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# Health Evaluation of School Personnel

Robert H. Fielder

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HEALTH EVALUATION  
OF  
SCHOOL PERSONNEL

A Thesis

Submitted to the Graduate Faculty  
of the  
University of North Dakota

by

Robert H. Fielder

In Partial Fulfillment  
of the Requirements for the Degree  
Master of Science in Education

July, 1953



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This thesis, submitted by Robert H. Fielder, in partial fulfillment of the requirements for the degree of Master of Science in Education in the University of North Dakota, is hereby approved by the committee of instruction under whom the work has been done.

L. B. Marti

Chairman

C. B. Jordan

Raymond B. Harris

Daryle E. Keifer  
Dean of the Graduate School



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The author dedicates this study to his wife, Shirley, whose patience, love, and deep understanding are a constant source of inspiration.



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## CHAPTER I

### INTRODUCTION

Health has long been considered one of the cardinal objectives of education. The teacher plays an important role in the education of children with reference to health. He must not only have a knowledge of health, and its relationship to life processes, but must be an example of mental and physical well-being. He is responsible for the formal teaching of health and, greater than that, he is responsible for the healthful environment of the school. His teaching will be arid indeed if he is unable to pass a health evaluation by the pupils whom he faces each day.

Good health, mental and physical, is a prerequisite for efficient and wholesome teaching. In their hourly and daily contacts teachers probably, more than any other professional individuals, are the cynosure of many critical eyes. Their appearances, mannerisms, defects of speech, and emotional impacts on pupils can and do leave lasting impressions.

Teaching at any level, from kindergarten through high school, requires considerable expenditure of energy. Constant association in the classroom with robust, active children for many hours each day as well as supervision of various physical activities on the playgrounds may be fairly strenuous for many individuals. One must consider the ability of the teacher to respond to such physical stress.



An individual whose health prevents a reasonably good attendance at school or who is suffering from a communicable disease such as tuberculosis certainly should not be employed as a teacher. An individual whose hearing or visual defects impede efficient teaching should not be placed in a classroom. One must remember that children are not only quick to detect such impairments but can devise means of adding to the nervous strain of such a teacher.

On the other hand, it is possible that discrimination may be made, to a minor degree, in health standards for elementary and secondary teachers. For instance, a lisp, or other speech defect, a tic, or a limping gait which would likely be imitated by a first-grader will probably be ignored by a high-school student. The reaction of children to physical defects such as artificial limbs, artificial eyes or extensive visible scars is difficult to evaluate.

The emotional climate of a classroom should promote serenity of mind. Any observations of knowledge in regard to personality defects or emotional disabilities must be carefully evaluated.

In all fairness to the prospective teacher and especially to the pupils and school administration certain standards of physical and mental health should be considered.



The health of the teacher is far more than an individual problem, affecting the success and happiness of the person concerned. It is a matter of first importance to the general public because of its direct and indirect influences on the health of children.

#### Purposes of the Study

Health is essential to efficiency of the highest attainable level in almost any line of work. It is peculiarly important for teachers, not only because of the strenuous demands of the classroom on their strength and energies but also because teacher health is the cornerstone of any school that is run efficiently.

This study will analyze the health problems of teachers and will combine constructive and practical suggestions concerning promotion of teacher health.

Briefly stated the specific purposes of this study are:

1. To deal with the broad problems of teacher health by inquiring into the present health status of teachers.
2. To determine the nature and frequency of common health disorders.
3. To determine the personal health practices of teachers.
4. To determine out of school living conditions related to health.



5. To determine the health requirements for certification in the various states.
6. To stimulate interest in studying the health problems of teachers.
7. To determine various ways that administrative practices can favorably influence the health of teachers.
8. To spur individual teachers and administrators to take increased interest in their own health and that of fellow teachers.

#### Sources of Materials

The data for this study was obtained from the following sources:

1. Questionnaires<sup>1</sup> were submitted to teachers and administrators attending summer school at the University of North Dakota in June of 1953. These questionnaires were submitted to the student directly through the class room and returned immediately. Instructions and explanations were given to the student previous to the submittal. There were 150 questionnaires submitted, 130 returned, representing a return of 86.6 per cent.

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1. See Appendix A



2. Individual letters<sup>2</sup> were sent to the education departments of each state to determine health qualifications for certification. There were 48 returns received representing a return of 100 per cent.
3. Books, pamphlets and periodicals related to this field of study were consulted.

#### Limitations

Authoritative information on teacher health is scarce. Obtaining adequate and exact information with respect to teacher health is difficult. "There is a broad general agreement as to the administrative practices that affect the health of school personnel but there is little educational literature of statutory guidance in this area".<sup>3</sup>

This study has a number of limitations. The people who were surveyed were chiefly teachers and administrators who attended the summer session at the University of North Dakota during 1953. The results obtained are not a true indication of the over-all picture of teacher health but represent a small cross-section of teacher health conditions in North Dakota and neighboring states.

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2. See Appendix B

3. American Association of School Administrators  
Health in Schools p 45.



Using a questionnaire as a method of research has its handicaps. The respondents sometimes answer questions haphazardly and often the questions are misinterpreted, incomplete and completely omitted. However, despite its shortcomings, the questionnaire method of research seems to be the most practical means of obtaining information of this type.

#### Review of Similar Studies

Little had been done, prior to the twentieth century, by school authorities in the United States to gather information concerning the health status of teachers and to determine what conditions of the school are injurious to their health.

William H. Burnham recognized the need for such information and in 1904 completed what was probably the first study attempted in the United States on the influence of the school environment on the health of the teacher.

Burnham, by a questionnaire study, attempted to discover certain relationships of American schools to teacher health. His conclusions, as stated by Kerr<sup>4</sup>, were based upon the replies of 500 teachers to this question: "What conditions in the schoolhouse or its surroundings and in school instruction have you found injurious to your health?" The returns from the

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4. Kerr, James, The Fundamentals of School Health New York: The Macmillan Company, 1928, p. 649



teachers indicated that 37 per cent thought they had damaged health. Of these, 10.8 per cent attributed it to poor ventilation; 9.6 per cent to bad lighting; 7.4 per cent to nervous strain; and 4.0 per cent to long periods of standing.

Burnham further concluded that the school environmental conditions which were considered injurious to the teacher's health, by their own judgment, were as follows: an excessive number of pupils per teacher; too many teaching periods per day; too many problem children who were either intellectually abnormal or severe discipline cases; lack of tenure security; and the fear of dismissal. Among the teachers, Burnham found that nervous disorders and neurasthenia ranked highest on the list of teacher health disorders with respiratory infections next.

Studies on teacher health had been made in Europe prior to the first American investigations. A summary of some of those studies were made by Terman and Almack<sup>5</sup> in their discussion of the health of teachers.

A study in Leipsig, Germany,<sup>6</sup> in 1895 recorded that 42.8 per cent of the teachers in that city were suffering from definite diseases, notably those of the lungs, heart, throat and nervous system disorders.

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5. Terman, Louis M., and Almack, John C., The Hygiene of the School Child, Boston: Houghton Mifflin Co., 1929, pp. 437-56.

6. Ibid., pp. 437-38.



Carup and Gollmer,<sup>7</sup> in Germany, had conducted an earlier investigation and had discovered data similar to that found in Leipsig. In addition they noted that a more unfavorable health status was evident in rural teachers, manifested by larger classes, heavier duties, and poorer hygienic conditions.

Steenhoff,<sup>8</sup> in 1911, investigated the disorders of elementary and infant school teachers of Sweden. He found, in order of frequency, nervous troubles, respiratory diseases, gastro-intestinal ailments, and anemia. He indicated that 2.5 per cent of the teachers of Sweden were suffering from neurasthenia and that 50 per cent of the absences lasting more than two years were caused by nervous disorders. Steenhoff attributed the teacher morbidity in Sweden to the following causes: Poor physical endowment; overstrain during the training period; bad hygienic conditions of schools; insufficient salaries, and the indifference of teachers to the requirements of personal hygiene. The investigations of tuberculosis among teachers in Switzerland, Netherlands, and Saxony in 1895, and in France in 1906 and in the Province of Toronto indicated that teachers were excessively subject to that disease.<sup>9</sup>

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7. Ibid., p. 438.

8. Ibid., pp. 438-39.

9. Ibid., p. 439.



Louis I. Dublin,<sup>10</sup> of the Metropolitan Life Insurance Company, made his well-known study of New York City teachers in 1916. This report grew out of the effort of the Brooklyn Teachers Association Committee on School Problems to analyze the problem of teacher physical disability. There were 3,877 cases of illness considered in relation to the 20,421 teachers on the active list. There were 18.7 teachers per thousand, or 18.7 per cent, reported sick during that school year. The rates of illness varied with sex. For the men, there were 88.5 cases of physical disability per thousand employed during the school year. The corresponding rate for women teachers was 201.5 per thousand. In relation, the average duration was 1.34 days per male teacher and, for women, 3.11 days per teacher or more than twice the average period of disability among females as among males.

Dublin reported that the sickness rate among school teachers increased steadily with age. This was so, irrespective of sex.

This study called particular attention to its data showing that teachers had a low rate of tuberculosis. This was in contrast to the early literature that had prevailed and had shown teachers to have had a high proportionate mortality rate from pulmonary tuberculosis.

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10. Dublin, Louis, "Physical Disability of New York City School Teachers, School and Society, Vol. 5, (October 7, 14, 1916), pp. 654-69, 602-7.



Research on the health of teachers was continued by Carrothers<sup>11</sup> who made an important, thorough study in 1924. The investigation analyzed the data on those factors which determine the physical efficiency of teachers. The importance of those factors was considered in the light of their influence on the personality and teaching ability of classroom teachers. This study attempted to show whether or not large classes, extra clothing, close confinement in elementary schools, and related factors were causes of illness on the part of teachers. The data was gathered from the school records of Cleveland from 1917-1922 and from the school records of Springfield, Massachusetts, covering the period 1922-23.

On the basis of his findings, Carrothers recommended certain aids in order to improve the health of teachers in the schools. He listed among these: a thorough physical examination before admittance to normal school; school physicians and school nurses be made available for service to teachers as doctors and nurses are being provided in industry; that teachers absent over ten days be re-examined before returning to work; and that reasonable compensation be paid to teachers during their illness, regardless of extent.

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11. Carrothers, George E., The Physical Efficiency of Teachers, Contributions to Education, No. 155. New York: Bureau of Publications, Teachers College, Columbia University, 1924.



Rogers,<sup>12</sup> in 1926, compared teacher absences of a number of school systems with absences from illnesses of workers in other indoor occupations. He found that the average absences of white teachers in the nine cities from which figures were available were 3.36 days. Men were absent 1.5 days a year and women 3.49 days. Persons in other indoor occupations, for a period comparable to the usual number of days in the school year, were absent on an average of 3.39 days for men and 8.4 days for women.

Rogers found that nervous disorders were more prevalent among teachers and that the strain involved in teaching resulted in a great deal of teacher illness. Worry and lack of adjustment were also causes of teacher ill-health.

In 1938 the National Education Association, Department of Classroom Teachers, Research Division, published a booklet entitled "Fit to Teach".<sup>13</sup> Among the 5,150 teachers represented in this health inquiry were 4,300 women and 850 men. They ranged in age from less than 20 to more than 60 years; the average age being 38.8 years. The group was almost equally divided as to kindergarten and elementary teachers on the one hand and junior high and senior high school teachers on the other.

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12. Rogers, James F., The Welfare of the Teacher, United States Department of the Interior, Office of Education, Bulletin, 1934, No. 4. Washington: Government Printing Office, 1934.

13. National Education Association, Fit to Teach, Ninth Yearbook, 1938.



Only 1 per cent of the group had less than a year of professional training beyond the high school; nearly half had more than 4 years of advanced study. The average length of teaching experience reported was 16.4 years and 10.6 years at the present grade level. Only 9 per cent of those reporting had taught fewer than 5 years. Three-fourths of the women teachers and a little less than one-fifth of the men were single; 17.4 per cent of the women and 78.9 per cent of the men were married. Average annual incomes were \$1756 for women teachers; \$2078 for the men. All major geographic regions in the United States were represented, the smallest sampling coming from the South Central states with 146 replies and the largest from the North Central states with 1800.

Generalizing, as a whole, one would come to the conclusion that at least one-fourth of the teachers surveyed enjoyed excellent health. More significant than this, however, is the fact that, according to all those reporting, about 15 to 20 per cent of the teachers lack the kind of vigorous health necessary for regular and effective classroom work.

Perfect attendance records were slightly more numerous among teachers beyond 30 years of age than among those under 30. Analysis by grade level revealed a larger proportion of high school teachers than of kindergarten and elementary teachers with perfect attendance. Rather pronounced differences were



found between the absence records of married and single teachers. The records of married men and single women were noticeably better than those of single men and married women.

As a means of discovering the types of illness against which teachers should be on guard, teachers were asked to indicate the disease or disorders which, during the preceding five years, had made it necessary for them to seek a physicians care. Of the 5100 teachers participating, 3096, or about 60 per cent, had been treated for one or more diseases during the five year period. The top ten diseases listed in order of frequency are: grippe, operations, laryngitis, low blood pressure, tonsillitis, menstrual disorders, anemia, bronchitis, skin infection and rheumatism.

Among the 5,150 teachers reporting, 226 or approximately 4 per cent, had been refused life insurance because of some health defect.

Another more recent study of teacher health was completed in 1951 by F.G. Rhodes, submitted as a Doctor's Thesis at Stanford University, entitled "Health Problems of Classroom Teachers".<sup>14</sup>

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14. Rhodes, F.G., Health Problems of Classroom Teachers, Unpublished Doctor's Thesis, Department of Education, Stanford University, 1951.



Rhodes submitted a questionnaire to 700 teachers enrolled in the summer sessions of Stanford University and San Jose State College in order to discover their condition of health, its relationship to enjoyment of teaching, the factors in school environment considered detrimental to health by the teachers themselves and the relationship of those factors to enjoyment of teaching.

There were 430 usable replies, 221 from men and 209 from women. The average age of the group was about 36 years; the men averaged about 33 years of age and the women slightly over 40. Of the men, 183 were married and 38 were single; of the women, 72 were married and 137 were single. The men had about two years of training beyond graduation from college and the women less than two years. The men earned an average of \$3711.38 a year and the women \$3405.17.

Over 89 per cent of the men and 77 per cent of the women rated their health as "good" or "excellent". There was some increase in the proportion of those in poorer health in older age groups, but the replies showed little change between the ages of 30 and 60 years. Almost 26 per cent of the unmarried women teachers rated their health as "poor" or "fair". Those with more college training enjoyed more abundant health than those with less, and the teachers in secondary schools were slightly more likely to rate their health as "good" or "excellent" than those in elementary schools.



The 430 teachers reported a total of 2121 health disorders. Those that ranked the highest in order of frequency of mention were: colds, sore throat, headache, nervousness, backache, more tired in the morning than at night, difficulty in sleeping, constipation, eye trouble and skin eruptions.

The teachers reported a total of 232 disorders serious enough to require a doctor's care during the five years preceding the study. The leading disorder was anemia, followed by hay fever, skin disorders, and allergies. Only 3 teachers reported tuberculosis and 2 reported cancer, but with no recurrence of symptoms after surgery. "Excellent" health ratings were associated with higher than average salaries and job protection. Those who had "excellent" health earned an average of \$3,813 a year, while those who reported "poor health" earned an average of \$3304 a year. Of the teachers in "excellent" health, 53 per cent enjoyed the protection of tenure; fewer of those in "good" and "fair" health had such protection; but of those in "poor" health only 14 per cent had tenure protection. Higher than average salaries and job protection were associated with enjoyment of teaching.

The schools did little to protect the health of teachers. Forty per cent of the teachers who reported said that they had not had a health examination before taking their present positions; only 17 per cent said that their school systems provided for a health examination after several days of



continous absence, only 27 per cent could seek first aid treatment at the school buildings, and only 7 per cent could get medical advice and treatment by a doctor at school or through the school system.

Under 26 per cent of the teachers taught in systems that granted sabbatical leaves, for travel, study, or rest. The teachers felt that a daily free period during which they could attend to school matters aside from classroom teaching was important to health, but 62 per cent had no such period.

The teachers reported 1110 conditions believed to be injurious to health as present in their school buildings. The conditions reported included the following, arranged in order of frequency of mention: improper lighting, lack of comfortable rest rooms, unsuitable furniture or equipment, noise outside the classroom, dust in the room, lack of drinking water dispensed in a sanitary and convenient manner, lack of a warm noon lunch, defective ventilation, and lack of sufficient or sanitary toilet facilities for teachers.



CHAPTER II  
THE HEALTH STATUS OF TEACHERS

Effects of Teacher Illness

Health is more than freedom from serious disorders, it is an abundance of life. Health and fitness mean sufficient vitality and power for the excellent performance of the tasks one is doing or those which may be demanded of him.

According to a statistical survey made by the research division of The National Education Association,<sup>1</sup> more than 300,000 pupils were taught by substitute teachers daily during the 1940 school year. School work is seriously interrupted, of course, because substitute teachers, however efficient, seldom can carry on in the same manner as the regular teacher. In some cases work is laid aside until the regular teacher returns and the children are given "busy-work". There is a serious educational as well as economic loss. Many of the teachers whose places are being filled each day by substitutes lose either the whole day's wages, or whatever part of that amount must be paid to the substitute teacher. In other cases, there is no personal loss of salary to the teachers who are ill, but the school district pays substitutes. In either event, the sickness is costly, even without including doctor and hospital bills. During the 1938 school year some 285,000 teachers were absent one or more days because of illness;

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1. National Education Association of the United States, Department of Classroom Teachers, Fit To Teach, Ninth Yearbook, Washington: 1938, p.1.



they lost time totaling no less than 2,000,000 days.<sup>2</sup>

Many teachers fail to maintain health and fitness through intelligent and conscientious effort. They are wasteful, and neglect the resources that are of value to them and society. It is agreed that the health and fitness of teachers are sometimes beyond the powers of personal control; however, an impressive number of teachers live well below the level of health and fitness attainable. Undoubtedly, teachers are missing a real margin of possible success and satisfaction because they are not living nearer to the peak of their optimum health level.

Physical fitness is important, but it is not everything. It is not the main goal of life or of education. It is not always immediately essential to that which is finest in mind, personality, and character. Many of the great men and women of history have accomplished deeds of immortal distinction in spite of pain and physical disability. Therefore, nothing in such lives can be interpreted in defense or praise of weakness, or unfitness. It should be conceded that fitness of health is fundamental for completeness and the best of life.

The previous paragraphs have briefly described the health problems of teachers and should not be taken to mean that teachers are subject to an unusual number of health disorders.

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2. Ibid., p. 1.



Teachers are absent from duty less often because of illness than is true of workers in most other occupations and professions.<sup>3</sup>

There is no evidence that teachers, more than others, fail to attain fully their own best health possibilities. This favorable comparison with other groups, does not in any way lessen the need for better teacher health. A sound program of teacher health must be concerned with:

1. Developing and conserving the good health which teachers enjoy.
2. Reducing the amount of ill health among teachers.

#### Characteristics of a Healthy Person

"Sound health is not merely the negation of ill: it is a medium through which alone we can gain access to many invaluable blessings. It enhances every pleasure, and is indispensable to the full performance of almost every duty. It is the prime instrument for the performance of all the labors of life."<sup>4</sup>

The healthy teacher possesses an invaluable capital of vigor which manifests itself in energy and vitality, adequate for the ordinary and, within reasonable limits, the emergency needs of the individual.

The healthy teacher learns to do unattractive and monotonous tasks with cheerful patience, and even enthusiasm, in anticipation of the satisfaction and consciousness of success that comes of completing such tasks in a creditable manner.

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3. Ibid., p. 2.

4. Ibid., p. 1.



The teacher in good health enjoys social contact with others, with companions contemporary in age and with older and younger persons.

The healthy teacher is characterized by intellectual honesty as well as moral honesty; traits which overlap and closely dovetail but are not identical or synonymous. He plays the game fairly, with intense purpose and effort to do his best in individual and in cooperative or group interest. The healthy teacher faces facts and reality in an objective, impersonal manner. He is willing to recognize his mistakes and faults as well as those of others.

The healthy teacher must be free from all remediable defects and handicaps whether these are physical, mental, social, emotional, or ethical. Some can be connected by others: i.e., defects of visions, hearing and teeth, or bodily defects requiring medical and surgical procedures. However, defects of speech, posture, faults of mental and emotional nature, and those of social behaviour, character, and personality, require the active interest and determined effort of the person affected as well as the treatment and advice of the professional health counselor.

There are three ideas or standards of personal health for the individual:<sup>5</sup>

1. Health ideal. The type of health which is perfect, and everyone would like to have. This, it seems is never wholly attainable.

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5. Ibid., p. 5.



2. Health actual. The health that one actually possesses. This is often far below that which is possible and practicable for the individual.
3. Health attainable. The health that one might have with the knowledge, appreciation, and realization of health that are reasonably available for the individual.

Good health is known in a general way by teachers as well as by most people. However, a great many teachers as well as others, do not appreciate fully the advantages which good health brings to them professionally, economically, and in comfort and satisfaction. They do not realize how many conditions of ill health handicap them and detract often in serious degrees their efficiency, success or happiness. They are unaware of the great cost to them, both in money and in more important values, of illnesses, injuries and disabilities that might be partially or wholly prevented.

Teacher health and its effects upon school children is far reaching. The justification which Terman<sup>6</sup> gave for his pioneer book in this field was that the health of the school child is so intricately related to the health of the teacher that for the sake of the child it is a matter of first importance to keep teachers at the highest possible level of physical, mental and moral fitness.

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6. Terman, Lewis M., The Teacher's Health, Boston: Houghton Mifflin Co., 1913, p. 136.



The exact degree of influence on children of the physical, mental, and emotional health of teachers cannot be generally determined. It is agreed, however, that there are direct and far reaching influences, both positive and negative, in character and personality. Nearly all would agree with Leonard that "the ideal teacher must be a wholesomely balanced individual, possessed of physical, mental and moral health".<sup>7</sup>

Any impairment in physical health on the part of the teacher is likely to have unfortunate consequences when disorders are communicable. Special precautions are particularly important in preventing the spread of colds and tuberculosis. Too many teachers attend school with incipient colds, or even with a cold which has reduced their teaching efficiency greatly.

Over conscientiousness, and lack of provisions for sick leave are leading drawbacks. Some teachers feel they cannot be spared from their classrooms, while others cannot afford to lose any part of their inadequate salary.

Tuberculosis is especially dangerous, in the absence of thorough health examinations. The disease may exist in contagious form for a considerable period of time without being detected. Reference is made here to the German School Case.<sup>8</sup>

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7. Leonard, Edith M., "The Personality of the Teacher", American School Board Journal, 93: 42-43, November, 1936.
  8. "Infection of School Children by a Tuberculosis Teacher", School and Society, 43: 761-62, June 6, 1936.



Upon discovery that the teacher of a certain class had tuberculosis, a check showed that four-fifths of the pupils had contracted the disease. Prevention of the spread of tuberculosis, colds, and all other communicable diseases is, therefore, an important objective of those interested in better health for teachers.

Another harmful result of poor health is the adoption of low health standards, poor health attitudes, and habits by the teacher. These are reflected daily upon the pupils who literally live with the teacher. Through educational studies, we know it is true that young people imitate, adopt mannerisms, and acquire ideals from those with whom they associate or in some cases idolize. It is, therefore, important that teacher's health should reflect the value of correct health practices.

#### Teacher Health, A Matter of Public Concern

Teachers contribute essentially to the well-being of millions of children directly and to the entire population indirectly. The promotion of teacher health, which so largely determines the scope and quality of their work, is an important social responsibility. As a matter of self-interest, each community and state should provide its teachers with social and economic protection and other health safeguards.



There is a serious loss to the community caused by poor health among teachers; loss due to both non-productiveness and to poor quality of work. From a plain business standpoint, it is wise to promote teacher health in every possible way.

Communities and school boards are wise when they provide generously for the health and happiness of teachers. When communities safeguard the interests of teachers and pupils by provisions such as sanitary buildings, adequate grounds, a hygienic curriculum, periodic and effective investigations of the health status of teachers and pupils, a proper return on the investment made is more likely to be realized.

#### The Health of Teachers

The belief was rather widespread once, and still is held by many people, that school teachers are a group of weaklings subject to an unusually large number of health disorders. To them, the typical teacher is a person naturally frail, who stays indoors as much as possible, ignores health rules, and soon becomes dyspeptic, irritable, and prematurely old. Still another group looks upon teaching as a highly favored position and supposes that teachers are unusually healthy. They point out with undisguised envy to the five or six hour period in the classroom, supposing that to be the teacher's working day, to the free Saturday, and to the long summer vacation of the "fortunate" teacher.



Throughout the years, authors have repeatedly placed in literature disparaging remarks about teachers, portraying them as a breed apart from the rest of society. These writers have regarded teachers and have caused others to regard them as an unhealthy lot, not particularly enjoying their work, and constantly teetering on the brink of nervous exhaustion and physical illness. Many descriptions and examples may be found such as, in Dorothy Canfield Fisher's, The Bent Twig,<sup>9</sup> which described the teacher, Miss Miller, as "a severe woman, with her pathetic face and starved, flat body." The school principal was seen in the story as "stooping and hollow-chested."

In Oliver Wendell Holmes' novel, Elsie Venner,<sup>10</sup> may be found the teacher, Master Weeks, as "a slender youth from a country college, underfed, thin blooded, sloping shouldered, knock-kneed, straight haired, weak-bearded, wide pupilled, half colored; a common type enough in indoor races---."

Most everyone is familiar with Ichabod Crane, Washington Irving's well-known schoolmaster in the Legend of Sleepy Hollow,<sup>11</sup> who was "tall, but exceedingly lank, with narrow shoulders, long arms and legs, hands that dangled a mile out of his sleeves---."

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9. Fisher, Dorothy Canfield, The Bent Twig, New York, Grosset and Dunlap, 1915, p. 95.
  10. Holmes, Oliver Wendell, Elsie Venner, Boston: Houghton Mifflin Co., 1889, p. 32.
  11. Irving, Washington, "The Legend of Sleepy Hollow", The Sketch Book, New York: Cooperative Publishing Society, 1819, p. 368.



These teacher stereotypes, although not as common as they once were, nevertheless remain in the minds of many. What is the health status of teachers? What health difficulties do they suffer? Do they enjoy teaching? This chapter is largely concerned with these questions and the discussion is based primarily upon the replies of the teachers who participated in this study.

The general health status of the 130 teachers who replied to this study was self rated according to the following categories: "chronic ill health," "low vitality", "fair health", "good health", and "excellent health".\*

The gathered data disclosed that 93.7 per cent of the group rated their health as "excellent" or "good" while 6.3 per cent indicated their health was "fair" or "poor". (See Table I, page 27).

The "excellent" health group consisted of 58 teachers or 45.3 per cent of the total number. The status most often indicated was the category, "good" health, which was checked by 62 men and women and consisted of 48.4 per cent of all the participants. Six teachers or 4.7 per cent rated their health as "fair" while the combined lowest group, "poor" health, had 2 cases and totalled 1.6 per cent of the entire group.

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\* As the two lowest categories contained so few cases it was deemed more feasible to combine them under the one heading, "poor health", in order to handle the data more adequately.



TABLE I  
HEALTH STATUS AS SELF-RATED BY  
THE PARTICIPATING TEACHERS

Health Status	Number of Teachers	Per cent of Teachers
Excellent health	58	45.3
Good health	62	48.4
Fair health	6	4.7
Poor health	2	1.6
Total	<u>128</u>	<u>100.0</u>

The health ratings were analyzed on the basis of several criteria in order to gain a more comprehensive understanding of the teacher's state of health. The replies were considered with regard to such factors as sex, marital status, teaching in a rural or urban community, amount of training beyond graduation, salary and grade level.

#### Sex

Only four women teachers were surveyed in this study. Their self rating on health was as follows: one excellent, two good and one poor. This sampling was so inadequate that no significant or conclusive evidence can be derived. Approximately four out of every five men indicated their health classification as "good" or "excellent".



Marital Status

The evidence gathered in the study disclosed a wide divergence within, as well as between, the groups when the health of the teachers was reviewed on the basis of marital status.

Married teachers rated their health more highly than did those who were single. Of the group of men and women who were married, 84.6 per cent rated their health as "excellent or good" while 76.4 per cent of the unmarried men and women considered their status to be in the upper two health categories. Over 20 per cent of the unmarried teachers rated their health as "fair or poor" compared to 15.4 per cent of the married teachers.

TABLE II  
MARITAL STATUS OF PARTICIPATING TEACHERS

Marital Status	Women		Men	
	Number	Per cent	Number	Per cent
Single	4	100.0	14	11.1
Married	0	-	112	88.9
Total	4	100.0	126	100.0



An interesting study by Mason,<sup>12</sup> who investigated 700 single and married teachers, concluded that the single teachers were more subject to mental ills than the married ones and that the unmarried female teachers had a 20 per cent higher incidence of mental illness than the unmarried male.

Size of Teaching Community

Approximately 2 out of every 3 teachers were employed in villages less than 2,500. (See Table III, page 29).

The health status of the teachers was not affected greatly by the size of the teaching community. There was an indication however, that the teachers in the areas of less than 2,500 population enjoyed a greater amount of health.

TABLE III  
SIZE OF THE COMMUNITIES

Communities	Number	Per cent
City of 10,000 or over	22	16.9
Town of 2,500-5,000	15	11.7
Village less than 2,500	88	67.6
Rural	5	3.8
Total	130	100.0

12. Mason, Francis V., "Study of Seven Hundred Maladjusted School Teachers", Mental Hygiene, Vol. 15, (July, 1931), pp. 576-99.



Training Beyond High School Graduation

The data revealed that the teachers who had the greatest amount of college training beyond high school graduation also had the highest health ratings. This may signify that those teachers who enjoy abundant health are more desirous and better able to take on the extra load of post-graduate schooling. (See Table V, page 31).

Of the entire group of teachers studied, 130, 91.5 per cent indicated that they had taken over four years training beyond high school.

TABLE IV

AMOUNT OF SCHOOLING BEYOND HIGH SCHOOL OF  
THE PARTICIPATING TEACHERS BY NUMBER AND PER CENT

Training	Women		Men	
	Number	Per cent	Number	Per cent
Less than 1 year	0	0	1	.8
1 year	0	0	0	0
2 years	1	25.0	0	0
4 years	1	25.0	8	6.35
More than 4 years	2	50.0	117	92.85
Total	4	100.0	126	100.0



TABLE V

THE HEALTH STATUS OF THE PARTICIPATING TEACHERS  
ACCORDING TO THEIR TRAINING BEYOND HIGH SCHOOL

Health Status	Number of Teachers				Per Cent of Teachers			
	Women		Men		Women		Men	
	4 Years	Over 4 Years	4 Years	Over 4 Years	4 Years	Over 4 Years	4 Years	Over 4 Years
Excellent Health	1	-	6	53	50.0	-	66.7	45.6
Good Health	0	2	3	56	0	100.0	33.3	48.1
Fair-Poor Health	1	-	0	7	50.0	-	-	6.3
Total	2	2	9	116	100.0	100.0	100.0	100.0



Teaching Level and Experience

The level of teaching for both men and women was predominantly on the secondary level. A breakdown of the figures disclosed that 9.23 per cent of the group were elementary teachers; while the remaining 90.77 per cent taught in secondary schools. Of the men, 8.73 per cent taught in elementary schools, while 91.27 per cent were secondary teachers. A further breakdown of figures according to the three health-status groups revealed that those who taught on the secondary level enjoyed slightly higher health ratings than those who were employed in the elementary schools. (See Table VII, page 34).

TABLE VI

SCHOOL LEVELS OF THE PARTICIPATING TEACHERS

School Level	Women		Men	
	Number	Per cent	Number	Per cent
Elementary	1	25.0	11	8.73
Secondary	3	75.0	115	91.27
Total	4	100.0	126	100.0



### Salaries

The average salary for the entire group was \$4,474.77 per year. The women earned \$4,080 annually which was approximately \$85.56 more than the amount earned by the men who received, on the average, \$3,994.44. It should be noted here that the sampling of women was very small. The average salary for the women was considerably boosted by \$5,600 mentioned by one Alaskan female teacher.

The salaries earned by the group characterized the marked trend toward the principle of paying men and women equally on the basis of their qualifications. The Encyclopedia of Educational Research<sup>14</sup> stated that about three-fourths of the larger city school systems provide equal pay regardless of the sex of the teacher.

### Summary

The following composite description of the participating teachers in this study could be drawn. The man was married, was employed chiefly in villages of less than 2,500 population. He taught on the secondary level, had more than four years of training beyond high school, and earned an annual salary of \$3,994.44

The participating women of which there were just four, taught on the secondary level in urban areas. Their college training was more than four years beyond high school. They earned a yearly salary of \$4,080.

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14. Monroe, Walter S., (Ed.), Encyclopedia of Educational Research, New York: Macmillan Co., 1950, p. 1072.



TABLE VII  
 THE HEALTH STATUS OF THE PARTICIPATING TEACHERS  
 ACCORDING TO THEIR LEVEL OF TEACHING

Health Status	Women				Men			
	Elem.	Per Cent	Second.	Per Cent	Elem.	Per Cent	Second.	Per Cent
Excellent Health	-	-	1	33.3	5	45.5	53	47.0
Good Health	-	-	2	66.7	5	45.5	54	48.0
Fair-Poor Health	1	100.0	-	-	1	9.0	6	5.0
<b>Total</b>	<b>1</b>	<b>100.0</b>	<b>3</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>	<b>113</b>	<b>100.0</b>



## CHAPTER III

## EVALUATING THE HEALTH HABITS OF TEACHERS

Alertness, an important criterion of physical and mental fitness, is a prime requisite for effective teaching. It suggests abundant energy, good emotional control, and intellectual keenness. The maintenance of both physical and mental alertness should receive the daily attention of teachers. Many people take health for granted. Hygienic practices are often neglected until health is so impaired that the individual is forced to make health an end in itself. It would be better to give proper attention to health at all times, to conserve and prevent, rather than to rebuild and correct.

The cultivation and maintenance of health among teachers must be recognized as a cooperative task. Health is advanced or retarded, as the case may be, by such a wide variety of factors that responsibility in any effective teacher health program must be shared by many persons and agencies. As Moss points out:

No teacher can consistently blame the school or school district in which she teaches for her poor health as long as she fails to observe common rules of personal hygiene. Her first responsibility is to form and keep desirable personal health habits.<sup>1</sup>

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1. Moss, Bernice, "The Teacher's Health", Alabama School Journal, 53:12, November, 1935.



### Correct Health Practices Pay Off

Personal enjoyment. Foremost among the rewards of correct health practices is the added satisfaction which one derives from living at his own highest attainable level of zestful good health. The difference in personal enjoyment and freedom from discomfort on the part of healthy and unhealthy individuals is so great that no other incentive to good health habits should be needed.

Economic returns. Good health also is an economic asset of first importance, for any serious impairment of health interrupts earning power and may require a considerable expenditure for doctor's services, hospital bills, or other forms of treatment and care. The annual cost of medical care for all the people in the United States amounts to tremendous expenditures. The wage loss alone, presents a staggering figure. This in itself, should be reason enough why every individual, including teachers, should observe health rules carefully.

Professional success. Another dividend with which a teacher is rewarded for good personal health practices is a greater success in teaching. Good health helps a teacher to accomplish more work in the classroom, to attain a higher level of scholarship, and to engage more effectively in professional activities of all kinds. Furthermore, it is one of the important functions of teachers to teach pupils how to care for themselves, not only by precept, but also by example.



### Habits Which Teachers Consider Important

The fact that a great many teachers take too little exercise must be recognized. Such neglect is easy when one works indoors at a task that requires a minimum of physical exertion. It is especially easy when such vocational activities are supplemented only by the usual round of activities of city dwellers.

Many of the teachers who are in the physical education field or coaching feel that the activities and sports program of the school year provides maximum outlet for needed healthful exercise.

Regularity in all habits is an important health foundation. Teachers who have regularity and orderliness in their work find it much easier to perform. Pride and reasonable degree of success in one's work; pleasant associations with pupils, patrons, other teachers, supervisors, and administrative officers; and genuine satisfaction and enjoyment in teaching are essential to best physical and mental health. Generally these conditions are subject to the teacher's own control, every reasonable effort should be made to establish a wholesome working regime.



TABLE VIII  
HEALTH HABITS OF THE PARTICIPATING TEACHERS  
ACCORDING TO FREQUENCY OF MENTION

Health habits	Regularly	Per cent	Occasionally	Per cent
Systematic Exercise	16	18.0	28	12.0
Dancing	17	19.0	65	27.0
Swimming	12	13.0	53	22.0
Tennis	3	3.0	24	10.0
Golf	27	30.0	37	15.0
Hiking	15	17.0	33	14.0
Total	90	100.0	240	100.0

Six teachers answering the questionnaire did not participate in any form of activity.

Physical relaxation is very important, teachers should learn the need for, and cultivate it. Physical relaxation means an unloosing of tense, rigid muscles and is obviously impossible to attain completely except when the body is recumbent. Extremely helpful are brief periods of rest and relaxation during the day. Teachers should take full



advantage of every opportunity for rest, even if such periods are brief. Results of this study show that of the 130 teachers answering the questionnaire, 46 had a free period during the day, amounting to 35.5 per cent.

Lindeman<sup>2</sup> lists five ways in which recreation is valuable:

1. It calls into activity neglected portions of one's body and mind.
2. It improves coordination by throwing the whole body into action.
3. It prevents, and even eradicates, fatigue and weariness due to inactivity and boredom.
4. It reduces the personality to normal, freeing it from petty fears and dislikes, and from shyness, mannerisms, and other over-indulged peculiarities.
5. It has ethical and social values, teaching fair play and observance of the rules of the game in activities which combine cooperation and competition.

Williamson<sup>3</sup> believes that many teachers are too selfish for their own good; that they answer "yes" to far too many requests that come to them instead of using the time for needed recreation.

A teacher acts wisely in arranging suitable periods of rest and relaxation. He occasionally gets away from the school atmosphere and enjoys a change of scene and of pace. Smart teachers instinctively shun the company of the unfortunate who never can talk anything but shop. The interests of the teacher are and should be wider than the classroom and broader than the school. He enjoys the stimulus of participation in many aspects of living. As breadth of interest and a healthful rhythm of living develop, the teacher finds that his fresh activities stimulate his development as a more vital and interesting person.<sup>4</sup>

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2. Lindeman, E.C., "Recreation for Health Building", Handbook on Positive Health, (Edited by Lenna L. Means.) New York: Women's Foundation for Health, 1928, p. 139-41.
  3. Williamson, Grace, "Were You Irritable This Morning?" Alabama School Journal, 54:9, January, 1937.



There is considerable evidence from the study of the questionnaire results that teachers represented did very little along lines of physical recreational activities. However, a very important and significant characteristic of recreation is that, recreation may be obtained in numberable ways. It is almost wholly an individual matter. In this study the teachers were asked to list their hobbies. Out of 101 hobbies mentioned, hunting and fishing were the most popular. (See Table IX, page 41). Among the unusual form of hobbies mentioned: dog training, watch repairing, oil painting and horse training.

#### Evaluating Health Disorders Among Teachers

The 130 teachers who participated in this study reported a total of 166 health disorders which had been serious enough to require a doctor's care during the five years preceding this study.

More teachers suffered from colds than any other single disorder requiring the care of a doctor. Sore throat was next, followed by headaches and indigestion.

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4. Health Education, National Education Association, American Medical Association, (Edited by Charles C. Wilson, M.D.), 1948, p. 118.



Eye trouble ranked fourth among the ailments requiring a physician's care. One of the common beliefs concerning teaching is that it is conducive to eye trouble by the very nature of its work and may be considered, therefore, an occupational health hazard for those who choose this profession.<sup>5</sup> This belief is not substantiated according to the data gathered in this study.

TABLE IX

HOBBIES OF THE PARTICIPATING TEACHERS  
ACCORDING TO FREQUENCY OF MENTION

Hobbies	Frequency of mention	Per cent
Hunting	26	25.74
Fishing	20	19.80
Reading	18	17.82
Photography	12	11.88
Gardening	6	5.94
Music	6	5.94
Woodworking-Shopcraft	6	5.94
Model Aircraft	3	2.97
Leatherwork	2	1.98
Stamp Collecting	2	1.98
Total	101	100.0

5. National Education Association, Fit To Teach, op. cit., p.36.



One instance of tuberculosis was reported among the 130 teachers who participated in this study.

TABLE X

HEALTH DISORDERS OF THE PARTICIPATING TEACHERS  
ACCORDING TO FREQUENCY OF MENTION

Health disorders	Frequency of mention	Per cent
Colds	42	27.0
Sore throat	26	16.4
Indigestion	12	8.0
Headache	12	8.0
Eye trouble	8	5.0
Nervousness	8	5.0
Leg and feet pains	7	4.4
Backache	7	4.4
Abdominal pain	6	4.0
Ear trouble	5	3.1
Heart trouble	5	3.1
Skin eruptions	5	3.1
Toothache	3	2.0
Persistent cough	2	1.2
Sleeplessness	2	1.2
Ulcers	2	1.2
Rapid fatigue	2	1.2
Sinus	1	.6
Dizziness	1	.6
Pneumonia	1	.6
Anemia	1	.6
Total	158	100.0



### Mental and Physical Health

Mental and physical health are so closely related that in the words of Fenton<sup>6</sup> "no valid line of separation should be drawn between mental and physical hygiene by the professional worker."

"Mental health" or "mental hygiene" is a relatively new term. It's earlier concepts were centered around problems of the mentally ill. At the present time, however, this concept has positive meaning. Instead of improvement of the mentally diseased, mental health has come to mean direction toward helping individuals to deal with their environment so that they can be happier and more able to adjust to their surroundings. Mental health characterizes the ability to absorb frustrations and disappointments without compensating action that leads to distress and serious conflict.

The report of the Joint Committee on Health Problems of Education of the National Education Association and the American Medical Association stated this clearly when it declared that:

Mental health in its broadest sense has come to mean the measure of a person's ability to shape his environment, to adjust to life as he has to face it, and to do so with a reasonable amount of satisfaction, success, efficiency and happiness.<sup>7</sup>

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6. Fenton, Norman, Mental Hygiene in School Practice, Stanford, California, Stanford University Press, 1942. p.5.
  7. Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association, Mental Hygiene in the Classroom, Chicago: American Medical Association, 1949, p. 9.



According to all the considerations given to the data in this study, nervousness does not rank high as a disorder found among teachers, with only 8 or 5 per cent reporting difficulty with this malady. It was listed sixth among the ailments rated by the teachers who required a doctor's care. (See Table X, page 42).

Gates,<sup>8</sup> in his discussion of the mental health of teachers, concluded that "the adjustment problems of the unmarried women are, of course, more difficult to solve than those of the single man." This statement cannot be refuted because of the small sampling in this study received from the women teachers.

The Third White House Conference on Child Health and Protection<sup>9</sup> stated that the element most emphasized in mental health was "adjustment". It is the adjustment that determines the mature individual and denotes his positive mental health.

Evidences of dissatisfaction on the part of teachers to various aspects of their home and school adjustment were studied by Rhodes<sup>10</sup> in relationship to four health status groups, i.e., "excellent", "good", "fair", and "poor".

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8. Gates, Arthur I., Jersild, Arthur I., McConnel, T.R., and Challman, Robert C., Educational Psychology, New York: The Macmillan Co., 1949, p. 772.
  9. White House Conference, Preliminary Reports, New York: Century Co., 1930, p. 465.
  10. Rhodes, F.G., op. cit., p. 86.



The purpose of this was to note any association between these dissatisfactions, related adjustment difficulties, and the health status of the participants. The teachers were asked to indicate in the inquiry how well satisfied they were with their living arrangements. It was revealed that of the 400 replies, the teachers were quite dissatisfied and felt that the arrangement was nearly intolerable.

Several significant findings were disclosed from Rhodes' study:

Approximately 18 per cent of the group whose health status was noted as "poor" indicated a great deal of dissatisfaction with their residence arrangements compared to 10.8 per cent of those whose health status was rated as "good". Of the teachers who had an "excellent" health rating, 1.7 per cent revealed unsatisfactory living conditions.

The data disclosed that a number of teachers were dissatisfied with their teaching assignments. Some regarded with dissatisfaction the subjects taught. With others, it was the grade level of teaching or the type of pupils with whom they worked. A few teachers indicated that they were dissatisfied with all the aspects of their teaching assignment.

Over 28 per cent of those in the "poor" health status group were dissatisfied with the subject they were teaching compared to 30.7 per cent of those whose health was rated as "fair" and to the 15.6 per cent of the "good" health group. Of the teachers whose health rating was "excellent", 6.4 per cent indicated that they were quite dissatisfied with the subject they were teaching.

Dissatisfaction with the grade level of teaching was evidenced by 38.4 per cent of the "poor" health status group, 19.3 per cent of those rated in "fair" health, 19.5 per cent of the "good" health status group, and 14.2 per cent of those in the health group who had an "excellent" rating.



More teachers expressed feeling of discontentment concerning the type of pupils with whom they worked than any other single grievance. The group whose health status was "excellent" had 22.6 per cent of its members manifest dissatisfaction with the type of pupils whom they taught in the classroom.<sup>11</sup> The percentage of teachers who indicated this vexation increased as the health ratings ranged downward from "excellent" to "poor". Of those whose health status was rated "good", 29.2 per cent revealed their dissatisfaction with this aspect of their teaching assignments compared with 33.9 per cent of those in the "fair" health status group and 46.1 per cent of those whose health status was rated as "poor".<sup>12</sup>

#### Health Status and the Enjoyment of Teaching

A significant question in this study was "Do you enjoy teaching?" An analysis of the question disclosed that 66.1 per cent of the group enjoyed their work "very much" while 31.6 per cent felt that they enjoyed teaching only "fairly well" and 2.3 per cent were "not particularly" enjoying the work of teaching. (See Table XI, page 47).

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11. Ibid., p. 86-87.

12. Ibid., p. 88.



TABLE XI  
THE ENJOYMENT OF TEACHING AS EXPRESSED  
BY THE PARTICIPATING TEACHERS

Enjoyment of Teaching	Number of Teachers	Per cent
Very much	86	66.1
Fairly well	41	31.6
Not particularly	3	2.3
Total	130	100.0

The question of teaching enjoyment was further examined according to the relationship of the enjoyment derived by the teachers and their health status. This was undertaken in order to obtain a more detailed assessment of the facts disclosed in the study.

The teachers whose health status was "excellent" indicated that 68.9 per cent of their members enjoyed teaching "very much". The percentage of people who enjoyed teaching "very much" dropped to just 65.5 per cent for those in the "good" health group and to 62.5 per cent for those whose health status was rated "poor".



A significant finding of the data which was gathered in the study showed that 31.6 per cent of the teachers apparently did not enjoy teaching or only enjoyed it "fairly well". These findings were further investigated according to the four health groups established by the teachers themselves.

Those teachers with "excellent" health ratings had 1.1 per cent of their members who disliked teaching or only enjoyed it "fairly well" compared to 3.1 per cent of those whose health status was "good".

The study revealed that 62.5 per cent of the teachers in the "poor" health group were obtaining "very much" enjoyment from their present occupation, while 37.5 per cent of the teachers whose health status was "poor" indicated that they liked teaching "fairly well". No one indicated that they did "not particularly" care for teaching in the "poor" health group. (See Table XII, p. 49).



TABLE XII

RELATION OF THE HEALTH STATUS OF THE PARTICIPATING  
TEACHERS AND THEIR ENJOYMENT OF TEACHING

Teaching Enjoyment	Excellent Health	Good Health	Fair-Poor Health
Very much	68.9	65.5	62.5
Fairly well	30.0	31.4	37.5
Not especially	1.1	3.1	0
Total	100.0	100.0	100.0



## CHAPTER IV

## THE SCHOOL ENVIRONMENT AND THE HEALTH OF THE TEACHERS

Not all of the major health problems originate in germs, or food, or accidental situations. Man frequently creates his own problem by establishing an environment which in itself is not conducive to good livings.<sup>1</sup>

--School Health Education

All the school factors which influence the health of teachers may be considered as part of the school environment. Ordinarily, the school environment is considered to be those aspects dealing with the physical features of the school plant itself. The sanitation and safety of the school building, its design and construction, the equipment within the classrooms, the hearing, the lighting, and ventilation of the rooms, offices, rest rooms and hallways are usually what is considered to be the school environment. This consideration, however, must also include the area surrounding the school building such as, the yard, the aesthetic, or lack of aesthetic beauty of the landscaping, and such disorders as street noises, odors, and factory smoke.

The school surroundings, while certainly including the aspects mentioned, encompass far more environmental factors that influence the teacher's health and must be considered as part of the school environment.

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1. Oberteuffer, Delbert, School Health Education, New York: Harper and Brothers, 1949, p. 21.



Human relationships between teachers and those with whom they are associated, children with their individual personalities and problems, other teachers with whom they work, the custodian, the supervisory staff, the administrative personnel, and associations with the members of the school board are identified with, and inevitably become part of, the school environment.

A healthful school plant fosters and protects the health of each of its occupants and, in a very real sense, helps to determine every educational outcome. We are what we are, and we think as we do, largely because of what we see, hear, and respond to in the environment about us. Bad lighting is to be deplored because it causes eyestrain and because it results in lowered reading efficiency. Avoidance of sharp contrasts in heating and a system of adequate ventilation are important aspects of a wholesome environment. Adequate ventilation quickens lethargic pupils and stops the downward plunge of the rate of learning efficiency. Educational growth of children to the fullest potential cannot be achieved unless every aspect of the physical environment is so controlled that it contributes to the comfort and health of the pupils and professional staff.<sup>2</sup>

The purpose of the school plant is to provide the physical facilities for the educational program. It is more than a shelter from the weather and an educational tool. In fact the plant may by its very architecture and design teach children to like school or to be afraid of school. It may teach children to be neat, clean, and healthy, or it may have the opposite effect.<sup>3</sup>

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2. Health in Schools, A.A.S.A., Twentieth Yearbook, Washington, D.C., 1951, p. 89.
  3. National Council on Schoolhouse Construction, Plant Guide Committee, Guide for Planning School Plants, 1949 Edition, Nashville: p. 42.



School administrators can help to promote the health of the school staff by building improvements that are conducive to effective teaching. Sound treated rooms, good ventilation, adequate heating, attractive surroundings, sanitary lavatory facilities, comfortable rest rooms, and desirable lunchroom equipment are important factors to the health of teachers just as they are to the health of pupils.<sup>4</sup>

#### School Provisions for the Teacher's Health

Health examinations. Many of the states now require that certain health standards must be met by all applicants prior to their teaching or prior to issuing a teaching certificate. To protect the pupils and the school employees, it is desirable to require periodic examinations. Adequate health standards for entrance into teaching is one of the most important and most effective ways to improve teacher health. Certification is an important ally to careful selection, for without it, personal favoritism is apt to be rampant. Before state certification became common, commissions, superintendents of schools, school boards, and other agencies vested with the power to employ teachers were seriously troubled by the pressure so commonly exerted by individuals or groups wishing to have certain applicants appointed.

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4. Health in Schools, A.A.S.A., op. cit., p. 65.



The certification of teachers, cannot safely be based exclusively on such factors as discipline, ability to instruct, moral character, personality, scholarship, and willingness to cooperate. A health examination should be considered highly important as one of the tests of fitness for entrance into teaching.

Although the people of the United States have been backward in setting up health standards for teachers as compared with certain European countries, they are gradually becoming alert to this problem. In a few states health examinations are required, or statements based on a health examination must be presented before teaching certificates are granted. Definite health requirements as a basis for certification have been established in a little more than half the states. In many cases, however, the regulations are quite superficial and the necessary health examinations quite perfunctory in character. The prevailing requirement is a health certificate, from any licensed physician, affirming that the applicant is physically and mentally competent and free from communicable diseases and defects likely to interfere with teaching. Such a requirement represents a commendable first step in the use of health standards in teacher selection. Its value depends not only on the integrity of the examining physician and the thoroughness of his work, but also on his knowledge of the health qualities essential for success in teaching.<sup>5</sup>

Just 7.69 per cent of the teachers in this study reported that a health examination was required as a prerequisite for entrance into the school system in which they were employed.

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5. National Education Association, Fit To Teach, op. cit., p. 242-246.



Conversely, this implied that approximately 92.31 per cent of the group taught in areas where examinations were not required of teachers new to the school system and that the teacher selection was based, evidently, upon factors other than the health of the teacher.

Further research disclosed that 70.1 per cent of the participants were required to take a physical examination by the college they attended. It was also revealed that 57.1 per cent of the teachers did not have to take a physical examination prior to taking teachers training, and that upon graduation from college, 23.3 per cent were given an examination. In considering the question, "Were specific courses required regarding health?", it was found that 65.5 per cent had taken subject matter related to the field of health. (See Table XIII, page 54).

TABLE XIII

HEALTH REQUIREMENTS IN THE VARIOUS COLLEGES  
AS REPORTED BY THE PARTICIPATING TEACHERS

Requirements	Per cent of Teachers Required	Per cent of Teachers Not Required
Physical examinations during college life	70.1	29.9
Physical examination prior to teacher training	42.9	57.1
Physical examination upon graduation	23.3	76.7
Specific courses	65.5	34.5



Englehorn,<sup>6</sup> revealed in his study of 121 midwest colleges and universities that over 20 per cent do not require an entrance examination for students. Only 40 per cent of the colleges required periodic health examinations. The senior examination is required in 37.7 per cent of the schools. The survey also showed a general lack of health training for prospective teachers. The average number of semester hours of health required of all teacher trainees for the four year degree averaged below the three to four hours recommended by the Third National Conference on Health in Colleges.

#### Certification Health Standards Now In Use

The data collected through a survey of the state laws reveals the majority of the states now have some type of health requirement for teacher certification. For the purposes of these findings certain terms should be defined. A "health certificate" is a statement concerning the individual's health, in most instances issued by a physician. It may or may not be preceded by a physical examination. A "physical examination" or "health examination" is a systematic effort by a physician to discover incipient or existing physical and mental disorders. When such an examination is repeated at predetermined intervals, it is known as a "periodic physical

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6. Englehorn, Homer, "The Health Training Given Prospective Teachers in Mid-Western Colleges and Universities." Unpublished Master's Thesis, Department of Education, University of North Dakota, 1952, pp. 63-65.



examination." The term "physical examination" less frequently is used to connote a special examination for the detection of a specific infection such as tuberculosis.

Thirty-five states have set up health standards for individuals desirous of obtaining licenses to teach. They range from an indefinite requirement of "physical competence" to the specific requirement for a complete physical examination.

Arkansas, Colorado, Georgia, Kansas, Kentucky, Maine, Michigan, New Hampshire, New York, North Dakota, South Dakota, Wisconsin, and Wyoming do not require any health standards.

Arizona requires a chest Xray on all certificates, while California requires an Xray every two years. Idaho insists that its applicants must be free from tuberculosis and given an examination by a doctor in that state. The state of Mississippi requires a health certificate on a form prescribed by the State Department of Education. North and South Carolina require a health certificate and failure to register such a certificate is punishable by law. (See Table XIV, page 58).

Certificates in Indiana, Nevada, and Pennsylvania must state that the individual is free from infectious disease. Laws in two states, Florida and Maryland, require that teachers must submit to physical examinations at the time of certification for teaching.



Thirteen states have adopted laws requiring health certification. With the exception of Montana and West Virginia, which authorize schoolboards to ask for certificates of general good health, all the states are particularly interested in certification of freedom from tuberculosis or other communicable diseases.

Most states do not directly specify what action will be taken against those who do not adequately meet the health standards. Special legal provisions are made in only nine states. Immediate resignation is demanded in Arizona; affliction is cause for suspension or removal in Indiana, Minnesota, New Jersey, Ohio, South Carolina, North Carolina, and Tennessee. In Indiana and New Jersey, teachers on contract are granted leaves of absence. In Pennsylvania the teacher with tuberculosis can teach only in a special school presumably for tubercular children. The teaching certificate can be revoked in West Virginia for any physical or mental defect interfering with teaching ability.



TABLE XIV  
HEALTH QUALIFICATIONS FOR CERTIFICATION  
IN THE VARIOUS STATES

State	Health requirements for certification	Other related provisions
Alabama	No specific regulations, No teacher can be employed who has TB in an infectious stage.	Different counties set forth their own regulations.
Arizona	Chest Xray on all certificates, persons afflicted with TB not to be employed, health examination by Dr. required for all school personnel.	If TB is discovered an immediate resignation is required. A course in "School and Community Health" is required.
Arkansas	No requirements.	
California	Examination by Dr. Every two years an Xray is required.	
Colorado	No requirements.	
Connecticut	Certificate of good health, freedom from disease or defect. Examination by Doctor	
Delaware	Freedom from disease or defect that may interfere with teaching.	
Florida	Free from communicable, contagious, and malignant disease. Examination by Dr.	



TABLE XIV-cont.

State	Health requirements for certification	Other related provisions
Georgia	No requirements.	Some local requirements.
Idaho	Applicant must be free from TB and other infectious diseases, examination by Dr. in the state.	Examination 3 weeks prior to application for certificate.
Illinois	Health certificate required, TB test, Kahn test, Urinalysis	
Indiana	Health certificate required, freedom from drugs and must be able bodied.	Out of state applicants will be examined by Dr. designated by board.
Iowa	Physically competent, morally fit, evidence of physical and mental stability.	Student health service of the teacher education institution recommends applicant.
Kansas	No requirements.	
Kentucky	No requirements.	
Louisiana	Annual health certificate indicating freedom from disease.	All teachers and janitors must be examined.
Maine	No requirements.	
Maryland	Complete examination and report by a Dr. appointed by State Board of Education.	School physician may examine school personnel at any time he sees fit.



TABLE XIV-cont.

State	Health requirements for certification	Other related provisions
Massachusetts	Satisfactory proof of good health.	
Michigan	No requirements.	
Minnesota	Applicant must be free from TB and physically competent.	Certificate may be suspended if TB is developed.
Mississippi	Health certificate on form required by the State Department of Education.	
Missouri	Certificate of good health.	Applies to just teachers.
Montana	Health certificate, freedom from TB and contagious diseases.	Certificates revocable for physical disability.
Nebraska	Sound mental and physical health.	Xray required within 6 months if positive TB test.
Nevada	Health certificate.	State provides regular form.
New Hampshire	No requirements.	
New Jersey	Physician's statement that the applicant is in good health.	May be in form or a letter statement.
New Mexico	Certificate indicating freedom from TB or other disease.	All applicants for new school positions must apply.
New York	No requirements.	



TABLE XIV-cont.

State	Health requirements for certification	Other related provisions
No. Carolina	Freedom from TB or other disease.	Failure to file health certificate is a misdemeanor, punishable by imprisonment.
No. Dakota	No requirement.	Colleges certify health of the individual.
Ohio	Local boards may demand certificate showing statement of good health.	Contracting communicable disease, School board may dismiss employees.
Oklahoma	Health certificate.	
Oregon	Freedom from communicable disease and TB.	Mobile Xray are good for 1 year, other health certificates are good for 2 years.
Pennsylvania	Certificate of mental and physical fitness.	
Rhode Island	Certificate of good health and freedom from any disease that may interfere with teaching.	
So. Carolina	Certificate stating freedom from disease and TB.	Failure to get such a certificate is punishable by law.
So. Dakota	No requirements.	
Tennessee	Health certificate showing satisfactory health, Xray required annually.	Local boards may demand certificate at any time.



TABLE XIV-cont.

State	Health requirements for certification	Other related provisions
Texas	No legal requirement.	Local boards establish policies.
Utah	School law provides for health examination for teachers if required by local school boards.	New law being considered.
Vermont	Health certificate.	Local boards have discretionary powers.
Virginia	Reserves the right to ask for a health certificate but seldom exercises the right.	Board regulations which has the force of the law.
Washington	Certificate of good health.	
West Virginia	Local boards may legally require certificates of good health and physical fitness.	Certificates revocable for any physical, mental, or moral defect.
Wisconsin	No health requirements.	School districts may set up their own requirements. The cost of the examination to be paid by district.
Wyoming	No health requirements.	



Salaries

A definite, well-established salary schedule was enjoyed by only 23.7 per cent of the group. These teachers inferred that they were employed in school systems which had minimum starting salaries, and annual increments leading to a maximum salary within a definite period of time.

The salaries of the teachers showed interesting and divergent results when they were grouped according to the three health status categories. (See Table XV, page 63).

TABLE XV

AVERAGE YEARLY SALARY OF THE PARTICIPATING TEACHERS  
ACCORDING TO THEIR HEALTH-STATUS GROUP

Health Status	Average Yearly Salary
Excellent health	\$4,130.25
Good health	4,098.00
Fair or Poor health	3,845.00

The teachers whose health status was rated as "excellent" reported an average annual income of \$4,130.25, while those whose health ratings were "good" disclosed that they had earned \$4,098.00 for the same period of time. The participants whose health were rated as "fair" or "poor" earned \$3,845.00.



Another salary grouping was made according to the teachers' indication of enjoyment of teaching. The purpose of this was to note any possible distinctions between the various categories. The results of this grouping disclosed that those who enjoyed teaching "very much" earned \$3,969.00 per year while those who enjoyed teaching only "fairly well" received \$4,040.00 as their yearly salary. One teacher from the state of California who earns a yearly salary of \$10,000.00 per year increased considerably the earning of this group. The participants in this study who did "not particularly" enjoy the work of teaching received an average yearly salary of \$3,650.

TABLE XVI

AVERAGE YEARLY SALARY OF THE PARTICIPATING TEACHERS  
ACCORDING TO THEIR ENJOYMENT OF TEACHING

Enjoyment of Teaching	Average Yearly Salary
Very much	\$3,969.00
Fairly well	4,040.00
Not particularly	3,650.00



### Daily Free Period

As a health aid provided by the schools, most teachers feel that a daily free period is important. The investigation revealed that 64.6 per cent of the group received no period during the day enabling them to attend to school details aside from their actual classroom teaching period, and to relax from regular classroom tension.

### Comfortable Rest Rooms

The inquiry disclosed that most of the group considered that the school systems in which they were employed did not furnish comfortable rest rooms. Just 10.7 per cent of the teachers considered the facilities of the rest rooms satisfactory enough to be termed comfortable.

### Tenure

Security in position, that is no fear of dismissal without cause, was enjoyed by only 30 of the 130 teachers, representing 23.7 per cent.

The Committee on Tenure and Academic Freedom of the National Education Association<sup>6</sup> stated that the term "tenure" has acquired a technical meaning in recent years whereby it signifies a kind of employment in which the teacher remains

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6. National Education Association, Committee on Tenure and Academic Freedom, Teacher Tenure--Analysis and Appraisal, 1947, p. 5.



in a school system from year to year under legislative protection which specifies on what grounds he may be dismissed.

According to Barr and Brandt,<sup>7</sup> the term "tenure" refers to "the manner in, or the period which, anything is had or enjoyed."

To the question, "Is tenure an aid to teacher health?", the Department of Classroom Teachers of the National Education Association stated:

Foremost among the causes of fear and uncertainty on the part of large numbers of teachers is the indefiniteness and insecurity of their positions. Hence a valuable contribution to teacher health is made whenever any community, or state, assures competent teachers that they will not be discharged without causes clearly defined by law.<sup>8</sup>

In response to the question, "Do you plan on staying in the teaching profession as a life's work?", it was revealed that 73.8 per cent planned to do so, and that 26.2 per cent were uncertain.

Further study in relation to the three health-status categories disclosed that 81 per cent of those whose health was "excellent" planned on staying in teaching. Of the group in "good" health 64 per cent were satisfied with their present status, and in the "fair or poor" group, 75 per cent would continue in the profession.

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7. Barr, A.S. and Brandt, W.J., "Teacher Tenure," Review of Educational Research, Vol. 16 (1946), p. 271.

8. National Education Association, Fit To Teach, op. cit., p. 172.



TABLE XVII  
 FUTURE PLANS OF THE PARTICIPATING TEACHERS  
 ACCORDING TO THE THREE HEALTH-STATUS GROUPS

Health-Status Groups	Number replying		Number replying	
	<u>Yes</u>	Per cent	<u>Uncertain</u>	Per cent
Excellent	47	81	12	19
Good	40	64	17	36
Fair or Poor	6	75	2	25

According to the Encyclopedia of Educational Research,<sup>9</sup> Anderson, in 1941, found that among forty superintendents the general opinion was that the lack of a permanent tenure plan had a harmful effect upon curriculum, instruction and staff morale.

Conditions Present in Schools Which Were  
 Believed to be Injurious to Teacher Health

Life<sup>10</sup> magazine in its issue of October 16, 1950 reported that 22 per cent of the school buildings in the United States were older than fifty years, 73 per cent ranged from ten to fifty years, and 5 per cent could be considered as new.

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9. Monroe, Walter S., (Ed.), Encyclopedia of Educational Research, New York: Macmillan Co., 1950, p. 1439.
10. Life, "U.S. Schools--They Face a Crisis", Vol. 16 (October 16, 1950), pp. 80-81.



Life concluded that:

Buildings are old and becoming more obsolete every year. But age is not the only problem; during the war and the depression, school maintenance was sadly neglected and many relatively new buildings are now in bad shape---Authorities estimate that 15 per cent of the nation's schools should be condemned out of hand.

The Encyclopedia of Educational Research<sup>11</sup> in its survey of the literature concluded that the lifetime of school buildings, according to current practices, approximated fifty years. This included, of course, adequate maintenance.

The Ninth Yearbook of the Department of Classroom Teachers<sup>12</sup> stated that the defects in school housing facilities constituted "a daily menace not only to the health and safety of the pupils but also to some 75,000 to 90,000 teachers."

The participating teachers in this investigation reported a total of 191 conditions present in their schools which they believed were detrimental to their physical health.

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11. Monroe, op. cit., p. 1114.

12. National Education Association, Fit To Teach, op. cit., p. 126.



TABLE XVIII

CONDITIONS PRESENT IN SCHOOLS BELIEVED TO BE  
DETRIMENTAL TO THE HEALTH OF TEACHERS

Condition Considered Injurious	Frequency of Mention	Rank
1. Defective ventilation	53	1
2. Improper lighting	53	1
3. Unsuitable school furniture	30	3
4. Unsanitary teacher toilet facilities	25	4
5. Cold and drafty room	22	5
6. General unpleasant school surroundings	8	6
Total	191	

Defective ventilation. A number of injurious conditions center around ventilation. Dust and heating, both in and out of the classrooms, are usually associated by the teachers with factors which affect their physical health. A total of 106 mentions were made by the 130 reporting teachers of factors which pertained to poor ventilation, cold and drafty rooms.



According to a summary in Encyclopedia of Educational Research,<sup>13</sup> there are wide variations in the conclusions about which methods of ventilation should be used in differing circumstances.

A relationship of respiratory diseases to ventilation was reported by Surgeon General H.S. Cummings of the United States Public Health Service<sup>14</sup> who compared various methods of school ventilation and found that the group which relied upon natural ventilation had 1.8 per cent absences due to respiratory diseases compared to 3 per cent for the group who used mechanical means.

Cold, drafty rooms was checked by 16.9 per cent of the teachers who answered the Inquiry. This hazard ranked fourth among all the conditions of the school plant checked by the teachers as a source of ill health.

Lighting. The problems of light and color are controversial. Although adequate standards for school room lighting have been established for a number of years, 40.7 per cent of the teachers reported they worked under improper lighting conditions.

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13. Monroe, op. cit., p. 1111.

14. "The Relation of Respiratory Illness to Ventilation," American School Board Journal, Vol. 79 (July, 1929), p. 84.



Lighting that is improper often results in eye strain and fatigue. Harmon<sup>15</sup> reported that 59 per cent of the children in four thousand Texas classrooms had refractive eye defects or other disturbances of a visual nature. The per cents ranged from 18 in the first grade to 82 per cent at the highest elementary grade. When an experimental building of 21 classrooms was redecorated and provided with a better distribution of light intensities, a re-examination of the children at the end of six months showed a 57.1 per cent reduction of refractive eye problems. The re-examination also disclosed a 44.5 per cent reduction in nutrition problems and a 30.9 per cent reduction in signs of chronic infections.

The exact detrimental effect of poor lighting upon the teacher's health has not been exactly measured. It is commonly known however, that teachers, in order to provide the best lighting conditions for the pupils, often have cause to face directly into the glare of windows, desks and blackboards. This item along with defective ventilation, was felt by the teachers to be most injurious of all the conditions in the school plant which affected their health in a deleterious manner.

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15. Harmon, D.B., "Lighting and Child Development", Illuminating Engineering, Vol. 40 (1945), pp. 199-228.



Comfortable and sanitary rest rooms for teachers. A room comfortably furnished, where teachers can relax or lie down if the need arises is provided by many schools as an aid to the teacher's health and morale. A great number of school systems have not, however, concerned themselves with this item.

The lack of comfortable rest rooms was in evidence by the returns received from the participating teachers. Only 10.7 per cent of the teachers reported comfortable rest rooms in their school system.

Sanitary toilet facilities for teachers were reportedly lacking in the schools in which 19 per cent of the teachers were employed.

General unpleasant school surroundings. Ranking fifth according to frequency of mention was the influence of unpleasant school surroundings on the mental and physical health of the teachers. Many reasons could be responsible for the existence of these health hazards. Such noises as those from automobiles, trucks, buses, whistles, trains, and many others serve as distractions. Likewise, a depressing neighborhood environment and disagreeable odors emanating from elements in the area in which the school is located are important factors to be considered. Only 6.1 per cent of the participants considered the school surroundings unpleasant.



### Effects of the Classroom Environment

Class load. In answer to the question, "Does the class load have any deleterious effect upon the health of the teacher?", the Department of Classroom Teachers in its Ninth Yearbook stated:

There is no evil, perhaps, quite so destructive to teachers morale as excessive teacher load. The teacher's job is one in which personal relationships with the pupils are vital, yet these cannot be maintained when teaching schedules are full and classes are overcrowded...Consciousness of failure to reach all of the pupils creates an intensity with respect to teaching duties that reacts unfavorably on the health of body and mind.<sup>16</sup>

Baker<sup>17</sup> found that teachers of large classes were more lacking in adequate knowledge of individual pupils than were those teachers of small classes.

On the other hand, Carrothers<sup>18</sup> study suggested that class size had no important relationship to the health of the teacher.

In this study the average number of pupils taught daily by the teachers were classified according to the three health-status categories. It was revealed that the teachers whose health rating was "excellent" taught an average number of 22 pupils per day; those whose health status was "good"

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16. National Education Association, Fit To Teach, op. cit., p. 137.

17. Baker, H.L., "Class Size Does Make A Difference", Nation's Schools, Vol. 17, (February, 1936), pp. 27-28.

18. Carrothers, op. cit., p. 24.



averaged 24 pupils throughout the day in their classes, and teachers whose health rating was "fair or poor" had an average class load of 26 pupils per day.

TABLE XIX

AVERAGE NUMBER OF PUPILS TAUGHT DAILY BY TEACHERS  
AS CLASSIFIED IN THE THREE HEALTH-STATUS GROUPS

Health-Status Group	Average Number of Pupils Taught Daily
Excellent health	22
Good health	24
Fair or Poor health	26

The study was further broken down to discover the relationship between the three health categories and the average number of classes taught per day. The research disclosed that those participants whose health was "excellent" taught on an average of 2 classes per day. Of those whose health was "good", 4 classes were taught per day, and those teachers who had "fair or poor" averaged 5 classes per day.



TABLE XX

AVERAGE NUMBER OF CLASSES TAUGHT PER DAY BY TEACHERS  
AS CLASSIFIED IN THE THREE HEALTH-STATUS GROUPS

Health-Status Group	Average Number of Classes Taught Daily
Excellent health	2
Good health	4
Fair or Poor health	5



## CHAPTER V

## SUMMARY-CONCLUSIONS AND RECOMMENDATIONS

Summary. The teachers who participated in this study could be classified according to an average group composite.

The man was married, maintaining a home, and was employed in a village of less than 2,500 population. He taught on the secondary level and had more than four years beyond high school of college training. He earned an annual salary of \$3,994.44.

Women teachers, of whom there were just four, were single, taught in an urban area on the secondary level. Her professional training amounted to more than four years training beyond high school and she earned a yearly income of \$4,080.00. This sampling was so inadequate that no significant or conclusive evidence can be derived.

Self-evaluation by the teachers of their health status. The data collected in this study disclosed that 93.7 per cent of the 130 teachers considered their health was either "excellent" or "good", while 6.3 per cent considered that their health was either "poor" or "fair".

Sex. The teacher's reports disclosed that 80 per cent of the males and 75 per cent of the females were in the upper health groups of "excellent" or "good".



Size of teaching community. In the self-rated health status of the teachers according to the size of the community in which they were employed, there was no significant difference.

Health disorders among the teachers. The 130 teachers reported a total of 166 health disorders which occurred with varying frequencies. Among the leading ailments were: colds, sore throats, digestive disturbances, nervousness, eye trouble and headaches.

Marital status. Married teachers rated their health more highly than did those who were single. Of the group of men and women who were married, 84.6 per cent rated their health as "excellent" or "good", while 76.4 per cent of the unmarried men and women considered their status to be in the upper two health categories.

Health habits of the teachers. It is noted that even though the greatest majority of teachers self-rate themselves in the "excellent" or "good" health group, very little outside physical recreational habits were maintained. Golf followed by dancing was the activity most regularly participated in. Dancing and swimming were mentioned as the most popular "occasional" activity.



Hobbies. Out of the 101 hobbies mentioned, hunting was the most popular; fishing, reading and photography followed closely. Unusual forms mentioned were: dog training, watch repairing, oil painting, and horse training.

Satisfaction in the profession. In response to the question, "Do you plan on staying in the teaching profession as a life's work?", it was revealed that 73.8 per cent planned to do so, and that 26.2 per cent were uncertain.

Training beyond high school. It was found that the teachers who had the greatest amount of training beyond the four years of high school also enjoyed more abundant health according to the self-ratings in the study.

Level of teaching. The teachers who instructed on the secondary level had a slightly higher but not significant percentage of "good" or "excellent" self-evaluated health ratings than those who taught on the elementary level.

Health status and the enjoyment of teaching. Two out of every three teachers indicated that they definitely enjoyed the work of teaching. The data revealed an existing relationship between the self-evaluated health status of the teachers and their enjoyment of teaching. Approximately 68 per cent of the teachers whose health status was "excellent" enjoyed teaching "very much" as compared to 65.5 per cent of



those whose health status was "good". The percentage of people who enjoyed teaching "very much" dropped to just 62.5 per cent for those whose health status was rated as "poor".

School provisions for teacher health appraisal. Seven per cent of the teachers indicated that a health examination was required as a prerequisite for entrance into the school system in which they were employed, nineteen per cent were required to take periodic examinations.

Salaries. A definite, well established salary schedule was enjoyed by only 23.7 per cent of the group. On the average, the teachers with "excellent" health ratings received the highest salaries, while the lowest salaries were earned by those teachers whose health status was "poor".

Tenure. Twenty three per cent of the teachers enjoyed a position of job security with no fear of dismissal without cause. The data revealed there was very little difference between the health groups in this field.

Class load. The teacher's class load, when considered according to their health status, averaged 22 pupils per day for those whose self-rating was "excellent", 24 pupils per day for those whose health status was "good", 26 students per day for the teachers who had a "fair" or "poor" health status.



The study further revealed that those teachers who had "excellent" health taught fewer classes per day than those who had "good" or just "fair" health.

School plant conditions considered injurious to teacher health. The participating teachers in this investigation reported a total of 191 conditions present in their schools which they believed were detrimental to their physical health. Defective ventilation and improper lighting were the two outstanding conditions.

Daily free period. The investigation revealed that 64.6 per cent of the entire group received no period during the day enabling them to attend to school details aside from their actual classroom teaching period, and to relax from regular classroom tension.

#### Conclusions and Recommendations

It has been the purpose of this investigation to state conclusions and to propose recommendations based upon the, actual conditions and problems of classroom teachers as they, themselves, have experienced and reported them.



### Conclusions

1. The teachers' state of health, according to their own evaluation, generally is sufficiently vigorous to meet the strain of classroom activities. Approximately 6.3 per cent of the teachers considered themselves to have ill health or lowered vitality to an extent which does not sufficiently enable them to successfully meet the continuous stress of the classroom.
2. The self-rated health status of secondary teachers and those who work on the elementary level are approximately the same.
3. The self-evaluated health status of teachers is not greatly affected by the size of the community.
4. School systems offer very little for the conservation of the health of teachers in service.
5. Teachers who consider themselves to have "excellent" or "good" health receive a higher annual salary than those who rate their health as being "fair" or "poor".
6. The majority of teachers are hired by school systems without any regard to their state of health, and are not required to show evidence of good health periodically.
7. A manifest association appears to exist between teachers' self-rated status and their enjoyment of teaching. Those teachers who were in "excellent" and "good" health found teaching more enjoyable.



8. The married teachers rated their health more highly than did those who were single.
9. The teachers' estimate of the school environment has a definite relationship to the health of the teacher. Those teachers who enjoyed teaching very much mentioned fewer injurious health conditions in their respective schools than did those who did not particularly like teaching.
10. Respiratory ailments such as colds and sore throats constitute the leading source of teacher ill health.
11. The school environmental conditions which are considered a health hazard to the physical and mental health of the teachers are in many instances completely preventable.
12. In general, teachers are quite happy in the profession, the majority of them intend to make teaching their life's work.



### Recommendations

1. It is recommended that every applicant for a teaching position be given a complete physical examination previous to employment. The teacher may have the examination made by the school physician or any reputable, regularly licensed physician of the teacher's own choice, using an approved form. Reasonable time should be allowed for the correction of any remediable defects, except in cases of infectious diseases. The expense of the examination should be assumed by the hiring school.
2. It is recommended that prior to teacher training, students be given a physical examination with special reference to neurotic tendencies and mental hygiene practices. The environment and program should be so planned and administered to help every teacher lead a healthful, vigorous life while in training. Teacher training institutions should provide more and better courses dealing with the fields of health and maintain machinery for diversion of questionable candidates into other professions.
3. It is recommended that all school employees be required to have periodic health examinations, including a chest Xray. The extent of examinations and their frequency



should be determined through cooperative planning by teachers, school administrators, and school medical advisors. Periodic examinations are desirable to protect the student and school employees from the effects of many unsuspected illnesses. The health examination record should not be sent to the superintendent's office, but be retained by the examining physician who will make recommendations to the school board or hiring officials.

4. It is recommended that school plants be carefully inspected in order to meet school housing standards established by law and official building and health regulations. Important considerations are adequate size; appropriate ventilation, heating, lighting, and acoustics; adjustable seats with regard for postural considerations; attractive decorations; wide halls; stairways of fire-proof construction; doors opening outward on automatic safety latches. Lavatories and hand-washing facilities should be adequate. There should be an ample number of drinking fountains of approved sanitary design, and these should always be kept in good working order.
5. It is recommended that teachers and administrative groups work cooperatively together to determine the causes which serve to impair their health and take steps to amend these conditions. Such problems as leaves of absence, salaries, teaching load and recreational facilities are important to both groups.



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A P P E N D I X

W. W. HAMMER  
MADE IN U.S.A.



## APPENDIX A

Grand Forks, North Dakota  
June 4, 1953

Dear Sir:

According to an analysis made in November of 1937 by the Research Division of the National Education Association, the health prerequisites to certification and employment in public schools had been established either by state laws or state board rules and regulations.

Could you please inform me by return mail what health standards your state requires as a basis for teacher certification?

I would like to know if a health certificate or qualification is required, the person or agency certifying to health status, persons to whom the requirements apply, and other related provisions if any.

Thank you very much for your time and consideration.

Very truly yours,

Robert H. Fielder  
J-2 Park Village  
Grand Forks  
North Dakota



## APPENDIX B

## A HEALTH SURVEY FOR TEACHERS

You are asked to fill in the blanks in this survey, giving as accurate a report as you can on your health and on certain conditions which affect it. Your response, with others may be helpful in promoting better health within the entire teaching profession. Obviously, much of the information requested must relate to matters more or less confidential in character. So, to protect you absolutely with reference to all your statements, you are asked to return the blank unsigned. Therefore, the value of your reply will depend on the completeness, accuracy, and frankness of your present statements.

## GENERAL INFORMATION

1. Indicate with an X the type of community in which you teach:
 

<input type="checkbox"/> Rural	<input type="checkbox"/> Village less than 2,500
<input type="checkbox"/> Town 2,500 to 5,000	<input type="checkbox"/> City 10,000 or over
2. State in which you teach \_\_\_\_\_
3. Sex: Male  Female  Marital status: Single   
Married
4. Amount of schooling beyond high school:
 

<input type="checkbox"/> Less than 1 year
<input type="checkbox"/> 1 year
<input type="checkbox"/> 2 years
<input type="checkbox"/> 4 years
<input type="checkbox"/> More than 4 years
5. How many years have you taught school? \_\_\_\_\_
6. Present grade level in which you teach:
 

<input type="checkbox"/> Elementary	<input type="checkbox"/> Junior High	<input type="checkbox"/> Senior High
-------------------------------------	--------------------------------------	--------------------------------------
7. What type of teaching certificates do you hold? \_\_\_\_\_

## HEALTH STATUS

1. Check the statement which best describes your health at present:
 

<input type="checkbox"/> chronic ill health	<input type="checkbox"/> low vitality	<input type="checkbox"/> fair health
<input type="checkbox"/> good health	<input type="checkbox"/> excellent health	
2. If you have any serious handicap, please indicate briefly its nature: \_\_\_\_\_



3. If you have been under a doctor's care or had any illnesses during the past five years, what diseases were present?

- |   |   |
|---|---|
| <input type="checkbox"/> anemia                 | <input type="checkbox"/> indigestion                      |
| <input type="checkbox"/> colds                  | <input type="checkbox"/> leg or feet pains                |
| <input type="checkbox"/> sore throat            | <input type="checkbox"/> rapid or excessive fatigue       |
| <input type="checkbox"/> headaches              | <input type="checkbox"/> abdominal pain or discomfort     |
| <input type="checkbox"/> nervousness            | <input type="checkbox"/> toothache                        |
| <input type="checkbox"/> backache               | <input type="checkbox"/> ear trouble                      |
| <input type="checkbox"/> persistent cough       | <input type="checkbox"/> more tired in morning that night |
| <input type="checkbox"/> difficulty in sleeping | <input type="checkbox"/> dizziness                        |
| <input type="checkbox"/> constipation           | <input type="checkbox"/> tuberculosis                     |
| <input type="checkbox"/> eye trouble            | <input type="checkbox"/> diabetes                         |
| <input type="checkbox"/> skin eruptions         | <input type="checkbox"/> heart trouble                    |

4. How many days absent from school due to illness in the past years? \_\_\_\_\_

#### HEALTH HABITS

1. Check the activities in which you take part:

	Regularly	Occasionally
Systematic exercise	_____	_____
Dancing	_____	_____
Swimming	_____	_____
Tennis	_____	_____
Golf	_____	_____
Hiking	_____	_____
List others (be specific)	_____	

2. List your hobbies: (be specific) \_\_\_\_\_

3. Indicate below the manner in which you spent your 1950, 1951, and 1952 summer vacations:

	1950	1951	1952
Teaching summer school classes	_____	_____	_____
Attending summer school	_____	_____	_____
Travel	_____	_____	_____
Summer recreation director	_____	_____	_____
Rest	_____	_____	_____
List others:	_____		

#### TEACHING CONDITIONS

1. Do you enjoy teaching:  not particularly  
 fairly well  
 very much

2. What are your major fields? \_\_\_\_\_ minor fields? \_\_\_\_\_



3. List subjects taught during the past two years:  
 1951-1952 \_\_\_\_\_  
 1952-1953 \_\_\_\_\_
4. Do you have the same group of children the entire day? \_\_\_\_\_
5. Do you plan on staying in the teaching profession as a life's work?  
 yes     no     uncertain
6. How many pupils are enrolled in your largest class? \_\_\_\_\_  
 How many classes taught per day? \_\_\_\_\_  
 What is the average size? \_\_\_\_\_
7. Check any of the following conditions, present in your school, which you believe are detrimental to your health:  
 Defective ventilation  
 Cold and drafty room  
 Improper lighting  
 Unsanitary teacher toilet facilities  
 Unsuitable school furniture  
 General unpleasant school surroundings  
 List others \_\_\_\_\_
8. Check any of the following which apply in your school system:  
 Health examination required upon entrance to school system.  
 Who performs this duty? \_\_\_\_\_  
 Who bears the expense? \_\_\_\_\_  
 Is this report filed in the superintendent's office? \_\_\_\_\_  
 How is the superintendent informed? \_\_\_\_\_  
 Periodic health examinations required:  
 How often? \_\_\_\_\_  Annually     Every 2 years  
 Others list \_\_\_\_\_  
 How often is the TB test given? \_\_\_\_\_  
 What type TB test is given?  
 Mantoux     Patch     Xray  
 A definite well established salary schedule  
 Free periods during the school day  
 Number of free periods? \_\_\_\_\_ (1952-1953)  
 Comfortable rest rooms for teachers  
 Recreational facilities  
 Security in position, no fear of dismissal without cause  
 A definite sick leave policy:  
 How many days annually? \_\_\_\_\_ Are days accumulative? \_\_\_\_\_  
 If so, how many? \_\_\_\_\_
9. Were you required to take a physical examination by the college you attended? \_\_\_\_\_ Prior to taking teachers training? \_\_\_\_\_ Upon graduation? \_\_\_\_\_
10. Were specific courses required regarding health? \_\_\_\_\_



## OUT OF SCHOOL CONDITIONS RELATED TO HEALTH

1. Describe your present residence living arrangement:

Living with parents

Maintaining a home

Having a sleeping room in a home and taking meals elsewhere

Sharing an apartment

List others \_\_\_\_\_

2. How many people excluding yourself are supported by you? \_\_\_\_\_

3. What is your annual income? \_\_\_\_\_ Salary from teaching? \_\_\_\_\_

Other sources? \_\_\_\_\_

4. During the school week do you regularly work outside of school hours? \_\_\_\_\_ If so, number of hours? \_\_\_\_\_

5. About how much time do you devote to religious or community work? \_\_\_\_\_ (hours per week).



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Montgomery 4  
Alabama

Department of Public Instruction  
Capitol Building  
Phoenix  
Arizona

Division of Teacher Education and Certification  
Department of Education  
Education Building  
Little Rock  
Arkansas

State Department of Education  
Sacramento 14  
California

Supervisor of Teacher Certification  
Department of Education  
127 State Capitol  
Denver 2  
Colorado

State Office Building  
Department of Education  
Hartford  
Connecticut

Department of Public Instruction  
Box 191  
Dover  
Delaware

Department of Education  
Tallahassee  
Florida

Department of Education  
State Office Building  
Atlanta 3  
Georgia

State Board of Education  
Room 205, Statehouse  
Boise  
Idaho



Teacher Certification Board  
Room 403, Centennial Building  
Springfield  
Illinois

Division of Teacher Training and Licensing  
Department of Public Instruction  
Indianapolis 4  
Indiana

Superintendent of Public Instruction  
State Office Building  
Des Moines 19  
Iowa

Director of Certification and College Accreditation  
Department of Public Instruction  
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Kentucky

Department of Education  
Baton Rouge 4  
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Director of Certification and Accreditation  
Department of Education  
2 West Redwood Street  
Baltimore 1  
Maryland

Department of Education  
200 Newbury Street  
Boston 16  
Massachusetts

Department of Public Instruction  
Lansing 2  
Michigan



Department of Education  
St. Paul 1  
Minnesota

Superintendent of Education  
Department of Education  
Jackson  
Mississippi

Department of Education  
Division of Public Schools  
Jefferson City  
Missouri

Superintendent of Public Instruction  
Helena  
Montana

Superintendent of Public Instruction  
State Capitol  
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Nebraska

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State Board of Education  
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State Board of Examiners  
Department of Education  
175 West State Street  
Trenton 8  
New Jersey

Department of Education  
Box 999  
Santa Fe  
New Mexico

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Albany 1  
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Ohio

State Board of Education  
Oklahoma City  
Oklahoma

Division of General Education  
Department of Education  
106 State Library Building  
Salem  
Oregon

Department of Public Instruction  
Box 911  
Harrisburg  
Pennsylvania

Department of Education  
205 Benefit Street  
Providence 3  
Rhode Island

Department of Education  
314 Wade Hampton Office Building  
Columbia 1  
South Carolina

Superintendent of Public Instruction  
State Capitol Building  
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South Dakota

Division of Public High Schools  
Department of Education  
206 Memorial Building  
Nashville 3  
Tennessee



Texas Education Agency  
Capitol Station  
Austin 11  
Texas

Superintendent of Public Instruction  
Director of Teacher Personnel  
Room 223, State Capitol  
Salt Lake City 1  
Utah

Director of Teacher Education and Certification  
Department of Education  
Montpelier  
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Superintendent of Public Instruction  
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