AN EVALUATION OF THE HEALTH PROGRAM
OF DENTON COUNTY FOR 1947-48

APPROVED:

J. C. Mathews
Major Professor

O. E. Levy
Minor Professor

J. C. Mathews
Director of the Department of Education

Jack Johnson
Dean of the Graduate School
AN EVALUATION OF THE HEALTH PROGRAM
OF DENTON COUNTY FOR 1947-48

THESIS

Presented to the Graduate Council of the North
Texas State Teachers College in Partial
Fulfillment of the Requirements

For the Degree of

MASTER OF SCIENCE

By

Charles E. Silk, B. S.
158579
Denton, Texas
August, 1948
# TABLES OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>II. DEVELOPMENT OF TEXAS HEALTH EDUCATION PROGRAM IN DENTON COUNTY</td>
<td>17</td>
</tr>
<tr>
<td>III. HEALTH EDUCATION PROGRAM IN ACTION</td>
<td>27</td>
</tr>
</tbody>
</table>

I. INTRODUCTION

- The Texas Health Study
- Philosophy of Health Program
- Need for Health Program
- Definition of Problem
- Scope of Problem
- Plan of the Study

II. DEVELOPMENT OF TEXAS HEALTH EDUCATION PROGRAM IN DENTON COUNTY

- Participation in Health Education Workshop
- Designation of Rural Schools of Denton County as Demonstration Center
- Contacts with Consultants, Teachers, and Interested Groups
- Approval of Program by County Board of School Trustees
- Cooperation of Teachers Assured at Teachers Institute

III. HEALTH EDUCATION PROGRAM IN ACTION

- A Health Survey of the Schools
- Formulation of Health Record Card
- Development of General Health Examination and Immunization Program
- Development of Dental Clinics
- Screening for Visual Defects
- Screening for Hearing Defects
- Environmental Control in the Schools
- Instigation of Daily Observation and Periodic Check
- Lunchrooms in the Health Education Program
- In-Service Training Program for Teachers
- Requirement for Vaccination
- Organization of the Community Health Council
# Chapter IV. EVALUATION OF HEALTH PROGRAM OF DENTON COUNTY FOR 1947-48

| Statements and Opinions of Teachers |
| Statements and Opinions of Parents |
| Statements and Opinions of Trustees |
| Statements and Opinions of Physicians and Dentists |
| Statements and Opinions of Sponsors |
| Reactions of Students to Health Education Program |
| Follow-up in Health Education Program |

# Chapter V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

| Summary of Program |
| Conclusions |
| Recommendations for 1948-49 |

# APPENDIX

| BIBLIOGRAPHY |
CHAPTER I

INTRODUCTION

The Texas Health Study

The health and physical education program of Texas was made a statutory requirement in the public schools in 1930.¹
Initiation and administration of a program of health and physical education was designated as the responsibility of the State Department of Education. The State Legislature made no appropriation for the program and no funds were immediately available from any source. Charged with a responsibility and provided with no funds, the State Department of Education pursued the natural course and included health and physical education courses in the State Course of Study.²
The concept of the health and physical education program as recommended by the State Department of Education was a program for the improvement of general good health as the first aim and the winning of contests as a secondary aim. To give the program all possible emphasis a Health and Physical Education Division was created with R. N. Sandlin as Supervisor. In spite of obvious

---

²Ibid., p. 5.
limitations, the health and physical fitness program expanded throughout the state. As the program developed, the need for funds became more urgent.

In 1944 financial aid was granted by the W. K. Kellogg Foundation, Battle Creek, Michigan which made possible the launching of the Texas School Health Project. The State Superintendent served as general supervisor of the project and appointed a Consultant in Health Education to serve as Project Director. Dr. D. B. Harmon, Director, the Educational Services Division, Texas State Department of Health aided the Project Director. With the assistance and guidance of various educational and health agencies, and health teachers, the following basic policies for a Seven Point Health Services Program were adopted:

1. Control of communicable diseases through immunization, and through isolation of diseased pupils, after daily observance by the classroom teacher for detection of communicable diseases and acute health difficulties.

2. Minimize non-communicable defects by periodic teacher observation and, in as far as possible, through therapeutic treatment.

3. Provision of minimum health essentials in classroom environment.

4. Provision of adequate activity for students to promote their physical fitness.

5. Inclusion of adequate nutrition supervision and instruction in the curriculum.
6. Inclusion of sufficient health education in the curriculum to promote insight into personal hygiene, local health hazards, and participation in community efforts for promotion of health.

7. Integration of school health programs with the community health program in such a way that they not only connect with the life of the school child, but provide continuity with what has gone in the pre-school period in Well-Child Conferences. 3

Some of the more important phases of the project as it operated under the original grant in aid by the Kellogg Foundation included: Organization of summer workshops in several teacher training institutions to train teachers in health education, the development of a handbook by a workshop called Texas Handbook of Instruction for Health Education and Physical Education for Junior and Senior High Schools, 4 and the development of a handbook by a workshop called Guide to Healthful Living in Elementary Schools. 5

In addition, the project director assisted in coordinating the activities of the various groups working in the various aspects of a total health program, and provided materials and supervisory assistance to schools teaching courses in

---


4 David K. Brace and others, Texas Handbook of Instruction for Health Education and Physical Education for the Junior and Senior High Schools.

health education. The Texas School Health Project took on other phases dealing with healthful living within the school and community and the development of the whole of the child. However, a previous study has developed this project and further details presented in this study would be repetitious.\footnote{Minnie Fae Enloe, A Survey of the Health Education Program of the State Department of Education of Texas, (Unpublished Master's Thesis, Department of Education, North Texas State College, 1947), p. 47.}

In the opinion of the writer, the Texas School Health Project made possible an important step in the direction of more healthful living in the schools, it focused the attention of a large number of school people on an inadequate school health program in Texas and stimulated them to assume leadership in a new health program involving the school and community and the development of the whole child. It can be assumed, therefore, that the success of the Texas School Health Project in part was responsible for an additional grant in aid by the Kellogg Foundation in 1946.

A meeting was held in Dallas September 13, 1946, for the purpose of discussing the health problem and the need for improving health education in Texas schools on all levels. An invitation was extended by the State Superintendent of Public Instruction to the presidents of all four-year colleges and universities and representatives of all agencies...
interested in health education to attend the meeting. All who attended the meeting returned to their local areas and discussed the situation with their personnel in the field of health prior to a second meeting which was held in Austin on September 28, 1946. At this meeting the same group was invited and also Directors of Health and Physical Education. Those colleges which were interested formulated plans for a new three-year program of health to be submitted to the Kellogg Foundation. Based on these plans and the individual plans submitted by the five interested colleges and universities, an additional grant was made by the W. K. Kellogg Foundation to the State Department of Education and the five teacher training institutions which had submitted acceptable plans for a three-year program for improved school and community health education and pre-service teacher training.

In December, 1946, a committee of outstanding authorities in health education met for an initial planning conference for the improvement of school and community health education in Texas. The plan of this committee "The 1947 Texas Program for Improving Health Education" was presented at the Fourteenth Annual Conference of School Executives, Teacher Trainers and Supervisors. School administrators who were interested in participation were requested to present the proposed extended school and community health
program to their faculties, school boards, interested groups and to lay people. If sufficient interest in the program was shown "each school system desiring to cooperate is asked to show its intent by supplying the Consultant in Health Education, State Department of Education, with written approval of its Board of Education."  

Numerous letters from school systems desiring to participate and seeking designation as community school sites were received by the State Consultant and the letters were forwarded to the five cooperating teacher training institutions; namely, North Texas State Teachers College, Prairie View University for Negroes, Stephen F. Austin State Teachers College, Texas State College for Women, and the University of Texas. It was agreed that the number of community school sites with which each cooperating teacher training institution would work would be limited to five for the three-year program. However, six sites or demonstration centers were designated for North Texas State Teachers College "because the college cooperated jointly with Texas State College for Women in one community and with the University of Texas in another community."  

The six community school sites or demonstration centers chosen were: Denton, Sweetwater, Pilot Point, Rural Schools of Denton, Mesquite and Hooks.


The methods and procedures used in the selection of the community school sites from more than one hundred requests are immediately available through previous studies and this study will not undertake to review them.

**Philosophy of Health Program**

Preparatory to going into the phase of the health program which this study will describe in detail, it is necessary, the writer believes, to discuss "The 1947 Texas Program for Improving Health Education" as a part of the three-year plan, to investigate the philosophy upon which the program was based and to examine the objectives of the program.

The health education problem had been approached through health instructional courses improperly presented by teachers without adequate training in modern techniques and procedures. This developed into very little more than the daily recitation from health textbooks which collected dust in students' desks. An in-service training program for all teachers in health education was necessary as an initial step. It was recognized by authorities that teachers in the classrooms had to have some knowledge of modern teaching techniques in the program involving the health of their communities.

To promote the program and enable it to reach into the whole community, and spread throughout the state, the next
step considered important was the coordination of all community resources for the development of school and community health programs. The authorities in the field agreed that no school health program could succeed and attain the desired results unless the program included all community institutions interested in the improvement of living conditions. This important phase of the program is well expressed by L. D. Haskew as follows:

Even if economic conditions and the availability of health services were to remain unchanged and additional medical research were ended, the physical efficiency of many southern people could be increased enormously by simply getting what is already known translated into common practice.9

It was recognized too that plans must be made for the promulgation of the program and its improvement by providing pre-service training for all teachers by teacher training institutions, in order that those teachers coming into the field could contribute to better school and community health.

Healthful living involves the thought and action of every teacher, student, individual citizen and every institution within the community, within the state and within the nation. Lamkin says:

Health education is a continuing and well balanced program which has for its goal the improvement of human living. It is an integral part of the school curriculum and of the day-by-day life in any community.  

In the preceding paragraphs the writer has dealt with the philosophy of the health program as it was applied at the state level. The broad philosophy of the state program was reflected in the program of the rural schools of Denton County. Primarily, the aim of the community health program of Denton County was to use the schools as motivating agencies for the improvement of health conditions in the several communities. Another aim was to stimulate the interest of teachers in a well balanced school and community health program—a program involving every individual and institution. A further aim was to provide an in-service training program and to set the stage for more in-service training.

Need for Health Program

The need for more healthful living in the nation and state is reflected in numerous surveys and studies. The most convincing statistics on the need for decisive and immediate action are those compiled by the Selective Service System during World War II. Statistics of the system reveal that out of every one hundred registrants examined "the national

10Nina B. Lamkin, Health Education in Rural Schools and Communities, p. 3.
rejection rate was 40.6, with a range in the state rates from 23.5 rejections per one hundred registrants examined in Wisconsin to 58.2 in Mississippi. The Texas rejection rate was 37.0 per one hundred registrants. The rejection rates of men within the military age cannot be cast aside.

A bulletin prepared recently by the Association for Childhood Education comments as follows:

It is evident from Army statistics that most of the fundamental causes for rejection are of long standing and are attributable in large part to the lack of early medical attention. It is probable that closer attention to early health needs, a better program of health education in the schools, the extension of school and community health services and closer contacts between homes and schools might have prevented the high rate of rejections. In 1940 the United States Public Health Service reported that one of every six persons in the United States suffers from a chronic disease or a physical impairment.

In an address made to the Annual Conference of Superintendents and Principals of Texas in January, 1947, Hugh B. Masters said in part:

The lack of an adequate health program in its broadest sense undoubtedly contributed much to the fact that approximately forty per cent of

---


the rural male population was unable to participate in military service. . . . The best protection that we can have is not necessarily one year of military training but a vigorous and dynamic health program covering everyone from birth until death.\textsuperscript{13}

President Hoover in the opening address to the White House Conference on Child Health and Protection in 1930 said in part:

In the United States there are 45 million school children, of whom 35 million are reasonably normal. However, he continued, there is abundant evidence to show that 6 million are improperly nourished, 1 million have speech defects, 675,000 exhibit behavior problems, 1 million have weak or damaged hearts, 450,000 are mentally retarded, 382,000 have tuberculosis, 340,000 have impaired hearing, 300,000 are crippled, 50,000 are partially blind, 18,000 are totally deaf, and 1,400 are totally blind. In addition, 20,000 school children are delinquent and 500,000 dependent on charitable organizations or the state.\textsuperscript{14}

Medical surveys reveal among school children a much greater prevalence of physical defects than is commonly supposed. Estimates of the percentage of physical defects among children vary because of differences of opinion concerning their diagnosis and the extent to which they must exist in order to be so classified. Surveys indicate that approximately 65.0 per cent of all children need specialized

\textsuperscript{13}The State Department of Education, \textit{A Desirable Educational Program for Texas}, p. 25.

\textsuperscript{14}Lawrence B. Chenoweth and Theodore K. Selkirk, \textit{School Health Problems}, p. 3.
treatment, such as eye examination, removal of hypertro-
phoid adenoids or diseased tonsils, repair of teeth, or
correction of malnutrition.\textsuperscript{15}

A medical examination which was given 426 school chil-
dren entering the Astoria School, New York revealed that 188
or 44.0 per cent had adverse conditions or what are commonly
referred to as physical defects. Defects of teeth were
most prevalent with 64.0 per cent having such defects.
Other adverse conditions were found to exist as follows:
skin 5.0 per cent, ear disease 2.0 per cent, hearing 2.2
per cent, eye disease 12.0 per cent, vision 6.0 per cent,
nose 14.0 per cent, tonsils 54.0 per cent, heart 4.0 per
cent, spine 5.0 per cent and lungs 1.01 per cent.\textsuperscript{16}

School Subjects, summarizes the problems in health education
as follows:

1. From 20 to 30 per cent of school children have
defective vision.

2. From 6 to 14 per cent of school children have
defective hearing. Serious defects in hear-
ing tend to produce school retardation.

3. Less than 10.0 per cent of school children are
free from diseased teeth or gums. School work
appears to be affected by this condition, but
the relation is not consistently positive or
negative.

\textsuperscript{15}Robert A. Davis, \textit{Educational Psychology}, p. 33.
4. About 12.5 per cent of school children have diseased tonsils and about 8.0 per cent have enlarged adenoids.

5. About 7 out of 10 persons have trouble with their feet.

6. Specific classroom instruction, supplemented by periodic physical examinations and the supplying of recommendations to the parent is an effective method of building up good health habits in children.\(^{17}\)

In a recent study made by the Research Council for Economic Security on the health status of the nation Texas was ranked as "poor."\(^{18}\) Jean Betzner, President, Association for Childhood Education, sums up the need for education for healthful living in this manner:

For the last twenty years the health of children has been dealt with in some manner in all of our schools. But the present crucial period with its new and trying demands on our population, old and young, is revealing as never before the need for broader approaches to education in healthful living and the need for drastic changes in learning how to provide for the health of everyone. Deficiencies in the well-being of men, women and children are sufficiently conspicuous at present to attract the attention of even the indifferent. This appears, then, to be an optimum time for all our schools to analyze their programs in healthful living with a view to cooperating with other agencies and with renewed zeal to do their part in building something better.\(^{19}\)


\(^{19}\)Association for Childhood Education, *Healthful Living for Children*, p. 4.
The fact that our schools and our citizenship, through disregard for healthful living, lack of stimulation and leadership, or lack of proper techniques, have failed miserably in a phase of our life which should be of vital concern to all cannot be denied.

The surveys and opinions of those authorities cited were not the sole basis of need for a functional community school health program in the rural schools of Denton County. Denton County did not have a County Health Unit or a County Health Nurse. The lack of such services, and lack of an organized health program with consideration for the health of the entire community and the fact that no school considered in this study had a physician living within the school district boundaries indicated a need. Several teachers in several schools had discussed the health conditions in the schools and communities and on numerous occasions some teacher would say, "Mary Bell is a fair student but she is not well physically, What can I do for her?" To further ascertain the specific needs for a health program in Denton County Schools and Communities, a survey of the health problem was inaugurated. The findings which further bear out the need for a health program will be dealt with in Chapter III.
Definition of Problem

The purpose of this study is to evaluate the Health Education Program of Denton County for 1947-48, and in the light of the findings to make recommendations for 1948-49.

Scope of Problem

The Health Education Program of Denton County as described in this study is limited to the rural schools of Denton County which were represented 100.0 per cent. There are twelve schools, six hundred students and thirty-one teachers. The size of the schools range from a one-teacher school with a four-grade classification to a six-teacher affiliated two-year high school. All schools are accredited and operate on a nine months basis. There are seven schools which have three school board members each and five schools which have seven board members each. The schools operate under the supervision of the County Administrative Staff and the County Board of School Trustees which is composed of five members. The County Administrative Staff is composed of: A County Superintendent, an Assistant County Superintendent, a County Supervisor and a Secretary.

Plan of the Study

The first chapter of this study deals with the introduction to the problem and the philosophy of the Health
Program. It cites the need for a community school health program, defines the problem and sets forth its limitations.

The development of the Texas Health Education Program in Denton County is taken up in Chapter II. This chapter describes the preliminary planning, the designation of the rural schools as a health demonstration center and the contacts made with consultants, teachers, trustees and patrons. It presents the method used in securing wholehearted endorsement of the program by the County Board of School Trustees and the teachers.

A step by step description of the Health Education Program in action is given in Chapter III. It deals with every phase of the school and community health program developed during the school year, including the co-ordination of all groups into a movement for the development of the whole child.

Chapter IV evaluates the study. The evaluation is based on follow-up, opinions of teachers, parents, trustees, health education authorities, physicians, dentists and students. The evaluation is made in the light of pupil activity, pupil achievement, and community awareness of existing health problems.

In Chapter V the program for 1947-48 is summarized and recommendations are made for the school year 1948-49.
CHAPTER II

DEVELOPMENT OF TEXAS HEALTH EDUCATION
PROGRAM IN DENTON COUNTY

Participation in Health Education Workshop

The teachers in the rural schools of Denton County have been responsive to suggestions and plans of any group or individual for the improvement of health conditions in the schools and communities. They have not hurriedly said, "Yes, give me a textbook; I can teach it." On the contrary, however, a majority have sought with eagerness more training in the modern techniques of teaching healthful living.

They have been stimulated, because of their contact with the parents of students, to grasp the opportunity for improvement in any phase of the school program which would afford the opportunity to make closer and more favorable contacts with the people in their communities. Many of our teachers, we believe most of them, have the philosophy and properly so that "our school program can be no better than our people will let it be." Based on such a philosophy and considering our rural school teachers as a group, they have been responsive to the idea of additional training in a program of health education—workshop courses in which the emphasis has been placed on modern methods and techniques of
teaching healthful living in such a way that the whole community would participate. Therefore, a very large majority of the rural school teachers of Denton County eagerly participated in the Child Health Development Workshops at North Texas State Teachers College during the Summer Sessions of 1945, 1946, and 1947. Their participation in the workshop during the Summer Session, 1947, was certainly very highly desirable since the rural schools had only a short time earlier been designated as a Health Demonstration Center.

Designation of Rural Schools of Denton County as Demonstration Center

A letter was written to the State Consultant in Health Education, State Department of Education, early in the Spring of 1947 requesting that the rural schools of Denton County be designated as one community school health site or demonstration center. The majority of the teachers had participated in the health workshops; however, an opportunity to "line-up" on the Texas Health Education Program was highly important.

Too, the fact that North Texas State Teachers College was cooperating as a teacher training institution in the health program and would furnish expert consultant services, and the fact that many of the teachers requested
assistance in the field of health education stimulated the
writer to further request by letter to J. C. Matthews, Dean
of the School of Education, North Texas State Teachers
College and Rhea H. Williams, Co-ordinator of Health Educa-
tion, North Texas State Teachers College, that the rural
schools of Denton County be considered carefully for desig-
nation as a demonstration center. Shortly before the close
of the school year 1946-47, a letter from J. C. Matthews and
Rhea H. Williams approved the rural schools of Denton County
as a demonstration center. This still further stimulated
the teachers to participate in the health workshop which
has been mentioned earlier in this chapter.

Contacts with Consultants, Teachers,
and Interested Groups

With no health organization functioning, there was much
preliminary work to be done in getting a health program
under way. Obviously, there were no rules, no laws, no pre-
cedents on which to project our plans. Contacting everyone
thought to be receptive or in a position to offer suggestions
and assistance in a school and community health program was
a matter of first consideration. Getting people interested,
getting people stimulated and awakened to the need for action
involved the writing of letters, quotation of statistics,
and endless conversation.

Teachers, trustees and a good cross-section of the gen-
eral citizenship were contacted and informed of plans to
develop the type of health program found to be most needed in the schools and communities. Favorable response came in abundant proportions. Those contacted were ready to assume a full measure of responsibility in a health program which would be basic, real, active and cooperative.

The Chairman of the Denton County Medical Society was contacted and he immediately expressed favorable consideration for the program. He said:

I believe all members or at least a great majority of the members of the Denton County Medical Society will be willing to cooperate in any movement which will awaken the people to the health needs of the county. This is the best way I know to begin—through the schools.

He later discussed the program in a general way with all members of the society, and it was officially approved by the Denton County Medical Society.

An outstanding young dentist in Denton was contacted and upon being told that a health program was being planned which would require the coordinated efforts of all interested groups and that the assistance of the dentists of Denton would in all probability be necessary, he immediately commented, "I am quite sure you will find that many children need dental work and I believe most of our dentists will cooperate with you on carrying out whatever program seems

---

1Statement by Walter S. Miller, M. D., personal interview.
Two more dentists were contacted, one a new dentist in Denton, and the other a dentist of lengthy practice in Denton. They both were pleased with the plans to give more attention to health and pledged their cooperation. Since Denton County did not have an active dental society and the dentists could not be contacted as a group, it was decided that the attitude of the three dentists contacted individually would be indicative of the attitude of the whole group.

A nurse who was associated with the Denton County Tuberculosis Association was contacted. She informed us that the organization with which she was associated approved of her participation in a health program designed to improve the living conditions and health standards in the county and that she would be glad to give her time and render all possible assistance in such a program. Thus, the services of a registered nurse were assured.

The Dean of the School of Education, North Texas State Teachers College, in a stimulation and planning conference commented,

This is the type of thing in which you can really do some worthwhile things. You should bring all interested groups into your program and provide for the participation of all teachers, trustees.

---

parents, and students. A health program should stimulate school and community activity. We will be glad to assist you in any way we can."

The Coordinator of Health Education, North Texas State Teachers College, who will be frequently mentioned as a consultant in this study, in one of many conferences said:

We need to stress community participation in this program. Health is everyone's problem—the home, school, and entire community. The development of the whole child should be your objective. I will assist you in every possible way."

Those consulted agreed that some way should be provided to care for needy cases which would arise. With this possibility in mind, the aid of the Kiwanis Children's Clinic and the Lions Club of Denton was requested. Generous approval was given the program and the aid of each organization was assured. The Denton Record-Chronicle, a newspaper most widely circulated in the area, through the Managing Editor, agreed to give all possible publicity to the program.

The contacting of teachers, trustees, patrons, consultants and interested agencies in the planning period will appear to the reader as a minor and insignificant detail. However, the contacts made, the generous approval received

---

3 Statement by J. C. Matthews, personal interview.

4 Statement by Rhea H. Williams, personal interview.
and the prevalence of a cooperative spirit noted herein gave the program in the initial stage the proper basis and provided the stimulation needed to further develop a functional health program in the rural schools of Denton County. No other step taken in the planning period is considered by the writer to be of equal importance to this "build-up" phase of the program.

Approval of Program by County Board of School Trustees

In planning any type of school program, the administration is always, or should be, careful to work closely with the governing body. It is a matter of importance in any well planned school program to keep the governing body in touch with, and secure its approval and support on all major policies and procedures.

The County Board of School Trustees is the governing authority in the administration of the schools of a county and has direct jurisdiction over the program of all rural schools. It was considered important, therefore, to familiarize the County Board of School Trustees of Denton County with the health program and to seek approval of the program by the board.

In a meeting of the County Board of School Trustees, Rhea H. Williams, Coordinator of Health Education, North Texas State Teachers College, and the writer informed the
board of plans for a health program in Denton County. After the facts relating to the need for improved health in schools and communities were presented, the program was given unanimous approval. The following resolution was entered upon the minutes of the meeting endorsing and urging support of the program:

WHEREAS, Dr. Rhea H. Williams, Coordinator of Health Education, North Texas State Teachers College, has on this 19th day of August, A. D., 1947, appeared before this board to call attention to some of the health needs of the schools and communities of Denton County, and

WHEREAS, it is commonly known by all members of the County Board of School Trustees of Denton County, Texas, that more attention should be given to healthful living in the homes and in the schools, and

WHEREAS, it is the opinion of this Board, that the health conditions in the county do not meet the highest standards possible, and

WHEREAS, it is the opinion of this Board that one of the best ways to improve the health standards in the county is the inauguration of a community and school health program, therefore, be it,

RESOLVED, that the County Board of School Trustees of Denton County, Texas, on this the 19th day of August, A. D., 1947, endorse the health program as outlined by Dr. Williams, and that the County Superintendent of Denton County be and is hereby authorized to enlist for the County Board the active support of all teachers, trustees, and interested agencies in a program planned to improve the health status of the people of the county, and be it further

RESOLVED, that the County Board of School Trustees by this Resolution express to Dr. Rhea H. Williams the appreciation of all members of the board for his counsel and efforts in organizing a health program in Denton County. 5

5Minutes of County Board of School Trustees of Denton County, Texas, Volume 3, p. 31.
Cooperation of Teachers Assured at Teacher Institute

The cooperation of all teachers in a program planned to improve health in the school and community is essential. In the first planning period, the administrative staff had been assured of cooperation by many of the teachers. However, a meeting of all teachers was held in which emphasis was placed on health in the schools and communities.

The Coordinator of Health Education, North Texas State Teachers College in a talk to the teachers emphasized at one point:

There must be a long-range health program in schools which will include a comprehensive health survey in the schools and communities and a health council organized to plan and project the program. A health program must be a community program. 6

The Deputy State Superintendent in discussing the over-all program of the State Department of Education commented,

We must extend our program of health education. We must use our health textbooks only as one source of materials and adjust our programs to meet the needs of those communities in which we work.

J. L. Robinson, District Engineer, State Department of Health, informed the teachers of the health services available

6 Statement by Rhea H. Williams, address in County Teachers Meeting, September 22, 1947.

7 Statement by Harry W. Rice, address in County Teachers Meeting, September 22, 1947.
to schools through the State Department of Health. The need for monthly tests of water supplies in every school, the improvement of restroom facilities, and preventive health measures were given special emphasis in his talk.

A committee of teachers was appointed after the meeting to help plan and carry out future policies and programs in the health project. Certainly, such a step was necessary in a democratic and cooperative movement.

The favorable reaction of a great majority of the teachers to a program for the improvement of health conditions further developed plans to a point where only administrative details remained to be solved. The questions asked and statements made by the teachers, trustees, consultants, interested citizens, and interested groups pointed to the first step taken to place a program of health education in action in the rural schools of Denton County.
CHAPTER III

HEALTH EDUCATION PROGRAM IN ACTION

A Health Survey of the Schools

When every rural school in Denton County had finished with the usual routine of starting school and making the proper adjustments, a committee composed of the County Superintendent, the County Supervisor, and three teachers, with the counsel and suggestions of Rhea H. Williams, Coordinator of Health Education, North Texas State Teachers College, prepared a questionnaire to be sent to every teacher. The questionnaire was simple and brief. It covered only four phases of health, namely: Control of Communicable Diseases, Nutrition and Posture, Sanitation and Environmental Control, and the Instructional Program. The questionnaire was conceived and planned to provide valuable information of a limited nature; it was not calculated to be all-inclusive, and it proved expedient as a method of inaugurating a health program, because it determined the most urgent needs.

The questionnaire was used as a basis for interviews with the parents and students and was rapidly completed by every teacher. It served as an excellent means of creating interest and later activity on the part of parents.
A copy of a letter from a cooperating parent is included in Appendix A. The information obtained through the questionnaire was tabulated and considered carefully. The data obtained revealed, among other things, that fifty-nine per cent of the children had not had smallpox vaccinations and fifty-one per cent had not been immunized against diphtheria. Upon the basis of this information, plans were formulated for a county-wide immunization program which will be reviewed later in this chapter. A copy of the questionnaire used is included in Appendix B.

At this time, the teachers in every school accelerated the program by stressing the protection which immunizations would give and the need for more healthful living. The parents were advised by the teachers, upon the recommendation of the County Administrative Staff, to take their children to the family physician for the smallpox vaccine and diphtheria serum on a volunteer basis. This movement was inaugurated to bring the parents into the program immediately, and to create their active interest in the control of communicable diseases by taking the responsibility for immunizations. An exact copy of a letter to parents from the May Hill School is included in Appendix C.

Formulation of Health Record Card

In order to use the information received through the questionnaire and set-up a permanent record form which could
be used in future years, it was necessary to formulate a Health Record Card to be used in every school. A committee of three teachers, the County Superintendent and County Supervisor was immediately named to begin work on the formulation of a Health Record Card.

The committee collected sample health record cards from many different schools. Research was made by members to determine what kind and how much information a good health card should contain. A tentative health record card was prepared by the committee. The form was sent to every teacher for study. All teachers were requested to criticize the card and make suggestions. This cooperative and democratic procedure stimulated the teachers and served as an excellent motivating factor. A copy of a letter from one teacher denoting interest in the program and expressing approval of the tentative card is included in Appendix D.

The card eventually adopted after several meetings of the committee included the ideas of teachers, the ideas of members of the committee, some parts of other school health record cards, and ideas of the Coordinator of Health Education, North Texas State Teachers College. The card is simple, yet at a glance it gives a rather complete history of the health status of a child. On one side is the case history of the child together with a record of vaccinations and immunizations. On the reverse side is space to record the findings of the doctor and dentist. The card can be
used for twelve years. The cards were printed locally and the expense was borne by Denton County. The County Auditor upon approving the expense commented, "This type of work in a school is worth much more than most other things that are done."¹ A copy of the Health Record Card is included in Appendix E.

Development of General Health Examination and Immunization Program

With the health record cards in the hands of teachers for the compiling of the case history on each child, the health program was ready to move into the next phase. Upon the basis of information received through the questionnaire, plans were made to develop an immunization and general health examination program at the same time. The teachers knew before the parents were contacted that many students had minor physical defects which could be corrected easily in childhood. It must be noted at this point, that no school participating in the program had at any time previously made any requirements effecting the health of school children. For clarification, it is further emphasized that a child having reached the legal school age could enter school at will with no questions asked regarding immunizations

¹Guy Turner, Statement made in conference, October, 1947.
or any phase of his health. Therefore, success or failure in an immunization and general health examination program, as well as many other phases of the health program, depended largely upon the cooperation of students and parents.

The President of the Denton County Medical Society upon being contacted recommended that in addition to the small pox vaccinations, the students be given the triple shot for diphtheria, whooping cough and tetanus. The members of the medical society were contacted by the president and agreed to participate in the program to the following extent:

1. To give a general health examination in the schools to every child in school with a minimum of ten minutes devoted to each child with consultant services to parents present.

2. To administer with parents' consent small pox vaccines and diphtheria immunizations to every child in school.

3. To obtain all vaccines needed from the State Department of Health through the County Health Officer.

4. To give services free if schools would furnish a nurse to assist.

5. That each physician would furnish the transportation to and from the school.

6. To abide by the schedule of examinations prepared by the County Administrative Staff with any one physician spending not more than one-half school day in each school.
7. To make the examinations educational experiences for the students and parents.

The registered nurse previously mentioned as the one working with the Denton County Tuberculosis Association was contacted and requested to give her services in assisting the physicians in the general health examination and immunization program. She readily agreed to give her services free. The nurse also agreed to furnish all necessary supplies and administer the immunizations under the supervision of the attending physician, at the conclusion of the general health examination.

A schedule was prepared which allowed for the examination of six students each hour. A copy is shown in Appendix F. The schedule was sent to each school principal, the physicians and the nurse. Each school was instructed to do the following:

1. Provide a private room for the examinations.
2. Secure written consent of parents for all immunizations needed. A copy of this form is shown in Appendix G.
3. Prepare all students in advance for the immunizations and general health examinations by stressing the need of immunizations and healthy bodies. This was accomplished by taking full advantage of all "teachable" moments during all activities.
4. Exert all possible effort to have the parents present for consultation with the physicians. A copy of a letter sent to all parents from the school is shown in Appendix II.

5. Make the Health Record Cards available and provide personnel to record the findings of the physicians.

The immunization and general health examination program had passed the preparation period and was almost ready to be launched, when the President of the Denton County Medical Society informed the County Administrative Staff that the vaccines could not be obtained from the State Department of Health. The County Superintendent and the County Health Officer requested the Commissioners Court of Denton County to defray the cost of the vaccines and were told that the County could pay only for medical supplies and services to indigents. The County Superintendent, a committee of physicians and the Dean of the School of Education, North Texas State Teachers College, then requested the Kiwanis Children's Clinic of Denton to underwrite the cost of the vaccines, with the provision that the schools would reimburse the Kiwanis Children's Clinic all that could be collected from the parents. It was brought out during the discussion that one dollar would pay for all vaccines necessary for each child. It was agreed that it would be desirable for the nominal cost of vaccines to be borne by the parents. Later
the Kiwanis Children's Clinic was reimbursed in full for the vaccines used.

Difficulties such as that described in the preceding paragraph were expected in the initial planning period; however, one problem appeared which was totally unexpected. The day the immunization and general health examination program was scheduled to start, the nurse, who was prepared to assist the physicians, was injured and the problem at that late hour was "who would assist the physicians?" The problem was solved after many telephone calls by the engagement of a registered nurse who only the night before was released from duty with a patient in a private home. The nurse agreed to assist the physicians, to administer the initial immunizations, and to do all repeat shots. Later, the County Board of School Trustees paid the nurse for the services rendered.

The immunization and general health examination program was carried on according to schedule. Out of 576 students examined, 367 were found to have defects, forty-five of which were urgent cases. Smallpox vaccines were given to 208 students and 193 students received immunizations against diphtheria, whooping cough and tetanus. It should be stressed at this point that no attempt was made by the physicians to take corrective measures during the examinations. Defects were noted on the Health Record Cards,
parents present were advised by the physicians of the defects found, and were urged to see the family physician for correction. Parents not present were notified by the teachers of defects found. A copy of the form used is included in Appendix I.

During the health program described in the preceding paragraph, students cooperated cheerfully and willingly. Teachers were gratified with the results. Parents, to a great degree, were thankful for the program and the fact that eighty five per cent of the parents were present and given an opportunity to consult the examining physicians demonstrated a community interest much greater than was anticipated. The cooperative spirit and active interest of those who participated made possible a health education program which will have far reaching effects on the general living conditions of the people.

Development of Dental Clinics

The general health examinations had only started when the County Administrative Staff, the physicians and teachers realized that many of the students had dental difficulties. The dental defects, it was agreed, should be called to the attention of the parents, and again an excellent opportunity developed to bring the people of the communities in on the health program. Based upon the advice of the physicians, the requests of the teachers and those of some of the parents, plans were made to hold dental clinics in every rural school.
In the absence of an active dental society in Denton County, the dentists, all of whom lived in Denton, had to be contacted individually. Rhea H. Williams, Coordinator of Health Education, North Texas State Teachers College, and the writer interviewed every dentist in Denton. During the interviews, the dentists were requested:

1. To give their services free for dental clinics in the schools.

2. To give a minimum of three minutes to each examination.

3. To call the students' attention and the parents' attention to dental defects and urge immediate correction.

4. To commend all students without dental defects.

5. To encourage good dental habits with all students.

6. To urge that all students have a dental examination at least twice each year.

7. To make the examinations an educational experience for the students and parents.

Two elderly dentists of Denton were interviewed, but were not requested to participate. One younger dentist said he could cooperate if it was necessary but he would prefer that the remaining dentists do the work because of the pressure of business. The remaining dentists of Denton, without hesitation, agreed to participate in the clinics. Again, the cooperative spirit and the active interest of a
professional group demonstrated the importance of coordinating the activities of all individuals and agencies interested in a program of health education.

A schedule was prepared which allowed three minutes for the examinations of each child. A copy was sent to each dentist and the schools. The schools were instructed to do the following:

1. Provide a private room for the examinations.

2. Prepare the students for the dental clinics by stressing the importance of good teeth and proper care of them.

3. Exert every effort to have the parents present for consultation with dentists. A copy of a letter sent to the parents is shown in Appendix J.

4. Make the Health Record Cards available and provide personnel to record the findings of the dentists.

The dental clinics were carried out on schedule. A copy of the schedule is shown in Appendix K. Out of 540 students examined by the dentists, 228 were found to have cavities, sixty-three needed extractions, eighty-eight had some degree of malocclusion and 117 needed cleaning. In order to have a more complete picture of the situation, it is necessary to bear in mind that the defects found were multiple; that is, a child with malocclusion frequently had cavities
and needed extractions and prophylaxis. The dentists stressed proper brushing, regular cleaning, good diet, and regular dental examinations to the parents. Letters were sent to the parents of all students who had dental defects and which urged them to see the family dentist immediately for correction. There were more than fifty per cent of the parents present for consultation with the dentists and the clinics were considered by parents, students, dentists and teachers to be successful.

Screening for Visual Defects

During the general health examinations, some of the more obvious cases of visual defects were detected by the physicians. This opened a new field of possibilities. Many of the teachers cited cases of apparent visual difficulties of students and suggested that tests be administered to find those children who really had visual difficulties.

Plans were made through Rhea H. Williams, Coordinator of Health Education, North Texas State Teachers College, for the college to furnish the Massachusetts Vision Test for use in the rural schools. The test was simple to administer but in order to give sufficient time to each child, more personnel was needed. The college also agreed to furnish graduate students in Health Education to help administer the test.
The graduate students of North Texas State Teachers College and the County Supervisor administered the Massachusetts Vision Test to every student. No effort was made to follow a schedule closely except that the schools were notified the approximate date the test would be administered in each school. The eyes of the students were checked for acuity and balance. The test was given to 567 students and visual difficulties were detected in eighty-seven students. Where evidence of defective vision was found, notation was made on the Health Record Cards and the parents were advised by the teachers to consult a specialist. It is emphasized that the school personnel did not assume the place of specialists in diagnosing visual difficulties. Indeed, it must be further emphasized that the teachers were well aware of the fact that a visual difficulty might be the result of one of many causes.

The teacher is not supposed to be able to examine a child and make an exact diagnosis as to the nature of the visual disorder, but an attempt should be made to see that the child gets help from a competent eye physician.\(^2\)

**Screening for Hearing Defects**

In the process of the general health examination, the physicians gave some attention to the examination of the

ears of the students. However, nothing more was accomplished than to detect those students with the most obvious hearing impairments. Through conferences with teachers and parents, it was determined that screening tests should be given. William H. Gray says, "Hearing ranks in importance with vision as a means of acquiring knowledge."³

Again, the services of the cooperating institution, North Texas State Teacher College, were immediately offered by the Dean of the School of Education. The college furnished the Group Audiometer for use in the schools and graduate students in the field of Health Education agreed to help administer the test.

The Group Audiometer Test was given to all students above the third grade. It was decided that the test should be given to only those above the third grade because of the nature of the test and upon the advice of the Coordinator of Health Education, North Texas State Teachers College.

The test was administered to about forty students at one time. A second and third test was administered for that group which showed signs of hearing difficulties on the first test. Most of those with apparent hearing difficulties as indicated by the first test proved to have nothing more serious than severe cold and impacted wax. When

³Ibid., p. 404.
those temporary ailments were cleared up, all signs of
hearing impairment disappeared except with six students.
The parents of those students were immediately contacted
by the teachers and were urged to take the students to
specialists for further examination and assistance.

Environmental Control in the Schools

This study, to this point, has been concerned with the
actual physical health of the students, the matter of stim-
ulating parent and community interest in a program of health
education, and the actual coordination of certain community
groups and individuals interested in the problem of school
and community health. A phase of health which is often
overlooked but one which is vitally important in a health
education program is that of providing the proper classroom
environment. It is an accepted fact that students should be
able to live healthfully and happily while at school. "The
authority which requires pupils to attend school implies
the responsibility to provide an environment as evocative
as possible of growth, learning and health." 4

The teachers of Denton County and the County Supervisor
became interested in environmental control as a result of
the participation of several in the Child Health Development

4National Committee on School Health Policies, Suggested
School Health Policies, p. 11.
Workshop, North Texas State Teachers College during the Summer Session of 1945 which has been mentioned previously. The Blue Mound School of Denton County was used for experimental purposes by the workshop. The experiences of the teachers in the workshop had a definite stimulating effect on the teachers who had not participated in the workshop. In fact, every rural school in Denton County was surveyed by members of the workshop, or a committee of school personnel led by the County Supervisor. Individual school building recommendations were made which took into consideration the exposure, the overhang of the roof, the number and height of the windows, and the placement of desks in the classroom. Many of the recommendations made were carried out during the school year 1945-46. Many of the remaining teachers participated in the Child Health Development Workshop, North Texas State Teachers College, during the Summer Sessions of 1946 and 1947. As a result, every rural school in Denton County, though not meeting every requirement of modern practice in environmental control, has made definite improvement in the school environment.

This study is concerned only with that program of health education which was inaugurated and completed during the school year 1947-48. Further emphasis on the environmental control phase of health education is not pertinent to this study except for those projects actually completed during
the current health program. Many things were accomplished in eight of the schools which were definitely in the field of environmental control, however, in the interest of brevity, only the project carried on in the Argyle School will be dealt with in detail.

The Argyle elementary school building is a frame building and contains two rooms; a south room with south and east exposures and a north room with north and east exposures. The following recommendations were made and carried out:

1. A new hardwood floor laid over the old one to increase the warmth and to improve the lighting and general appearance.

2. New knotty pine wainscotting for attractive appearance and easy maintenance.

3. Walls above the wainscotting of the new white celotex to increase the warmth, reduce noise and improve the lighting.

4. Install butane radiator type stoves to replace the old coal-burning jacket stoves.

5. Remove all blackboards except a small one at the front of the room. Because blackboards absorb light, they should never be on the wall opposite the windows.

6. Remove all shades from the top half of the windows. On all except north windows, replace shades with cloth
diffusers in order to make maximum use of daylight. Leave shades on the lower half of all except north windows to use when needed to control direct sunlight.

In a unilaterally lighted room twice as wide as the window top height, the desks on the inside of the room receive about three-fourths of their natural light from the top half of the window, and this is only a fraction of the natural light received on desks near the windows. The diffuser is a device to direct the light, and to control the glare.

7. Paint the lockers to match the wainscotting.

8. Paint the bookcases and teachers’ desk a flat light color.

9. Install new natural color single desk units so that they may be rotated away from the window glare.

As we increase the light, we increase the glare so it is necessary to do the following things:

10. Remove glass covered pictures, and book cases.

11. If a mirror is left in the room to encourage personal grooming, make sure that it is not in the path of direct light.

12. Install angle jet bubblers in each room.

13. Too much contrast in the field of vision interferes with the adjustment of the eye. For that reason, paint dark map cases, and dark clock cases to match the wall.
14. Use spots of color to prevent monotony and to add interest. Bright book bindings, pot plants, or even brightly painted small chairs make the room much more attractive.

The other Argyle School building is a brick building. It has two rooms with east exposures, two with west exposures, and a kitchen.

The following recommendations were made and carried out:

1. Paint the plaster walls with a white flat paint of high reflective value.

2. Remove or cover all blackboards except a small one at the front of the room.

3. Install butane radiator type stoves to replace the old coal-burning jacket stoves.

4. Remove all shades from the upper half of the windows and install diffusers to obtain maximum use of daylight. Leave shades over the lower half of the windows to be used when needed to control direct sunlight.

5. Install new natural colored individual desk units, so that they may be rotated away from the window glare.

6. Remove all glass covered pictures, bookcases, and other glass objects to reduce glare.

7. Pay particular attention to the mirrors in the rooms. They should be hung so that direct light does not strike them.
8. Paint all dark furniture in the rooms about wall color because extreme contrast makes eye-adjustment difficult.

9. Sand the oil darkened floors, leave a natural color and keep them waxed.

10. Remove old, dark, untidy looking lockers from the halls.

11. Install angle jet bubblers and improve hand washing facilities.

12. Install indoor restrooms with water flush toilets. These rooms are very attractive with tile floors and white walls.

13. Install a pressure pump to insure a constant pressure strong enough for the water flush toilets.

14. Grade the grounds to improve drainage and appearance.

15. The kitchen was improved in the following ways:
   a. A new water heater
   b. A new range
   c. A dishwashing vat
   d. New linoleums
   e. New cooking vessels
   f. A new refrigerator

It was the writer's privilege to accompany Rhea H. Williams, Coordinator of Health Education, North Texas State Teachers College, to the Double Oak School on August 21, 1947
to an all-day teacher-trustee-community meeting cooperatively planned for the purpose of improving the school plant and campus. The interior and exterior of the building were painted and all windows, books, and furniture were cleaned. The jacket type coal stoves were removed and replaced with a butane heating system. The school campus was cleaned of all tall grass, weeds and debris. A new refrigerator and a dishwashing vat for the lunchroom were installed. The County Commissioner was invited to the meeting and plans were completed with him to grade and properly drain the school campus. This was done two weeks later without cost to the school. The water system was repaired and angle jet bubblers installed. School restrooms were cleaned thoroughly. A carpenter in the community came by to get measurements of diffusers to be placed on the upper half of the windows. Before school opened, they were installed without charges except for the material used. The cooperative spirit of those present was not fully appreciated by the writer until the President of the School Board commented,

The Parent and Teacher Association bought the dishwashing vat, the whole community gave money to buy the refrigerator, the school board will pay for all other equipment and supplies, but all the labor is being donated by the community. 5

5Fred Ferry, Statement in conference, August 21, 1947.
Instigation of Daily Observation and Period Check

The rural schools of Denton County have ceased to place false emphasis on perfect attendance. Commendation has been extended those students who protect the health of their classmates by remaining home when they were not well. To stress the control of communicable diseases and enlist home and community cooperation in daily observation of the students, a list of symptoms of communicable diseases was sent to every parent. This is shown in Appendix L.

The teachers in the rural schools of Denton County did not limit daily observation to a single morning inspection but they have been constantly alert to the possibility of students displaying signs and symptoms of communicable diseases at any time of the day. When a student displayed signs and symptoms of disease, he was isolated from the group and arrangements made to send him home. The following general symptoms were noticed by the teachers:

- Flushed cheeks
- Unusual pallor
- Blueness of lips
- Inflamed watery eyes
- Running nose
- Sneezing
- Coughing
- Noisy breathing
- Vomiting

- Skin eruption or rash
- Complains of sore throat
- Complains of headache
- Complains of stiff neck
- Complains of being cold
- Drowsiness
- Fever
- Tired feeling
- Complains of backache

The following signs of malnutrition were noticed: dry dusty hair, dry scaly skin, discolored elbows, ridged nails, sunburned nose and neckline, cracked lips, blood-shot eyes and poor posture.
Students were weighed monthly and measured for height three times during the year. The recordings of weight and height were made on each student's Health Record Card. This routine task offered new experiences for the students and provided excellent teachable moments in posture and nutrition.

Lunchrooms in the Health Education Program

Dr. Thomas Parron, Jr., Surgeon General of United States Public Health Service, very aptly says:

We are wasting money trying to educate children with half-starved bodies. They cannot absorb teaching. They hold back classes, require extra time of teachers, and repeat grades. This is expensive stupidity, but its immediate cost to our educational system is as nothing compared to the ultimate cost to the nation. Something like nine million school children are not getting an adequate diet for health and well being and malnutrition is our greatest producer of ill health.6

Since, "Malnutrition is our greatest producer of ill health,"7 it is unquestionably necessary that any program for school and community health include at least an adequate noonday meal for school children. Realizing the imperative need for school feeding, the schools of Denton County have gone far in instigating and improving school feeding facilities. Adequate noonday meals were served ninety-six per cent of the children in the schools. The

---

6 Oliver E. Byrd, Health Instruction Yearbook, 1944, p. 36.
7 Ibid., p. 37
four per cent not receiving school lunches represent the enrollment in small schools in isolated sections where geographical barriers made it impossible for the children to attend larger school units. Unfortunately, these schools did not have the money to equip and operate lunchrooms.

The lunchrooms in Denton County operated under the National School Lunch Act. Money from the federal government was allocated each state based upon the number of children fed and the State Department of Education was responsible for the administration of the Act. This aid was monetary reimbursement in the amount of nine cents per lunch served with milk and seven cents for lunches served without milk. Each school community through various agencies such as parent groups, school boards, and women's clubs, supplemented the federal agency in financing school feeding programs. Besides actual monetary aid, substantial assistance was given feeding programs through summer food preservation and conservation. Canning centers were actually set up in some schools and parents and interested patrons donated both food and labor in the preservation of food for school consumption.

The National School Lunch Act earmarked a part of the 1946-47 appropriation to be used for non-food assistance. Texas received $50,000.00 in non-food assistance. Applications for equipment were made on the basis of need and the
federal agency paid eighty per cent of the purchase price of the equipment. The remaining twenty per cent was paid by local school boards, parent groups, and in some cases out of accrued balances in school lunch funds. The aid was a great boost for the lunchrooms because by this means schools were able to obtain much needed equipment which resulted in better food preparation and serving, and promoting more sanitary conditions. The rural schools of Denton County, under this plan, obtained: seven three-compartment vat dishwashing units, eight cook stoves, six electric refrigerators, two hot water heaters and two schools received cooking utensils and dishes.

The Production and Marketing Administration supplemented the feeding programs very materially by furnishing surplus foods to be allocated to schools based upon the number of children fed. The Denton County Schools received the following foods without cost: potatoes (four times during the school year), concentrated orange juice, grapefruit juice, tomato juice, canned tomatoes, prunes, raisins, onions, apples, and peanut butter. All these foods were valuable to the feeding program but especially were the citrus and other fruits valuable because a check of school menus has consistently shown low vitamin C or ascorbic acid content.3

The lunchrooms were under the direct supervision of the school principal or some other teacher appointed by the school board to act in that capacity. The office of the County Superintendent furnished over-all supervision and served as a clearing house for all claims and reports. The County School Supervisor, though not a nutritionist, has a good foods background, and in the absence of a trained foods person, furnished good supervision and help. The supervisor visited lunchrooms regularly and ate with the children in each school several times during the year. The main things stressed with the lunchroom personnel and the teacher in charge were: adequate and well balanced meals furnishing at least one third of the daily food requirement, sanitary practices in food handling, dishwashing and garbage disposal, use of lunchroom as a real situation for stressing healthy bodies through good nutrition, and the use of the lunchroom in providing a real situation for teaching the social grace of pleasing manners at the table.

When height and weight of students, as previously mentioned, were recorded, an opportune time developed for the teaching of the relation of food to growth and development. Every school had a Basic Seven Foods Chart which was used to give the students an understanding of the daily food needs. Various student activities were carried out. One activity was the keeping of a record of the foods eaten for a certain
period and comparing the intake with what a child needs according to the Basic Seven Foods Chart. Students actually planned menus for the lunchroom. This participation in planning encouraged students to eat foods that they otherwise would not eat. Clean plate campaigns were carried on extensively which resulted, of course, in less food waste. Children learned the accepted form of table setting.

Students actually assisted in food service by setting the table and arranging simple centerpieces. Table manners and manipulation of silver improved noticeably as these activities developed.

In-Service Training Program for Teachers

In a program such as the Health Program, there is much professional growth in understanding on the part of the teachers because of their participation in it. However, in a functional school and community health program, numerous meetings and consultations are essential. They are essential to solve the problems of technique and procedure, to create a better understanding of the objectives of the program, and for implementation of the program.

The teachers met early in the fall of 1947 and discussed the need for an extended community and school health program. In the first meeting, plans were made for a health survey and a health record card. The teachers themselves conducted
the survey and in the process every parent was contacted. As a previous reference indicates, the survey furnished excellent opportunities for home and community planning and provided the stimulation of parents so badly needed in the inauguration of the program. This proved to be one phase of an in-service training program. The teachers again were a part in planning the program in the development of the health record card. Every teacher studied the tentative card and their suggestions with some limitations, were helpful in the composition of the card now in use.

In the second teachers' meeting, plans were made by the teachers, which were based largely on the findings indicated by the survey, for the general health examinations and the immunization program. Rhea H. Williams, Coordinator of Health Education, North Texas State Teachers College, served as consultant for the meeting. The teachers were advised that a program for healthful living could not attain the desired results unless the teachers were successful in creating a community awareness. It was stressed that teachers should educate the parents through personal contacts and publicity in the different ways to prevent communicable diseases, and the necessity for periodic health examinations for all people. It was stressed also that the teachers would need to spend some time in preparing the students for the immunizations and health examinations. In this meeting, complete agreement was reached that the teachers must interpret
the new extended school program to the several communities, and that parents should be informed by every available and tactful means that the school wanted to assume as much responsibility as possible for the healthful living of the students and the school community.

When the general health examinations, the immunizations and dental clinics were completed, the teachers were called to another meeting for the purpose of discussing follow-ups, and to make plans for the screening of students for visual defects. A consultant from North Texas State Teachers College was again available in this meeting. The teachers made plans for the sending of letters, as previously mentioned, to parents of all children with deficiencies urging that corrections be made. Plans were formulated, as well, for personal contacts with parents at every opportunity to discuss the health of their children and to urge corrective measures. Teachers were advised that the Kiwanis Children's Clinic and the Lions' Club of Denton were willing to care for needy cases. The consultant from North Texas State Teachers College trained the teachers to administer the Massachusetts Vision Test and discussed with them at length modern techniques and procedures in the correction of visual defects.

The meetings described above were the only formal meetings held in the in-service training program. However,
consultant services from North Texas State Teachers College, the County Administrative Staff, and other agencies were available throughout the year. The teachers took liberal advantage of those services and the conferences held with the consultants, without doubt, provided in-service training equally as valuable as that training which could have been received in formal meetings.

The in-service training program, although the results are intangible, served to implement the health program. Many of the teachers had pre-service training through workshop courses mentioned earlier in this study. The in-service training was planned primarily for purposes of stimulation and implementation. The writer believes therefore, that the in-service training phase of the health program accomplished the desired results.

Requirement for Vaccination

During the month of May, 1948, the writer met with every rural school board in the county. Matters of a routine administrative nature were discussed and the health program was discussed thoroughly. As a result of the meetings every school board passed a resolution making a smallpox vaccination a requirement for school entrance. A copy of the resolution is shown in Appendix M.
The Organization of the Community Health Council

The Community Health Council was organized to coordinate and take the lead in health matters of county-wide interest. It is composed of the County Superintendent, the County Supervisor, two county teachers, a member of the County Board of School Trustees, the President of the Denton County Chapter of the American Medical Association, two Parent-Teacher Association members, the nurse from the Denton Tuberculosis Association and two school trustees. The two teachers who are members were elected by ballot by their fellow teachers.

The activities of this council include making more uniform the practices of quarantine of communicable diseases, insisting that physical examinations of cooks and helpers in the lunch rooms be thorough, having the school water supply tested regularly, seeing that bus drivers observe all rules in promoting the health and safety of their pupils.

In regular meetings the council plans the health program. It sets up policies and procedures to follow. It will, no doubt, be able to influence a better program of health education because it is composed of people of the community and school.
CHAPTER IV

EVALUATION OF THE HEALTH PROGRAM OF
DENTON COUNTY FOR 1947-48

Statements and Opinions of Teachers

Health education authorities agree that the proper evaluation and measurement of a health education program is difficult. Clair E. Turner in his book School Health and Health Education said:

Different school systems have different problems and need different health emphasis. Even if schools were more similar than they are, it would not be easy to agree upon a standard of perfect practices.

The difficulty in evaluating a program of health education is further emphasized in this statement:

Obviously, scientific evaluation of specific factors in healthful living is a complicated process, impossible except under vigorously controlled conditions. There is, however, a practical kind of evaluation of the healthful living which results from health education conceived as the total pattern of influences that affect the health of individuals and communities.\(^1\)

At this point it is especially difficult to evaluate the health education program in the rural schools of Denton.

\(^1\) Clair E. Turner, School Health and Health Education, p. 425.

County since the study deals with only a part of a three-year program for the improvement of healthful living in the schools and communities. The previous chapters have outlined the steps taken in the development of the health education program and a complete statement of the health education program in action has been given. An attempt has been made to make visible the efforts made in the actual stimulating processes, the molding of proper attitudes, and the coordination of the interested groups and agencies. Such tremendous effort was made to develop the proper type of health program, and to make it function, that no attempt was made to administer specific tests to measure the effectiveness of the program. However, an evaluation of the program can well be made in terms of the opinions and statements of individuals and groups, the cooperation of the people in the communities and the follow-up studies conducted.

No other group had a more important part in the health program than the teachers. The position or role of the teachers in the health program is strategic because of the close association with students and the contacts with parents. Therefore, the writer believes that statements and opinions of teachers regarding the health program is certainly one good criterion for an evaluation of the health program.

The statement can definitely be made that the teachers in the rural schools of Denton County were very enthusiastic
about the whole program. The teachers cooperated to the fullest extent in all phases of the program considered in this study. Numerous opinions were expressed and statements made; however, to avoid repetition only a few will be cited in the succeeding paragraphs.

Ada Wilson of the Good Hope School commented, "This is just the type of program we need to get the parents interested." Florence Godwin was more specific in the following statement:

We are just now beginning to get the corrections made that I have been striving for ever since I have been at Center Point. Two children have been fitted with glasses and a boy who has rheumatic fever is being taken care of properly.

Virgie Smothermon of the Elm Ridge School commented:

The program was well worth while just to get the three youngsters in my school under treatment. In my small school a boy with the wryneck, a boy needing glandular treatments and a boy needing an eye operation to correct injuries resulting from a car wreck, have been taken care of already or they are receiving treatments.

The Principal of the Sand Hill School enthusiastically said:

I am wholeheartedly in favor of the health program as a means of improving general health conditions. Our school and community have received great benefits because of the great need we have for more healthful

---

3 Statement by Ada Wilson, personal interview.
4 Statement by Florence Godwin, personal interview.
5 Statement by Virgie Smothermon, personal interview.
living in this community.  

The parent of a child attending the Double Oak School in conversation with the Principal very angrily objected to a general health examination and immunizations for the child. The Principal in conversation with the writer said:

I regret this incident very much but we cannot fail in our health program because of the objection of one parent. Our school and community needs this type of program. This little disagreeable incident will not stop us.  

Julia E. Hogan, County Supervisor, who participated actively in the program by supervising the administration of the Massachusetts Vision Test and Group Audiometer Test, exclaimed enthusiastically,

This program is just what we need. It is very important to know whether a child's lack of success in school is due to some physical handicap or to some other type of limitation. This knowledge governs the teachers' approach to the child and his problem. 

Statements and Opinions of Parents

The health program was planned as a functional school and community program; it was planned to reach into and affect the health conditions in the homes. Therefore, some comments of parents might well be mentioned as another criterion for evaluating the program.

---

6 Statement by J. R. Killingsworth, personal interview.
7 Statement by Myrtle Worthey, personal interview.
8 Statement by Julia E. Hogan, personal interview.
The father of three children who lives in the eastern section of Denton County while visiting the school during the general health examinations commented to the writer:

I like the health program because it brings the parents of children in closer contact with the schools. It gives us a renewed interest in the health of our families. Every parent should appreciate the efforts of everyone in the health program and surely they will all cooperate fully.9

Three students did not take the health examinations and immunizations in the Cooper Creek School on the scheduled morning because they did not have permission of their parents. During the afternoon, the parents came to the office of the County Superintendent. One parent said, "Are we too late for our children to get the health examinations and vaccinations? We don't have the money but we want them to have the examinations and vaccinations."10 Arrangements were made for the parents to take the children to the next school on schedule. The father, an elderly gentleman, later came to the office of the County Superintendent to express appreciation for the efforts made by the County Administrative Staff to take care of the children.

The parent of a student in the Little Elm School said during the Dental Clinic:

9Statement by J. M. Jackson, personal interview.
10Statement by J. L. Smith, personal interview.
All parents should cooperate in the health program. If something is wrong with my child, I want it corrected. If everyone will continue to work together we can improve the living conditions throughout the county.\footnote{11}

**Statements and Opinions of Trustees**

The trustees of the school districts of Denton County cooperated in every phase of the program. Other than teachers, the writer can best express the attitude of the trustees. In meetings with the trustees throughout the county, a great number of comments favorable to the health program came in rapid succession. In fact only one objection to the program was given by a trustee. It is, therefore, advisable to review the statements and opinions of the trustees and especially the statement of the trustee who objected to the program.

In a meeting with the Green Valley School Board, two members were prompt to agree with a statement made by the third member, the president of the board:

> The time has come when the school is the center of almost all community activities. What is done in the school if it is properly sold to the parents will effect the whole community. This health program is something that will improve the health conditions. I wish schools everywhere would do more in health.\footnote{12}

The President of the Cooper Creek School Board commented:

\footnote{11}{Statement by Mrs. E. E. Clark, personal interview.}
\footnote{12}{Statement by J. W. Smothermon, personal interview.}
Yes, I am for the whole health program. We need everything in our little school and community that is offered in the larger schools and communities. I believe we have cooperated nearly one hundred per cent this year.  

A trustee of the Center Point School when approached said: "Yes, I think the health program is fine. We will not be able to measure the results right now but we will see the results in years to come."  

The writer explained the health program to a trustee of the Good Hope School and the trustee very promptly replied:

That is a fine thing. For a long time I have advocated a more practical school program. This is something that the parents can understand and will take part in. Our lunchroom already offers fine experiences for our students.

The President of the County Board of School Trustees, after hearing a report on the health program, made this statement: "This is a fine program. It is, in my opinion, the best we have ever had in our schools."  

Contrary to the reaction of so many trustees, a trustee of Sand Hill School said,

I am for any kind of vaccination and would vote to require certain vaccinations but I am against

13 Statement by A. V. Dunham, personal interview.
14 Statement by G. W. Taylor, personal interview.
15 Statement by Emory Knapp, personal interview.
16 T. W. King, Jr., statement made at Meeting of County Board of School Trustees, December, 1947.
someone coming around to the school ever so often making these inspections. It's getting to the point where power is concentrated too much. The inspections do no good anyway.\textsuperscript{17}

This trustee is a progressive trustee and the reaction to the health program is not indicative of action generally taken in other school problems. It can be assumed, therefore, that the lack of proper orientation is the answer to the objection voiced.

The statements given in the preceding paragraphs are only a few made by trustees throughout the county. The statements and opinions voiced by those quoted are convincing. However, the value of the health program and its effectiveness is still further emphasized when the reader is reminded again that every school board in Denton County passed a resolution requiring the smallpox vaccination for school entrance. This resolution was passed near the end of the school year after the program was reviewed in every detail.

\section*{Statements and Opinions by Physicians and Dentists}

Physicians, dentists and nurses, because of highly specialized training in the respective professional fields, have an interest in the physical well-being of all individuals. It can be assumed, therefore, that these

\textsuperscript{17}Statement made by Roy Bentley, personal interview.
specialists, even though their interest lies in the fields of medicine, dentistry and nursing, can evaluate with authority a health program. Every physician and dentist during the period of examinations made some favorable comment on the health program. It is well to consider the comments made by some of these specialists.

Near the end of the general health examinations, the assisting nurse in one of several statements said:

This is an excellent way of creating enough enthusiasm to get a county health unit. In the meantime, just look how much good is being done in getting some of the cases cared for that have escaped notice so far.¹⁸

Most of the physicians concurred in the opinion of the nurse. The President of the Denton County Medical Society expressed it this way:

This is an excellent way to go about getting a county health unit. While I am not in favor of socialized medicine, I am in favor of a well set up and well carried out program for improving health conditions.¹⁹

Hal V. Norgaard, a physician who participated in the program, was interested to find relatively few cases of heart disease. He remarked that much good could come from the health program just in finding the defective hearts and educating the students on the precautions to take.

¹⁸Statement by Ada Jo Mobson, personal interview.

¹⁹Statement by Walter S. Miller, M. D., personal interview.
George W. Hinkle, another physician participating in the program, during a conference with the Kiwanis Children’s Clinic Committee, at one point said: "This program is gold if only the immunizations are administered." 20

A dentist expressed gratification that the health program provided for the care of teeth in the following words:

I am glad of a chance to help in this program because I think youngsters ought to have dental work when needed. This is a good method of improving health. Too, a little instruction from a dentist on how to brush the teeth and what foods to eat will make a lasting impression on a child. 21

Another dentist, when accompanying the writer to Little Elm School for the examinations, said:

I think this is very fine work. It is worth more than anything else you can do in the schools and it affects the health of the community. If only the people could appreciate good mouths and do something about it, many health difficulties would cease. 22

Statements and Opinions of Sponsors

To this point, the writer has given as a means of evaluation statements made by teachers, parents, trustees, physicians, dentists and the nurse. Specialists have given a point of view related closely to their different fields of


21 Statement by W. H. Hawley, D. D. S., personal interview.

professional training and experience. This type of evaluation is obviously limited. It is important, therefore, to see what the sponsors of the program think of it as a health education activity in the rural schools of Denton County during the school year 1947-48. Any school program is difficult to justify unless it includes modern methods and techniques, and thus meets the requirements of the most modern theory and practice.

It would not be a difficult task to cite many authorities in the field of health education. However, such method of evaluation would not be pertinent to the health program of Denton County, therefore, only some of the sponsors who were in a position to observe the program in action are quoted.

Rhea H. Williams, Coordinator of Health Education, North Texas State Teachers College, and a consultant in the program said in a letter to the writer:

I want to congratulate you and the teachers on the progress made in the Health Education Program of the Rural Schools of Denton County during the school year 1947-48. A good job was done in making the program functional. The coordination of the activities of all interested groups accomplished this year will be a good basis for further development of the health program. You have made a good start.23

23Letter from Rhea H. Williams, Coordinator of Health Education, North Texas State Teachers College, May 20, 1948.
The Director of Health Education, State Department of Education, in the Conference of School Executives, Teacher Trainers, and Supervisors, held in Austin, January 8, 1948, said:

Denton County has done an outstanding job in the health program. This county program, especially since Denton County does not have a County Health Unit, can well be taken as a pattern by other counties in the state. 24

L. A. Woods, State Superintendent, during a visit to Denton County said:

You people have done a good job here in your health program this year. It has attracted the attention of many throughout the state. North Texas State Teachers College has offered fine consultant services and I know everyone connected with the program has worked hard to make the program a well coordinated school and community affair. 25

Reaction of Students to Health Program

Health knowledge enters into evaluation indirectly as it motivates healthful behavior, provides a basis for wise choices, aids in the solution of health problems and influences attitudes. Measures of health knowledge are more useful in diagnosis than in evaluation. A low score on a health knowledge test indicates a possible cause of poor health behavior—the child may not do the healthful thing because he does not know what it is. A high score, however, does not assure healthful living, for desires and habits may counteract knowledge. 26

24 Lewis Spears, statement made in Conference of School Executives, Teacher Trainers and Supervisors, January 8, 1948.


26 Association for Childhood Education Healthful Living for Children, What is Happening to the Children?, 1946, p. 27.
It has been explained previously that no health knowledge tests, as such, were given in connection with the health program. However, a General Achievement Test is given annually in the school near the end of the school year. The Gray-Votaw General Achievement test is the particular one that has been given for the past five years. It is a battery type test and consists of ten sub-tests. Test 8 covers a knowledge of nutrition, first aid, fire prevention, physiology, and good health habits. The students' reaction to these questions are to a certain extent indicative of the effectiveness of a health education program. The following multiple choice questions are examples of those included in Test 8, Form G for grades four and six:

7. Articles important to a healthful home are window screens curtains carpets.

10. Do not lend or borrow a book a pair of skates a comb.

23. A child suffering from a cold should
   Drink very little water
   Sit in the warmest part of the school room
   Stay at home for treatment

28. A disease that can be prevented by the use of serum is diphtheria hookworm cancer

53. A person who has measles should be kept
   In a bright sunny room
   Out of a strong light
   Much warmer than when he is well.27

---

27Gray, Hob, and Votaw, David H., General Achievement Test, Form H, Grades 4-8, Austin, Texas, Steck Company, 1948, pp. 18-19.
A check of the results of Test 9, Form F for the seventy-two students in the fourth grade for the year 1946-47 reveals that the average score was fifty-two. The average score for this same grade representing seventy-three students for the year 1947-48 was fifty-five. Test 3, Form G was used in 1947-48. The norm for the end of the fourth grade is fifty-three.

A check of the results of Test 8, Form F for the sixty-eight students in the fifth grade for 1946-47 reveals the average score was sixty. The average score for the fifth grade representing sixty-three students in 1947-48 was sixty-seven. Test 8, Form G was used in 1947-48. The norm for the end of the fifth grade is sixty-three.

A check of the results of Test 8, Form F for the seventy-one students in the sixth grade for 1946-47 shows the average score was sixty-eight. The average score for the sixth grade representing fifty-two students in 1947-48 was seventy-two. Test 8, Form G was used in 1947-48. The norm for the end of the sixth grade is sixty-nine.

It is interesting, and the writer believes it is significant that all three grades, chosen at random, were below the norm in 1946-47 before the instigation of the health program. Then, a year later after one year of participation in a health education program, the average score for all
three grades was above the norm. Although the sampling is not large enough, nor the period of time preceding the year 1947-48 long enough to claim a basis for scientific findings, the results indicate that there was accelerated growth in health knowledge during the year the health education program was in progress.

The effectiveness of a health education program can be evaluated by the attitudes and reactions of students. Children are usually very frank to give their approval of an issue when they are convinced that it is of value to them as individuals now. Therefore, it is with due credit and emphasis that the writer reviews the following reactions, opinions and statements of some students:

Johnny, a fourth grade student, was very proud of his perfect attendance record for the past two years and often reminded his classmates that he had been neither absent nor tardy since he had the mumps during his first year in school. His parents were equally proud of his record and made every effort to help him maintain it. But Johnny's teacher has observed Johnny on several occasions when he was really too ill to be at school. If the teacher suggested that he seemed to feel ill and should go home, he stoutly maintained that he felt fine. Prior to the initiation of the health education program, no special emphasis had been placed on the importance
of ill children remaining at home so Johnny had been allowed to stay at school.

Near the end of the school term, and a short time after the class had done a rather thorough job of studying the common cold, its cause, spread, and effects, Johnny's mother called the teacher early one morning. The mother was obviously disturbed. She told the teacher that she could not account for Johnny's attitude because he had always been so eager to go to school. She told the teacher that Johnny insisted that he stay at home that day because he had a cold. When the teacher inquired if Johnny actually had a cold, the mother conceded that he had awakened sneezing and coughing, and that he had a watery discharge from his eyes and nose and that he felt a little hot, but that she thought it was only a slight cold. The teacher immediately sensed a problem for the mother thought the child should go to school and Johnny, as badly as he wanted to maintain his attendance record, wanted to do what he had so recently learned was best for him and his classmates. The teacher, as tactfully and as thoroughly as possible, explained to the mother why Johnny had insisted on staying at home and the mother, when she understood what was involved readily agreed to keep Johnny at home. This incident was a direct result of health education and certainly had its effect not only on the student but also on the home.
As previously explained in Chapter III of this study, students were prepared in advance for the immunizations by developing an understanding of the need and benefits of immunizations.

Several days after the series of triple shots for whooping cough, tetanus and diphtheria were completed, a little girl ran headlong into a tightly stretched barb wire fence. She tore and cut her neck and face badly. While the doctor was caring for the wounds, the little girl very gratefully commented that there was one thing to be thankful for. The wounds might be ugly and hurt, but at least there was no danger of lock jaw, because she had had the tetanus serum at school.

The Double Oak teachers and students became very interested in posture. A number of good student activities were carried out during a study of good posture and its benefits. Posters were made and a simple posture clinic was conducted by the students. The rooms at this small school rotate the responsibility for the assembly programs. About the time the unit of work on posture was completed it happened that it was time for this particular room to have the assembly program. The teacher and students were discussing some possible themes for the program when one boy said: "Why don't we have a program on posture? All the kids will like it and besides it is the best thing we have done in school lately."
As a result of this suggestion the students went to work and planned and gave an assembly program which was both interesting and beneficial. The booklet *Posture on Parade* was used as a basis for the program.

**Follow-up in Health Education Program**

An evaluation of a health education program can, to a certain degree, be based on the planned follow-up program. Health examinations, even though they do offer fine experiences and create an awareness to live healthfully, are still lacking in effectiveness unless some method is used to follow through with corrective measures. It is, therefore, important to review the follow-up method used in the Health Education Program of Denton County.

The parents present for the examination were consulted at the close of the examinations on any defects found, and were urged by the examining specialist and teacher to take corrective steps. The defects found were properly recorded on the individual health record cards. Teachers sent written notification of "apparent" defects to parents not present for the examination and urged corrective measures. Teachers also followed the written notification with conferences with parents. As corrective measures are made the proper recording is placed on the health record cards.
Organizations mentioned earlier in the study have already taken care of some needy cases and will doubtless be called on by the school personnel to take care of additional needy cases. Follow-up is not a requirement as such but the plan now in process does call for continuous tactful contacts with parents until every defect found is caused to be corrected by the parents or some organization.

The process is slow in bringing about needed corrections in a health program. Many parents insisted that the children would be properly cared for during the summer of 1948. To this date, accurate statistics are not available on the corrections made. A survey will reveal the desired information when the schools are in session in the Fall of 1948. Certain cases of corrections, however, have been reported to the County Administrative Staff. It is proper in this study to cite only those correction definitely made or those now in process.

Instances of defects which have been corrected or are now in process of correction include: a boy with wryneck, six students with poor vision (including one operation), one student with extensive burns now being treated by skin grafting, six students receiving glandular treatments, eight tonsillectomies and three students have had teeth extractions, ten students have had cavities filled and two students
have received gum treatments in addition to a large number having teeth cleaned.

As a result of the screening for visual defects, a little girl in Cooper Creek School was found to have visual difficulties. The mother was notified by the teacher that the child should be taken to a specialist. The mother promptly contacted the teachers. It was brought out in the conference that the family did not have the money to give the child the needed attention. The teacher then contacted the Sight Conservation Committee of the Denton Lions Club and it was agreed that the club would bear the expense for the child's case. The child was taken to a specialist and fitted with much needed glasses. In a few days the little girl wrote a letter to the Lions Club expressing her appreciation and also the appreciation of her mother for the glasses. She stated that had it not been that her eyes were tested at school neither she nor her mother would have known that she needed glasses.
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary of Program

In interest of clarity and emphasis, a summary of the Health Education Program as it functioned in the Rural Schools of Denton County is given:

1. Teachers became interested in a program for healthful living as a result of participation in the Child Health Development Workshops at North Texas State Teachers College, during the Summer Sessions of 1945, 1946, and 1947.

2. The Rural Schools of Denton County were designated as a Health Demonstration Center with North Texas State College as the cooperating teacher training institution offering consultant services.

3. Community resources including the different agencies, groups, and individuals interested in a program of health education were coordinated, the governing school board approved the program and the teachers initiated the movement in the first teachers' meeting.

4. A health survey was made with the cooperation of teachers, parents, and students to determine the most urgent needs. Results of the survey revealed the need for an immediate immunization program.
5. A Health Record Card was formulated by a committee, approved by all teachers and made a definite part of school records.

6. A general health examination was given to 96.0 per cent of the students, with 85.0 per cent of the parents present for consultations with the examining physicians. Sixty-one per cent of the students were found to have defects, 7.0 per cent of which were classified as urgent cases. This was accomplished through the members of the Denton County Medical Society who donated the services.

7. An immunization program was carried on simultaneously with the general health examinations. Vaccinations for smallpox were given 35.0 per cent of the students and 32.0 per cent received diphtheria, whooping cough and tetanus immunizations with parents' permission. Through a program inaugurated by the teachers earlier in the year, 19.0 per cent of the students were vaccinated for smallpox and 12.0 per cent were immunized against diphtheria, whooping cough and tetanus with parents taking the initiative. The parents of 1.0 per cent of the students objected to the smallpox vaccine, 3.0 per cent objected to the diphtheria immunization, and 4.0 per cent of the students were absent when the school was visited by the physicians. Ninety-five per cent of the students now have the protection of the smallpox vaccine and 93.0 per cent have the protection of the diphtheria, whooping cough and tetanus serum.
8. Dental clinics were held in the schools in which 90.0 per cent of the students received dental examinations and more than 50.0 per cent of the parents were present for consultations with the examining dentists. This was accomplished by the dentists of Denton donating the services.

9. With the assistance of North Texas State Teachers College, the cooperating teacher training institution, 94.0 per cent of the students were screened for visual difficulties. Fourteen per cent were found to have visual difficulties.

10. With the assistance of North Texas State Teachers College, the cooperating teacher training institution, all students above the third grade were screened for hearing difficulties by use of the Group Audimeter Test. One per cent of those screened were found to have hearing impairments.

11. A planned program of follow-ups was inaugurated and the correction of defects found is now in process.

12. Environmental control was stressed and eight of the twelve schools made definite progress in this phase of health. The Argyle School and Double Oak School are specifically cited.

13. A planned program for more healthful living in the home and school was inaugurated by the instigation of daily observation and periodic checks.
14. Adequate noon-day meals were served 96.0 per cent of the children.

15. A teacher in-service training program was accomplished through formal meetings and consultant services given by North Texas State Teachers College and the County Administrative Staff.

16. School boards have made the small pox vaccination a requirement for school entrance beginning in September, 1948.

Conclusions

The evidence presented in this study reveals that a program of health education has had a good beginning in the rural schools of Denton County. A well-rounded program was developed and brought into action. It has met the test of educational concepts and the criteria for a good health education program. The program was democratically planned and executed through the cooperative efforts of all groups and individuals interested in the improvement of health conditions. It can and will continue with the proper guidance. This study establishes the fact that there is an opportunity for the application of a program for more healthful living and the development of the whole child without the services of a health unit. A health unit, however, would greatly augment any program planned for the improvement of health. The program described herein is in its
infancy. There is ample work to do. Progress can be made in many directions. A continuation of the cooperative efforts of the many groups and agencies which have made such a good beginning is essential to make this progress a reality.

Recommendations for 1948-49

Previously in this study it is made clear that the program for the improvement of health as it functioned in the several communities of Denton County during the school year 1947-48 is only a part of a three-year program for the improvement of school and community health. It is well to outline the plans for the second year of the three-year program. Attention is directed to the fact that the second year program will be planned and executed democratically by the students, teachers, parents, and all interested groups.

The following recommendations for the school year 1948-49 will be presented to the Community Health Council and, if approved, will be made to the various schools:

1. Further emphasis on follow-up through parent contacts.

2. Further in-service training for all school personnel.
3. The employment of a Coordinator of Health Education for the County.

4. Dental Clinics to be held in every school.

5. Further emphasis on nutrition.

6. Further emphasis on health education as an integral part of the school curriculum.

7. Further publicity through newspapers and school programs.
Dear Mr. Silk:

We have finished with the health survey, and are happy to report one hundred per cent co-operation in every respect. There are a few mothers who cannot be present for the examination, but are willing for me to send them the report and recommendations of the Doctor. We have a total of

- 33 children for the examination,
- 21 children for the small pox vaccinations,
- 16 children for diphtheria immunizations.

There are several children who have had one or both vaccinations.

This report may help you in scheduling the time for the work here.

Respectfully yours,

Mrs. C. C. Norman
Principal
APPENDIX B

Questionnaire

Control of Communicable Diseases

1. Immunization
   Give the Number of your students who have had
   the following types of vaccinations:
   Small Pox_______  Diphtheria_______

   Indicate below the results of the T. B. tests
   given your students last year by the Denton
   County Tuberculosis Association:
   No. showing positive_______
   No. showing negative_______

   Number of positive cases followed up:_______

2. Daily Observation
   Do you have a daily health inspection?_______
   (Yes or No)

   If so, how often?_________________________

   Do you have a list of symptoms by which you
   check your students?_______
   (Yes or No)

3. Educational Program
   Do you discourage the attendance of children
   who show signs of illness?_______
   (Yes or No)

   Do you encourage cleanliness of the body?_____
   (Yes or No)

   Do you see that quarantine laws are enforced?
   (Yes or No)

Nutrition and Posture

   Did you keep a tabulation on the weight and height of
   your students last year?_______
   (Yes or No)

   Monthly_______  Quarterly_______  Annually_______
Did you conduct posture clinics last year?  (Yes or No)

Did you serve hot lunches in your school?  (Yes or No)
  Percentage of students served?

Did you have a planned program for checking your students last year for poor nutrition?  (Yes or No)
  If so, list

Did you integrate in your curriculum a study of nutrition?  (Yes or No)

Did you conduct when needed a "Clean plate Campaign?"  (Yes or No)

Sanitation and Environmental Control

Check below the things which have been done in your school to maintain sanitary conditions:  (FOR PRINCIPALS ONLY)

  ---- Installation of electric pump
  ---- New water well
  ---- Periodic check for purity of water
  ---- Storage tank cleaned
  ---- Installation of angled jet drinking fountains
  ---- Drinking fountains cleaned daily
  ---- Installation of hand washing facilities
  ---- Installation of dish washing vat
  ---- Construction of new toilets
    ---- Pit type
    ---- Water flush type
  ---- Pits pumped out
  ---- Pits limed
  ---- Cleaning and disinfecting interior of toilets
  ---- School campus kept clean

  (FOR ALL TEACHERS)

Has your class room been redecorated in order to make for better lighting?  (Yes or No)
  What has been done?
Do you keep your students' desks angled in order to avoid glare?  
(Yes or No)

Do you have new desks?  Are your old desks refinishing according to specifications?  
(Yes or No)

Do you see that your room is always properly ventilated?  
(Yes or No)

Do you have a thermometer in your room?  
(Yes or No)

Do you have monitors to check the temperature, glare, etc.?  
(Yes or No)

Have you improved the heating facilities in your school in any way?  
(Yes or No)

If so, what has been done?  

Do you have a definite and organized plan of good housekeeping in your room?  
(Yes or No)

Explain procedure followed  

Has your school installed new playground equipment?  
(Yes or No)

Do you have a first aid kit available?  
(Yes or No)

Has your school campus been improved so as to provide for safety and beauty?  
(Yes or No)

Instructional Program

Is health instruction in your school integrated with other studies?  
(Yes or No)

Is health instruction in your school articulated from grade to grade?  
(Yes or No)

Do you discuss the necessity for fly and rodent control, and put your suggestions into practice?  
(Yes or No)
Is your health program based on a survey of health needs of your community? (Yes or No)

Is your community used as a laboratory for health experiences? (Yes or No)

Do parents participate in your health program? (Yes or No)

If so, how

Do you have a school health council? (Yes or No)

(Name of Teacher)

(School)
APPENDIX C

May Hill School

Dear Parent:

The State Department of Health, State Department of Education and the County Superintendent's office are urging that all children be vaccinated for small pox and have the diphtheria serum. They suggest the month of October as the time when this should be done.

If your child has not had this important protection, will you please let us know on the back of this sheet when it will be possible for it to be done, so that this information can be turned in to the County Superintendent's office?

Yours truly,

May Hill Teachers
APPENDIX D

Aubrey, Texas
October 18, 1947

Dear Mr. Silk:

I am very interested in our Health Program. I believe the results in such a program will be good because we have definite things to do.

The Health Record Card seems complete to me. It is similar to the Health Record Cards kept by a clinic in Dallas of my children during the ten years that we lived there. It furnishes me a good method of keeping the health data which I have been keeping heretofore.

I will be able to contact all the parents of my students next week.

Sincerely,

Mrs. Ada Wilson
Good Hope School
This side to be filled in by teacher

PERIODIC HEALTH EXAMINATION RECORD
DO NOT FOLD

Name ___________________________ Guardian's Name ___________________________
Address ____________________________________________________________
Address ____________________________________________________________
Address ____________________________________________________________
Date of Birth: Year ___________________________ Month ___________________________ Day ___________________________ Race ___________________________

Give date at which child last had:

<table>
<thead>
<tr>
<th>Disease</th>
<th>Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measles</td>
<td>Infantile Paralysis</td>
</tr>
<tr>
<td>Malaria</td>
<td>Mumps</td>
</tr>
<tr>
<td>Whooping Cough</td>
<td>Pneumonia</td>
</tr>
<tr>
<td>Asthma</td>
<td>Diphtheria</td>
</tr>
<tr>
<td>Rheumatism</td>
<td>Hay Fever</td>
</tr>
<tr>
<td>Typhoid</td>
<td>Bronchitis</td>
</tr>
<tr>
<td>Chicken Pox</td>
<td>Influenza</td>
</tr>
<tr>
<td>Tonsillitis</td>
<td>Scarlet Fever</td>
</tr>
<tr>
<td>Frequent Colds</td>
<td>Heart Disease</td>
</tr>
<tr>
<td>Smallpox</td>
<td>Discharging Ears</td>
</tr>
</tbody>
</table>

Give dates of immunization against:

<table>
<thead>
<tr>
<th>Disease</th>
<th>Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smallpox</td>
<td>Scarlet Fever</td>
</tr>
<tr>
<td>Diphtheria</td>
<td>Hay Fever</td>
</tr>
<tr>
<td>T. B. Contact</td>
<td>T. B. X-Ray</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>Tuberculin</td>
</tr>
<tr>
<td>Whooping Cough</td>
<td>Typhoid</td>
</tr>
<tr>
<td>Tetanus</td>
<td></td>
</tr>
</tbody>
</table>

WEIGHT AND HEIGHT RECORD—GRADE

<table>
<thead>
<tr>
<th>GRADE</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Fifth</th>
<th>Sixth</th>
<th>Seventh</th>
<th>Eighth</th>
<th>Ninth</th>
<th>Tenth</th>
<th>Eleventh</th>
<th>Twelfth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks: ____________________________________________________________
_________________________________________________________________
## APPENDIX P

### SCHEDULE FOR VISITATION OF PHYSICIANS

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>School</th>
<th>No. Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov. 3</td>
<td>8-12 A.M.; 1-5 P.M.</td>
<td>Sand Hill</td>
<td>100</td>
</tr>
<tr>
<td>Nov. 4</td>
<td>8-12 A.M.; 1-5 P.M.</td>
<td>Sand Hill</td>
<td></td>
</tr>
<tr>
<td>Nov. 5</td>
<td>8-12 A.M.; 1-5 P.M.</td>
<td>Sand Hill</td>
<td></td>
</tr>
<tr>
<td>Nov. 6</td>
<td>8-12 A.M.; 1-5 P.M.</td>
<td>Center Point</td>
<td>80</td>
</tr>
<tr>
<td>Nov. 7</td>
<td>8-12 A.M.; 1-5 P.M.</td>
<td>Center Point</td>
<td></td>
</tr>
<tr>
<td>Nov. 10</td>
<td>8-12 A.M.; 1-5 P.M.</td>
<td>Little Elm</td>
<td>74</td>
</tr>
<tr>
<td>Nov. 11</td>
<td>8-12 A.M.; 1-5 P.M.</td>
<td>Little Elm</td>
<td></td>
</tr>
<tr>
<td>Nov. 12</td>
<td>8-12 A.M.; 1-5 P.M.</td>
<td>Lake Dallas</td>
<td>75</td>
</tr>
<tr>
<td>Nov. 13</td>
<td>8-12 A.M.; 1-5 P.M.</td>
<td>Lake Dallas</td>
<td></td>
</tr>
<tr>
<td>Nov. 14</td>
<td>9-12 A.M.</td>
<td>Green Valley</td>
<td>15</td>
</tr>
<tr>
<td>Nov. 14</td>
<td>9-12 A.M.; 1-5 P.M.</td>
<td>Corinth</td>
<td>11</td>
</tr>
<tr>
<td>Nov. 17</td>
<td>8-12 A.M.; 1-5 P.M.</td>
<td>Double Oak</td>
<td>75</td>
</tr>
<tr>
<td>Nov. 18</td>
<td>8-12 A.M.; 1-5 P.M.</td>
<td>Double Oak</td>
<td></td>
</tr>
<tr>
<td>Nov. 19</td>
<td>8-12 A.M.; 1-5 P.M.</td>
<td>Cooper Creek</td>
<td>35</td>
</tr>
<tr>
<td>Nov. 20</td>
<td>8-12 A.M.; 1-5 P.M.</td>
<td>Argyle</td>
<td>135</td>
</tr>
<tr>
<td>Nov. 21</td>
<td>8-12 A.M.; 1-5 P.M.</td>
<td>Argyle</td>
<td></td>
</tr>
<tr>
<td>Nov. 24</td>
<td>8-12 A.M.; 1-5 P.M.</td>
<td>Argyle</td>
<td></td>
</tr>
<tr>
<td>Nov. 25</td>
<td>8-12 A.M.; 1-5 P.M.</td>
<td>Argyle</td>
<td></td>
</tr>
<tr>
<td>Nov. 25</td>
<td>1-5 P.M.</td>
<td>Good Hope</td>
<td>12)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Salt Branch</td>
<td>6) 28</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Elm Ridge</td>
<td>10)</td>
</tr>
</tbody>
</table>
APPENDIX G

School ___________________________ Date ___________________________

Parent or Guardian _____________________________________________

Address _______________________________________________________

The annual school health examination of your child, child., is scheduled for ___________________________ at the school building.

At that time, in addition to the examination, your child, children, will have the opportunity to be vaccinated for small-pox and inoculated for diptheria.

We believe that you will better understand the child's, children's, needs and have a better opportunity to cooperate with the school in providing for these needs if you are present at the annual health examination.

If you wish to safeguard your child, children, in the above described fashion, please sign this sheet below, where indicated, and return immediately.

Signature ___________________________ Teacher ___________________________
I do, do not, request that my child, children, be
\(\text{mark out one}\)
given the small-pox and diptheria serum.

It \textbf{will, will not}, be possible for me to be present
\(\text{mark out one}\)
when the examination is given.

\begin{align*}
\text{Signature} & \quad \text{Parent or Guardian}
\end{align*}
APPENDIX H

School __________________________ Date ________________

Parent or Guardian ______________________________________

Address ________________________________________________

The annual school health examination of your child, children, is scheduled for ____________ at the

Date Hour

school building.

At that time, in addition to the examination, your
child, children, will have the opportunity to be vacci-
nated for small-pox and inoculated for diphtheria.

We believe that you will better understand the child's, children's needs and have a better opportunity to cooperate
with the school in providing for these needs if you are
present at the annual health examination.

If you wish to safeguard your child, children, in the
above described fashion, please sign this sheet below,
where indicated, and return immediately.

Signature __________ Teacher ____________________
I do, do not, request that my child, children, be
(give one)
given the small-pox and diptheria serum.

It will, will not, be possible for me to be present
(give one)
when the examination is given.

Signature  Parent or Guardian
APPENDIX I

_______________(School)

_______________(Date)

To the Parent or Guardian of __________________________

Since parents are always directly interested in the health of their children, and since the condition of a child's _______ is important to his health and school work, you will be interested to know that an inspection of your child's _______ show that they need the attention of a _________.

We suggest that you see the doctor of your choice. If this is not possible, we suggest that you consult the home room teacher. We are very anxious to help your child.

In order that we may know that you have received this notice and that our records may be complete, we request that you fill in the form below and return the notice to the home room teacher.

Thanking you for your cooperation, we are

Yours very truly,

_______________, Home Room Teacher

_______________, Principal

I will take my child to the doctor. I wish to have a consultation with the home room teacher.

_______________

Parent's Signature
APPENDIX J

___________(School)
___________(Date)

To the Parent or Guardian of ________________

Since parents are always directly interested in the health of their children, and since the condition of a child's ______ is important to his health and school work, you will be interested to know that an inspection of your child's ______ show that they need the attention of a ________.

We suggest that you see the dentist of your choice. If this is not possible, we suggest that you consult the home room teacher. We are very anxious to help your child.

In order that we may know that you have received this notice and that our records may be complete, we request that you fill in the form below and return the notice to the home room teacher.

Thanking you for your cooperation, we are

Yours very truly,

______________ Home Room Teacher

______________ Principal

I will take my child to the dentist.
I wish to have a consultation with the home room teacher.

______________

Parent's Signature
## APPENDIX K

### SCHEDULE OF VISITATION FOR DENTISTS

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>NO. OF CHILDREN</th>
<th>DATE</th>
<th>HOURS</th>
<th>NAME OF DENTIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good Hope</td>
<td>36</td>
<td>Nov. 25</td>
<td>1-5</td>
<td>Dr. Camp</td>
</tr>
<tr>
<td>Salt Branch</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elm Ridge*</td>
<td>36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sand Hill</td>
<td>50</td>
<td>Dec. 1</td>
<td>9-12</td>
<td>Dr. Douglas</td>
</tr>
<tr>
<td>Sand Hill</td>
<td>50</td>
<td>Dec. 1</td>
<td>1-4</td>
<td></td>
</tr>
<tr>
<td>Center Point</td>
<td>80</td>
<td>Dec. 2</td>
<td>8:30-12:30</td>
<td>Dr. Saunders</td>
</tr>
<tr>
<td>Corinth</td>
<td>12</td>
<td>Dec. 3</td>
<td>11-12</td>
<td>Dr. Camp</td>
</tr>
<tr>
<td>Lake Dallas</td>
<td>75</td>
<td>Dec. 3</td>
<td>1-5</td>
<td></td>
</tr>
<tr>
<td>Double Oak</td>
<td>75</td>
<td>Dec. 4</td>
<td>9-12:30</td>
<td>Dr. Ray</td>
</tr>
<tr>
<td>Little Elm</td>
<td>74</td>
<td>Dec. 4</td>
<td>9-12:30</td>
<td>Dr. Mandell</td>
</tr>
<tr>
<td>Cooper Creek*</td>
<td>35</td>
<td>Dec. 4</td>
<td>1-4</td>
<td>Dr. Huey</td>
</tr>
<tr>
<td>Green Valley</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Argyle</td>
<td>130</td>
<td>Dec. 5</td>
<td>9-12</td>
<td>Dr. Hawley</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dec. 5</td>
<td>1-5</td>
<td></td>
</tr>
</tbody>
</table>

*Denotes school where examinations will be made
APPENDIX L

IMPORTANT

KEEP THIS AS A REMINDER

Parents look your children over every morning before sending them to school to see if they show any symptoms of contagious diseases.

LOOK FOR THESE THINGS:

Red and running eyes
Running nose
Coughing and sneezing
Severe pain
Dizziness and faintness
Swelling about the neck
Sore throat
Unusual paleness
Ear ache or running ears
Febrifug appearance (if possible take temperature with clinical thermometer)

Rash
Nausea, vomiting or diarrhea
Tiredness, irritability or crossness, or other changes in child's usual behavior

If your children show any of these symptoms, do these things:

1. Keep them at home from school
2. Keep them quiet and by themselves

Remember it is always safest to notify a doctor early when your child is sick.

Distributed by the Teachers and the County Superintendent of Denton County with the co-operation of the Denton County Board of Education.
APPENDIX M

Resolution

The Board of Trustees of the School District No. met in regular-special session at on , 194. Among the other business transacted and matters considered was the health program which has currently been in operation in the schools of Denton County.

The board of trustees finds that the health of the children is vital to a good school program and to the welfare of the community. The board further finds that the teaching of good health habits and practices should be stressed further in the school, and the community should be reminded of the effect of good health on community life. The board further finds that the health standards and regulations in the school should be improved and strengthened beginning with the school year 1948-49.

Therefore, it was moved by and seconded by that every child who has not had small-pox upon entering the school must have had the small-pox vaccination, as evidence of same must present to the proper school official a proper certification of same except when his school health record verifies a previous vaccination which has not expired, and that this regulation become effective on and after September 1, 1948.

Thereupon, the motion being fully discussed and a vote of the board called on same, the following voted:

Yea: and the following voted:

Nay:

The motion passed and its is so ordered.

President

Secretary

Member
BIBLIOGRAPHY

Books

Byrd, Oliver E., Health Instruction Yearbook, Palo Alto, California, Stanford University Press, 1944.


Pamphlets and Bulletins


Association for Childhood Education, What is Happening to the Children, 1946.


**Reports**


**Public Documents**


**Unpublished Material**


Miscellaneous

Gray, Hob, and Votaw, David H., General Achievement Test, Form H, Grades 4-6, Austin, Texas, Steck Company, 1945, pp. 18-19

Minutes of County Board of School Trustees, Denton County, Denton, Texas, 1947, Volume 3, p. 81.