MINNESOTA

LEGISLATIVE RESEARCH COMMITTEE

COUNTY UNIT HEALTH PLAN

Publication No. 14

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The Committee (1) acts as a clearing house for current legislative problems by receiving proposals for research studies; (2) determines and directs the study and research necessary for proper consideration of all proposals; (3) disseminates advance information on these problems to other legislators, the governor and the public by means of committee and research reports; and (4) reports to the legislature one month in advance of the regular session.

The Research Department of the Legislative Research Committee is organized to provide an unbiased, factual source of information with regard to problems which may be acted upon by the legislature. This department is engaged in objective fact finding under the general supervision of members of the Committee.

M I N N E S O T A

LEGISLATIVE RESEARCH COMMITTEE

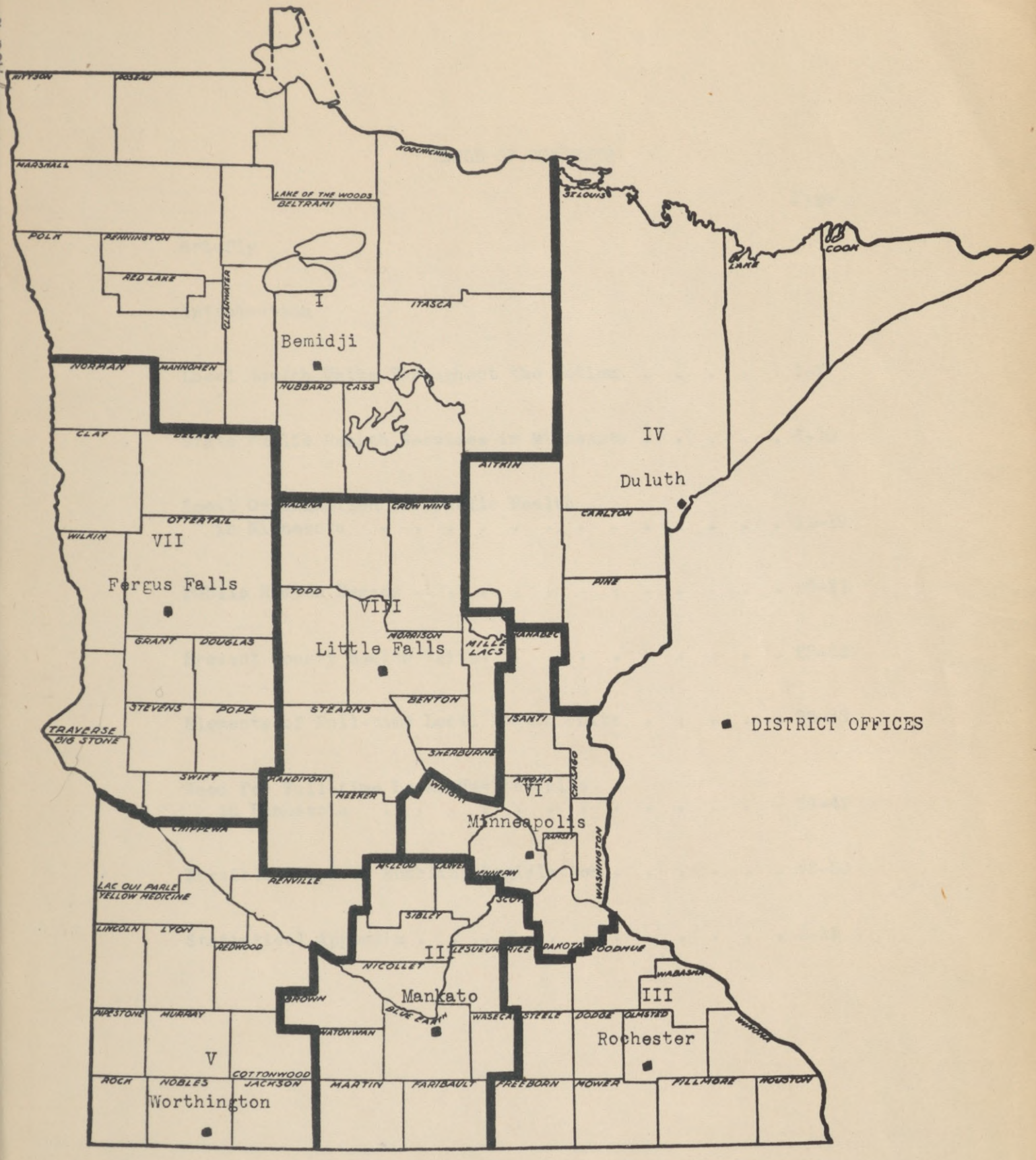
COUNTY UNIT HEALTH PLAN

Research Report issued pursuant to Proposal No. 17:

A PROPOSAL that a study be made of the various aspects of the County Unit Health Plan.

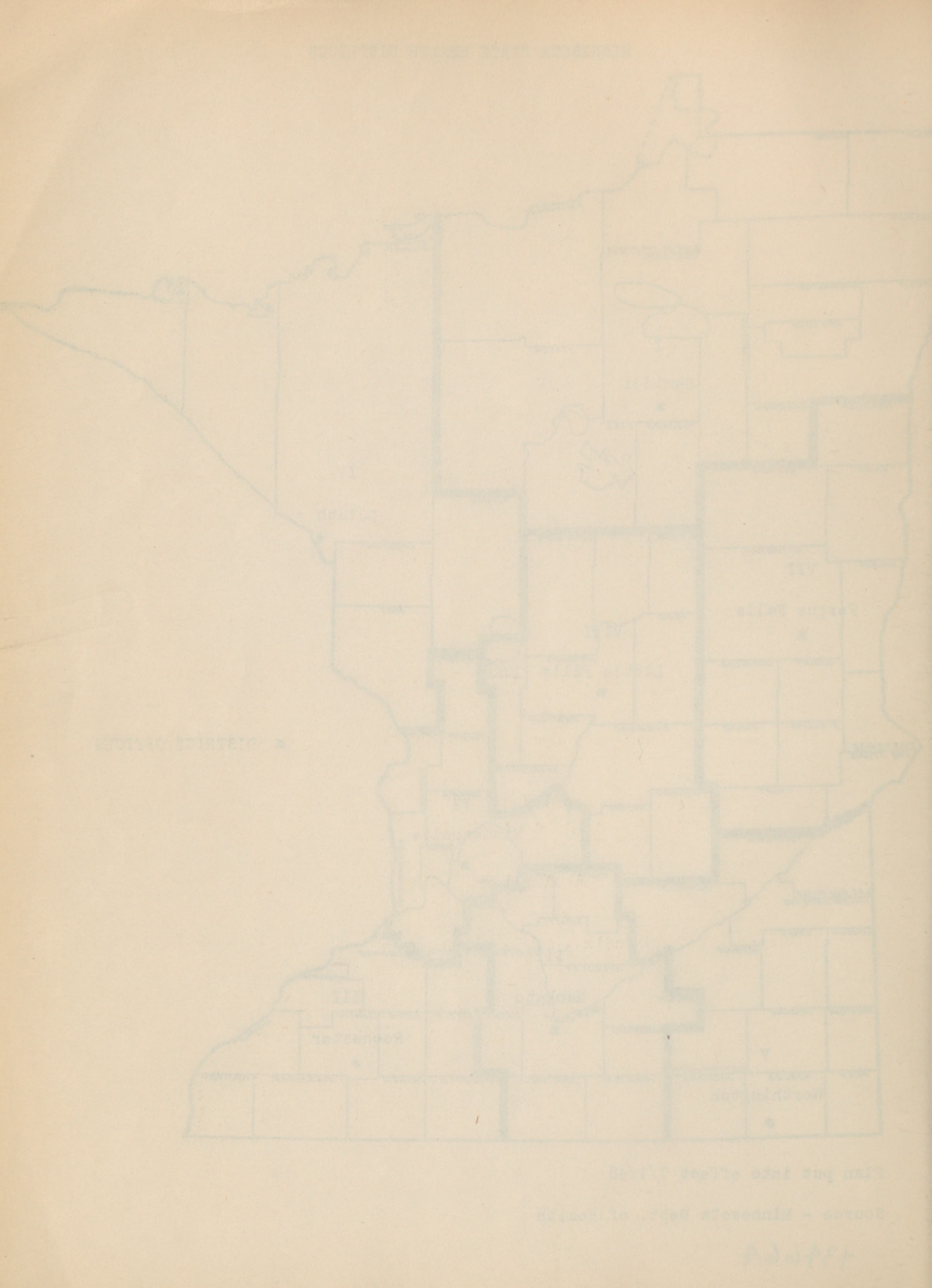
Publication No. 14 November 1948

MINNESOTA STATE HEALTH DISTRICTS



Plan put into effect 7/1/48

Source - Minnesota Dept. of Health



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No state prohibits the joint action of its subdivisions in the field of public health although methods of effecting joint action vary from state to state.

Minnesota is one of eleven states which do not have specific enabling legislation for the creation of county, city-county, or multi-county health units. However, counties in Minnesota could act under the law providing for joint exercise of common powers, although the complexity of agreements with all the townships in a county makes such action unlikely.

Counties are not important units of government in the New England states, therefore, it is not surprising that there are no county health units in that area.

In the southern and the western states where the county is the important unit of government in rural areas, more states have enacted enabling legislation which has been utilized by more counties than in any other group of states.

The middle group of states with both townships and counties have for the most part enacted enabling legislation only to find that few counties avail themselves of the grants of authority.

Of the states adjacent to Minnesota, Iowa is the only one not having specific enabling legislation; the other three have enacted laws which have been utilized only slightly by the counties.

Other states' experience indicates that enabling legislation is not enough to secure the establishment of local health units on a county basis. Positive sentiment and action must spring from the citizenry of the counties themselves.

Two counties in Minnesota, Olmsted and St. Louis, have shown that local sentiment coupled with action can create county and city-county health units in the absence of specific enabling legislation. The Twin Cities Metropolitan Area in Hennepin and Ramsey Counties is largely served by full-time local health units.

INTRODUCTION

As society has grown more and more complex, government has been expected to take on more and more functions. Public health is among the most important of the functions undertaken by the government of a modern state.

There are certain broad areas within which it is generally considered proper for a public health agency to carry on its program. However, not all possible public health functions have achieved social acceptability, and these give rise to conflicts of philosophy and ideology.

In contemporary America, it is generally considered proper for public health to limit itself to preventive medicine while the field of curative medicine is considered the proper province of the private practitioner. Since modern medical science is becoming ever more complex, it is not surprising that the distinctions between preventive and curative medicine are breaking down, making it more difficult to define the proper sphere of public health.

Not only are there differences of opinion with respect to what are the proper functions of a public health agency, but there are also differences of opinion as to what level of government - federal, state or local - should perform those functions. Some exponents of economy and administrative efficiency support centralized operation and control, while some adherents of grass roots democracy favor local control even though the locality may not be able to operate a public health program without financial assistance from the central government.

It is the purpose of this study to examine the experience of other states which have enacted enabling legislation for the creation of county, city-county or multi-county local health units; and to point out some of the implications of such enabling legislation already considered by the Minnesota Legislature as well as other possible forms of enabling acts.

It is not the purpose of this study to favor a particular point of view about any of the many policy questions involved, but rather to give a factual framework within which these policy questions may be considered by those charged with the duty of policy determination.

LOCAL HEALTH UNITS THROUGHOUT THE NATION

Federal, state and local governments generally participate in the provision of public health services in the local community. The pattern of local government is not uniform throughout the nation, and the varying concepts of local government have an important bearing on the means of providing public health services in the community.

In New England, local government is centered in the traditional town meeting. New England "towns" range from highly urbanized communities to rural hamlets. The county is either non-existent, or of little importance.

In the South, the county or parish is the important unit of local government for rural areas. Both the South and the Far West make little or no use of the township form of organization.

Beginning in the Middle Atlantic States and extending westward throughout the Middle West, local government includes both counties and townships. The latter are often called "towns", and confusion often occurs because of its dual meaning as township and village.

EXTENT OF HEALTH UNIT ENABLING LEGISLATION

Early in 1948, 37 states had enabling legislation for the creation of county, city-county, and multi-county health departments and 11 states did not (see Table I and Appendix Table A). Minnesota is one of the states which does not have specific enabling legislation for the creation of county, city-county, and multi-counth health departments. In his comprehensive study of local health units, Dr. Haven Emerson called attention to the fact that no state prevents voluntary action on the part of the localities. He stated, "It should be noted, however, that there is in no sense any legal hindrance to the voluntary co-operative or collaborative action of contiguous counties, cities, or other smaller jurisdictions of local government by which their common interests in health may be served through a local health department jointly supported by the participating communities. There is in some states a provision of law which forbids the receipt of more than one salary from official sources by one person".[1]

LEGAL AUTHORITY TO ESTABLISH HEALTH UNITS IN MINNESOTA

Section 471.59 of Minnesota Statutes 1945 provides for the joint exercise of common powers by political subdivisions of the state.

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1. Haven Emerson, M. D., Local Health Units for the Nation, p. 332.

TABLE I

COUNTIES COVERED BY LOCAL HEALTH UNITS IN STATES GROUPED BY TYPE OF LOCAL GOVERNMENT AND BY INCIDENCE OF ENABLING LEGISLATION

States	Counties Taking Advantage of Enabling Laws		Total No. of Counties
	Number	% of Total	
United States	1034	33.8	3,060
37 States With Enabling Laws	1034	43.0	2,407
11 States Without Enabling Laws	0	0.	653
6 Township States	0	0.	62
3 States With Enabling Laws	0	0.	38
3 States Without Enabling Laws	0	0.	24
26 County States	868	49.4	1,758
22 States With Enabling Laws	868	61.9	1,403
4 States Without Enabling Laws	0	0.	355
16 Township and County States	166	13.4	1,240
12 States With Enabling Laws	166	17.2	966
4 States Without Enabling Laws	0	0.	274

Sources: Questionnaire sent to State Health Departments and William Anderson, The Units of Government in the United States, p. 33.

Thus there is legal authority for the voluntary creation of joint local health units. However, the fact that townships have numerous powers and duties with respect to public health and the difficulty of getting them to act together has hindered action under this statute. Neither the Rochester-Olmsted County Health Unit nor the St. Louis County Health Department has been created under this statute - both are based on informal agreements. The bill proposed in the 1947 Session of the Minnesota Legislature provided that all powers and duties (except vital statistics - one of the six essential functions of a local health unit) of all local health bodies in the area under its jurisdiction would be transferred to the county or multi-county health unit. Such units would be formed either by action of the county board or by petition of five per cent of the voters calling for an election. Cities of the first and second classes would be included only after a referendum at a municipal election.

It is apparent that while existing law permits the creation of county, city-county, or multi-county health units in Minnesota, action is not probable because of the complexity of agreements with all the townships in a county.

HEALTH UNITS IN OTHER STATES

Thirty-seven states have enabling legislation permitting the formation of county, city-county, or multi-county local health units. In two of these states, Maryland and New Mexico, such legislation is mandatory rather than permissive. As of March 1948, 34 per cent of the 3,060 counties in the nation were served by local health units created under such legislation. In addition to the local health units created under these laws, information obtained from the American Public Health Association indicates that other counties are served by local health units either on an informal basis or a different legal foundation. In 1947 it was reported that two-thirds of the nation's population was served by full-time local health units in 1,372 counties (45 per cent of all counties).[1] (See Appendix Table B). This indicates that such units are predominately in urban areas.

Thus study is concerned primarily with the incidence of and the effect of enabling legislation for county, city-county, and multi-county health units. Thus the emphasis is on units created under enabling legislation.

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1. American Public Health Association, Proceedings of the National Conference on Local Health Units, September, 1947, facing p. 1.

As of March 1948, as pointed out in Table I, 34 per cent of the counties in the nation were served by local health units created pursuant to enabling legislation in 35 states and mandatory laws in two states. The 1,034 counties thus served comprised 43 per cent of the 2,407 counties in the 37 states having a statutory basis for county, city-county, and multi-county health units. While the degree of coverage varies from state to state, less than half of the counties in the nation which have the authority to do so have either established a single county health unit or entered into a city-county or multi-county health unit.

ACTION IN THE NEW ENGLAND STATES

In the six New England States the counties are not important units of government. Therefore it is not surprising to learn that in March 1948, none of the 62 counties in these states were covered by county, city-county, or multi-county health units created under grants of authority in enabling legislation. (See Appendix Table C). Three of the states, Connecticut, Maine, and Massachusetts, have laws permitting the formation of joint local health units. However, since the county is not an important unit of government in these states, emphasis is placed upon joint action of towns rather than counties to form local health districts. New Hampshire has no law permitting the formation of joint local health units; although the state board of health, upon request of the board of selectmen of the towns, is authorized to appoint a health officer to serve several towns.[1] Counties are not organized in Rhode Island and the state is divided into four health districts. Vermont has no permissive laws for county or district health units.

Thus, not a single county is served by a county health unit in New England. However, provision is made in four of these states for the towns to act together and one other state is completely covered by four health districts. Conditions in these states are hardly comparable to those in Minnesota, because of differences in urbanization, population density, traditions, and the like. The main point is that there are no county, city-county, or multi-county health units in New England because the county is unimportant in these states.

ACTION IN THE SOUTHERN AND WESTERN STATES

In the 26 southern and western states which do not have townships, as of March, 1948, 22 states had enabling legislation for county, city-county, or multi-county health units. (See Table I and Appendix Table D). Of the 1,758 counties in these 26 states, 868 or 49 per cent

1. Haven Emerson, Local Health Units for the Nation, p. 187.

have acted pursuant to such legislation. These 868 counties are 62 per cent of the 1,403 counties in the states having enabling acts. Thus states where the county form of local government predominates have the vast majority of all local health units so created.

In these states in which the county is the only local government in rural areas it was almost inevitable that the counties would act in the field of public health. Thirteen of these states passed enabling acts prior to 1940, one, Georgia, as early as 1914. Two states, Maryland and New Mexico, have mandatory laws. Every county in Maryland must have a county health department, and the county health officer also serves as a deputy state health officer. The New Mexico act groups the 31 counties into 10 districts with the district staffs appointed and paid jointly by the State and the district. The proportion of counties served by local health units created pursuant to permissive or mandatory legislation ranges from one out of 58 in California to all counties in Alabama, Maryland, New Mexico, and South Carolina. It is noteworthy that two of the four states which have complete coverage are states which have mandatory rather than permissive legislation.

These four states are the only ones which have statewide coverage through either permissive or mandatory legislation. In County Finances, 1944 prepared by the Bureau of the Census of the U. S. Department of Commerce, it was reported that per capita expenditures for public health services in 1944 by the counties in Alabama ranged from $.30 to $1.00 per capita; in Maryland, from $.14 to $.81; in New Mexico, from $.14 to $.76; and in South Carolina, from $.04 to $.65 per capita. The figures are obtained through a sampling process, and there may be counties in these states with higher or lower expenditures for public health than indicated. However, the figures do indicate that statewide coverage means little if money is not available to finance local health units.

It is not surprising that these states, organized on a county basis for local government, have taken the lead in the creation of county, city-county, and multi-county health departments. Their form of local government predisposed them to act on a county basis. Several diseases are more prevalent in the rural South than in other parts of the country, and this fact, together with the greater economic need of some areas, prompted the Federal government to lend financial assistance for public health programs during the last depression. This probably stimulated action by southern counties because the most expedient means of transmitting federal funds to a locality is through the county. These southern and western states which do not have townships have proceeded furthest in county action in the field of public health.

ACTION IN THE MIDDLE ATLANTIC AND MIDDLE WESTERN STATES

Beginning in the Middle Atlantic States and proceeding westward through the Middle West, local government combined the pattern of New England with that of the South and organized both counties and townships. The presence of townships has hindered the development of public health functions at the county level, because the township has been considered the proper unit of government to have jurisdictions over health matters in rural areas.

The role of the township with respect to public health in rural areas has been set forth as follows: "Until full-time, well-rounded health organizations were recognized as the most satisfactory mechanism for ensuring effective local health service, it is likely that the township system, with a part-time health officer for each small community, was the more productive. Other things being equal, this health officer had the advantage of a small jurisdiction, from no part of which could he be very distant. In many instances, though, he was a lay person rather than a physician, and this had its drawbacks. The county system of the southern states provided a part-time physician for the entire county. He served as health officer and not infrequently as jail and poorhouse doctor. His great disadvantages were that he had a very large territory and was paid from nothing to a couple of hundred dollars a year."[1]

Twelve of the 16 states which have both townships and counties as important units of local government have enacted enabling legislation for county, city-county, or multi-county health units. (See Table I and Appendix Table E). Minnesota is one of the four township-county states which as of March 1948, had no specific enabling act. In these 16 states, 166 counties, comprising only 13 per cent of the total of 1,240, were served by local health units created pursuant to such enabling acts. The 166 counties were only 17 per cent of the 966 counties in the 12 states with enabling laws.

It is apparent that the township-county states have, as a group, had relatively slight use made of their enabling legislation. As of March 1948, Michigan had 71 of its 83 counties served by local health units created under the authority of its enabling act. Michigan has greater coverage than any other state in the township-county group. At the other extreme was Wisconsin with only one of its 71 counties taking

1. Harry S. Mustard, Government in Public Health, p. 123.

advantage of its permissive legislation. North and South Dakota had 14 out of 53 and 2 out of 64 counties, respectively, which had taken advantage of their laws. Iowa, like Minnesota, had no specific enabling act.

While Minnesota has no specific permissive legislation, the greater part of the population of Hennepin and Ramsey Counties, which contain Minneapolis and St. Paul, is served by full-time local health departments. In addition to this metropolitan area, there is also a city-county unit serving Rochester and Olmsted County, and a county health department serving rural St. Louis County - the City of Duluth has its own health department. Thus, a total of four counties in the state have, in a large measure, already achieved full-time local health services without specific enabling legislation. In 1947, almost one-third of the population of the state was served by full-time local health units.[1]

The preceding analysis of what has been done throughout the nation was aimed at establishing the incidence of enabling legislation for county, city-county, and multi-county health units, and the extent to which such permissive legislation has been utilized by the counties in the various states. It did not, and was not intended to measure the extent to which various areas are served by full-time local health units. The latter is set forth in detail in Appendix Table B, which reveals that in 1947, two-thirds of the people in the country were served by full-time local health units. Such health units may or may not have been created under grants of authority in specific enabling legislation. Since more counties are listed as being served by local health units, in Appendix Table B than in Appendix Table A, it follows that the difference is due to counties acting informally or under a different type of law.

1. American Public Health Association, Proceedings of the National Conference on Local Health Units, September, 1947, facing p. 1. (Appendix Table B.)

STATE PUBLIC HEALTH SERVICES IN MINNESOTA

The Minnesota Department of Health is the one state agency primarily concerned with public health. For the most part, it is not a direct service agency, but rather serves in an advisory and supervisory relationship with local health departments and in a cooperative relationship with other state agencies. Federal and state grants-in-aid to local health agencies are channeled through the State Health Department.

Preventable disease control is a major function of the Department. This involves such communicable diseases as tuberculosis and veneareal diseases.

Environmental sanitation is a second broad phase of the Department's program. This includes hotel and resort inspection, supervision of plumbing installations, industrial health programs, municipal water supplies, and control of water pollution. The inspection of hotels and resorts is a direct service program, which often overlaps with the sanitary inspections of the Department of Agriculture, Dairy and Food.

As its main laboratories in the Twin Cities and its branch laboratories in Duluth, the Department provides an extensive direct service program. Specimens are sent to the laboratories and reports are made to assist in the diagnosis of diseases as well as to check the safety of water supplies and the like. Biologicals for immunization and treatment may also be obtained from the laboratories.

Public health education is another important phase of the Department's program. This involves advising local health agencies as well as conducting broad publicity programs. The Department works closely with the University Medical School in training doctors and nurses for public health services.

Vital statistics is another basic function of the State Health Department. This involves the collection, analysis, and exchange of data relating to sickness, accidents, births and deaths.

The State Health Department works closely with public health nurses employed by counties and municipalities. The Division of Public Health Nursing provides advice and supervision as well as financial assistance to the county nursing programs.

There are also maternal and child health services and dental health services which are mainly of an advisory and supervisory nature.

Another direct service program is the licensing of hospitals as well as the licensing of embalmers and funeral directors.

STATE HEALTH DISTRICTS

Interspersed between the central offices of the State Department of Health and local health departments are State Health Districts. As of July 1, 1948, the entire State was covered by eight State Health Districts which in a real sense are field offices of the State Department of Health, although not all state-local contact is channeled through them.

Each of the eight district offices serves from six to thirteen and two-thirds counties (Cass County is divided and served by two districts). The population in each district is well over 200,000 and the area of the districts ranges from 4,000 to 20,000 square miles. Figure I shows the location and composition of the State Health Districts.

The authorized staff of each of these district offices is composed of a medical health officer, a sanitary engineer, a public health nurse, and clerical help. However, not all district offices are fully staffed because of the shortage of trained personnel. It is apparent from the size of the area served and the population served that such a limited staff can not give intensive service to everyone in the district. Direct service is not the objective of these State Health Districts. Rather, their function is to advise, coordinate, and assist the existing local health agencies. Thus, it is not a direct service program, but an indirect program aimed at improving local health services. The professional members of the staff cooperate with their counterparts in local health agencies.

State Health District activities are financed by the State and Federal Governments on a matching basis under The Public Health Service Act of 1944.

One might well wonder what would be the role of these State Health Districts if enabling legislation for county, city-county, or multi-county health units were enacted. In all probability their function would not be materially altered. Much depends on how many local health units would be created under such legislation, and funds available for staffing and services to the people. Experience in other states indicates that counties are slow to act under enabling laws. If some counties utilize such legislation while others do not, there would be a need for the State Health Districts to carry on in those areas not served by local health units. There are indications that even if permissive legislation would result in statewide coverage by local health units, there may be more than the ten local units outlined for Minnesota

in Dr. Haven Emerson's Local Health Units for the Nation. The more local health units there are, the greater the necessity for State Health Districts to coordinate local health work and serve as a point of contact between the state and local health departments. The Department of Health has indicated that it has no desire to expand State Health Districts into a direct service program, but that it would curtail district functions when local health units are able to meet the needs.

LOCAL ORGANIZATION FOR PUBLIC HEALTH IN MINNESOTA

Minnesota has a total of 2,700 counties, cities, villages, and townships, each of which is permitted by law to have its own public health organization. At the beginning of August 1948, 57.8 per cent of these overlapping jurisdictions were reported to have medical health officers, most of whom were on a part-time or fee basis. There was a total of 687 medical health officers serving 1,561 local units of government in the state - many doctors serve as health officers for more than one political subdivision. All but two of the 87 counties had medical health officers as required by statute. Le Sueur County had no health officer, and Carver County had neither a health officer nor a county board of health. Medical health officers served all of the 100 cities, 634 of the 668 villages, and only 742 of the 1,845 organized townships in the state.[1]

TABLE II

MEDICAL HEALTH OFFICERS IN POLITICAL SUBDIVISIONS IN MINNESOTA
(August 1948)

Unit of Gov't. Kind	Number	Medical Health Officers	Per Cent Served
County	87	85	97.7
City	100	100	100.0
Village	668	634	94.9
Township	1,845	742	40.2
Total	2,700	1,561	57.8

Source: Minnesota Department of Health

COUNTY BOARDS OF HEALTH

All counties are required by Section 145.01 of Minnesota Statutes 1945 to have a county board of health composed of two county commissioners and a resident physician, all of whom shall be chosen yearly at the annual meeting of the county commissioners. The physician shall be the county health officer and executive of the board. The compensation of county health officers is prescribed by the county board of health or county board of commissioners and, together with their necessary expenses, is paid by the counties.

1. Minnesota Department of Health, data as of August 5, 1948.

County boards of health have jurisdiction over all unorganized towns within the county. They are vested with such other powers and duties with reference to public health as are prescribed in the regulations of the State Board of Health. Those regulations which pertain to county boards of health follow:

"Reg. 5. The several county health officers shall make quarterly reports to the Minnesota State Board of Health as to the general sanitary condition of their counties, such reports bearing especially upon matters relating to communicable diseases. Especial attention must be given to the reporting of rabies and glanders.

"Reg. 6. The several county health officers shall keep close watch over apparent epidemic or endemic diseases existing within their jurisdiction, and if a question arises as to the proper care of such diseases, they shall notify the secretary of the State Board of Health in order that an investigation may be made.

"Reg. 7. If a county health officer has knowledge of, or a reasonable belief that the returns of births and deaths for his county are not being made as required by law, he shall immediately report such fact or suspicion to the secretary of the State Board of Health.

"Reg. 8. The several county health officers shall note the condition of slaughter houses, rendering establishments, starch factories and paper mills within their jurisdiction, and shall report such conditions to the secretary of the State Board of Health from time to time, as necessary, or upon the request of said secretary.

"Reg. 9. County boards of health shall at all times bring to the attention of the secretary of the State Board of Health any conditions which they may deem in need of sanitary regulation.

"Reg. 10. The county health officers shall assemble at the call of the Minnesota State Board of Health once a year to discuss general sanitary problems and to present at such conferences the special sanitary needs of their individual districts.

"Reg. 11. County health officers shall make such investigations and reports, and obey such direction relating to sanitary problems, as shall be prescribed from time to time by the State Board of Health.

"Reg. 12. Upon the application of not less than five (5) county health officers, the State Board of Health shall call a special conference to discuss special or local sanitary problems, the time and place of meeting to be determined by the State Board of Health."[1]

From the above it would appear that county boards of health have broad powers with respect to public health. In addition to the above, the county boards of health may be vested, "with such other powers and duties in reference to the public health as the state board shall by its published regulations, prescribe."[2] Thus, the State Board of Health at present has the power to exercise considerable authority over local health functions through the county boards of health. However, it is reported that these regulations of the State Board of Health are generally not enforced or adhered to.

MUNICIPAL BOARDS OF HEALTH

Section 145.01 of Minnesota Statutes 1945 requires every city and permits every village to establish a board of health having jurisdiction within the corporate limits of the municipality. It further provides that at least one member of each local board of health must be a physician who shall be the local health officer and executive of the board. Compensation of local health officers is determined by the local board of health or municipal governing body and both compensation and necessary expenses are to be paid by the municipalities which they serve.

TOWNSHIP BOARDS OF HEALTH

"....Every town board shall be a board of health within and for the town and have jursidiction over every village within its boundaries wherein no organized board of health exists. ... At least one member of every local board shall be a physician, who shall be the local health officer and executive of the board. If no member of a town board is a physician, it shall appoint a health officer for the town. ..."[3] Town boards are authorized to compensate health officers for their services and expenses incidental to the performance of their duties.

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1. Minnesota State Health Laws and Regulations, p. 15 f.
2. Minnesota Statutes, Section 145.01.
3. Minnesota Statutes 1945, Section 145.01.

DUTIES COMMON TO ALL LOCAL BOARDS OF HEALTH

"All local boards of health and health officers shall make such investigations and reports and obey such directions concerning communicable diseases as the state board may require or give; and, under the general supervision of the state board they shall cause all laws and regulations relating to the public health to be obeyed and enforced."[1] "All local health boards of each county shall cooperate so far as practicable and the state board by written order may require any two or more local boards to act together for the prevention or suppression of epidemic diseases."[2]

> "Section 145.05. Powers of health officer in assuming jurisdiction over communicable diseases. The health officer in a municipality or the chairman of the board of supervisors in a town shall employ, at the cost of the health district over which his local board of health has jurisdiction and in which the person afflicted with a communicable disease is located, all medical and other help necessary in the control of such communicable disease, or for carrying out, within such jurisdiction, the lawful regulations and directions of the state board, its officers or employees, and, upon his failure so to do, the state board may employ such assistance at the expense of the district involved. Any person whose duty it is to care for himself or another afflicted with a communicable disease shall be liable for the reasonable cost thereof to the municipality or town paying such cost, excepting that the municipality or town constituting such district shall be liable for all expense incurred in establishing, enforcing, and releasing quarantine, half of which may be recovered from the county, as provided for under sections 145.06 and 145.07."[3]

LOCAL UNITS OF GOVERNMENT MAY ACT JOINTLY TO PROVIDE PUBLIC HEALTH SERVICES

The Minnesota Department of Health in January of 1948 issued the following statement pointing to a lack of legal authority for the creation of a multi-county public health unit:

> "The Hospital Survey and Construction Act provides a State allowance of public health centers within a maximum of

1. Ibid., Section 145.03.
2. Ibid., Section 145.01.
3. Ibid., Section 145.05.

one per 30,000 of population which would permit 94 such centers for Minnesota. However, a plan for the construction of public health centers in Minnesota cannot be completed until such time as the Minnesota statutes are modified to allow for the development of local health jurisdictions. These jurisdictions should contain areas and populations of sufficient size so as to permit the organization of efficient and economical full time health services. To accomplish such organization new legislation must be enacted so as to enable counties to establish or join together in the establishment of local health departments, to provide for the financing of such units and to provide for the promulgation and enforcement of reasonable regulations of local application for the preservation of the public health."[1]

However, in a compilation of state health laws and regulations issued by the Health Department in January of 1948, it cited the following statute:

"Sec. 471.59. Joint exercise of powers. Subdivision 1. Agreement. Two or more governmental units, by agreement entered into through action of their governing bodies, may jointly exercise any power common to the contracting parties. The term 'governmental unit' as used in this section includes every city, village, borough, county, town, and school district.

"Subd. 2. Agreement to state purpose. Such agreement shall state the purpose of the agreement or the power to be exercised and it shall provide for the method by which the purpose sought shall be accomplished or the manner in which the power shall be exercised.

"Subd. 3. Disbursement of funds. The parties to such agreement may provide for disbursements from public funds to carry out the purposes of the agreement. Funds may be paid to and disbursed by such agency as may be agreed upon, but the method of disbursement shall agree as far as practicable with the method provided by law for the disbursement of funds by the parties to the agreement. Strict accountability of all funds and report of all receipts and disbursements shall be provided for.

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1. Minn. Department of Health, 1948 Minnesota Plan for Hospitals and Public Health Centers, p. 21.

"Subd. 4. Termination of agreement. Such agreement may be continued for a definite term or until rescinded or terminated in accordance with its terms.

"Subd. 5. Shall provide for distribution of property. Such agreement shall provide for the disposition of any property acquired as the result of such joint exercise of powers, and the return of any surplus moneys in proportion to contributions of the several contracting parties after the purpose of the agreement has been completed.

"Subd. 6. Residence requirement. Residence requirements for holding office in any governmental unit shall not apply to any officer appointed to carry out any such agreement.

"Subd. 7. Not to affect other acts. This section does not dispense with procedural requirements of any other act providing for the joint exercise of any governmental power."[1]

It would seem that the grant of authority to combine for joint exercise of powers contained in Section 471.59 of Minnesota Statutes 1945 is broad enough to permit the establishment of multi-county public health units. Authority to act in the field of public health is common to all local governmental units in Minnesota. It would, therefore, seem that multi-county public health units would come within the scope of the law even as interpreted in the following manner:

"According to an opinion given unofficially by the attorney general's office, this provision must be considered both as an authorization and a limitation - that is, it allows for joint administration of those services, and only those services, which are 'common to the contracting parties'; it does not afford a blank check for the joint exercise of authority, regardless of whether the activities are related or not."[2]

Although the law provides ample authority for the creation of full-time county, city-county, or multi-county health units, it is apparent that great difficulty would be experienced in getting the governing bodies of the various units of local government to enter into stable contractual agreements.

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1. Minnesota State Board of Health, Minnesota State Health Laws and Regulations, p. 16.
2. Council on Intergovernmental Relations, A Study of Public Health Administration in Blue Earth County, Minnesota, p. 82.

INTERGOVERNMENTAL COOPERATION IN PROVIDING PUBLIC HEALTH SERVICES

As indicated in the above examination of statutes dealing with public health activities of local units of government, such services are a product of state-local cooperation. In addition, the federal government cooperates with state and local units of government in the provision of public health services. Furthermore, there may be cooperation among various local units of government to provide these services. Thus the provision of public health services in the local community involves intergovernmental cooperation of varying degrees of effectiveness and complexity.

Some idea of the impact on a community of this multiplicity of effort may be gained from the following excerpt from the Council on Intergovernmental Relations study of public health administration in Blue Earth County. This county was selected by the Council as a representative county, and the observations might well apply in general to many other counties in the state.

> "The weakness of the existing system of public health administration is not due to lack of organization by any single unit or agency in the field of public health, but rather, to the disconnected operation of the many agencies engaged in similar activites. Adequate means of harnessing the energies and resources of each in a common endeavor is lacking, thus causing an inevitable duplication of effort in like service.
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> "Federal-state administrative relations in the field of public health can be traced without too much difficulty. Of the two approaches generally used in administration grants-in-aid and direct action in the field, the former has been put to most frequent use. The U. S. Public Health Service, the Children's Bureau, the Office of Indian Affairs, and the Social Security Board have left most of their actual health work in the hands of state and local governments, and exist to establish and maintain standards and supervise aid in the administration of federal funds. On the other hand, the Food and Drug Administration and the Farm Security Administration operate their own action programs in the field, and by-pass state and local organization.
>
> "State-local relations have been clearly provided for in the statutes. Local health boards are directly responsible to the state board for the enforcement of health laws. In practice, however, the state board considers the actual enforcement of these laws to be the special duty and responsibility of the local boards of health, the health officers of

villages and cities, and the chairman of town boards of health. Local boards of health are also required to collaborate with the State Livestock and Sanitary Board in matters relating to disease among animals. Again, in practice, ... these lines of control are not effective, due partly to the strong spirit of independence among local units and partly to the hands-off policy arrived at by the State Board of Health.

"The community, the meeting-point of the various health programs, is where the disconnected operations of the various health organizations are most evident.

"It is true that the state District Health Unit, supported by federal funds, represents a significant attempt to gear the state health department more closely in the community by cooperative rather than compulsory methods. The district health unit has succeeded in decentralizing some of the State's services and in establishing close relationships with nursing staffs of the various counties. It has not, however, nor was it intended, to provide the over-all coordination needed under the present system of community government.

"It is also true that there are statutory provisions which might serve to offset the isolation in which local health boards continue to operate. The first (Chapter 145, Minnesota Statutes 1942) states that 'all local health boards of each county shall cooperate as far as practicable and the state board by written order may require any two or more local health boards to act together for the prevention or suppression of epidemic diseases'. The second, (Chapter 557 of the Laws of Minnesota for 1943) provides that 'two or more local governmental units, by agreement entered into through action of their governing bodies, may jointly exercise any power common to the contracting parties'. That neither of these provisions has been called into play so far is due, first, to absence of any severe epidemics or acute health problems in the community, and second, to the fact that local boards of health are very seldom active."[1]

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1. Council on Intergovernmental Relations, A Study of Public Health Administration in Blue Earth County, Minnesota, p. 74 f.

ADMINISTRATIVE COMPLEXITY

The foregoing indicates to some extent the problems involved in local public health administration in Minnesota. Administration of public health services in Minnesota is extremely decentralized. Every city must and every village may create a local board of health and appoint a health officer, who usually serves part time. For rural areas, every town board is the board of health for the town as well as for villages within it which have not exercised their option of creating a village board of health. County boards of health have jurisdiction over unorganized townships plus a few other powers and duties.

Many State Agencies in the Public Health Field

Not only is there a multitude of units of local government in the field of public health, there is also an overlapping of jurisdiction and function of state agencies. Of prime importance is the Minnesota Department of Health which serves mainly as a supervisory and coordinating agency rather than direct-service activity. Several other state agencies have an interest in the health of particular segments of the population: the Department of Education is interested in the health of school children and teachers, the Department of Labor and Industry is concerned with the health of industrial workers, the Railroad and Warehouse Commission with the health of Railroad employees and the traveling public, the Division of Social Welfare is interested in the health problems of recipients of public assistance and certain categories of handicapped persons, and the Division of Institutions is responsible for the health needs of the institutional population. In addition, the Live Stock Sanitary Board deals with animal health problems which may affect human health, the Department of Agriculture, Dairy, and Food serves to insure that food supplies are safe, and the Department of Conservation and the Water Pollution Control Commission are also concerned with the pollution of streams and waterways.

Absolute functional organization is difficult to achieve. In fact there are reasons why it may not be desirable. From the standpoint of functional organization, such an extreme dispersal of the health function as exists in the State of Minnesota is undesirable. The situation where the Department of Health and the Department of Agriculture, Dairy, and Food both inspect public eating places is particularly poor from the standpoint of integrated and economical administration.

The present organizational structure for the provision of public health services in Minnesota is cumbersome, unintegrated, and uncoordinated. Benefits could be derived from an effective, simple organizational structure to administer public health activities in the State.

PUBLIC HEALTH NURSES

Since 1919, there has been statutory authority for units of local government to hire public health nurses.[1] Sections 145.08-12 of Minnesota Statutes 1945 deal with public health nurses. Section 145.08 authorizes local governing bodies "to employ and to make appropriations for the compensation and necessary expenses of public health nurses, for such public health duties as may be deemed necessary". Public health nurses must be registered in Minnesota, and, in addition, must have a minimum of one year of special preparation in public health nursing. The State Board of Health is directed to furnish local governing bodies with a list of nurses qualified for public health work; and it is also directed to aid and advise public health nurses, who in turn are to make written reports through the board employing them to the state and local boards of health in such form and at such times as prescribed by the state board.

Section 145.12 provides that the board of county commissioners may detail county public health nurses to act under the direction of the three-member county board of health or a nursing committee composed of at least five members, as follows:

1. The county superintendent of schools;
2. the county health officer or a physician appointed by the county commissioners;
3. a county commissioner appointed by the board of county commissioners;
4. two residents of the county appointed by the county commissioners.

It is noteworthy that the county commissioners, in addition to the County Board of Health, may create a special nursing committee to advise and supervise the county public health nurses. Sound principles of organization would provide that county nurses perform their duties under the immediate supervision of one supervisory body. While this is the situation under the provision of the law, it is possible that County Nurses would not be under the supervision of the County Health Officer.

The counties have not been quick to act in this field. By 1936, there were 33 county nurses in 25 counties; by 1945, there were 48 in 35 counties; and, as of June 30, 1948, 64 of the 87 counties had made provisions for the employment of 93 public health nurses, and, as of that date, 50 counties employed 74 public health nurses - 19 nursing positions were vacant because of a widespread shortage of trained personnel. As of

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1. Session Laws of Minnesota 1919, Chap. 38, Sec. 1.

July 1, 1948, five of these vacancies were scheduled to be filled.[1] The extension of county nursing services was much more rapid from 1945 to 1948 than it was during the decade preceding 1945. However, in 1948 there were still 23 counties with no definite organization for rural nursing service. (See Appendix Table F)

A factor of considerable importance in connection with this recent activity is Chapter 54 of Session Laws 1947, which provides for a grant-in-aid of $1,500 per year from the State to each county maintaining a public health nursing program. Since the enactment of this law, 12 counties established nursing services because of assistance from state aid; eight counties with services established prior to 1947 have increased their nursing programs by employing additional nurses through assistance from state aid; and three other counties have acted to employ an additional nurse but have not been able to fill their vacancies. (See Appendix Table G).

In addition to the above financial assistance from the State, county nursing activities may receive grants-in-aid for cancer, tuberculosis, venereal diseases, and maternal and child health. (See Appendix Table H). For the most part these are distributions to the localities of funds received by the State as grants-in-aid from the Federal Government. In addition to these grants from public funds some private agencies, such as the American Cancer Society, allocate funds for support of county public health nursing programs.

In addition to public health nurses employed by counties, there are also nurses engaged in public health services conducted by municipalities and schools as well as by private groups. Appendix Table I shows that as of April 1, 1948, only about one-tenth of all nurses engaged in public health and industrial health activities were in the employ of counties. Thus the bulk of public health nursing activities in the State is carried on by agencies other than the counties. Since the county is the only one of the listed organizations likely to carry on a generalized public health nursing program in rural areas, it follows that rural Minnesota is least adequately served by public health nurses.

The public health nurse bears a relation to public health that is similar to the relation of the professional social worker to the social welfare program. It is the public health nurse who enters homes in the community and is the direct contact between the public health program and the citizen. A public health nurse is a professional person who, with adequate community support and cooperation, can do much to elevate health standards in the community.

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1. Minnesota Department of Health.

PRESENT COUNTY HEALTH UNITS

THE ROCHESTER-OLMSTED COUNTY HEALTH UNIT

The City of Rochester, home of the Mayo Clinic, is in a unique position with respect to resources for and community interest in health services. It is unique also in the extent of its public health problem because of the large transient population, many of whom are potential spreaders of disease. It is, therefore, not surprising that, in Minnesota, the only approach to a city-county health unit is found in Olmsted County. It is highly unlikely that any other community in the State could utilize the same approach toward providing community health services. It is also unlikely that any other community in the State would need a local health program as comprehensive as that of the Rochester-Olmsted County Health Department. Nevertheless, the Rochester-Olmsted County Health Unit does demonstrate what can be done under existing statutes as a result of local interest and initiative.

Organization

The Rochester-Olmsted County Health Unit is not a true city-county health department. It is essentially a voluntary federation of public health agencies functioning in the community. The Rochester Board of Public Health and Welfare and the Rochester Board of Education in 1943 agreed to combine their nursing services under a qualified supervisor. In 1946, the four rural nurses of Olmsted County were brought into the central nursing office to serve under the supervision of the nursing director. Administrative unity of this nursing program was provided by appointing the city health officer as county health officer and director of school health services in the city.

In 1944 the Rochester Child Health Institute was created to carry on a project of service, education, and research in child health for all children in the community. The services of the Institute are furnished to the community without charge through funds provided by the Mayo Association and various other outside agencies. Pay clinics are conducted at St. Mary's Hospital. The Institute provides a more comprehensive preventive medical program than had earlier been offered in child health clinics held in the clinic rooms of the City Hall.

In order to coordinate and integrate the various public health services in the community, the Rochester-Olmsted County Health Unit was formed in 1946 by resolution of the various official bodies concerned. The city-county health officer is permanent chairman of an administrative council of three members. The city superintendent of schools and the director of the Child Health Institute are the other members of the council.

In addition to the administrative council there is an advisory committee composed of: the nursing supervisor; the public health educator; the public health engineer; school principals; the county superintendent of schools; a local practicing physician; specialists from the Child Health Institute; and representatives from the official welfare bodies, the parochial schools, and the district office of the State Board of Health. This group meets occasionally to discuss new projects and common needs.

Financing

The looseness of the federation is pointed out by the fact that the Rochester-Olmsted County Health Unit does not handle any funds. Salaries and expenses are paid individually by the various organizations participating. For 1947, as shown in Appendix Table J, a total of $82,648.75 was expended by the seven participating agencies. This total does not include the operating costs of the Child Health Institute nor the value of the contributed medical services of the Mayo Clinic. The seven agencies are: The Rochester Board of Health and Welfare, the Rochester Board of Education, the State Board of Health, the University of Minnesota, Olmsted County, the Mayo Clinic, and the W. K. Kellogg Foundation. The Rochester-Olmsted County Health Unit serves a population of about 52,000 which is slightly greater than the minimum size of a local health unit according to the American Public Health Association's standards. Therefore, the expenditures cited above represent a per capita amount of approximately $1.60 of which $1.20 comes from public funds and $.40 comes from private sources. Funds received from the State amounted to over $.17 per capita; while those from city and county sources were over $1.02 per capita, with the County's share amounting to just $.12 per capita. Information pertaining to the operating costs of the Child Health Institute was not available and therefore the per capita costs cited above are lower than they would otherwise be.

In view of the fact that more than one-fourth of the costs of the public health program carried on by the Rochester-Olmsted County Health Unit are financed privately, it is apparent that few, if any, other communities in the State could hope to organize a local health unit along the same lines. Other communities just do not have comparable medical resources to draw upon.

Staff

At the head of the Rochester-Olmsted County Health Unit is the Medical Director who is a medical health officer for the City of Rochester and for Olmsted County. A public health engineer and two sanitarians (one for food and general sanitation, the other for milk) make the sanitation staff of the unit stronger than the minimum standards

make the sanitation staff of the unit stronger than the minimum standards of the American Public Health Association. The nursing staff is composed of a public health nursing supervisor, an assistant supervisor, and 12 nurses. The nursing staff also exceeds the A.P.H.A.'s minimum standards. The clerical staff of nine is three times the size of the minimal standards. However, one clerk devotes nearly full time to the records of the Rochester city hog feeding farm and garbage collection services, the personnel and finances of which are not included in this description. In addition there are a social service worker and a part-time venereal disease investigator as well as a public health educator.

The above listed personnel provide general public health services to the community. Specialized child health services are furnished by the Rochester Child Health Institute. These services are given at the City Child Health Clinics and St. Mary's Hospital Clinics. The Child Health Institute is staffed by: a medical director, an assistant medical director, two medical doctors serving as child psychiatrist and clinic pediatrician, two child psychologists, a nutritionist, a statistician, and a director of preschool activities.

The Mayo Clinic provides medical services for the health unit maternity and child health clinics, school health examinations and the mental health program now under development, also X-ray services and interpretation, routine and special laboratory facilities, and in addition, gives the health program wholehearted support in many ways including technical advice in the various basic sciences and medical specialties.

It is apparent that the staff outlined above is considerably larger and more varied than that of: a medical health officer, a sanitary engineer, a sanitarian, ten public health nurses, and three clerks considered minimal by the American Public Health Association. It would seem that the staff is rather heavily weighted toward child health services. While this appears to distort somewhat the provision of well-rounded public health services in the community, a more proper conclusion is that comprehensive services are provided with additional emphasis on child health. In addition to the child health services, the Institute conducts extensive research and teaching programs in child growth and development. There are now five Mayo Foundation Fellows and two medical assistants to the Institute regularly participating in these programs. It is reported that without these responsibilities the Institute staff could be decreased to one-third the present size.

Functions

The Rochester-Olmsted County Health Unit carries on the six functions of a local health unit, namely: (1) vital statistics,

(2) sanitation, (3) control of communicable and preventable diseases, (4) laboratory service, (5) maternal and child health, and (6) public health education.

The Health Officer is the administrator and is responsible for communicable disease control, budgets, purchasing, personnel, statistical studies, and the like.

Minnesota Statutes provide that local registrars of vital statistics shall be town and village clerks and city health officers. Except in cities of the first class, local registrars transmit original certificates to the county clerks of court.[1] Thus state law prevents the complete integration of the collection of vital statistics for Olmsted County by the City-County Health Unit. The Health Officer is the registrar of vital statistics for the City of Rochester and the staff collects and analyzes morbidity and mortality data.

Sanitation is the special concern of the public health engineer and the two sanitarians. The public health engineer is in charge of the sanitation program including: milk control, water sanitation, public health aspects of sewage treatment and plumbing, restaurant sanitation, other food handling, insect and rodent control, and nuisances. The food sanitarian works with food handling in general including: eating and drinking places, supervision of water supply, rodent control, and nuisances. The milk sanitarian administers milk control under the standard U. S. Public Health Service Milk Ordinance adopted in 1939. Six pasteurization plants and about 125 farms come under his supervision.

The program of communicable and preventable disease control is carried on under the direct supervision of the health officer. He is assisted by public health nurses, staff doctors of the Mayo Clinic, and independent physicians practicing in the county. Through the Health Unit, immunizations for smallpox, diphtheria, tetanus, and whooping cough are offered to all infants and pre-school children in the county, and once every year to all school children, with the exception that whooping cough immunization is not given in the schools. Recent surveys have shown that the percentage of protection ranges from 70 to 90 per cent. In connection with the tuberculosis diagnostic and follow-up program, chest clinics are held quarterly, and chest X-rays are avilable at cost through the Mayo Clinic. Every attempt is made to keep active cases and contacts under supervision; at present, about 140 cases and a larger number of contacts are being followed. Tuberculin tests are also given

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1. Minnesota Statutes 1945, Sections 144.156 and 144.191.

to certain groups. In connection with venereal disease control, no routine blood testing is done in any group although such tests are available through the Health Unit for diagnosis and the follow-up of treated cases.

Laboratory service is purchased principally through the Mayo Clinic to meet the needs of the various programs carried on by the Unit. Additional services are available from the State Health Department.

Maternal and Child Health is the strongest program of the Unit. This is largely because of the privately financed Rochester Child Health Institute with its staff doctors and other specialists. Also, the maternal health program is materially assisted by obstetricians of the Mayo Clinic who serve in the health department prenatal clinics at the City Hall. Much of the work of the public health nurses deals with this program - - in homes, in schools, and in clinics. Each nurse serves a district and provides all types of public health nursing services within that district. Formerly, nurses providing specialized services met only those needs, and a home might have several nurses coming in - each providing a separate service. As indicated above, much of the communicable disease control program is directed at children. The large number of rural schools in the county (99) has made it impossible to give the same school health services in the rural area as in Rochester. In addition to the functions already listed, the public health nursing staff conducts activities in the fields of dental health, mental health, and bedside care in the home which accounts in part for the relatively large number of nurses.

Public health education is the direct responsibility of the public health educator on the staff, although in a real sense every member of the staff is engaged in public health education. The educator carries on a broad program involving all agencies in the city having an interest in health. In carrying out the program, the educator works with the schools, participates in meetings, supplies educational materials to organizations, and plans publicity and educational programs.

The above refers to the education of the public about its own health. In addition, the Rochester-Olmsted County Health Unit provides field training for students of public health. It works in cooperation with the University of Minnesota, the Mayo Clinic, and the Minnesota Department of Health. This important responsibility requires a degree of development and quality of administration not necessary in a local health department giving routine services. A large part of the funds for this phase of the program come from a W. K. Kellogg Foundation Grant.

Relation with Other Units of Government in Olmsted County

Under Minnesota law, township governments are officially responsible for communicable disease control in rural areas. Therefore, there is a rather cumbersome arrangement under which the Health Officer of the Unit and the nurses carry out quarantine measures through the chairmen of the town boards of supervisors. No townships are able to carry on any planned public health program, but the nursing and medical services from the Unit are given throughout the rural area. No townships, cities, villages, or school districts in Olmsted County conduct regular health programs aside from those furnished and supervised through the Unit.

Relation to State Health District Number Three

Olmsted County is one of 11 counties in State Health District Number Three. Rochester is the headquarters of the District and is the operating base of the staff of: a medical officer of health, a public health engineer, an advisory public health nurse, and a secretary. Services performed by them in Olmsted County are similar to those performed in other counties of the District, and tend to be confined to larger public health problems.

The district engineer has been working mostly with municipal water and sewer plants and with some school and private sanitation problems. Some of the smaller communities need help with sewage treatment plants and with improvements in their water supplies.

The district advisory nurse confers with the Rochester-Olmsted County Health Unit's nursing service on problems of personnel and records as they concern state services and other outside nursing services.

It is reported that there is no overlapping of function between the Rochester-Olmsted County Health Unit and the State District Health Office.[1] Since the Unit is able to provide services that other communities do not have, there is a tendency for District Three personnel to spend more time in other communities. However, the Unit has found that the District is of great aid at times, particularly in the handling of difficult problems involved in enforcement procedures.

Role of State Inspectors in Olmsted County

During the year of 1947, inspectors from the State Department of Health made 482 inspections of most of the 442 establishments listed

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1. F. M. Feldman, M. D., Dr. Public Health, former Medical Director of the Rochester-Olmsted County Health Unit, letter to Minnesota LRC dated April 30, 1948.

for the County.[1] Inspectors from the State Department of Agriculture, Dairy, and Food made 252 inspections during the same year.[2] (See Appendix Tables K, L and M).

The Rochester-Olmsted County Health Unit carries on a rather complete supervisory service over eating and drinking establishments, but does not inspect hotels and rooming houses except on specific complaint. During 1947, inspectors from the State Department of Health made only 31 inspections among the 145 hotels listed for Olmsted County; while, during the same year, they made 260 inspections among the 133 lodging and boarding houses. Since the local health unit makes no regular inspections of hotels, it is apparent that they are inadequately supervised. The situation with respect to lodging and boarding houses is much better. Thus, in the area of the State which has probably the best local health services, lack of coordination between state and local agencies results in a rather serious gap in coverage.

Restaurants and places of refreshment are reported to be closely supervised by the Rochester-Olmsted County Health Unit. They also received rather close supervision by the Division of Hotel and Resort Inspection of the State Department of Health which in 1947 made 107 inspections among the 73 restaurants and 84 inspections among the 80 places of refreshment. In addition, the Department of Agriculture, Dairy, and Food made 252 inspections during the same year in Olmsted County. Some of these inspections were made at the same establishments inspected by the Olmsted County Health Department and the Division of Hotel and Resort Inspection of the State Department of Health. Thus, some of these establishments are subject to inspection by three different agencies.

If local health units are to operate effectively, there is need for coordination between them and state agencies in the same field. In this one respect, at least, the district office of the State Health Department was not an effective coordinating agency because of duplication provided by law. However, the impact of duplication could have been lessened by administrative order to coordinate the inspections carried on by the Rochester-Olmsted County Health Department and the Division of Hotel and Resort Inspection of the State Health Department. Perhaps cooperative agreements could be worked out with the Department of Agriculture, Dairy, and Food.

THE ST. LOUIS COUNTY HEALTH UNIT

St. Louis County is the only county in the State which has created a county health department. However, it is not a true county

1. Minnesota Department of Health
2. Minnesota Department of Agriculture, Dairy and Food.

health department in that it does not provide county-wide coverage. It does not serve the City of Duluth, and is limited to the unorganized townships and those organized townships and municipalities which have requested the County Health Department to administer their health programs. It serves about one-fifth of the total population of the County or about 40,000 persons, a number which is reasonably near the 50,000 standard of the American Public Health Association - especially in view of the low density of population in rural St. Louis County.

Organization

The St. Louis County Health Department is organized under existing statutes providing for county boards of health, county health officers, and county nursing services. Thus, the St. Louis County Health Department has a formal organization much more precise than that of the Rochester-Olmsted County Health Unit. It is entirely a public organization - not a federation of public and private agencies. It is an integrated unit with centralized control over finances and personnel.

Financing

The St. Louis County Health Department is financed by appropriations from the Board of County Commissioners. The State Health Department supplements the County appropriations to the extent of paying for one full-time nurse, one half-time nurse, and one clerk. The total amount budgeted for the calendar year 1948 was $36,120, including state aid. This amounted to approximately $.90 per capita for the 40,000 persons served. However, county funds came from county-wide levies so that in a limited sense, four-fifths of the people in the county were subsidizing a service available to only one-fifth. The budget of the Health Department amounted to about $.18 per capita throughout the County. Inasmuch as county taxes are levied on property, and property is not uniformly distributed among the population, it follows that property taxes are not spread uniformly among the population and that per capita expenditures of property tax revenues are of use mainly in comparisons between different units of government. The cost per person served by the St. Louis County Health Department is $.90 as compared with $1.60 per person served by the Rochester-Olmsted County Health Unit, which has a broader program.

No financial contribution for the support of the Department is made by any of the townships or villages served by it, except through the general tax levy for the support of county affairs. Private contributions are neither provided for nor prohibited by law, and none have been made.

Staff

There are nine full-time and three part-time employees in the St. Louis County Health Department. At the head of the Department is a part-time health officer who is the director of activities and advisor to staff members and local health officers. There is a part-time public health engineer who carries on a general environmental sanitation program. Both the director and the engineer are on the staff of the state district office in Duluth, and the engineers' services are paid for entirely by the State. There are six public health nurses, one of whom is part-time only, who provide a generalized public health nursing program in St. Louis County under the immediate supervision of a public health nurse supervisor who also plans and directs programs and policies. In view of the fact that the St. Louis County Health Department's program consists mainly of public health nursing and that the health officer serves only part-time, the public health nurse supervisor is, in a sense, the administrator of the program. In addition, there are three clerical workers on the staff. The part-time staff members (the director, the engineer, and one nurse) are engaged full-time in public health activities although their services are divided between various agencies. Thus, these persons are not engaged in part-time public health work and part-time private practice, which is considered by some to be particularly undesirable. The present budget makes provision for the employment of physicians as needed to carry out the physical examinations and immunizations which are conducted annually by the Department.

The staff of the St. Louis County Health Department does not meet the minimal standards of the American Public Health Association for a unit serving a population of 50,000. The health officer is part-time rather than full-time as recommended. The engineer serves only part-time and there is no sanitarian as considered necessary. The nurses are three short of meeting the standard of one to every 5,000 population. However, the clerical workers more than meet the criterion of one for each 15,000 population.

Functions

Vital statistics are the joint responsibility of town and village clerks, city health officers, and the county clerk of court in St. Louis County as in other counties of the State. In addition, the Department collects and tabulates morbidity reports weekly from all of the County except Duluth and submits the information obtained to the State Department of Health.

Sanitation is the responsibility of the part-time public health engineer. No inspections are made of hotels, restaurants, and the like

by the Departmental staff. The engineer serves mainly in an advisory capacity to political subdivisions and to individuals in matters affecting water supplies, sewage disposal and the like. In the course of their duties, the public health nurses also promote sanitation.

Communicable and preventable disease control is carried on by the health officer and the nursing staff. The Department works in cooperation with Nopeming Sanatorium, the Tuberculosis and Health Association, and county schools in providing chest X-rays and Mantoux tests for tuberculosis. The nursing staff carries on a follow-up program for tuberculosis cases and contacts as well as for former sanatorium patients. Immunization clinics for diphtheria and smallpox are conducted for preschool and school children in rural St. Louis County. No clinic service is provided for venereal diseases which are followed by the Division of Preventable Diseases of the Minnesota Department of Health.

Laboratory services are not provided by the St. Louis County Health Department. However, they are available from the Duluth branch of the State Department of Health. St. Louis County and the City of Duluth each pay $60.00 per month toward the support of the laboratory. This sum is not included in the budget of $36,120.

Maternal and child health services are provided by the public health nurses. The St. Louis County Health Department does not stress this phase of its program to an extent that even approaches the wealth of child health services provided by the Rochester-Olmsted County Health Unit. However, it must be remembered that in the latter case, many of the services are privately financed.

Public health education is not a special phase of the St. Louis County Health Department's program although it is carried on incidental to the other work of the staff. In a real sense, public health education is the very foundation of a successful program.

Relation with Other Units of Government in St. Louis County

The St. Louis County Health Department does not serve the city of Duluth, and is limited to the unorganized townships and the organized townships and municipalities which have requested the County Health Department to administer their program.

The Department cooperates with all other health agencies - official and non-official - working within St. Louis County. Five villages with populations under 600 not having local health departments are served directly by the County Department. The county health officer and a supervising nurse give advisory service to public health personnel

in the range municipalities. The range towns and villages have part-time health officers, and four towns employ public health nurses. In the range municipalities, the school boards employ public health nurses, two of them employ physicians full-time and others employ physicians part-time. Nurses on the staff of the County Health Department conduct programs and give services to all rural schools in St. Louis County.

Relation to State Health District Number Four

St. Louis County is one of six counties in State Health District Number Four. Duluth is the headquarters of the District and is the operating base of the staff which is the same as that of other State Health Districts. However, the director and the engineer also serve the St. Louis County Health Department. The relation between the district staff and the County Health Department is similar to that in Olmsted County. The district staff serves mainly in an advisory and consultative capacity while the county staff provides direct services to the community.

Role of State Inspectors in St. Louis County

During the year of 1947, inspectors from the State Department of Health made 1,227 inspections among the 1,207 establishments listed for the County.[1] (See Appendix Tables K, L, and M.) The chief deficiency was in the inspection of resorts; only 51 inspections were made among the 200 resorts listed for the County. Inspectors from the State Department of Agriculture, Dairy and Food made 914 inspections in St. Louis County during the same period.[2] Since there is no sanitarian on the staff of the St. Louis County Health Department, and since the public health engineer by the very nature of his position does very little in the line of making inspections of sanitary conditions, it follows that rural St. Louis County relies mainly on state inspectors for checking on sanitary conditions in hotels, eating and drinking places, and food preparation and food handling establishments. The health department of the City of Duluth makes such inspections so that within the City there is both state and local supervision.

1. Minnesota Department of Health
2. Minnesota Department of Agriculture, Dairy, and Food

ELEMENTS OF FULL-TIME LOCAL HEALTH UNITS

FUNCTIONS OF LOCAL HEALTH UNITS

The American Public Health Association has outlined six basic functions of local health units: (1) vital statistics; (2) sanitation; (3) control of communicable and preventable diseases; (4) laboratory service; (5) protection of health in maternity, infancy and childhood; and (6) public health education. The scope and nature of these functions have been summarized by the Association as follows:

1. "Vital statistics: the collection, tabulation, analysis, interpretation and publication of reports of births, deaths and notifiable diseases.
2. "Sanitation: safeguarding all water supplies; securing the sanitary disposal of human and industrial wastes; supervision of the production and distribution of milk and milk products and of foodstuffs; supervision of housing; control over the environmental sanitation of recreation areas and other public properties; control of insects and vermin as they effect the public health; control over the environmental conditions of employment; and control over atmospheric pollution.
3. "Control of communicable and preventable diseases: provision for the reporting of cases, the isolation of patients, and immunization of susceptible persons; systematic effort to find cases of infection; and provision for diagnostic, consultative, and treatment facilities where necessary.
4. "Laboratory service: for the diagnosis of communicable diseases, for control of foods, and other features of general sanitation.
5. "Protection of health in maternity, infancy, and childhood: concern with the health status of the man and woman preparing for marriage, of the expectant mother, of the newborn, the infant, the preschool and school child; and supervision of the conditions of work and the fitness to work of young people.
6. "Public health education: to make health knowledge accessible to the average man in a form that he can understand through newspapers, magazines, books, pamphlets, lectures, personal and group demonstrations, pictures, and exhibitions, the film, and the radio."[1]

It is apparent that all these functions are provided completely in only a few localities in the State. Such units of government as a

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1. Harry S. Mustard, Government in Public Health, p. 128 ff.

township or village are not likely to have the resources to finance such a broad program, nor are they likely to have a sufficient population to justify employment of the various types of trained personnel necessary to conduct a comprehensive local public health program. Using the above enumerated six basic functions as points of reference, it is evident that rural areas in the state have inadequate public health services.

Some may feel that not all of these services are essential for a local public health program. That is a policy question which is beyond the scope of this report to answer. However, it may be stated that the six-point program outlined above represents the cyrstallized thinking of many persons intimately concerned with public health.

All of the six functions are carried on with varying degrees of effectiveness at present in Minnesota. Some are handled by the State, and others by the localities. There is much reliance on localities to carry out duties which to a large extent are actually not performed. Administrative integration is largely lacking in the local communities. The objective of the proponents of local health units is to integrate and effectively provide public health services in the local community.

STAFF OF A LOCAL HEALTH UNIT

Dr. Haven Emerson, Chairman of the Sub-committee on Local Health Units, Committee on Administrative Practice of the American Public Health Association, in 1945 outlined the staff requirements of a local health unit for carrying on the basic local health functions outlined above. In order to efficiently utilize trained personnel and in order to secure an adequate tax base for financing the services, it was felt by the APHA group that the minimum population served by a local health unit ought to be 50,000. Counties having less than the minimum population, it was felt, ought to combine with other counties in the interests of administrative efficiency and economy.

For a population unit of 50,000, the APHA group recommended a health department staff of 16 full-time employees as follows:

One medical officer of health
One sanitary or public health engineer
One non-professional sanitary assistant
Ten public health nurses, one of them of supervisory grade
Three office, secretarial or clerical personnel

For population units larger than 50,000 additional personnel in the same ratio would be needed, namely: medical officers - 1 to

50,000; sanitarians - 1 to 25,000; public health nurses - 1 to 5,000; and clerks - 1 to 15,000.[1]

A previous section of this report has listed the number of full-time city-county, county and multi-county health units throughout the nation. When appearing before the House Committee on Interstate and Foreign Commerce, hearings on bills to assist the states in the development and maintenance of local public health units, held April 8, 1948, Dr. Leonard A. Scheele, Surgeon General of the United States Public Health Service, stated, "Thus, there are about 54,000,000 people now living in areas which still have no full-time local health services. Furthermore, it should be noted that a large percentage of the local organizations which are now operating on a full-time basis require an expansion in staff and activities to assure meeting even minimum standards of operation."

In the smaller units, "It is expected that part-time medical services will be needed in most such units of population for diagnosis and control of tuberculosis and venereal diseases, and for prenatal, infant, preschool, and school health services. It is assumed that specialist or consultant and advisory services will be available to such a local health department from the state health department in statistical procedures, in public health engineering, in public health laboratory work, in epidemiology, for veterinary purposes, for dental health, for health education, and for other local health services."[2] In larger units some of the more specialized services could be economically undertaken by the local health unit.

ESTIMATED COST OF PROPOSED LOCAL HEALTH UNITS IN MINNESOTA

Dr. Haven Emerson in an address before the National Conference on Local Health Units held at Princeton University in September 1947, estimated that such units would require, "Tax support of at least $1.00 per capita for local health services and preferably $2.00. At least 50 per cent of tax support should be from local sources, grants of state funds to supplement local tax monies if necessary, and federal aid to be not more than 25 per cent of total cost and preferably to be devoted to additional or exceptional services rather than for basic health activities."[3]

In the hearings before the House Committee on Interstate and Foreign Commerce held April 8, 1948, on H. R. 5644 and H. R. 5678, bills

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1. Haven Emerson, Local Health Units for the Nation, p. 2 f.
2. Ibid., p. 3.
3. APHA Proceedings of the National Conference on Local Health Units, September 1947, p. 5.

to assist the states in the development and maintenance of local public health units, the United States Public Health Service and the Association of State and Territorial Health Officers estimated that local health units would cost about $1.50 per capita. H. R. 5644 was reported favorably to the House on June 12, 1948, but it was not passed by the House. Thus, there are still no federal grants-in-aid for local health units as such. Some local health units have been assisted by federal grants for venereal disease control, maternal and child health, public health education, and the like; but these are special program grants, not specifically intended to assist in the maintenance of full-time medically directed local health units.

The calendar year of 1945 is the latest year for which information about expenditures for health services by the political subdivisions of the State is available. Information regarding expenditures was obtained from reports of the Public Examiner and reflects expenditures for conservation of health by the State, counties, and municipalities over 2,500 population. The term "conservation of health" as defined in the Public Examiner's reports closely parallels the functions of a local health unit - expenses of sewage and waste removal are not included. Since expenditures for conservation of health were lumped together with costs of sanitation for municipalities under 2,500 population, the health conservation expenditures of these smaller municipalities are not included in the following analysis. It is reported by the supervisor of municipal reporting in the Public Examiner's Office, that generally these smaller villages spend only about $10 annually for health conservation purposes, so their exclusion from the subsequent analysis will not materially affect its validity. Expenditures by township health officers were also not available, but in general would also be of such small amount as not to be of much importance. Estimated population figures as of July 1, 1945, were obtained from the recent population study, Measuring Minnesota, issued by the Minnesota Department of Business Research and Development. The taxable value of real and personal property, the 1944 assessment on which taxes were payable in 1945, was also found in the Public Examiner's reports for 1945.

In 1945 all units of local government in Minnesota spent a total of $820,905 for health conservation, and this amounted to 31.3 cents per capita. In order to have spent $1.50 per capita for a total of $3,928,428 an additional $3,107,523 would have had to be spent - an additional $1.187 per capita. In order to finance such expenditures from property taxes, the chief revenue source of local governments, the increase would amount to 2.4 mills on the total taxable value of real and personal property of $1,304,899,706 assessed in 1944 for taxes payable in 1945. In order to raise $1.50 per capita on this valuation the mill rate would have to be 3.0 mills. However, property taxes for the

support of local governmental functions are not levied on a statewide basis. Appendix Table N shows the mill rate necessary for each county to finance a local health unit at $1.50 per capita for the 1945 estimated population, and, assuming that the tax is levied by the county and that every county would be in a unit of sufficient size to operate at a cost of $1.50 per capita.

The mill rate necessary for counties to raise $1.50 per capita in 1945 ranged from a low of 1.5 mills in Rock and St. Louis Counties to a high of 11 mills in Clearwater County - 50 counties were in the group which would have to levy from 2.0 to 3.9 mills. (See Appendix Table O). The variation in mill rates necessary to raise $1.50 per capita bears an inverse relation to per capita wealth in the counties.

The difference between the amount spent in 1945 by counties and municipalities over 2,500 population for health conservation and expenditures at the rate of $1.50 per capita would have required an additional levy ranging from a low of 0.7 mills in St. Louis County where $.786 was spent per capita in 1945 to a high of 10.9 mills in Clearwater County which spent 1.3 cents per capita for health conservation in 1945. Again 50 counties were in the range from 2.0 to 3.9 mills. (See Appendix Table P). The per capita expenditures for health conservation by the counties and the larger municipalities within them (over 2,500 population) ranged from a low of one-half cent per capita in Grant and Kanabec Counties to a high of $1.016 per capita in Cook County. Contributions from Federal and/or state grants-in-aid would reduce the necessary levies set forth above. In all probability, a program of aids to local health units would be necessary.

It must be remembered that these estimates are based on 1945 data - the latest available. While the estimates of per capita expenditures and mill rates necessary to finance them are not exact with respect to present conditions, they are indicative of what full-time local health units would cost the citizenry of the various counties in Minnesota. It is readily apparent that many counties would be unable to finance such programs even on the assumption that they join with other counties to form units of efficient size.

The recent session of Congress did not bring federal grants-in-aid for local health units. In the absence of federal action the question is raised whether the State can help the counties finance a program which would cost over three million dollars more than has been spent for health conservation in the past. With present rising costs and other demands upon government, it is doubtful that the State would be in a position to materially expand its already considerable expenditures for public health.

In 1945 the State expended $1,731,043 for conservation of health.[1] If the State would match county expenditures in financing a county unit health program (estimated expenditure $1.50 per capita) it would require approximately two million dollars annually - making a total of almost four million dollars for financing the state public health program and for grants to local health units.

1. Minnesota Public Examiner's Report for 1945.

NEED FOR FULL-TIME LOCAL HEALTH UNITS IN MINNESOTA

The need for full-time local health units in Minnesota is intimately linked with a basic policy consideration; namely, the proper scope of public health services. Policy questions are properly matters of legislative action. It is not the purpose of this report to favor any particular course of action, but rather to point to the various possibilities and their implications.

In an address before the National Conference on Local Health Units held at Princeton University, Princeton, New Jersey, September 8-10, 1947, Wilson G. Smillie, M. D., of the Department of Preventive Medicine and Public Health, Cornell University Medical College, defined public health as follows: ". . . What do we mean by public health? It is a term that has been variously interpreted and widely misused. Many health authorities believe that the responsibilities of government in public health affairs is (sic), basically, to protect the individuals in the community against the special hazards of communal life. This includes, of course, communicable disease control, environmental sanitation in all its aspects, housing, health education, recording and interpreting of vital data, etc. In contrast to this concept, there is the theory that the community has a direct responsibility for the promotion of health of each and every individual within its boundaries. Thus, all matters that relate to adequacy of medical care, such as hospital facilities, community-wide plans for prepayment of medical services, programs for periodic health examination of well children and also well adults, as well as many other accepted phases of preventive medicine, become a direct community responsibility.

"This concept implies that these facilities should be sponsored by, directed by, and, in part at least, paid for by local government. Between these two extremes, there is a great variety of opinion and shading of concept. In fact, many health activities are often initiated without a clear concept as to where the given practice fits into our governmental theory."[1]

It is apparent from the above that the need for full-time local health units is closely related to what is expected of a local health department. It follows that the existing local health agencies more nearly meet the criteria of health departments intended to treat the problems arising out of communal living, than they meet the criteria of health departments concerned with the health of every individual in the community.

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1. APHA, Proceedings of the National Conference on Local Health Units, September, 1947, p. 7.

Since the former is the traditional concept of the role of public health, it will be the standard applied to existing health services in the State. It, therefore, follows that if a policy of further health services is deemed advisable, existing services are likely to be found inadequate to the extent that policy goes beyond the desirability of meeting health problems arising out of communal living.

In the past, health activities designed to meet the problems arising from communal living have given rise to full-time public health programs in areas where population is concentrated. This explains the lag of rural areas behind the urban regions. It also contributes to the fact that in 1947, two-thirds of the nation's population was served by full-time local health units covering only 45 per cent of the counties.

Do present public health services carried on by state and local governments in Minnesota meet the health problems arising out of communal living? Neither an unqualified yes nor an unqualified no is the correct answer; the truth lies somewhere between these extremes.

TABLE III

THE TEN LEADING CAUSES OF DEATH, DEATH RATES PER 100,000 POPULATION AND PER CENT OF TOTAL DEATHS, MINNESOTA, 1947

Rank	Cause of Death	Number of Deaths	Death Rates*	Per Cent of Total Deaths
1	Heart Disease	8,972	309.7	31.6
2	Cancer	4,294	148.2	15.1
3	Cerebral hemorrhage, Cerebral embolism and thrombosis, Softening of the brain, Hemiplegia and other paralysis, cause unspecified (total)	2,975	102.7	10.5
	(a) Cerebral hemorrhage	(2,515)	(86.8)	(8.9)
	(b) Cerebral embolism and thrombosis	(379)	(13.7)	(1.4)
	(c) Softening of the brain	(32)	(1.1)	(0.1)
	(d) Hemiplegia and other paralysis, cause unspecified	(31)	(1.1)	(0.1)
4	External Causes (total)	2,330	80.4	8.2
	(a) Accidents	(1,974)	(68.1)	(7.0)
	(b) Suicide	(323)	(11.2)	(1.1)
	(c) Homicide	(33)	(1.1)	(0.1)
5	Pneumonia (all forms)	1,201	41.1	4.2
	(a) Broncho	(779)	(26.9)	(2.7)
	(b) Lobar	(308)	(10.6)	(1.1)
	(c) Pneumonia, unspecified	(114)	(3.9)	(0.4)
6	Diseases of the circulatory system other than diseases of the heart	923	31.9	3.3
7	Nephritis	894	30.9	3.1
8	Diabetes	809	27.9	2.9
9	Premature birth	804	27.8	2.8
10	Tuberculosis (all forms)	587	20.3	2.1
	(a) Pulmonary	(524)	(18.1)	(1.9)
	(b) Other forms	(63)	(2.2)	(0.2)
	All other causes	4,598	158.9	16.2
	Total Deaths (all causes exclusive of stillbirths)	28,387	980.1	100.0

* Rates based on population estimate of the Federal Census Bureau for the year 1947 - (2,897,000)

Source - Minn. Dept. of Health, Division of Vital Statistics, May 13, 1948.

A primary consideration is the fact that not all persons in the State are equally served by public health agencies either state or local. The rural population is generally less adequately served than the urban population. It is no doubt true that there are less problems arising from communal living in rural areas than in urban areas, but the rural population does have health problems which need attention. Moreover, since farms are the source of food products consumed in the cities, urban populations also have an interest in rural environmental sanitation.

In an attempt to measure the need for full-time local health units in Minnesota, the following analysis of pertinent vital statistics are presented.

As indicated in Table III, heart disease, cancer, intracranial lesions of vascular origin (cerebral hemorrhage, etc.), and external causes (accidents, homicide and suicide) were the four leading causes of death in Minnesota in 1947. None of these can properly be classified as health problems arising out of communal living, and would, therefore, be beyond the scope of the traditional public health service with the possible exception of an educational program. It is significant that of the ten leading causes of death in Minnesota in 1947, only two, pneumonia, which ranked fifth, and tuberculosis, which ranked tenth, were communicable diseases. These ten leading causes of death accounted for 83.8 per cent of all deaths in the State in 1947.

The latest year for which comparative data for other states is available is 1945. Table IV shows the ten leading causes of death in the nation for 1945 and compares Minnesota's death rate from those causes with that for the nation. Also the number of states which had lower death rates than Minnesota for these causes are indicated. It must be remembered that fluctuations from year to year in the incidence of death due to various causes make it hazardous to generalize from what happens in any one year. While a comparison based on one year may not be absolutely correct, it is sufficiently correct to be indicative in a general way of how Minnesota compares with other states. For the ten leading causes of death in the United States in 1945, Minnesota had a higher death rate for six and a lower death rate for four than did the country as a whole.

TABLE IV

COMPARISON OF MINNESOTA AND OTHER STATES WITH RESPECT TO THE TEN LEADING CAUSES OF DEATH IN THE UNITED STATES 1945

Cause	U.S. Rate*	Minn. Rate*	No. of States With Rate Lower than Minn.
1. Diseases of the heart	321.5	333.8	30
2. Cancer and other malignant tumors	134.5	155.9	38
3. Intracranial lesions of vascular origin	97.9	111.4	37
4. Nephritis	66.7	39.2	1
5. Pneumonia and influenza	51.8	54.6	29
6. Accidents, except motor vehicles	51.4	56.2	30
7. Tuberculosis	40.1	24.9	9
8. Diabetes mellitis	26.6	31.3	36
9. Premature birth	24.0	23.1	20
10. Motor vehicle accidents	21.3	19.2	18

* Rate per 100,000 Estimated Population

Note: The death rates from these causes in Minnesota does not follow the same rank order as in the United States.

Source: Federal Security Agency, U. S. Public Health Service, National Office of Vital Statistics - Special Reports, National Summaries, Deaths and Death Rates for Selected Causes United States, Each Division and State, 1945, Volume 27, Number 3, July 24, 1947, p. 31 ff.

In comparison with other states, Minnesota was in a relatively poor position on heart disease, cancer, intracranial lesions of vascular origin, pneumonia and influenza, accidents (except motor vehicle), and diabetes mellitis. The Minnesota death rates for nephritis, tuberculosis,

premature birth, and motor vehicle accidents were relatively low. Only two of these ten leading causes of death were communicable diseases and Minnesota was below the national rate for one (tuberculosis), and above it for the other (pneumonia).

Table V shows that the 1945 Minnesota death rates for polio, scarlet fever, goiter, and ulcers were relatively high. The State was in a relatively favorable position in comparison with other states on such diseases as typhoid, cerebrospinal meningitis, syphilis, dysentary, diarrhea, enteritis, measles, whooping cough, and acute rheumatic fever as well as for deaths due to alcoholism and diseases of pregnancy. Malaria, spread by a species of mosquito not common in Minnesota and pellegra, attributable to diet deficiencies, are not significant in Minnesota. In common with other states in this area, Minnesota is in what is popularly termed the "goiter belt".

TABLE V

COMPARISON OF DEATH RATES FROM SELECTED CAUSES IN MINNESOTA AND OTHER STATES 1945

	U. S. Rate*	Minn. Rate*	No. of States With Rate Lower than Minn.
A. COMMUNICABLE DISEASES:			
1. Poliomyletis and polio encephalitis	0.9	1.2	37
2. Scarlet fever	0.2	0.4	34
3. Acute rheumatic fever	1.0	1.1	22
4. Whooping cough	1.3	1.0	20
5. Measles	0.2	0.2	17
6. Diarrhea, enteritis	8.7	4.8	14
7. Diphtheria	1.2	0.8	14
8. Dysentary	1.2	0.3	13
9. Syphilis	10.7	6.9	9
10. Cerebrospinal meningitis	1.3	0.7	6
11. Typhoid and paratyphoid fever	0.4	0.0	0
12. Malaria	0.3	0.0	0
B. OTHER SELECTED CAUSES:			
1. Exophthalmic goiter	1.9	2.4	39
2. Ulcer of stomach or duodenum	6.8	7.0	30
3. Alcoholism	1.7	1.5	19
4. Diseases of pregnancy	4.3	3.0	8
5. Pellegra	0.7	0.0	0

* Rate per 100,000 Estimated Population
Source: Federal Security Agency - ibid.

In 1945, six states had lower infant and maternal mortality rates than Minnesota. Table VI shows that the Minnesota infant mortality rate of 31.1 deaths under one year of age per 1,000 live births was considerably lower than the national rate of 38.3. For the whole nation the rural rate of 39.1 was higher than the urban rate of 37.7, while in Minnesota the situation was reversed with the rural rate 27.1 and the urban rate 34.8. Minnesota with a higher infant mortality rate in urban areas than in rural areas follows the pattern of its neighboring states.

TABLE VI

INFANT MORTALITY RATES* BY URBAN AND RURAL AREAS
IN MINNESOTA AND OTHER STATES 1945

Area	Total	Urban	Rural
United States	38.3	37.7	39.1
Minnesota	31.1	34.8	27.1

Note: Six states had lower infant mortality rates than Minnesota in 1945.

* By place of residence - exclusive of stillbirths - deaths under 1 year per 1,000 live births.

Source: Federal Security Agency, U. S. Public Health Service, National Office of Vital Statistics, Vital Statistics - Special Reports, National Summaries, Infant Mortality by Race and by Urban and Rural Areas United States, Each Division and State, 1945, Volume 27, Number 4, August 19, 1947, p. 53.

Table VII reveals that the maternal mortality rate of 1.4 deaths per 1,000 live births in Minnesota is also considerably lower than the national rate of 2.1. For the United States the rural maternal mortality rate of 2.2 was higher than the urban rate of 2.0 and Minnesota followed the national pattern with a rural rate of 1.7 and an urban rate of 1.1. Thus, in Minnesota, chances of an infant's surviving the first year of life are greater in rural areas than in urban communities, and, on the other hand, the chances of a mother's surviving child-birth are slightly greater in urban than in rural areas of the State.

TABLE VII

MATERNAL MORTALITY RATES* BY URBAN AND RURAL AREAS IN MINNESOTA AND OTHER STATES 1945

Area	Total	Urban	Rural
United States	2.1	2.0	2.2
Minnesota	1.4	1.1	1.7

Note: Six states had lower maternal mortality rates than Minnesota in 1945.

* By place of residence - rates per 1,000 live births in the specified area.

Source: Federal Security Agency, U. S. Public Health Service, National Office of Vital Statistics, Vital Statistics - Special Reports, National Summaries, Maternal Mortality by Race, Age, and Urban and Rural Areas: United States Each Division and State, 1945, Volume 27, Number 13, February 2, 1948, p. 244.

In an attempt to arrive at a determination of whether or not additional local health services are needed in the State, the Department of Health was requested to supply information indicative of needs. No incontrovertible evidence was presented.

Various surveys covering only a part of the State at various times have indicated that by and large the water supplies and sewage disposal systems of rural schools do not meet the standards of the Department of Health. How great a problem this represents is not determinable.

It is apparent that rural areas of the State do not have the same level of public health services as the urban areas. Since many public health problems arise from concentrations of population, perhaps rural areas do not need as extensive public health programs as cities. The most valid conclusion to be drawn from available evidence is that the whole State could benefit from an expanded public health program. Whether or not such expansion is needed is closely linked with policy considerations of the role of a public health service in a community.

Public health has been described as a purchasable commodity by some writers. However, the economic law of diminishing returns is applicable so that as more and more is spent, the results tend to diminish until a point is reached where no amount of money can alter the situation. Furthermore, there are limitations on scientific knowledge - the modern medicine man doesn't know all the answers. However, available evidence indicates that Minnesota can still benefit from an expansion of public health services, although it is a policy question of whether this expansion should be at the state or local level. Relative to the larger cities, rural areas and small municipalities are deficient in respect to local health services which might be provided with beneficial results by some level of government or private agency.

POSSIBLE SHAPE OF ENABLING LEGISLATION

In another section of this report, available evidence indicated that although Minnesota is relatively well off in relation to other states, it could benefit from an extension of public health services. Evidence also indicated that coordination and integration of public health services at all levels of government would be highly desirable.

The bills considered at the last legislature provided that any county or two or more adjacent counties, by voluntary action could establish and maintain a health department headed by a full-time medical officer of health. Such health departments could be created through resolution of the county board or boards concerned or by vote of the people in the county or counties. Cities of the first and second classes located within counties electing to establish such health departments would not be within the jurisdiction of the department unless the city governing body should by ordinance subject to referendum take action to be included. Existing powers of local health departments were to be transferred to departments created under the new law, with the exception that vital statistics were still to be collected by town clerks and city registrars. Thus, these bills did not provide for all of the six fundamental functions as outlined by Haven Emerson.

Rather detailed provisions regarding selections and tenure of boards of health, rule-making powers, powers of recommendation, budgeting, personnel, and financing were also included in the bills. It is noteworthy that there were no limits on the taxes to be levied to support these health departments; such taxes were to be "A separate levy over and above the limits now imposed for the general fund of the county." It is customary for the legislature to place limits on taxing powers of local governmental units.

Thus, the bills before the Legislature at its last session would enable counties to establish full-time county, city-county, or multi-county health departments. Provisions were made for accepting financial assistance from the state and federal governments as well as from private contributions.

The above points are the major provisions of the bill considered at the last legislature. Enabling legislation to provide better local health services need not necessarily take this precise form.

If a policy of extending health services in the rural areas through enabling legislation as considered at the last session is decided upon, based on evidence in other states, it is doubtful that

health services would be expanded, consolidated, or coordinated to any great extent in the near future. Experience in the 16 states including Minnesota which have the township-county form of local government indicates that relatively few counties take advantage of such enabling legislation to create full-time local health units. As pointed out previously, only 166 counties out of the 1,240, or 13 per cent, had created full-time local health units pursuant to such legislation. These 166 counties were 17 per cent of the 966 counties in the 12 states with enabling laws. Thus, 83 per cent of the counties which could have taken advantage of enabling legislation had not seen fit to do so. Establishment of full-time local health units in these states is entirely voluntary and must be voted for by the people or their duly elected representatives.

As has been pointed out in another section of this report, the increased taxes, based on a recommended expenditure of $1.50 per capita and units of 50,000 population, would be extremely expensive and practically prohibitive to many counties. In addition, getting counties to act together to form units of 50,000 population would hinder development of local health units in rural areas. Counties by tradition extending back to the time of their formation consider themselves as separate entities and are inexperienced in working together. Rivalry for location of the district health unit headquarters could preclude the formation of such units. In fact rivalries between cities of the same county are often very pronounced. It will be recalled that at the 1947 session of the legislature a certain area and city of one county wanted to be annexed to another county as a result of establishment of a county hospital at the county seat.

In sparsely settled rural areas, the combination of counties to achieve units of 50,000 population may result in areas so large that travel and per diem expenses of staff members bringing the services to the people may take a substantial part of the revenue available for local health services. There are only four counties in Minnesota with a population over 50,000. On the other hand, there are 16 with a population less than 10,000; 37 with a population of 10,000 to 19,999; 22 with a population of 20,000 to 29,999; 6 with a population of 30,000 to 39,999; and 2 with a population of 40,000 to 49,999. It is evident that areas would have to be great in order to achieve the recommended economical unit of 50,000 population.

Another form which enabling legislation might take would be a simple transfer of health functions from townships and municipalities to the county with appropriate provisions for financing whatever program is considered necessary. Since townships generally have small populations and limited resources, it would appear to be illogical to attemp to build up their role in a public health program. Municipalities

are important in any public health program, but they do not meet the needs of people in rural areas. Therefore, it remains that either the State or the counties are the only units of government within the State which can provide complete geographical coverage.

Local public health services could also be expanded by the State Health Department's embarking upon a comprehensive direct service program. However, with State action also goes centralized control.

Still another approach could be the expansion of the supervisory and advisory functions of the district offices of the Minnesota Health Department coupled with an expansion of the direct service program of the county nurses. It may also be desirable to expand such semi-direct service programs of the district offices as provided by the sanitary engineer. This joint approach would perhaps give the most comprehensive local health services throughout the State in a short time.

Available evidence indicates that the people of Minnesota would benefit from more and better public health services. However, two policy questions remain to be answered: first, will the benefits match the costs? and second, if it is accepted that benefits will justify the costs, where shall the expansion occur?

STATISTICAL APPENDIX

TABLE A

THE INCIDENCE OF ENABLING LEGISLATION FOR FORMATION OF COUNTY, CITY-COUNTY, AND MULTI-COUNTY HEALTH UNITS

STATE	ENABLING LEGISLATION PASSED	NUMBER OF COUNTIES ACTING UNDER SUCH LAW	COUNTIES IN STATE	TOWNSHIPS IN STATE
Alabama	1919	67	67	--
Arizona	1947	3	14	--
Arkansas	None	--	75	--
California	1917, Amended 1947	1	58	--
Colorado	1947	18	63	--
Connecticut[1]	1947	None	8	154
Delaware	None	--	3	--
Florida	1931	62	67	--
Georgia	1914	82	159	--
Idaho	1947	15	44	--
Illinois	1943	22	102	1,434
Indiana	1935 and 1947	4	92	1,010
Iowa	None	--	99	1,608
Kansas	1943	15	105	1,524
Kentucky	1918	104	120	--
Louisiana	1921 as Amended	57	64	--
Maine[2]	1919	None	16	482
Maryland[3]	1922	23	23	--
Massachusetts[4]	1927*	--	14	312
Michigan	1927	71	83	1,265
Minnesota	None	--	87	1,884
Mississippi	1924	67	82	--
Missouri[5]	1946	2	114	329
Montana	1945	5	56	--
Nebraska	1943	7	93	476
Nevada	1931*	1*	17	--
New Hampshire[6]	No	--	10	223
New Jersey[7]	No	--	21	235
New Mexico[8]	1919 and 1935	31	31	--
New York[9]	1921 For County Units	12	62	932

STATE	ENABLING LEGISLATION PASSED	NUMBER OF COUNTIES ACTING UNDER SUCH LAW	COUNTIES IN STATE	TOWNSHIPS IN STATE
North Carolina	1935	96	100	--
North Dakota[10]	1943	14	53	1,399
Ohio	1920	7	88	1,339
Oklahoma	1941*	39*	77	--
Oregon	1948	7	36	--
Pennsylvania[11]	None	--	67	1,575
Rhode Island[12]	None	--	0	32
South Carolina	1938	46	46	--
South Dakota[13]	1939 For County Units	2	64	1,128
Tennessee	Yes*	74*	95	--
Texas[14]	None	--	254	--
Utah	1945	1	29	--
Vermont[15]	None	--	14	239
Virginia	1924	68	100	--
Washington	1945	9	39	68
West Virginia	1945	1	55	--
Wisconsin	1947	1	71	1,271
Wyoming	None	--	23	--
TOTAL	37 Yes	1,034	3,060	18,919

*As of 1942, From Haven Emerson's Local Health Units For The Nation (these states did not return questionnaire)
Sources - Questionnaire sent to State Health Departments.
Number of counties and townships - William Anderson, The Units of Government in the United States, (City-county units are counted as counties).

1. Multi-town depts. to be formed - counties not important. 2. Multi-town districts to be formed - counties not important. 3. Mandatory Law. 4. Multi-town units to be formed* - counties not important. 5. 7 counties to vote on units in 1948. 6. 1 district office supported by state - counties not important. 7. Bill in legislature 3/48. 8. 31 counties in 10 districts - Mandatory Law. 9. One county in process. 10. Organized in 3 depts. 11. Field offices of State Health Dept. 12. 4 district health depts. in state - counties not organized. 13. There were 9 county units in the past. 14. 1 city-county unit at El Paso and 46 multi-county units - therefore 47 plus. 15. Counties not important.

TABLE B

NUMBER OF FULL-TIME LOCAL HEALTH UNITS COUNTIES AND PER CENT OF POPULATION SERVED EACH STATE, 1922, 1942, 1947)

STATE	Total Counties	Local Full Time Health Units		Counties Served		Per Cent of Population Served		
		1942	1947	1942	1947	1922	1942	1947
TOTAL	3,070	1,084	1,172	1,220-	1,372-	35.6	62.2	66.6
Alabama	67	61	67	67	67	46.7	100.0	100.0
Arizona	14	6	5	6	5	--	68.3	66.4
Arkansas	75	62	26	30	65	7.0	87.2	90.8
California	58	38	40	27-	31-	43.5	87.2	91.6
Colorado	63	3	7	3	8-	27.3	12.6	51.4
Connecticut	8	12	13	5-	5-	40.0	51.0	52.4
Delaware	3	3	4	3-	3	49.4	57.8	100.0
Florida	67	31	33	36-	53	17.8	71.6	88.4
Georgia	159	47	49	59	87	30.6	62.8	84.7
Idaho	44	5	5	10	14	18.3	42.6	46.7
Illinois	102	11	22	8-	17	47.1	57.0	63.9
Indiana	92	1	3	1-	3-	11.7	11.3	16.8
Iowa	99	---	2	---	2	10.8	--	2.2
Kansas	105	17	16	19-	15	22.6	38.0	39.5
Kentucky	120	66	58	98	102	20.4	89.9	91.7
Louisiana	64	49	54	55	57	15.9	93.9	96.7
Maine	16	8	6	5-	4-	23.1	31.8	21.3
Maryland	23	24	24	23	23	56.8	100.0	100.0
Massachusetts	14	14	56	9-	11-	51.6	43.9	68.3
Michigan	83	55	56	69-	72-	42.2	79.5	89.6
Minnesota	87	4	4	4-	4-	26.4	32.5	32.5
Mississippi	82	56	57	65	66	17.5	84.1	85.0
Missouri	114	17	18	14	16-	35.7	39.3	48.1
Montana	56	5	5	5	5	20.2	21.7	22.4
Nebraska	93	7	5	15-	7-	4.2	33.5	32.6

	Total Counties	Local Full Time Health Units		Counties Served		Per Cent of Population Served		
		1942	1947	1942	1947	1922	1942	1947
Nevada	17	1	1	1	1	--	14.9	14.9
New Hampshire	10	4	10	4-	6-	31.8	34.7	44.5
New Jersey	21	42	53	15-	14-	41.6	49.2	50.8
New Mexico	31	10	10	31	31	33.3	100.0	100.0
New York	62	22	22	22-	24-	63.2	76.5	78.7
North Carolina	100	61	68	85	95	47.3	92.9	97.6
North Dakota	53	2	4	2-	14-	1.6	10.1	23.5
Ohio	88	51	72	56-	61-	62.2	68.1	74.1
Oklahoma	77	28	28	39-	39-	5.6	60.2	67.4
Oregon	36	19	20	18	25	33.0	86.6	91.5
Pennsylvania	67	22	15	29-	24-	39.4	49.4	43.6
Rhode Island	5	4	5	3-	3-	44.3	54.5	68.1
South Carolina	46	33	35	46	46	24.4	100.0	100.0
South Dakota	69	1	2	1	2	8.6	3.7	12.3
Tennessee	95	49	39	69	54	10.0	86.1	79.1
Texas	254	43	48	64	56-	10.4	54.9	53.9
Utah	29	1	1	1	1	9.7	2.9	2.9
Vermont	14	--	--	--	--	--	--	--
Virginia	100	33	43	49	59	36.1	45.8	78.6
Washington	39	17	21	19	24	45.8	80.0	84.3
West Virginia	55	20	24	17-	38-	13.4	57.7	75.1
Wisconsin	72	17	14	12-	12-	29.4	40.4	37.4
Wyoming	23	1	1	1	1	18.2	13.4	13.4

Note: Minus sign indicates that some of the counties lack complete population coverage.

Source: American Public Health Association, Proceedings of the National Conference on State and Local Health Units, September 1947, Facing p. 1.

TABLE C

THE INCIDENCE OF ENABLING LEGISLATION FOR FORMATION OF COUNTY, CITY-COUNTY, AND MULTI-COUNTY HEALTH DEPARTMENTS IN STATES IN WHICH THE TOWN IS THE IMPORTANT UNIT OF LOCAL GOV'T. (AS OF MARCH, 1948)

STATE	ENABLING LEGISLATION, WHEN PASSED	NO. OF COUNTIES TAKING ADVANTAGE OF LEGISLATION	NO. OF COUNTIES IN STATE	NO. OF TOWNS IN STATE
1. Connecticut	1947	None	8	154
2. Maine	1919	None	16	482
3. Massachusetts	1927*	None	14	312
4. New Hampshire	No Legislation	--	10	223
5. Rhode Island	No Legislation	--	0	32
6. Vermont	No Legislation	--	14	239
Total	3 Yes	0	62	1,442

* As of 1942

Source - Table A

TABLE D

THE INCIDENCE OF ENABLING LEGISLATION FOR FORMATION OF COUNTY, CITY-COUNTY, AND MULTI-COUNTY HEALTH DEPARTMENTS IN STATES IN WHICH THE COUNTY IS THE IMPORTANT UNIT OF LOCAL GOVERNMENT. (AS OF MARCH, 1948)

STATE	ENABLING LEGISLATION, WHEN PASSED	NO. OF COUNTIES TAKING ADVANTAGE OF LEGISLATION	NO. OF COUNTIES IN STATE	NO. OF TOWNS IN STATE
Alabama	1919	67	67	--
Arizona	January 1947	3	14	--
Arkansas	No Legislation	--	75	--
California	1917 As Amended	1	58	--
Colorado	March 1947	18	63	--
Delaware	No Legislation	--	3	--
Florida	1931	62	67	--
Georgia	1914	82	159	--
Idaho	1947	15	44	--
Kentucky	1918	104	120	--
Louisiana	1921 As Amended	57	64	--
Maryland	1922	23	23	--
Mississippi	1924	67	92	--
Montana	1945	5	56	--
Nevada	1931*	1*	17	--
New Mexico	1919 County 1935 District	31	31	--
North Carolina	1935	96	100	--
Oklahoma	1941*	39*	77	--
Oregon	1948	7	36	--
South Carolina	1938	46	46	--
Tennessee	Yes*	74	95	--
Texas	No Legislation	--	254	--
Utah	1945	1	29	--
Virginia	1924	68	100	--
West Virginia	1945	1	55	--
Wyoming	No Legislation	--	23	--
Total	22 Yes	868	1,758	--

* As of 1942

Source - Table A

TABLE E

THE INCIDENCE OF ENABLING LEGISLATION FOR FORMATION OF COUNTY, CITY-COUNTY, AND MULTI-COUNTY HEALTH DEPARTMENTS IN STATES IN WHICH BOTH THE COUNTY AND TOWNSHIP ARE IMPORTANT UNITS OF LOCAL GOVERNMENT (AS OF MARCH, 1948)

STATE	ENABLING LEGISLATION, WHEN PASSED	NO. OF COUNTIES TAKING ADVANTAGE OF LEGISLATION	NO. OF COUNTIES IN STATE	NO. OF TOWNS IN STATE
Illinois	July, 1943	22	102	1,434
Indiana	1935 & 1947	4	92	1,010
Iowa	No Legislation	---	99	1,608
Kansas	1943	15	105	1,524
Michigan	1927	71	83	1,265
Minnesota	No Legislation	---	87	1,884
Missouri	1946	2	114	329
Nebraska	1943	7	93	476
New Jersey	No Legislation	---	21	235
New York	1921 (County Units)	12	62	932
North Dakota	1943	14	53	1,399
Ohio	1920	7	88	1,339
Pennsylvania	No Legislation	---	67	1,575
South Dakota	1939 (County Units)	2	64	1,128
Washington	1945	9	39	68
Wisconsin	1947	1	71	1,271
Total	12 Yes	166	1,240	17,477

Note: "In Illinois, Missouri, Nebraska, and Washington, township organization is optional with the counties. As a result, 85 counties of 102 in Illinois, 24 of 114 in Missouri, 27 of 93 in Nebraska, and only 2 of 39 in Washington have organized townships."[1]

Source - Table A

1. William Anderson, The Units of Government in the United States, p. 33.

TABLE F

COUNTY NURSES IN MINNESOTA AS OF JUNE 30, 1948

	County Nurse Program	County Nurses		
		Positions	Employed	Vacancies
Aitkin	Yes	1	0	1
Anoka	Yes	2	2	0
Becker	No	--	--	--
Beltrami	Yes	1	1	0
Benton	No	--	--	--
Big Stone	No	--	--	--
Blue Earth	Yes	2	2	0
Brown	Yes	1	1	0
Carlton	Yes	2	2	0
Carver	No	--	--	--
Cass	Yes	1	1	0
Chippewa	No	--	--	--
Chisago	Yes	1	1	0
Clay	No	--	--	--
Clearwater	No	--	--	--
Cook	Yes	1	1	0
Cottonwood	Yes	1	1	0
Crow Wing	Yes	1	1	0
Dakota	Yes	3	2	1
Dodge	Yes	1	1	0
Douglas	No	--	--	--
Faribault	Yes	1	1	0
Fillmore	Yes	2	2	0
Freeborn	Yes	2	1	1
Goodhue	Yes	1	1	0
Grant	No	--	--	--
Hennepin	Yes	8	8	0
Houston	Yes	1	1	0
Hubbard	Yes	1	1	0
Isanti	Yes	1	1	0
Itasca	Yes	2	2	0
Jackson	Yes	2	1	1
Kanabec	No	--	--	--
Kandiyohi	Yes	1	1	0
Kittson	Yes	1	0	1
Koochiching	Yes	1	1	0
Lac Qui Parle	No	--	--	--
Lake	Yes	1	0	1
Lake-Woods	No	--	--	--
Le Sueur	Yes	1	1	0

(continued next page)

TABLE F (continued)

	County Nurse Program	County Nurses		
		Positions	Employed	Vacancies
Lincoln	No	--	--	--
Lyon	No	--	--	--
McLeod	Yes	2	2	0
Mahnomen	No	--	--	--
Marshall	Yes	1	1	0
Martin	Yes	2	2	0
Meeker	Yes	1	1	0
Mille Lacs	Yes	1	1	0
Morrison	Yes	1	1	0
Mower	Yes	2	2	0
Murray	No	--	--	--
Nicollet	Yes	1	1	0
Nobles	Yes	2	1	1
Norman	Yes	1	0	1
Olmstead	Yes	4	4	0
Otter Tail	Yes	1	1	0
Pennington	Yes	1	0	1
Pine	Yes	1	1	0
Pipestone	Yes	1	1	0
Polk	Yes	1	1	0
Pope	Yes	1	0	1
Ramsey	Yes	3	2	1
Red Lake	Yes	1	0	1
Redwood	No	--	--	--
Renville	No	--	--	--
Rice	Yes	1	1	0
Rock	No	--	--	0
Roseau	Yes	1	0	1
St. Louis	Yes	5	5	0
Scott	No	--	--	--
Sherburne	Yes	1	1	0
Sibley	Yes	1	1	0
Stearns	No	--	--	--
Steele	Yes	1	0	1
Stevens	Yes	1	0	1
Swift	Yes	1	0	1
Todd	Yes	1	1	0
Traverse	No	--	--	--
Wabasha	Yes	1	0	1
Wadena	Yes	1	1	0

(continued next page)

TABLE F (continued)

	County Nurse Program	County Nurses		
		Positions	Employed	Vacancies
Waseca	Yes	1	0	1
Washington	Yes	1	1	0
Watonwan	Yes	1	1	0
Wilkin	Yes	1	1	0
Winona	Yes	1	1	0
Wright	No	--	--	--
Yellow Medicine	Yes	1	0	1
Total	64 Yes 23 No	93	74	19

Source - Minnesota Department of Health

TABLE G

COUNTY NURSING SERVICES ESTABLISHED SINCE PASSAGE OF BILL TO PROVIDE STATE AID - CHAPTER 54, LAWS 1947 - AS OF JUNE 4, 1948

The following list giving name of service, date appropriation was made, and the date on which service was started, constitute the number of counties that have actually organized a nursing service because of supplemental assistance through state aid.

Service	Appropriation Made	Service Started
1. *Brown County	7/46	9/47
2. Cass County	4/47	9/47
3. *Chisago County	6/46	7/47
4. *Cottonwood County	6/46	9/47
5. Lake County	5/48	7/48
6. Marshall County	4/47	4/48
7. Ottertail County	4/47	1/48
8. Stevens County	11/47	7/48
9. Waseca County	4/47	9/47
10. Steele County	4/47	(No nurse as yet.)
11. Wabasha County	1/47	" " " "
12. Yellow Medicine County	6/47	" " " "

The three starred counties Brown, Chisago, Cottonwood first considered making appropriation for a nursing service in 1946. However, the appropriation was made dependent on supplemental aid. Note that these three counties did not actually start their services until 1947.

The following established county nursing services have through assistance from state aid increased their nursing service by adding an additional nurse.

1. Anoka County	1/48	9. Freeborn Co.	(2nd nurse vacancy)
2. Blue Earth Co.	6/48	10. Jackson Co.	" " "
3. Dakota Co.	5/47	11. Nobles Co.	" " "
4. Hennepin Co.	4/48		
5. McLeod Co.	6/47		
6. Martin Co.	10/47		
7. Mower Co.	6/47		
8. Ramsey Co.	7/47		

The following counties have active committees working with the respective county boards of commissioners regarding making county appropriation to establish a nursing service for the county.

Becker	Clearwater	Murray
Benton	Grant	Rock
Carver	Lyon	Wright

Source - Minnesota Department of Health

TABLE H

COUNTY AID GRANTS TO COUNTY NURSING PROGRAMS 1946 - 47

COUNTIES	CANCER	MCH*	T.B.
Anoka	200.00	600.00	
Beltrami			266.67
Blue Earth	200.00		
Carlton	200.00		600.00
Cook	200.00		1,300.00
Crow Wing	200.00		
Dakota	200.00	900.00	
Dodge	200.00	300.00	
Faribault	200.00		
Fillmore		100.00	
Freeborn	200.00		
Hennepin	200.00		
Houston	60.00	500.00	
Hubbard			733.33
Isanti	200.00	512.50	
Itasca	200.00		600.00
Kittson		500.00	
Koochiching	200.00		508.70
Le Sueur	167.80	200.00	
Martin	200.00		
Meeker	200.00		
Mille Lacs		371.11	
Morrison	200.00	500.00	
Mower	200.00		
Nicollet	200.00		366.67
Nobles		169.57	
Olmsted	200.00		
Pipestone	63.78	300.00	
Polk	200.00		
Ramsey	200.00		
Rice	200.00	400.00	
Sherburne	200.00	600.00	
Todd	200.00		
Wadena	200.00		
Washington	200.00	400.00	
Wilkin	100.00	450.00	
Winona	200.00		
TOTALS	5,991.58	7,003.18	4,375.37

Total Cancer Aid 5,991.58

Total County Nursing Aid $11,378.55

* MCH - Maternal and Child Health

Source - Minnesota Department of Health

TABLE I

PUBLIC HEALTH NURSES IN MINNESOTA AS OF APRIL 1, 1948

There are 72 nurses doing generalized public health nursing in 50 counties.

County	72	
USIS & State Health Dept.	4	
Sanatoria Field (1 Part-time)	6	
City & School	15	
School, Teachers College	94	
City and Private Agencies	11	202
Special Capacity		32
Minneapolis Public Health Nurses		
City Health Department	44	
Community Health Service	36	
Board of Education	53	133
St. Paul Public Health Nurses		
City Health Department	20	
Family Nursing Service	33	
Board of Education	27	
Wilder Clinic	1	81
Duluth Public Health Nurses		
City Health Department	7	
Board of Education	8	
Other	4	19
TOTAL		467
Industrial Nurses:		
Minneapolis	71	
St. Paul	55	
Duluth	6	
Rural	27	159
TOTAL (Incl. Industrial)		626

Source - Minnesota Department of Health

TABLE J

OPERATION EXPENDITURES OF ROCHESTER-OLMSTED COUNTY HEALTH UNIT FOR 1947

(Does not include collection of garbage)

	Totals	Board of Health and Welfare	Board of Education	State Board of Health	Univ. of Minn.	Olmsted County	Mayo Clinic	W. K. Kellogg
Salaries	73,181.99	33,512.81	8,360.46	7,209.66		5,338.39	1,674.18	17,086.49
Travel	2,804.12	722.20	14.92	410.48		672.35		984.17
Office Equipment and Expense	2,734.21	2,169.95	47.10			83.20		433.96
Clinic Equipment and Expense	1,339.78	1,261.68	78.10					
Laboratory Equipment and Supplies	478.74	478.74						
Isolation Hospital	138.76	138.76						
Student Fees	1,424.75				1,424.75			
Miscellaneous and Printing	546.40	334.37						212.03
Totals	82,648.75	38,618.51	8,500.58	7,620.14	1,424.75	6,093.94	1,674.18	18,716.65

The totals do not include any estimate of the invaluable services of many physicians and others employed by the Rochester Child Health Institute, given to the public health program free of charge by the Mayo Clinic and Mayo Association.

Source -- Rochester-Olmsted County Health Unit

TABLE K

SUMMARY OF LICENSED ESTABLISHMENTS AND NUMBER OF INSPECTIONS MADE BY
MINNESOTA DEPARTMENT OF HEALTH
DIVISION OF HOTEL AND RESORT INSPECTION

COUNTY	HOTELS		RESTAURANTS		PLACE OF REFRESHMENT		LODGING AND BOARDING HOUSES		RESORTS, CABINS & TOURIST ROOMS		TOTALS	
	No.of Est.	No.of Insp.	No.of Est.	No.of Insp.	No.of Est.	No.of Insp.	No.of Est.*	No.of Insp.	No.of Est.*	No.of Insp.	No.of Est.	No.of Insp.
Aitkin	10	29	29	18	45	61	3	0	176	152	263	260
Anoka	5	5	30	60	36	43	2	0	14	9	87	117
Becker	12	21	40	60	58	56	6	7	95	76	211	220
Beltrami	22	13	38	34	5	48	5	3	132	88	202	186
Benton	1	1	14	34	47	65	1	1	1	1	64	102
Big Stone	4	4	24	18	27	27	1	2	8	2	64	53
Blue Earth	6	4	61	79	102	66	8	7	6	0	183	156
Brown	13	9	34	39	82	94	2	2	5	4	136	148
Carlton	17	8	32	51	64	129	9	11	9	1	131	200
Carver	4	5	25	18	59	70	1	1	4	2	93	96
Cass	19	5	100	23	57	26	2	2	230	248	408	304
Chippewa	14	3	28	30	26	27	3	2	1	1	72	63
Chisago	7	6	32	42	40	25	9	1	25	22	113	96
Clay	17	6	56	64	52	46	3	4	0	6	128	126
Clearwater	4	7	16	17	38	33	0	0	7	3	65	60
Cook	5	19	10	36	108	75	3	8	15	120	141	258
Cottonwood	6	4	17	21	19	29	4	1	2	2	48	57
Crow Wing	20	32	65	71	80	140	16	50	410	289	591	582
Dakota	18	13	88	62	90	91	9	10	6	4	211	180
Dodge	4	5	18	16	20	21	0	0	0	0	42	42
Douglas	8	19	39	46	46	41	11	8	92	80	196	194
Faribault	11	16	45	80	54	100	5	1	3	5	118	202
Fillmore	19	12	49	41	45	56	5	1	2	4	120	114
Freeborn	8	6	54	74	69	67	0	1	1	0	132	148
Goodhue	2	16	60	35	65	94	7	3	6	8	140	156

COUNTY	HOTELS		RESTAURANTS		PLACE OF REFRESHMENT		LODGING AND BOARDING HOUSES		RESORTS, CABINS & TOURIST ROOMS		TOTALS	
	No. of Est.	No. of Insp.	No. of Est.	No. of Insp.	No. of Est.	No. of Insp.	No. of Est.	No. of Insp.	No. of Est.	No. of Insp.	No. of Est.	No. of Insp.
Grant	5	3	21	22	15	10	1	3	2	4	44	42
Hennepin	265	22	670	132	522	88	88	10	40	11	1585	263
Houston	11	5	23	12	31	37	2	2	1	2	68	58
Hubbard	15	6	27	43	48	43	1	2	148	154	239	248
Isanti	2	2	16	18	17	14	1	0	5	2	41	36
Itasca	22	13	52	48	83	122	9	6	217	30	383	219
Jackson	8	4	26	18	40	33	2	1	1	5	77	61
Kanabec	4	3	12	11	18	21	0	0	11	8	45	43
Kandiyohi	19	18	55	48	27	35	7	4	50	43	158	148
Kittson	7	6	24	17	9	14	1	2	0	0	41	39
Koochiching	20	3	43	9	56	14	5	0	98	15	222	41
Lac Qui Parle	4	5	29	32	31	26	0	0	1	0	65	63
Lake	8	1	84	20	24	34	5	2	28	29	149	86
Lake of Woods	2	1	7	7	10	10	2	2	19	6	40	26
Le Sueur	5	7	35	52	65	135	10	10	13	6	128	210
Lincoln	3	5	17	19	20	15	4	2	4	7	48	48
Lyon	8	7	51	45	55	56	7	4	2	1	123	113
McLeod	10	6	28	55	42	30	1	1	1	1	82	93
Mahnomen	3	1	10	14	17	16	0	0	18	15	48	46
*Marshall	6	10	28	0	21	0	4	0	0	0	59	10
Martin	11	10	47	40	51	59	2	2	3	4	114	105
Meeker	4	4	30	35	35	25	0	0	19	10	88	74
Mille Lacs	11	5	38	42	31	24	7	3	59	74	146	148
Morrison	9	7	53	36	62	79	1	0	27	1	152	123
Mower	15	21	56	90	68	142	16	6	0	18	155	277

* No inspections in 1947.

COUNTY	HOTELS		RESTAURANTS		PLACE OF REFRESHMENT		LODGING AND BOARDING HOUSES		RESORTS, CABINS & TOURIST ROOMS		TOTALS	
	No.of Est.	No.of Insp.	No.of Est.	No.of Insp.	No.of Est.	No.of Insp.	No.of Est.	No.of Insp.	No.of Est.	No.of Insp.	No.of Est.	No.of Insp.
Murray	3	4	18	29	36	51	2	2	2	2	61	88
Nicollet	4	2	18	14	28	30	1	1	2	2	53	49
Nobles	6	6	22	26	42	50	7	3	0	3	77	88
Norman	6	1	30	43	20	9	2	1	0	0	58	54
Olmsted	145	31	73	107	80	84	133	260	11	0	442	482
Otter Tail	18	20	77	276	63	100	5	9	134	125	297	530
Pennington	8	5	19	24	28	12	1	1	0	1	56	43
Pine	9	6	32	44	45	44	2	2	20	26	108	122
Pipestone	6	4	29	3	38	31	2	1	4	3	79	42
Polk	17	15	73	52	108	84	6	6	10	3	214	160
Pope	2	8	11	25	12	18	0	0	16	21	41	70
Ramsey	67	29	614	171	442	213	87	20	5	12	1215	445
Red Lake	4	3	8	15	25	16	1	0	0	0	38	34
Red Wood	6	0	40	3	63	14	2	0	2	0	113	17
Renville	9	11	50	57	55	56	11	3	11	2	136	129
Rice	7	8	38	34	63	65	6	4	14	10	128	121
Rock	5	3	15	21	32	24	2	2	2	0	56	50
Roseau	4	6	19	9	24	26	1	1	0	0	48	42
St. Louis	137	128	293	358	488	540	89	73	200	128	1207	1227
Scott	2	3	36	30	70	75	1	2	9	4	118	114
Sherburne	7	6	17	44	20	26	4	0	9	13	57	89
Sibley	4	8	26	47	38	71	3	6	0	1	71	133
Stearns	26	35	108	243	185	281	4	4	80	60	403	623
Steele	7	15	30	55	54	54	8	0	1	1	100	125
Stevens	3	2	24	18	17	21	0	0	1	1	45	42
Swift	6	6	25	36	13	23	1	0	3	0	50	65
Todd	4	6	33	31	50	53	1	0	17	19	105	109
Traverse	4	3	14	16	20	15	1	1	1	0	40	35
Wabasha	9	5	29	26	70	74	9	3	15	18	132	126
Wadena	8	9	34	45	28	31	1	4	10	8	81	97

COUNTY	HOTELS		RESTAURANTS		PLACE OF REFRESHMENT		LODGING AND BOARDING HOUSES		RESORTS, CABINS & TOURIST ROOMS		TOTALS	
	No. of Est.	No. of Insp.	No. of Est.	No. of Insp.	No. of Est.	No. of Insp.	No. of Est.	No. of Insp.	No. of Est.	No. of Insp.	No. of Est.	No. of Insp.
Waseca	3	2	23	23	49	47	2	1	1	1	78	74
Washington	7	8	21	41	75	76	3	5	14	19	120	149
Watonwan	3	3	23	24	30	34	3	1	1	2	60	64
Wilkin	3	9	25	56	33	51	4	3	1	3	66	122
Winona	27	16	59	40	119	130	5	6	7	15	217	207
Wright	7	5	52	64	65	65	5	2	54	50	183	186
Yellow Medicine	11	7	31	38	43	41	1	2	1	1	87	89
Grand Total	1337	881	4575	4120	5405	5237	707	617	2675	2127	14699	12982

* In most cases the number of cabins and tourist rooms is not included in the number of establishments.

Source: Minnesota Department of Health

TABLE L

SUMMARY OF SANITARY INSPECTIONS
BY
STATE OF MINNESOTA
DEPARTMENT OF AGRICULTURE, DAIRY AND FOOD

JANUARY 1, 1947 - DECEMBER 31, 1947

COUNTY	NO. OF INSPECTIONS	COUNTY	NO. OF INSPECTIONS
Aitkin	256	Koochiching	104
Anoka	61	Lac Qui Parle	171
Becker	266	Lake	43
Beltrami	179	Lake of the Woods	26
Benton	182	Le Sueur	116
Big Stone	126	Lincoln	62
Blue Earth	331	Lyon	130
Brown	199	McLeod	175
Carlton	162	Mahnomen	65
Carver	230	Marshall	50
Cass	306	Martin	183
Chippewa	227	Meeker	249
Chisago	161	Mille Lacs	131
Clay	371	Morrison	347
Clearwater	87	Mower	141
Cook	49	Murray	71
Cottonwood	52	Nicollet	173
Crow Wing	845	Nobles	75
Dakota	64	Norman	168
Dodge	98	Olmsted	252
Douglas	196	Otter Tail	454
Faribault	159	Pennington	44
Fillmore	125	Pine	206
Freeborn	314	Pipestone	61
Goodhue	211	Polk	155
Grant	118	Pope	106
Hennepin	3415	Ramsey	2609
Houston	62	Red Lake	29
Hubbard	162	Redwood	43
Isanti	100	Renville	113
Itasca	501	Rice	81
Jackson	53	Rock	65
Kanabec	61	Roseau	35
Kandiyohi	279	St. Louis	914
Kittson	14	Scott	62

TABLE L (Cont.)

COUNTY	NO. OF INSPECTIONS	COUNTY	NO. OF INSPECTIONS
Sherburne	82	Waseca	188
Sibley	75	Washington	56
Stearns	746	Watonwan	101
Steele	261	Wilkin	109
Stevens	95	Winona	184
Swift	202	Wright	289
Todd	459	Yellow Medicine	160
Traverse	98		
Wabasha	49		
Wadena	261		

TOTAL INSPECTIONS MADE - 21,146

Source - Minnesota Department of Agriculture, Dairy and Food

TABLE M

COMPARISON OF STATE INSPECTIONS MADE IN COUNTIES WITH LOCAL HEALTH SERVICES WITH THOSE MADE IN NEIGHBORING COUNTIES

	HEALTH			AGRICULTURE
COUNTY	EST.	INSP.	%*	INSP.
OLMSTED	442	482	109.0	252
Mower	155	277	178.7	141
Dodge	42	42	100.0	98
Goodhue	140	156	111.4	211
Wabasha	132	126	95.5	49
Winona	217	207	95.4	184
Fillmore	120	114	95.0	125
ST. LOUIS	1207	1227	101.7	914
Aitkin	263	260	98.9	256
Itasca	383	219	57.2	501
Koochiching	222	41	18.5	104
Lake	149	86	57.7	43
Carlton	131	200	152.6	162

* The number of establishments and the number of inspections are totals for all categories such as restaurants, hotels, resorts, etc. Therefore 100% coverage in the table may not necessarily mean 100% inspection of all categories.

Source - Tables K and L

TABLE N

ESTIMATED COST OF FULL-TIME LOCAL HEALTH UNITS IN MINNESOTA BY COUNTIES

COUNTY	ESTIMATED POPULATION 1945	1945 EXPENDITURES FOR HEALTH CONSERVATION AMOUNT	1945 EXPENDITURES FOR HEALTH CONSERVATION PER CAPITA	COST OF LOCAL HEALTH UNIT AT $1.50 PER CAPITA	ADDITIONAL AMOUNT NEEDED TO REACH $1.50 PER CAPITA AMOUNT	ADDITIONAL AMOUNT NEEDED TO REACH $1.50 PER CAPITA PER CAPITA	TAXABLE VALUE OF REAL AND PERSONAL PROPERTY 1944 ASSESSMENT	INCREASE IN MILL RATE (IN MILLS)	MILL RATE TO RAISE $1.50 PER CAPITA
Total For State And Local Expenditures	2,618,952	$2,551,948	$ .974						
Total For All Local Units of Government	2,618,952	820,905	.313	$3,928,428	$3,107,523	$1.187	$1,304,899,706	2.4	3.0
Aitkin	12,951	480	.037	19,427	18,947	1.463	1,802,128	10.5	10.8
Anoka	25,822	2,594	.100	38,733	36,139	1.400	5,826,838	6.2	6.6
Becker	22,242	975	.044	33,363	32,388	1.456	6,349,710	5.1	5.3
Beltrami	21,590	3,675	.170	32,385	28,710	1.330	3,570,324	8.0	9.1
Benton	14,804	182	.012	22,206	22,024	1.488	4,439,752	5.0	5.0
Big Stone	8,893	146	.016	13,340	13,194	1.484	5,048,877	2.6	2.6
Blue Earth	32,612	7,803	.239	48,918	41,115	1.261	20,072,310	2.0	2.4
Brown	23,955	1,586	.066	35,933	34,347	1.434	13,397,893	2.6	2.7
Carlton	21,377	8,163	.382	32,066	23,903	1.118	7,027,475	3.4	4.6
Carver	15,971	156	.010	23,957	23,801	1.490	8,716,898	2.7	2.7
Cass	15,693	248	.016	23,540	23,292	1.484	2,372,760	9.8	9.9
Chippewa	14,198	349	.025	21,297	20,948	1.475	7,733,329	2.7	2.7
Chisago	11,507	126	.011	17,261	17,135	1.489	4,298,928	4.0	4.0
Clay	23,292	2,351	.101	34,938	32,587	1.399	10,020,728	3.3	3.5
Clearwater	9,125	123	.013	13,688	13,565	1.487	1,244,738	10.9	11.0
Cook	2,506	2,546	1.016	3,759	1,213	.484	627,972	1.9	6.0
Cottonwood	13,421	355	.026	20,132	19,777	1.474	9,685,151	2.0	2.1
Crow Wing	27,022	8,325	.308	40,533	32,208	1.192	8,447,930	3.8	4.8
Dakota	43,330	6,460	.149	64,995	58,535	1.351	17,295,405	3.4	3.8
Dodge	11,343	1,988	.175	17,015	15,027	1.325	7,153,708	2.1	2.4
Douglas	19,165	746	.039	28,748	28,002	1.461	6,954,121	4.0	4.1
Faribault	22,874	615	.027	34,311	33,696	1.473	13,774,187	2.4	2.5
Fillmore	23,235	2,612	.112	34,853	32,241	1.388	12,217,301	2.6	2.9
Freeborn	31,420	10,007	.318	47,130	37,123	1.182	15,268,393	2.4	3.1
Goodhue	29,263	8,707	.298	43,895	35,188	1.202	16,181,979	2.2	2.7
Grant	8,840	46	.005	13,260	13,214	1.495	4,723,571	2.8	2.8
Hennepin	580,253	315,612	.544	870,380	554,768	.956	264,498,687	2.1	3.3
Houston	13,243	1,516	.114	19,865	18,349	1.386	5,098,184	3.6	3.9
Hubbard	9,299	2,998	.322	13,949	10,951	1.178	1,754,786	6.2	7.9
Isanti	11,064	2,837	.256	16,596	13,759	1.244	3,177,096	4.3	5.2
Itasca	28,980	7,665	.264	43,470	35,805	1.236	17,303,238	2.1	2.5
Jackson	14,911	3,293	.221	22,367	19,074	1.279	12,089,624	1.6	1.9
Kanabec	8,731	48	.005	13,097	13,049	1.495	1,874,749	7.0	7.0
Kandiyohi	25,346	3,400	.134	38,019	34,619	1.366	12,270,621	2.8	3.1
Kittson	9,283	130	.014	13,925	13,795	1.486	4,460,964	3.1	3.1
Koochiching	14,693	2,453	.167	22,040	19,587	1.333	3,443,857	5.7	6.4
Lac Qui Parle	13,543	125	.009	20,315	20,190	1.491	10,223,180	2.0	2.0
Lake	6,730	1,046	.155	10,095	9,049	1.345	1,572,147	5.8	6.4
Lake of the Woods	4,172	54	.013	6,258	6,204	1.487	616,006	10.1	10.2
Le Sueur	17,702	115	.006	26,553	26,438	1.494	9,326,406	2.8	2.8

(continued next page)

TABLE N (continued)

COUNTY	ESTIMATED POPULATION 1945	1945 EXPENDITURES FOR HEALTH CONSERVATION AMOUNT	PER CAPITA	COST OF LOCAL HEALTH UNIT AT $1.50 PER CAPITA	ADDITIONAL AMOUNT NEEDED TO REACH $1.50 PER CAPITA AMOUNT	PER CAPITA	TAXABLE VALUE OF REAL AND PERSONAL PROPERTY 1944 ASSESSMENT	INCREASE IN MILL RATE (IN MILLS)	MILL RATE TO RAISE $1.50 PER CAPITA
Lincoln	9,477	157	.017	14,216	14,059	1.483	5,949,619	2.4	2.4
Lyon	19,404	2,101	.108	29,106	27,005	1.392	11,986,838	2.3	2.4
McLeod	20,108	2,518	.125	30,162	27,644	1.375	11,286,558	2.4	2.7
Mahnomen	6,489	93	.014	9,734	9,641	1.486	1,232,040	7.8	7.9
Marshall	15,783	210	.013	23,675	23,465	1.487	5,085,943	4.6	4.7
Martin	22,487	7,399	.329	33,731	26,332	1.171	16,064,893	1.6	2.1
Meeker	18,111	2,498	.138	27,167	24,669	1.362	9,546,855	2.6	2.8
Mille Lacs	13,543	128	.009	20,315	20,187	1.491	3,105,333	6.5	6.5
Morrison	23,942	1,412	.059	35,913	34,501	1.441	7,056,903	4.9	5.1
Mower	37,435	9,677	.258	56,153	46,476	1.242	18,179,307	2.6	3.1
Murray	12,962	137	.011	19,443	19,306	1.489	10,256,156	1.9	1.9
Nicollet	16,713	2,248	.135	25,070	22,822	1.365	7,753,077	2.9	3.2
Nobles	20,107	1,572	.078	30,161	28,589	1.422	14,104,046	2.0	2.1
Norman	11,506	1,422	.124	17,259	15,837	1.376	5,174,252	3.1	3.3
Olmsted	39,109	34,605	.885	58,664	24,059	.615	22,548,590	1.1	2.6
Otter Tail	44,959	3,084	.069	67,439	64,355	1.431	14,147,190	4.5	4.8
Pennington	10,953	1,334	.122	16,430	15,096	1.378	3,626,821	4.2	4.5
Pine	17,549	165	.009	26,324	26,159	1.491	3,384,711	7.7	7.8
Pipestone	13,608	2,014	.148	20,412	18,398	1.352	7,744,291	2.4	2.6
Polk	32,271	5,501	.170	48,407	42,906	1.330	13,319,022	3.2	3.6
Pope	11,945	1,285	.108	17,918	16,633	1.392	6,291,642	2.6	2.8
Ramsey	307,283	138,375	.450	460,925	322,550	1.050	144,944,024	2.2	3.2
Red Lake	6,401	37	.006	9,602	9,565	1.494	1,997,404	4.8	4.8
Redwood	20,868	660	.032	31,302	30,642	1.468	13,810,015	2.2	2.3
Renville	22,144	141	.006	33,216	33,075	1.494	14,881,997	2.2	2.2
Rice	29,652	2,693	.091	44,478	41,785	1.409	12,404,693	3.4	3.6
Rock	9,388	130	.014	14,082	13,952	1.486	9,331,668	1.5	1.5
Roseau	13,413	790	.059	20,120	19,330	1.441	2,447,341	7.9	8.2
St. Louis	187,540	147,377	.786	281,310	133,933	.714	192,803,503	0.7	1.5
Scott	15,646	165	.011	23,469	23,304	1.489	6,221,599	3.7	3.8
Sherburne	8,453	82	.010	12,680	12,598	1.490	2,625,282	4.8	4.8
Sibley	12,254	1,364	.111	18,381	17,017	1.389	11,030,487	1.5	1.7
Stearns	61,483	10,261	.167	92,225	81,964	1.333	19,681,299	4.2	4.7
Steele	18,972	1,347	.071	28,458	27,111	1.429	9,834,253	2.8	2.9
Stevens	10,708	325	.030	16,062	15,737	1.470	5,848,679	2.7	2.7
Swift	14,183	2,264	.160	21,275	19,011	1.340	6,603,473	2.9	3.2
Todd	22,746	2,089	.092	34,119	32,030	1.408	7,168,434	4.5	4.8
Traverse	7,128	81	.011	10,692	10,611	1.489	5,033,097	2.1	2.1
Wabasha	15,598	243	.016	23,397	23,154	1.484	7,921,744	2.9	3.0
Wadena	11,701	3,305	.282	17,552	14,247	1.218	2,611,748	5.5	6.7
Waseca	13,310	735	.055	19,965	19,230	1.445	8,452,887	2.3	2.4
Washington	27,438	820	.030	41,157	40,337	1.470	8,610,123	4.7	4.8
Watonwan	12,851	3,160	.246	19,277	16,117	1.254	7,707,081	2.1	2.5
Wilkin	9,521	349	.037	14,282	13,933	1.463	5,871,813	2.4	2.4
Winona	34,109	15,295	.448	51,164	35,869	1.052	16,653,862	2.2	3.1
Wright	25,304	218	.009	37,956	37,738	1.491	10,188,340	3.7	3.7
Yellow Medicine	15,755	176	.011	23,633	23,457	1.489	10,408,824	2.3	2.3

Sources - Population Data - Minnesota Department of Business Research and Development, Measuring Minnesota, March 1948, p. 26 f.
State and Local Expenditures and Taxable Value of Property - Reports of Minnesota Public Examiner for 1945.

TABLE O

ESTIMATED MILL RATE NECESSARY TO RAISE
$1.50 PER CAPITA

Mill Rate	Counties
0 - 1.9	5
2 - 3.9	50
4 - 5.9	16
6 - 7.9	10
8 - 9.9	3
10 -11.9	3
Total	87

Source - Table N

TABLE P

ESTIMATED INCREASE IN MILL RATE NECESSARY TO FINANCE FULL-TIME LOCAL HEALTH UNITS IN MINNESOTA COUNTIES

Mill Rate	Counties
0 - 1.9	8
2 - 3.9	50
4 - 5.9	17
6 - 7.9	7
8 - 9.9	2
10 -11.9	3
Total	87

Source Table N