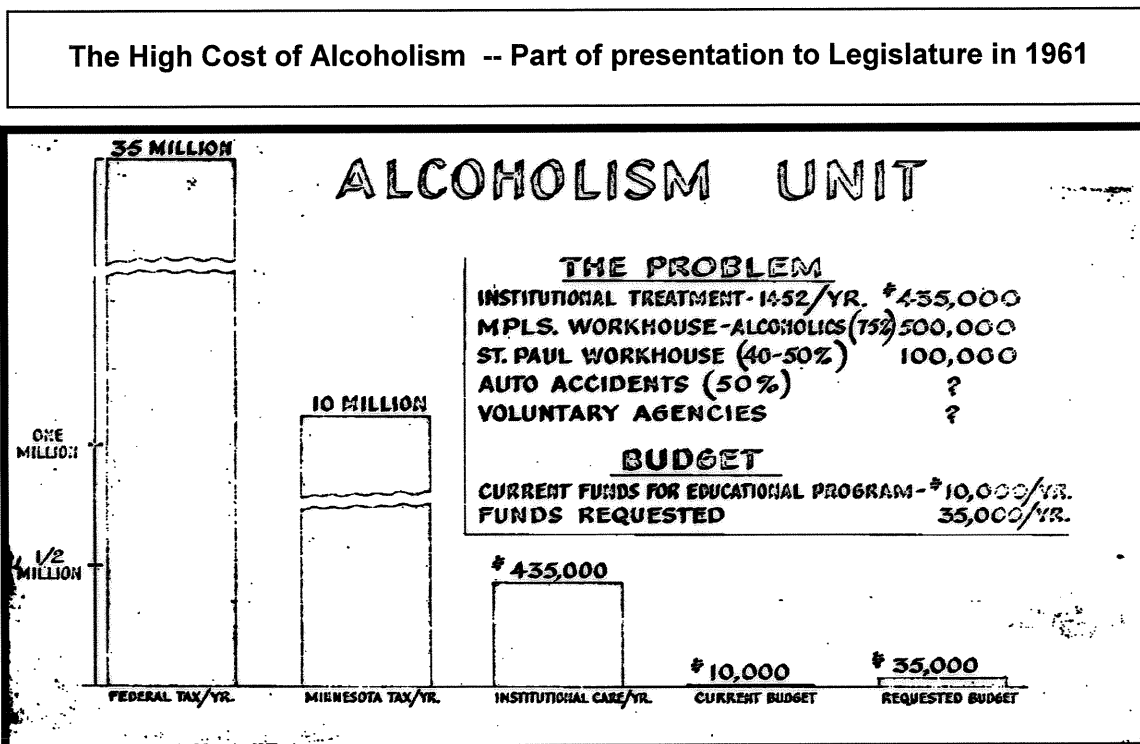
⁹⁵⁶ BOH, *Minutes*, June 13, 1950, MHS, pp. 249-250.

⁹⁵⁷ MDH, *Minnesota's Health*, Vol. IV, No. 1, January 1950, p. 4.

⁹⁵⁸ BOH, *Minutes*, May 23, 1962, MHS, p. 217.

⁹⁵⁹ MDH, *Minnesota's Health*, Vol. 9, No. 2, February 1955, p. 1.

alcoholism were included in the family life education section in the department's special services division.



A conference on the prevention of alcohol in Minnesota was held in Worthington in October 1953. Sponsored by the department, this daylong meeting was attended by doctors, nurses, judges, clergy, and representatives of voluntary groups.⁹⁶⁰ Conferences were later held in Mankato, Thief River Falls and Fergus Falls. A three-day institute on alcoholism was held at the University of Minnesota in April 1954.⁹⁶¹

The department's role in the prevention of alcohol abuse was largely educational. In addition to the conferences, the department provided the public with pamphlets on alcoholism and used films and radio to spread public health messages on this topic. A coordinating council on alcoholism was established.

As with mental health, the costs of alcoholism treatment, as well as other societal costs created, were high. The department used this reasoning in 1961 when trying to convince the Legislature to provide cost-effective funding for prevention.

The 1961 Legislature granted the board a small amount of funds (\$14,000) for the prevention of alcoholism. A much larger portion of funds (approximately \$500,000) for programs related to alcoholism was directed to the Department of Welfare. The issue was discussed at the board's January 1962 meeting:

⁹⁶⁰ MDH, *Minnesota's Health*, Vol. 7, No. 11, December 1953, p. 3.

⁹⁶¹ MDH, *Minnesota's Health*, Vol. 8, No. 7, July-August 1954, p. 7.

Dr. Frank Krusen: "It seems obvious that alcoholism is a medical problem and a psychiatric problem as well. It happens that psychiatry comes under the Department of Welfare in this state."

Dr. Arnie Rosenfield: "The law itself is a little peculiar in that there is an Advisory Board set up to tell the Health Department how to run a program with \$14,000 whereas the bulk of the program in alcoholism is in the Department of Welfare where they spend half a million dollars, and the board has no authority over Welfare. The Board's authority is limited to the Health Department, but what they talk about at a meeting is not what we are doing but what Welfare is doing. We are concerned with the educational part of it, but they are not interested in that.

Prof. Herbert Bosch: "I have felt all the way through that we have been in a rather poor position when we carry on alcoholism and mental health programs without psychiatric consultation. I think this is doing everyone a disservice."⁹⁶²

Dr. Barr felt the question was whether the issue was important enough to make a real effort to develop a good program. He wondered if there should be an effort to transfer some of the federal money from other sources to this program.

Dr. Frank Krusen: "It would seem to me, from the discussion we have heard so far, that it is considered to be very important. I think the major question is whether this is likely to fall in the middle between the Department of Welfare and the Department of Health, and I think it is apparent that it should be explored and developed further."

Dr. Edgar Huenekens: "I agree that we either ought to have a very good program or none at all. What we have been doing is little bits of things that don't amount to anything."

Mrs. Katharine Densford Dreves: "\$14,000 would hardly provide even one man. If you want a program, you have to have some way to support it."

Bosch: "This is a program that needs real pepping up because this is truly a health program, and I think that some way or other, if we can get any kind of Federal funds or divert other funds, we ought to beef up this program to where it is a good program."

Mr. Arnold Delger: "It appears, from personal observation, that the alcoholism problem first comes to the attention of the general practitioner. I would feel that if we don't do something to back these people up, we are letting them down. It certainly is a health problem in the beginning, the way the problem is brought to the attention of the medical people."

Dr. Arnold Swenson: "Forty per cent of the people who are chronically on welfare are there because of alcoholism. It is a tremendously high percentage."

The board agreed to approach the governor with the suggestion he expand or modify his advisory committee to include representatives of strong industrial groups like Minnesota Mining and Honeywell.⁹⁶³ Despite its efforts, the department's alcoholism program did not expand as the board had hoped.

In the 1990s the department, under the leadership of Dr. Carolyn McKay, director of the division of maternal and child health; placed renewed emphasis on protecting children from the effects of alcohol and drugs, such as crack cocaine. In 1989, as a

⁹⁶² BOH, *Minutes*, January 16, 1962, MHS, p. 18.

⁹⁶³ *Ibid.*, pp. 18-20.

result of legislation initiated by the department, warning signs on the dangers of alcohol use during pregnancy were sent to eating and drinking establishments throughout the state for posting.

In 1997 Minnesota ranked fourth in the nation in the percentage of women of childbearing age who drank frequently.⁹⁶⁵ Fetal alcohol syndrome (FAS) was considered the number one cause of mental retardation in the state.⁹⁶⁶ Minnesota spent only \$500,000 to protect children from birth defects but spent an estimated \$45 million a year on residential and medical treatment for children with FAS.⁹⁶⁷

"All known patches of marijuana in Minnesota will have been destroyed within the next two years. Progress of the eradication program plus efforts of law enforcement officers have already greatly reduced the use of marijuana."⁹⁶⁴

Thor L. Aamodt, State Entomologist, Minnesota
Department of Agriculture, 1954

In the late 1990s the effort to prevent fetal alcoholism began moving forward rapidly when Susan Carlson, the governor's wife, took this issue on as a personal crusade. A juvenile court referee at Hennepin County Detention Center, Susan Carlson saw first hand the lifelong and irreversible effects on children from alcohol use during pregnancy.

In 1997 Susan Carlson promoted a bill that would provide \$4 million to combat fetal alcohol syndrome in Minnesota. The bill, sponsored by Rep. Barb Sykora, called for increased education and public service announcements about the dangers of alcohol consumption during pregnancy. It also included a controversial section allowing the involuntary commitment of women who drank heavily during pregnancy. Health care providers were to report drinking during pregnancy as child abuse. Concern was expressed that such a law might lead some women, afraid of being locked up, to avoid contact with health providers and not receive prenatal care.⁹⁶⁸

The 1997 Legislature funded a portion of the bill, \$1.25 million, for chemical dependency treatment and public awareness of FAS. Susan Carlson vowed to continue her campaign in the next legislative session and formed a task force to collect testimony and information for educating the Legislature on the impact of FAS and fetal alcohol effect.⁹⁶⁹ In 1998, this 47-person task force produced a report, "Suffer the Children: The Preventable Tragedy of FAS." Among other recommendations it called for greater education on the dangers of alcohol use during pregnancy and the commitment of heavy drinkers to force them to quit drinking during pregnancy.⁹⁷⁰

The initiative to reduce fetal alcohol syndrome received support from many areas, including newspaper editorials, in the late 1990s.⁹⁷¹ By the end of the session, the 1998

⁹⁶⁴ MDH, *Minnesota's Health*, Vol. 8, No. 5, May 1954, p. 4.

⁹⁶⁵ *St. Paul Pioneer Press*, "FAS," April 28, 1997, p. 6A.

⁹⁶⁶ *St. Paul Pioneer Press*, "Initiative to Battle FAS Begins," March 12, 1997.

⁹⁶⁷ *Ibid.*

⁹⁶⁸ *Ibid.*

⁹⁶⁹ *St. Paul Pioneer Press*, "Start Toward Sainthood?," June 13, 1977, p. 10a.

⁹⁷⁰ *St. Paul Pioneer Press*, "Report Outlines Measures for Pregnant Drinkers," February 5, 1998, pp. 1A and 12A.

⁹⁷¹ *St. Paul Pioneer Press*, "Proposal to Combat FAS Deserves Support," February 10, 1998, p. 10A.

Legislature appropriated \$5 million for fetal alcohol syndrome. The initiative was included as part of the education bill, and funds were to be used for public awareness, clinical costs, intervention, and treatment programs.⁹⁷²

Fluoridation: A Long Battle

In 1949, the board knew it had to take a position on one non-communicable disease issue – the fluoridation of drinking water. It was being pressured from various groups for its recommendation: Was it okay? Was it safe? Should it be done? Like many other decisions the board made, it wasn't certain of the answer. Herbert Bosch, then head of environmental sanitation, said he was personally opposed to it: "...we went through the whole thing in the '20s on the subject of adding iodine."⁹⁷³

The board's decision on fluoridation was influenced by the actions of the national dental and public health groups. By November 1950, the American Dental Association and the American Public Health Association had gone on record in support of large-scale fluoridation of water supplies.⁹⁷⁴ One month later all major organizations had given formal approval of fluoridation in drinking water supplies.

At its December 21, 1950, meeting, the board passed a resolution in support of fluoridation:

WHEREAS the United States Public Health Service has seen fit to alter its basic policy concerning the fluoridation of public water supplies,

BE IT RESOLVED, that the Minnesota State Board of Health recommends the fluoridation of public water supplies within the State of Minnesota for the partial control of dental caries where such a program can meet and maintain the standards recommended by the state health authority.⁹⁷⁵

Though its decision was backed by the major public health associations, in 1952 the board still wrestled over the message it was giving the public. It didn't want to inaccurately present fluoride as a panacea for all dental problems. It was also concerned about the safety of fluoride, as this discussion at one board meeting indicates:

Dr. Lester Webb: "I think it is important to warn people and to warn the professional people on its usage and to warn them in thinking that it isn't going to solve all our dental ills."

Dr. H. Z. Giffin: "One of the things we don't know is what it is going to do over a long period of years."

Barr: "I think the answer to that is that there are many places where fluorides occur normally in water supplies in higher concentration than they are being placed in water right now. There are some fluorides normally in almost all water supplies, so that the addition of up to one part per

⁹⁷² *St. Paul Pioneer Press*, editorial, April 5, 1998.

⁹⁷³ BOH, *Minutes*, July 14, 1949.

⁹⁷⁴ BOH, *Minutes*, November 14, 1950, MHS, pp. 498-499.

⁹⁷⁵ BOH, *Minutes*, December 21, 1950, MHS, pp. 563-567.

million to 1.2 parts per million of fluorides is not going beyond the experience that we have had in many water supplies through the country, and there is no evidence ever demonstrated that even up to 3 and 4 and 5 parts of fluoride does any harm at all to the population using it, except that where over two parts per million there developed some mottling of the enamel. We know that that is about the level where that begins to occur so that the 1.2 parts being put in water supplies is not going to cause any mottling and certainly it is very much less than normally occurs in many places. If it was going to cause any harm you would think there would be some evidence in those communities who have had it throughout their lifetimes.⁹⁷⁶

Although no one knew for certain, the potential savings in dental costs from fluoridation seemed to be high. The cost to find out was relatively low. At about \$0.10 per person per year in any community, the lifetime cost was estimated at \$7.50.⁹⁷⁷ This could, and did, become one of the public health investments with a big payback for the population.

The board made a public announcement that communities could begin fluoridation of their water supply once plans for installing equipment were approved by Dr. William A. Jordan, director of the department's dental health division. Almost immediately, Dr. Jordan began receiving daily calls and letters from communities interested in fluoridating their water supplies.⁹⁷⁸

The first community in Minnesota to begin adding fluoride to its drinking water supply was Red Lake Falls. Fluoride, at a ratio of one part per million, was added to their drinking water on April 25, 1951.⁹⁷⁹

By 1952, 21 communities had fluoridated their drinking water supplies: Red Lake Falls, Winnebago, West Concord, Thief River Falls, Montevideo, Fairmont, Fergus Falls, Granite Falls, Hallock, Ely, Arlington, Benson, Hutchinson, Staples, Mora, Austin, Appleton, New York Mills, St. Paul, International Falls and Mapleton.⁹⁸⁰

While these communities readily supported fluoridation, strong resistance existed in some parts of Minnesota and the nation. Board members discussed this opposition at their July 10, 1952, meeting:

Barr: "There has been, as you know, considerable agitation against fluoridation of water supplies raised in Minnesota. Raised by a group of people who are anti to any community effort. Their claims vary all the way from medical treatment to rat poison in the water supply. There is no basis for the claims, but I think they were wise in Minneapolis to delay any action until the people themselves were convinced that it was something they wanted and insisted on having it irregardless of objections by groups in the city. This program has been backed by the State Dental Association. You will remember that some two years ago you had a large meeting in the Nicollet Hotel to which we brought in people from Wisconsin, the Public Health Service, to go over the pros and cons of the use of fluorides in the water supplies. Attendance of people who were operating water supplies throughout the state as well as others who were interested, and your own dental group."

⁹⁷⁶ BOH, *Minutes*, July 10, 1952.

⁹⁷⁷ MDH, *Minnesota's Health*, Vol. VI, No. 2, February 1952, p. 1.

⁹⁷⁸ MDH, *Minnesota's Health*, Vol. V., No. 3, March 1951, p. 3.

⁹⁷⁹ MDH, *Minnesota's Health*, Vol. V., No. 5, May 1951, p. 4.

⁹⁸⁰ MDH, *Minnesota's Health*, Vol. VI, No. 10, November 1952.

Giffin: "Is there any organization which is propagandizing against this thing? It seems to be a national thing."

Barr: "I don't think there is any particular organization you can put your finger on. But there are a whole group of the antis who are against everything--vaccination, all that type of stuff. It is the same general group of people that are against this."

Webb: "They take all their data--all are the same from all the states--state who said so, who he was, and what he said--and it seems to be a combined effort throughout the United States because they are using the same terminology and the same objectives."⁹⁸¹

By 1954, 34 Minnesota communities had fluoridated their drinking water supplies. An estimated 460,000 persons were regularly drinking fluoridated water.⁹⁸² By 1960, 60 municipal drinking water supplies, serving one-third of the state's population, were fluoridated.⁹⁸³ The net savings to the public that resulted were estimated at \$1,455,046 over a 10-year period.⁹⁸⁴ The savings would be greater still if fluoride treatments could reach the 90,000 urban children and 145,266 rural children who were not covered.

Fluoridation of drinking waters was challenged in 1954 by a federal bill submitted by Rep. Roy Wier of Minneapolis. H.R. 2341 would prohibit federal, state or municipal agencies from treating public water with any fluoride compound. Dr. Chesley wrote a letter to Rep. Charles A. Wolverton, chairman of the Interstate and Foreign Commerce Committee, in the U.S. House of Representatives:

I am sure your committee is interested in presenting the best of health practices to all people of this nation. By the passage of such a bill as H.R. 2341 your committee and Congress would be retarding the health benefits to our people. The fluoridation of water is a health measure that should be adopted on the local level. I suggest very strongly that this bill be defeated in your committee.⁹⁸⁵

Thorough studies had indicated there was no statistical difference in deaths in cities with high fluoride content in their water and cities with low fluoride content. At the June 1, 1954, board meeting Dr. Chesley commented on H.R. 2341: "It is necessary to have bills of this kind to bring out the truth about things."⁹⁸⁶

By the 1960s, fluoridation was showing results. A survey of Red Lake Falls, fluoridated since 1951, indicated cavities were reduced by 70 percent.⁹⁸⁷ Long-term studies were also done in Fergus Falls, Ely and St. Paul. All indicated that fluoridation reduced decay significantly.⁹⁸⁸

⁹⁸¹ BOH, *Minutes*, July 10, 1952.

⁹⁸² MDH, *Minnesota's Health*, Vol. 8, No. 3, March 1954, p. 2.

⁹⁸³ MDH, *Minnesota's Health*, Vol. 14, No. 7, August-September 1960, p. 2.

⁹⁸⁴ MDH, *Minnesota's Health*, Vol. 15, No. 1, January 1961, p. 5.

⁹⁸⁵ BOH, *Minutes*, May 11, 1954.

⁹⁸⁶ BOH, *Minutes*, June 1, 1954.

⁹⁸⁷ MDH, *Minnesota's Health*, Vol. 15, No. 9, November 1961, p. 1.

⁹⁸⁸ MDH, *Minnesota's Health*, Vol. 17, No. 5, May 1963, p. 4.

By 1962, public health dentists were stating that half of all tooth decay could be prevented by adding fluoride to the community drinking water or by topically applying fluoride to teeth.

While many communities in Minnesota readily installed fluoridation equipment, there was considerable resistance in other communities. At the November 10, 1959, board meeting, Dr. Litman, a dentist, said he felt the failures in the fluoridation program were due to the negative publicity about fluoride on the radio and television and the approach taken by some dentists. Trying to understand how to convince the population of the benefits of fluoridation, the board approved an application for a grant to study the behavior and action of a community that had defeated the fluoridation program by a referendum.⁹⁸⁹

Fluoridation of municipal water supplies was optional through the 1960s. That changed in 1967 when the Legislature passed a bill, M. S. 144.145, requiring fluoridation of municipal drinking water in Minnesota by 1970.

Several communities resisted the legislation mandating fluoridation, but the town that drew the most attention was Brainerd. Brainerd fought fluoridation into the 1980s. Interestingly, in 1910, Brainerd was one of the first six towns in Minnesota to chlorinate their drinking water.⁹⁹⁰ In the early 1900s, Brainerd was one of the most progressive towns as far as sewage disposal, being one of the first to establish a sewerage system.⁹⁹¹

Brainerd held several referendums on whether or not to fluoridate their drinking water. Each one was defeated. A 1961 referendum, prior to the state legislation, was defeated by a vote of 2,846 to 1,427.

Brainerd had not fluoridated its water by the deadline set by the Legislature, and in September 1971 the state asked Brainerd to fluoridate its drinking water. Equipment was installed in September 1972. The department tried to convince the Brainerd community to move forward with fluoridation. Department staff prepared and distributed an estimate of the cost savings, approximately \$548,636, which would result from 1970 to 1979 savings due to fluoridation in Brainerd.⁹⁹² The department tried to identify supporters and allies. Russell Havir, the department's central district representative, met with people in Brainerd in late 1973 to try to find those who would actively support the fluoridation law.⁹⁹³

Brainerd filed a suit, attempting to prevent enforcement of MS144.145. The case was decided in favor of the state on August 30, 1973, and Brainerd was instructed to add fluoride to its drinking water. On January 23, 1974, Health Commissioner Dr. Warren Lawson sent a letter to the Brainerd city council, asking what steps it had taken to

⁹⁸⁹ BOH, *Minutes*, November 10, 1959, MHS, p. 257.

⁹⁹⁰ Philip Jordan, *The People's Health*, p. 113.

⁹⁹¹ *Ibid.*, p. 143.

⁹⁹² MDH, "Estimated Cost to Brainerd Area Citizens for Not Fluoridating their Water Supply," November 30, 1973.

⁹⁹³ MDH, report on Brainerd community support for compliance with the 1970 fluoridation law, December 28, 1973.

commence the process of adding fluoride to the municipal water supply and offering technical assistance.⁹⁹⁴

"Fluoride is harmful to some people; a national conspiracy of some kind is aimed at getting the substance into water and such action amounts to giving people medicine against their will. Every town has its fluoride pusher assigned by the American Dental Association."⁹⁹⁵

Opponent of Fluoridation, Brainerd, 1974

Brainerd's water and light department wrote back to Dr. Lawson, informing him that the necessary equipment for fluoridation was installed but not currently in operation. Attached to the response were memos indicating the Brainerd city council's intent to pursue other options before complying with the law. It requested a delay in enforcement from Attorney General Warren Spannaus and indicated its

support for proposed legislation that would permit local options.⁹⁹⁶

By 1974, Dr. Lawson was running out of patience. He sent a letter to Brainerd city officials:

It is the city council's duty, as a duly constituted public body, to comply with the laws of this State regardless of personal opinions which may be held concerning a particular law's merit. We expect the city of Brainerd to fulfill its obligation to proceed as soon as practical to commence fluoridation of the municipal water supply.⁹⁹⁷

In May 1974, Dr. Lawson received a copy of a news article on the Brainerd fluoridation issue. Scrawled at the top of the article, in squiggly handwriting, was: "Lay off Brainerd Lawson or you will be sorry." At the bottom was written "Warning." Part of the article was underlined in red ink: "The anti-fluoridation forces are very powerful in this town."⁹⁹⁸ One leader of the anti-fluoridation movement in Brainerd said that Brainerd could "become another Wounded Knee if the State forces fluoridation."⁹⁹⁹

About the same time, Dr. Lawson received the letter featured on the next page.

⁹⁹⁴ Letter from Dr. Warren Lawson to Brainerd City Council, January 23, 1974.

⁹⁹⁵ *Minneapolis Tribune*, "Fluoridation foe is latter-day Carrie Nation," July 15, 1974.

⁹⁹⁶ Letter to Dr Warren Lawson from Richard Johnson, secretary, Brainerd Water and Light Board, February 1, 1974.

⁹⁹⁷ *Minneapolis Star Tribune*, "Brainerd and State Near Showdown on Fluoride," May 1974.

⁹⁹⁸ *Ibid.*

⁹⁹⁹ *Ibid.*

Nearly five years after the law requiring fluoridation was to go into effect, Brainerd was still without fluoride in its drinking water. Dr. Lawson wrote, "I do not, and the Department and Board do not derive any satisfaction or benefit from the continuation of the controversy or from carrying out the duties laid upon us by State law."¹⁰⁰¹

In the summer of 1974, the board took the somewhat unusual step of attempting to file a lawsuit to force fluoridation in Brainerd.¹⁰⁰² District Judge John Spellacy dismissed the board's petition, but some other positive events were occurring. In the summer of 1974, several Brainerd dentists and physicians made a statement in full support of fluoridation.¹⁰⁰³ In August 1974 the Brainerd city council indicated it wanted to meet and work out a compromise.¹⁰⁰⁴

Sen. Borden of Brainerd was very opposed to the state's position. He wrote the department through the newspaper:

Neither your department nor the proponents of fluoridation were willing to discuss the merits of the issue and the recent election in Brainerd. Rather you chose to refer to the election as a sham. It seems to me if you really believe

Example of Letter Dr. Lawson Received from Opponent of Fluoridation in 1974

Dear Sir,

I'm taking this pleasure to write you to let you know how I feel on this damible "florida poison" which you big shoty are so determined to put in our water supply here in Brainerd Now I for one have several hundred dollars which I will fight this to the last cent. Why are you so sure its good for a few kids teeth when all it does is rotten them? I have a book that the most famous Doctors are agenst this dam Poison and that's all it is Now here is a Dr's name, "Dr. Kaj Ronholm. Foremost athority on "floride" also. When it kills house plants and gold fish it will kill human beings, and another thing why don't the small towns have to put it in? I'll tell you why because there isn't enough money involved, and another thing if this goes thru I'll put a well in my home also why are you down there so al fired concerned about what we drink. If you would take care of your own water supply and leave our pure water alone you would have all you could do No if our water is so polluted that this da florida has to be put in OK go ahead but I don't think it is so Why pullute it we are told to clean up our lakes and rivers than you want to pullute our water supply and how dumb can someone be. I may not be the smartest one on this subject but one thing I do know some big Jackass is making a lot of money somewhere. Now if you want this book I have on this subject go by the June Prevention. On Page 70 it says "Floridation: Waiting for the disastor" I dare you or anyone else to read this then try and force us here in Brainerd to allow this to be put in our water system. Thank for my pleasure."¹⁰⁰⁰

¹⁰⁰⁰ Letter from Mrs. Zelma Wickham to Dr. Warren Lawson, May 30, 1974.

¹⁰⁰¹ Letter to Sen. Winston W. Borden from Dr. Warren Lawson, July 17, 1974.

¹⁰⁰² Memo from Richard Wexler, special assistant to the attorney general, to Dr. Warren Lawson, August 5, 1974.

¹⁰⁰³ Statement given to Dr. Warren Lawson from Dr. Echternacht, June 17, 1974.

¹⁰⁰⁴ Letter to Dr. Warren Lawson from Sen. Winston Borden, August 12, 1974.

in the merits of fluoride and really believe that the process of an informed citizenry making the right decision through the Democratic process, you would have chosen to persuade the citizens of the merits of your position.¹⁰⁰⁵

A peremptory writ of mandamus was issued on December 4, 1974, directing Brainerd to begin fluoridation immediately pursuant to MS144.145 and regulation MHD112(b). The city appealed to the Minnesota Supreme Court, which affirmed an earlier order of the District Court.¹⁰⁰⁶

Brainerd tried for exemption from the law, but in March 1976 the Minnesota Supreme Court ruled that Brainerd must abide by the state law and fluoridate its drinking water. The decision angered Mrs. Nordahl Johnson, head of Minnesotans Opposed to Forced Fluoridation. She stated to the press, "We're simply not going to put fluoride in our water. If we have to fight in the streets of Brainerd, then we'll fight in the streets of Brainerd. If the governor wants to send troops to Brainerd in this Bicentennial year, then let him."¹⁰⁰⁷

Opponents of the legislation felt the court's decision was wrong, as it went against the rights of the people. Associate Justice MacLaughlin elaborated on the right-to-privacy issue: "While forced fluoridation does intrude on an individual's decision whether or not to ingest fluoride, the impact of this intrusion on an individual's life is negligible."¹⁰⁰⁸

Opponents of fluoridation in Brainerd took the case to the U.S. Supreme Court who dismissed the case for lack of a substantial federal question.¹⁰⁰⁹ Following this decision, on October 16, 1976, the Health Department ordered fluoridation of Brainerd's municipal drinking water. Brainerd asked for a delay of the state order so that they could present new evidence showing a causal relationship between fluoridation and cancer. Assistant Attorney General Dick Wexler argued that there is a large body of opinion to the contrary.¹⁰¹⁰

In 1979, Brainerd was still fighting fluoridation. The 1979 Legislature enacted a provision requiring a three-member panel, appointed by the governor, to review health aspects of fluoridation. Municipalities that had not yet fluoridated did not need to do so until July 1, 1979, at which time the writ of mandamus would take effect.¹⁰¹¹ Facing a contempt citation, on October 24, 1979, five Brainerd City Council members changed their position and agreed to fluoridate the city's drinking water.¹⁰¹²

In early 1980 the FBI and the Justice Department became involved with the fluoridation issue in Minnesota, but they found no grounds for criminal prosecution. According to a Twin Cities newspaper, John Graham, Brainerd's attorney to stop fluoridation, said he

¹⁰⁰⁵ *Brainerd Daily Dispatch*, "Officials Discuss Fluoride Compromise," August 20, 1974.

¹⁰⁰⁶ Memo from Richard Wexler, assistant attorney general, to Dr. George R. Pettersen, June 4, 1979.

¹⁰⁰⁷ *Brainerd Daily Dispatch*, "High Court Says Brainerd Must Fluoridate," Vol. 99C, No. 19B, March 26, 1976, p. 1.

¹⁰⁰⁸ *Ibid.*

¹⁰⁰⁹ Memo from Richard Wexler, assistant attorney general, to Dr. George R. Pettersen, June 4, 1979.

¹⁰¹⁰ *St. Paul Pioneer Press*, "Brainerd Battles Fluoride With Cancer," December 10, 1976, p. 16.

¹⁰¹¹ Memo from Richard Wexler, assistant attorney general, to Dr. George R. Pettersen, June 4, 1979.

¹⁰¹² *St. Paul Pioneer Press*, "Lawsuit Challenging Fluorides Dismissed," January 4, 1985, p. 3D.

thought a pro-fluoridation group called "Graham's Crackers" was out to discredit him. Mr. Graham went to the FBI and alleged that Dr. Bernhard Flavhan, chief of the dental health section at the Minnesota Department of Health, might have accepted \$5,000 from an association to alter a report critical of fluoridation. According to the news account, both Dr. Flavhan and Mr. Graham agreed that Mr. Graham had called Dr. Flavhan at home one evening. They differed, however, on what was said. Dr. Flavhan said Mr. Graham asked him what he took from the dental association. When Dr. Flavhan responded that it was five golf balls, Mr. Graham asked him if he was sure it wasn't "five big ones." According to Mr. Graham, Dr. Flavhan told him he had been given five big ones for favors rendered.¹⁰¹³

Despite the October 1979 vote by the city council to fluoridate Brainerd's drinking water, the water was not yet fluoridated more than three months later. On February 5, 1980, a letter from Dr. George Pettersen, commissioner of health, was hand delivered to Brainerd City Attorney D. A. Larson. The letter ordered Brainerd to fluoridate the municipal drinking water, as required by law, within 48 hours. The letter stated: "Should you not commence fluoridation of Brainerd's water supply within 48 hours of receipts of this letter, I will have no choice but to seek appropriate remedies in court."¹⁰¹⁴

The Brainerd City Council met and decided to ask Dr. Pettersen for a three- to five-week extension. Dr. Pettersen agreed to think about a two-week extension and promised an answer by 9:00 a.m., February 7.¹⁰¹⁵ The extension was not given, and Brainerd began putting fluoride in its drinking water on February 7, 1980. An un-fluoridated tap was provided for those wishing to use it.¹⁰¹⁶

Three years later the issue was in the forefront again. On March 28, 1983, the Brainerd City Council voted to terminate funding for fluoridation as a cost-saving measure.¹⁰¹⁷ The supply of fluoride was expected to run out about May 9. The city sought the support of Gov. Perpich, but he informed them the matter would be handled by the state Department of Health.¹⁰¹⁸ Brainerd City Attorney John Graham argued that the health commissioner had discretion in carrying out the 1967 legislation requiring fluoridation, but Gov. Perpich said no.¹⁰¹⁹

The new health commissioner, Sister Mary Madonna Ashton, sent the Brainerd city clerk's office a letter stating that they had until April 20, 1983, to restore funds for fluoridation. Sister Mary Madonna said the city council's decision was a disappointment, and she urged them not to proceed in contempt of court orders but to work for change through the Legislature. She said her position was the same as that of

¹⁰¹³ *St. Paul Pioneer Press*, "Brainerd Has Till Thursday to Fluoridate Water," February 6, 1980, p. 22.

¹⁰¹⁴ *Ibid.*

¹⁰¹⁵ *St. Paul Pioneer Press*, "Brainerd Council Seeks Extension in Minnesota's Fluoridation Order," February 7, 1980.

¹⁰¹⁶ *St. Paul Pioneer Press*, "Lawsuit Challenging Fluorides Dismissed," January 4, 1985, p. 3D.

¹⁰¹⁷ *St. Paul Pioneer Press*, "Deadline Set for Brainerd," April 20, 1983, p. 4C.

¹⁰¹⁸ *St. Paul Pioneer Press*, "Brainerd is Told Again to Fluoridate Its Drinking Water," April 8, 1983, p. 2B.

¹⁰¹⁹ *St. Paul Pioneer Press*, "Brainerd Quits Fluoridation Fight," April 22, 1983, p. 1C.

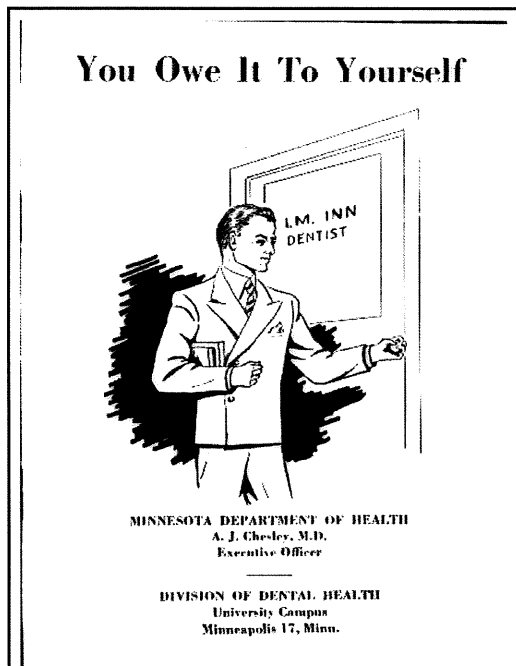
her predecessor, Dr. George Pettersen; and to stress the point she enclosed a letter he had sent to Brainerd earlier.¹⁰²⁰

John Graham, special counsel for the city, was not pleased with the department's actions. He said, "What they want to do is force the hand of the city. The politics in that department must be crazy."¹⁰²¹

A special meeting of the Brainerd City Council was held April 21, and it voted 6-0 to rescind its March 28 decision to end funding for fluoridation. The legal battle could cost up to \$30,000, when the fluoridation would cost \$3,000.¹⁰²²

Fifteen years had passed since the 1967 legislation requiring fluoridation of municipal drinking water was enacted. Thirteen years had passed since the 1970 deadline for fluoridation, set by the Legislature. Brainerd's battle to prevent fluoridation lasted through four executive officers/commissioners: Dr. Barr, Dr. Lawson, Dr. Pettersen and Sister Mary Madonna Ashton. By 1983 it appeared as if Brainerd was accepting fluoridation permanently. Upon hearing the news, Sister Mary Madonna said: "I'm delighted. I'm very happy. I felt that was important for our relationship. I'm sure the Governor will be delighted also."¹⁰²³

The issue wasn't completely over, however. Anti-fluoridation Brainerd activist Irene Johnson brought the case to court and requested that sanctions be imposed on Sister Mary Madonna. On January 2, 1985, Hennepin District Judge Patrick Fitzgerald denied Irene Johnson's request and dismissed the case.¹⁰²⁴ The issue had been almost continuously in the courts since 1972.



In addition to promoting fluoridation of drinking water supplies, the department has had a strong dental health program. In the 1950s the department's dental health unit recommended topical fluoridation, banning the sale of candy and soft drinks in schools, and brushing or rinsing teeth immediately after eating and timely dental care.¹⁰²⁵ Working with the Minnesota Dental Association, they took an aggressive approach to better dental health.

¹⁰²⁰ *St. Paul Pioneer Press*, "Brainerd Given Week to Restore Fluoride Funds or Face Lawsuit," April 14, 1983, p. 7C.

¹⁰²¹ *Ibid.*

¹⁰²² *St. Paul Pioneer Press*, "Brainerd Quits Fluoridation Fight," April 22, 1983, p. 1C.

¹⁰²³ *Ibid.*

¹⁰²⁴ *St. Paul Pioneer Press*, "Lawsuit Challenging Fluorides Dismissed," January 4, 1985, p. 3D.

¹⁰²⁵ MDH, *Minnesota's Health*, Vol. VI, No. 1, January 1952, p. 3.

One activity, a topical fluoridation program, was part of a study that attracted attention from around the world. From 1948 to 1958, 2,513 children took part in the Askov dental demonstration project in Askov, Minnesota.¹⁰²⁶ Participants were children, aged three through 17 years. These children received topical fluoridation, twice-daily tooth brushing drills, regular dental care with x-rays, and were urged to reduce the amount of sweets they ate. The project was sponsored by the Health Department, the Minnesota Dental Association, the federal Children's Bureau and the citizens of Askov. The Askov Dental Health Council was the governing body.¹⁰²⁷

With the use of dental x-rays, an additional 2.87 caries were found in children through the Askov program. The study also showed what seemed to be a direct correlation between lactobacillus and caries.¹⁰²⁸ As Askov water was not fluoridated until March 1960, the study was able to measure the effect of topical fluoride and other methods of reducing decay. Based on the Askov study, it was felt the fluoridation of drinking water would reduce more cavities at less cost and less effort.

Education was part of the Askov 10-year dental health project. Four rats were used to teach nutrition. "Abercrombie" and "Darwin" received well balanced diets, the "basic seven," and thrived. "Bartholomew" ate the food typical of most Askov school children. He got too much sugar and starches and too little milk, fruits and vegetable. "Caeser" received the diet the children dreamed about – candy, cake, cookies, jam and soft drinks. The four rats were shown to the Askov school children, hoping weak and scrawny "Caeser" would encourage a better diet among the children.¹⁰²⁹

A community-wide topical fluoridation program was held in Isanti County in 1951. The Parent Teachers Association sponsored the event, five local dentists took part, and the Department of Health provided equipment and the services of two dental hygienists. Topical fluoridation programs were also held in Braham and Cambridge.¹⁰³⁰

The first countywide dental health education program in Minnesota was organized in Pope County in 1954.¹⁰³¹ The county's health service committee sponsored the program. Members included F. S. Stone, D.D.S.; H. J. Talle, county superintendent of schools; Mrs. Sigurd Bjerke, Mrs. John Morton; Mrs. Ernest Peper and Miss Olivia Peterson, public health nurse. Every one of the 36 schools in Pope County participated. More than 2,000 children received instruction in dental health during the week of February 14, 1955.¹⁰³²



School children in Bloomington played an important part in launching a well-known toothpaste. In 1955, the Department of Health, the Lions Club, the public and private schools of Bloomington, and Bloomington

¹⁰²⁶ MDH, *Minnesota's Health*, Vol. 14, No. 4, April 1960, p. 3.

¹⁰²⁷ MDH, *Minnesota's Health*, Vol. 8, No. 2, February 1954, p. 1.

¹⁰²⁸ BOH, *Minutes*, February 14, 1950, MHS, p. 30.

¹⁰²⁹ MDH, *Minnesota's Health*, Vol. III, No. 3, pp. 1-2.

¹⁰³⁰ MDH, *Minnesota's Health*, Vol. V, No. 2, February 1952, p. 2.

¹⁰³¹ MDH, *Minnesota's Health*, Vol. 9, No. 1, January 1955, p. 3.

¹⁰³² MDH, *Minnesota's Health*, Vol. 9, No. 3, March 1955, p. 3.

dentists sponsored a study to test dentifrice with fluoride. Third and fourth grade students participated.¹⁰³³ After one year there was a 35 percent reduction in decay among the students in Bloomington's "Operation Toothpaste" study.¹⁰³⁴

The results of the study of stannous fluoride in Bloomington led to the announcement, on August 1, 1960, by Proctor & Gamble that the American Dental Association recognized Crest toothpaste as an effective anti-decay dentifrice. It was the first dentifrice to be recognized as effective in reducing decay.¹⁰³⁵

Another first for Minnesota was the statewide dental card program. It was first introduced on a statewide basis during 1942-943. Each pupil was given a dental card to take to the family dentist for an exam. There was usually no charge for this exam. If no defects were found, the card was signed and returned to school. If defects were found, the normal procedure was to have the dental work completed, after which the card would be returned to the school.

In 1956, 2,913 schools, including more than 450,000 students, were participating in this program. The dental card program found that slightly less than half of elementary school children were not receiving needed dental treatment. The reasons were due to a shortage of dentists, indifference, and insufficient family funds.¹⁰³⁶

Heart Disease and Cancer

Two additional areas of non-communicable disease where the department took an active role were cancer and heart disease. The department focused on education, detection and surveillance. Heart disease and cancer were the leading causes of deaths among Minnesotans in 1949. Heart disease had been the leading cause of death in Minnesota since 1914, except for 1918 when more persons died of influenza.

In the 1950s the department sponsored several activities aimed to improve health professionals' understanding of both cancer and heart disease. At the request of Robert Hohman, executive secretary of the Minnesota Heart Association, the department established a course for physicians, covering the areas of cancer, heart disease and rehabilitation. A series of clinical conferences, evaluating case studies, were first held in Litchfield, Owatonna, Montevideo, Glencoe and Hutchinson in 1954.¹⁰³⁷

In 1956 the department, the University of Minnesota School of Public Health, and the U.S. Public Health Service worked together on a pilot training program in cardiovascular disease for nurses. The three-month course was designed to give practical working experience in cardiovascular disease at hospitals and health agencies in the Twin

¹⁰³³ MDH, *Minnesota's Health*, Vol. 9, No. 4, April 1955, p. 4.

¹⁰³⁴ MDH, *Minnesota's Health*, Vol. 10, No. 6, June-July 1956, p. 4.

¹⁰³⁵ BOH, *Minutes*, September 13, 1960, MHS, pp. 335-336.

¹⁰³⁶ MDH, *Minnesota's Health*, Vol.11, No. 5, May 1957, pp.1-3.

¹⁰³⁷ MDH, *Minnesota's Health*, Vol. 8, No. 3, March 1954, p. 2.

Cities. One reason the Twin Cities were selected as the location of this pilot project was the excellent working relationships between agencies in the area.¹⁰³⁸

Annual deaths from rheumatic fever numbered 500 to 600 in Minnesota in the 1950s, becoming one of the leading causes of death and disability among children.¹⁰³⁹ The department began conducting a study of rheumatic fever in 1955. Control was difficult, because the exact cause was not known and its symptoms resembled less serious conditions.¹⁰⁴⁰ The 1955 study was followed by similar studies in 1958 and 1962.¹⁰⁴¹

In 1959, Dr. Dean Fleming worked with the Minnesota Pharmaceutical Association and the heart and medical associations to establish a rheumatic fever prevention program.¹⁰⁴² This included a registry on rheumatic fever patients and the provision of necessary drugs to ensure adequate treatment was received.¹⁰⁴³ The program began in January 1960. Using the forms provided, physicians submitted cases to the department, establishing a registry of rheumatic fever patients. By 1961, the department had established a case registry of 4,119 rheumatic fever patients. Registered patients were able to get prophylactic drugs for long-term treatment at reduced costs from participating pharmacists.¹⁰⁴⁴

The department also started a cancer control program in 1947. Grants from the U.S. Public Health Service made it possible to establish a section of cancer and heart disease control in the department in 1949. The section was one of four within the division of preventable disease. The section, directed by Dr. N. O. Pearce, worked closely with the Minnesota division of the American Cancer Society, formed in 1938, and the Minnesota Heart Association, started in 1948.¹⁰⁴⁵ In 1953, the section was renamed chronic disease and geriatrics.

The department's program focused on increasing informational facilities for the benefit of physicians, nurses, dentists, pharmacists and other professional groups. Refresher courses and programs were offered.¹⁰⁴⁶ In 1949, Dr. Pearce and Dean Fleming, M.D., M.P.H., completed a cancer statistical study of Minnesota that was published in Minnesota Medicine magazine in August 1950.¹⁰⁴⁷

A challenge in dealing with cancer at this time was the stigma associated with it. Like tuberculosis and other diseases in earlier years, people often wanted to conceal the fact that they had cancer. The population's perception of cancer was pointed out when the board discussed the possibility of a creating a cancer statistical center in 1949:

¹⁰³⁸ MDH, *Minnesota's Health*, Vol. 9, No. 10, December 1955, p. 2.

¹⁰³⁹ MDH, *Minnesota's Health*, Vol. VI, No. 1, January 1952, pp.1-2.

¹⁰⁴⁰ MDH, *Minnesota's Health*, Vol. III, No. 9, September 1949, pp. 1-2.

¹⁰⁴¹ BOH, *Minutes*, May 23, 1962, MHS, pp. 232-233.

¹⁰⁴² BOH, *Minutes*, January 12, 1960, MHS, p. 9.

¹⁰⁴³ BOH, *Minutes*, May 26, 1959, MHS, p. 120.

¹⁰⁴⁴ MDH, *Minnesota's Health*, Vol. 15, No. 5, May 1961, p. 4.

¹⁰⁴⁵ MDH, *Minnesota's Health*, Vol. III, No. 9, September 1949, pp. 1-2.

¹⁰⁴⁶ *Ibid.*

¹⁰⁴⁷ BOH, *Minutes*, December 21, 1950, MHS, p. 542.

President Thomas Magath: "But we certainly can anticipate that in ten or fifteen years this feeling that people have about anyone knowing that they have cancer will be broken down."

Dr. Robert Barr: "I think it might be very much less than that."

Magath: "I don't think doctors would object if their patients were willing. I think it is an educational process that you have to go through here."

Dr. Albert Chesley: "That is exactly what we had to do in tuberculosis."¹⁰⁴⁸

Early on chemotherapy was not yet available, and the mode of treatment for cancer was either surgery or radiation. Survival rates were low. Early detection was advocated as one way to reduce the likelihood of death. The Minnesota Medical Association, the Minnesota division of the American Cancer Society, and the Board of Health promoted annual physical examinations and breast self-examinations. In addition to early diagnosis, they stressed treatment and education to reduce mortality.

The Minnesota Cancer Society asked for the Board of Health's support in a campaign to increase detection at doctors' offices. The cancer society hoped to increase early detection through a brief history form that doctors would give patients to complete when they came to the office for an examination. The slogan of the campaign was: "Every physician's office a cancer detection center."¹⁰⁴⁹

The board wasn't sure if it should sponsor this program. Board members discussed it at a meeting in 1950:

Dr. Ruth Boynton: "Would the examination be required to include x-ray, G.I. and rectal?"

Dr. Dean Fleming: "No. Laboratory studies and x-ray and gastric, microscopic examination, biopsy, would be outside of the cancer examination."

Boynton: "How do they call that a cancer examination? It seems to me you are fooling the public awfully. I am not sure that I believe in selling the public that kind of examination is sufficient to detect cancer."

Fleming: "I think there is some danger of that in it. It is one way, perhaps, to get people to come in for a periodic examination. If that is behind their thinking another publicity thing that will get people to come in for examination...trying in follow-up twelve months later and tabulation of the cards."

Dr. Frederick Behmler: "I think you are fooling the public there."

Charles Netz: "There is no complete examination where you can say a person does not have cancer. It seems to me that the thing they propose is wholly inadequate. They are going to give some of these people confidence that would not be on a basis of fact."¹⁰⁵⁰

The state reported 151.8 deaths per 100,000 from cancer in 1953, an increase from the 128.3 deaths per 100,000 population reported in 1940. Especially noted were the

¹⁰⁴⁸ BOH, *Minutes*, January 20, 1949.

¹⁰⁴⁹ MDH, *Minnesota's Health*, Vol. 10, No. 4, April 1956, pp. 2-3.

¹⁰⁵⁰ BOH, *Minutes*, February 14, 1950, MHS, pp. 46-48.

increases in cancers of the respiratory system.¹⁰⁵¹ The possible link between cancer and tobacco use began receiving greater attention.

Tobacco Use

In 1952, the American Cancer Society began a study in Minnesota to try to determine whether there was a relationship between smoking and cancer of the lungs.¹⁰⁵² In June 1954, the study reported that men who smoked cigarettes were found to have 75 percent higher death rates from all causes, and heavy smokers had a cancer death rate and a heart death rate nearly twice that of non-smokers in Minnesota. Lung cancer deaths were three times as common among men with a history of cigarette smoking.¹⁰⁵³

The Health Department began initiatives to alert the population to the potential dangers of smoking. A new employee in the department's public health education section developed an educational program for Minnesota students showing the relationship of cancer and cigarette smoking. Facts were presented so students had a base of information from which to make their decision on smoking.¹⁰⁵⁴ The program was adopted in the Minneapolis Public Schools where it was used in junior high schools. Dr. Fleming commented at the board meeting that while he thought this new field of cancer education held great promise, he thought junior high was a little late, as many school children begin smoking in sixth grade.¹⁰⁵⁵

In 1962 the department supported the production of a filmstrip about the risks of smoking. The filmstrip, created for 11- and 12-year-olds, was titled "I'll Choose the High Road." It noted there is a possible relationship between smoking and respiratory conditions, including lung cancer. The filmstrip was available to all schools in the state, without cost.¹⁰⁵⁶

While the department had begun educational campaigns about tobacco use, there was some hesitancy regarding the message they might be sending out. This was discussed at the May 23, 1961, board meeting. Dr. Barr questioned how far the board should go in recommending that children not smoke without clear scientific evidence. He felt there was a relationship between smoking and lung cancer, but he hesitated to condemn the use of tobacco. He felt it would be interpreted by the public that the Board of Health had endorsed a program in the schools that is against smoking because smoking causes cancer. He didn't know if that was true. Dr. Frank Krusen, board president, felt the department should go ahead with the program.¹⁰⁵⁷

¹⁰⁵¹ MDH, *Minnesota's Health*, Vol. 9, No. 3, March 1955, p. 2.

¹⁰⁵² MDH, *Minnesota's Health*, Vol. VI, No. 4, April 1952, p. 1.

¹⁰⁵³ MDH, *Minnesota's Health*, Vol. 8, No. 8, September 1954, p.4.

¹⁰⁵⁴ BOH, *Minutes*, May 23, 1961, MHS, p. 167.

¹⁰⁵⁵ BOH, *Minutes*, December 19, 1960, MHS, p. 421.

¹⁰⁵⁶ MDH, *Minnesota's Health*, Vol. 16, No. 5, May 1962, p. 3.

¹⁰⁵⁷ BOH, *Minutes*, May 23, 1961, MHS, p. 215.

Dr. Barr's outlook on smoking was typical of that shared by many Minnesotans. Public support for no-smoking initiatives was not strong. A December 1963 poll conducted by the Minneapolis Star and Tribune found that 69 percent of the people believed cigarette smoking "had proved to be a health hazard." Half of the people interviewed did not want a national campaign to discourage people from smoking. Their objections were based on the grounds that "the individual should decide for himself whether he will smoke."¹⁰⁵⁸

Any reluctance by Dr. Barr or the board to openly oppose cigarette smoking changed on January 11, 1964. The U.S. Surgeon General issued a warning that "cigarette smoking is a health hazard of sufficient importance in the United States to warrant appropriate remedial action."¹⁰⁵⁹ On January 14, 1964, the board issued its own resolution on smoking and health. It resolved that the department would increase its educational efforts in this area and resolved to take leadership in implementing the recommendations in the surgeon general's report.¹⁰⁶⁰

The board's resolution on smoking and health noted that it was "more prudent from the public health viewpoint to assume that the established association between cigarette smoking and deaths from coronary disease and many other cardiovascular diseases has causative meaning than to suspend judgment until no uncertainty remains." The resolution noted the increased association between cigarette smoking and lung cancer, chronic bronchitis and emphysema.¹⁰⁶¹

At this time, in the 1960s, many department employees and board members still smoked. Dr. Barr smoked two packs a day. This began to change. In 1975, the department instituted smoking policies, in order to comply with the Minnesota Clean Indoor Air Act. Under certain conditions, smoking was still allowed in some work areas. On Monday, March 3, 1986, smoking was no longer allowed in any work areas of the department building. Smoking was still permitted in the third and fifth floor lounges and a designated part of the cafeteria. Before Sister Mary Madonna ended her administration in 1991, the department building had become completely smoke-free.

**"TAKE A DAY OFF FROM SMOKING.
MAYBE YOU'LL EVEN LIKE IT."**

D-Day, October 21, 1975

Under the leadership of Kathy Harty, the small departmental unit created to curb tobacco use, became very visible. Among other initiatives, this unit was responsible for creating the popular posters designed to discourage cigarette smoking.

¹⁰⁵⁸ MDH, *Minnesota's Health*, Vol. 18, No. 2, February 1964, p. 2.

¹⁰⁵⁹ MDH, *Minnesota's Health*, Vol. 18, No. 1, January 1964, p. 2.

¹⁰⁶⁰ MDH, *Minnesota's Health*, Vol. 18, No. 2, February 1964, p. 2.

¹⁰⁶¹ *Ibid.*

Survey and Screening as Prevention



Throughout its history, case finding and surveillance have been critical aspects of the department's activities. This has been especially true with chronic diseases and conditions that may not be easily identified until they have caused irreparable damage. Therefore, early case finding is extremely important.

Many screening programs existed at the department between 1949 and 1999. Some of them are listed below:

- **Cancer and Heart Disease** - Screenings for cancer and heart disease were an outgrowth of the tuberculosis screenings that were offered to the public for several years beginning in 1948. Thoracic surgeons and cardiologists thought early signs of pulmonary cancer or cardiac disease might appear on the x-rays taken for tuberculosis case finding. Not feeling any symptoms, people would otherwise not be reporting to the doctors. By the time they did, it might be too late.¹⁰⁶² A pilot study was done to determine whether mass x-ray survey findings would help be of value through early case finding. The pilot study, the first of its kind in Minnesota, was done in Rice and Goodhue counties in 1951. Chest x-rays showed 22 of every 1,000 x-rayed had conditions requiring further medical attention. Of these, 15 suggested heart or other chest abnormalities and seven indicated tuberculosis.¹⁰⁶³
- **Vision and Hearing** - In 1963 the department began a vision and screening program for school-age children. During the first year, 17,000 children were screened, and by 1967 more than 66,000 had had their vision and hearing screened. During the 1967-1968 school year, 5,111 children were identified as having problems, and referrals were made to professionals.¹⁰⁶⁴
- **Diabetes** - In 1967 the State Department of Health, the Minneapolis Department of Health, the Twin Cities Diabetes Association and the University of Minnesota jointly sponsored a screening program to identify diabetics in Minnesota. Diabetes was the eighth leading cause of death in the state at this time.¹⁰⁶⁵
- **Blood Pressure** - Nationwide, the population was becoming better aware of the importance of monitoring one's blood pressure. Minnesota had a unique approach to emphasize the value of blood pressure testing in preventing chronic disease. In 1973 the department asked each member of the state Legislature to allow a nurse to take the legislator's blood pressure. The department wanted to prove that one of every 10 legislators had, like the rest of the adult population, high blood pressure. The memo to the 134 House of Representative members from Dr. Lawson announcing this plan began with this line: "What does a pretty

¹⁰⁶² BOH, *Minutes*, August 1, 1950.

¹⁰⁶³ MDH, *Minnesota's Health*, Vol. V, No. 3, March 1951, pp. 3-4.

¹⁰⁶⁴ MDH, *Minnesota's Health*, Vol. 22, No. 1, January 1968, pp. 2-3.

¹⁰⁶⁵ MDH, *Minnesota's Health*, Vol. 21, No. 5, May 1967, p. 1.

nurse measuring your blood pressure have to do with control of medical care costs?"¹⁰⁶⁶

Injury and Safety

In 1953, one out of every three deaths among Minnesota children, aged one to 14 years, was caused by an accident. There were three times as many deaths from accidents as there were from cancer, the second most frequent cause of death in this age group.¹⁰⁶⁷

Despite the large number of children injured, it was difficult to get legislative support to address this health problem. At a 1950 board meeting, Dr. Robert Barr, deputy executive officer, reported:

We have some difficulty in getting legislative groups to recognize that here is something of prime importance so far as children are concerned and we can do something about it, if we had some funds. Last time we did request a small amount of funds but they didn't earmark any amount for doing home accident work.¹⁰⁶⁸

In 1956 the Minnesota Medical Association, the Minnesota Hospital Association, the Minnesota Highway Patrol and the Minnesota Department of Health jointly conducted a two-year study on the causes of accidents.¹⁰⁶⁹

In 1961, it was estimated one-third of automobile accidents could have been prevented if seat belts were used. Public demand was not high, but the belts were equipped in all state-owned vehicles, and department employees were instructed to wear them at all times.¹⁰⁷⁰

The first comprehensive accident survey in Minnesota was done in Brown County beginning in 1962. The survey, conducted to measure the number, type and cause of all accidental injuries and deaths, was under the direction of O.B. Fesenmaier, M.D., of District II in Mankato, and A. B. Rosenfield, M.D., director of the department's division of special services.¹⁰⁷¹

Violence and Suicide

In 1950, for the first time, suicide became one of the top 10 leading causes of death in Minnesota. The death rate was 11.4 per 100,000 in 1950, compared to 17.5 in 1932, the highest recorded rate in the previous 40 years. During the war years of 1942 to

¹⁰⁶⁶ Letter from Dr. Warren Lawson to 134 Minnesota State Representatives, March 30, 1973.

¹⁰⁶⁷ MDH, *Minnesota's Health*, Vol. 8, No. 5, May 1954, p. 1.

¹⁰⁶⁸ BOH, *Minutes*, December 21, 1950, MHS, p. 560.

¹⁰⁶⁹ MDH, *Minnesota's Health*, Vol. 10, No. 6, June-July 1956, p. 1.

¹⁰⁷⁰ MDH, *Minnesota's Health*, Vol. 15, No. 9, November 1961, p. 3.

¹⁰⁷¹ MDH, *Minnesota's Health*, Vol. 16, No 10, December 1962, p. 1.

1945 the suicide rates were the lowest on record. Dr. Dean S. Fleming, chief of the department's preventable disease section, commented on the increase in suicides:

Modern life has become extremely complex, and some people are not too well equipped to face it. We cannot say for certain that a good start in life will prevent the kind of emotional breakdown that sometimes causes people to take their own lives. But, we do know that emotional stability is generally greater in people who enjoyed a healthy and happy childhood. A solid foundation for good mental health, laid down in the early years, is the best insurance a person can have against the onslaughts of trouble that he may experience later in life.¹⁰⁷²

By 1998, suicide ranked ninth among the leading causes of death in the Minnesota.

Healthy Life Styles



A study by the Metropolitan Life Insurance Company in 1952 indicated that weight control appeared to be the most practical means of preventing or retarding the degenerative diseases of middle and later life.¹⁰⁷³

In 1954, the department sponsored a film, "Cheers for Chubby," about weight control. Originally produced and distributed by the Metropolitan Life Insurance Company, it was seen by 180,000 Minnesotans within a few months. Later it was renamed "Losing to Win" and was distributed by the department.¹⁰⁷⁴



¹⁰⁷² MDH, *Minnesota's Health*, Vol. V, No. 2, February 1951, p. 2.

¹⁰⁷³ MDH, *Minnesota's Health*, Vol. VI, No. 6, June 1952, p. 3.

¹⁰⁷⁴ MDH, *Minnesota's Health*, Vol. 8, No. 2, February 1954, p. 3.