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PROGRAM FOR AN URBAN SCHOOL SYSTEM.

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A PROPOSED DEFENSIBLE HEALTH SERVICES PROGRAM

FOR AN URBAN SCHOOL SYSTEM

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

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BY

EDWARD J. WYLIE

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1964

**A PROPOSED DEFENSIBLE HEALTH SERVICES PROGRAM
FOR AN URBAN SCHOOL SYSTEM**

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CHAPTER I

THE PROBLEM AND THE METHOD OF INVESTIGATION

INTRODUCTION

A school health program is usually thought of as comprising three broad areas: (1) health education, including both separate and integrated instruction; (2) healthful school environment, including both physical and social aspects; and (3) school health services. This study is concerned with the physical aspect of the school health services.

An appropriate health services program is one based upon generally accepted practices adapted to the community in which it operates. The primary responsibility for the health of children and youth rests with the parent. Protecting and improving the present and future health of children and youth are purposes which all citizens share with community health agencies. Schools have a major responsibility for the education of children and youth in health as well as in other fields.

In a balanced health services program, school health services are procedures established to appraise the health status of pupils and school personnel, to counsel pupils, parents, and others concerning appraisal findings, to encourage the correction of remediable defects, to assist in identification and education of handicapped children, to

help prevent and control disease, and to provide emergency service for injury or sudden illness.

STATEMENT OF THE PROBLEM

The problem of this study is to propose a defensible health services program for an urban school system. The development of such a proposal is dependent upon the following sub-problems: (1) the establishment of suitable criteria, (2) the determination of need for public school health services to meet the criteria, and (3) the formulation of a proposed urban public school health program.

LIMITATIONS OF STUDY

This study is limited to the study of the physical aspect of health services, the established criteria, and the expression of need of health services program.

STATEMENT OF OBJECTIVE

The objective of this study is the development of a proposed defensible health services program for an urban school system based upon established criteria and the results of determined need for the public school health services.

PROCEDURES

ESTABLISHMENT OF CRITERIA

Accepted criteria as established by the National Education Association, the American Medical Association, and other authorities in the field of

health services are used in this study. These criteria ((1) appraise the health status of pupils and school personnel; (2) counsel pupils, parents, and others concerning appraisal findings; (3) encourage the correction of remediable defects; (4) assist in identification and education of handicapped children; (5) help prevent and control disease; and (6) provide emergency service for injury or sudden illness)^{1,2,3,4,5,6,7} were used in the development of the proposed health services program.

DETERMINATION OF NEED

The need for the health services program was established from the results of questionnaires submitted to: (1) superintendent of schools of sixty cities throughout the United States; (2) school personnel of the Wichita School System; (3) sampling of patrons of the Wichita School

¹Charles C. Wilson, School Health Services (Cambridge: Yale University Press, 1953), pp. 5-6.

²William A. Yeager, Administration of the Noninstructional Personnel and Services (New York: Harper & Brothers, 1959), pp. 281-288.

³Elizabeth A. Neilson, "Analytical Study of School Health Service Practices in the United States," The Journal of School Health, Vol. XXX; 1960, pp. 353-359.

⁴Leslie W. Irwin, Warren R. Johnson, and James H. Humphrey, Methods and Materials in School Health Education (St. Louis: The C. V. Mosby Company, 1956), pp. 22-23.

⁵C. L. Anderson, School Health Practice (St. Louis: The C. V. Mosby Company, 1956), pp. 115-177.

⁶James H. Humphrey, Warren R. Johnson, and Virginia D. Moore, Elementary School Health Education (New York: Harper & Brothers, 1962), p. 6

⁷Delbert Oberteuffer, School Health Education (New York: Harper & Brothers, 1960), pp. 280-282.

District; (4) physicians in Wichita; (5) dentists in Wichita; and (6) the Wichita City-County Health Department.

Questions necessary and pertinent to this study were developed by the writer and submitted to a panel of twelve people from the Wichita area with special interest and knowledge in the field of health. This panel consisted of a teacher of health education, the Director of Health and Physical Education, two school nurses from the Wichita School system, two local physicians, two local dentists, an elementary principal, Assistant Superintendent of Schools in charge of Pupil Personnel Services, President of the local Secondary Council of the Parent-Teacher Association, and the President of the local Elementary Council of the Parent-Teacher Association. Suggestions for additions to and deletions from the list of questions were made by members of this panel and incorporated into the final questionnaires which were approved by each member of the panel.

National Questionnaire

The sixty questionnaires sent to superintendent of schools were for the purpose of national sampling of current practices in cities of relatively comparable population range, 150,000-500,000. The selection of cities was based on the 1960 Census of Population, United States Department of Commerce, and Bureau of Census, and included all the cities in this population range. The cities sample is listed in Appendix A.

The first contact with the schools was a letter of request (Appendix B) for participation mailed on September 4, 1963. A packet (Appendix C) consisting of two questionnaires, one for local files, a cover letter describing briefly the purpose of the questionnaire, the need for the information,

and an explanation of the value of the findings was mailed to each responding city on October 3, 1963. A summary of the final report was offered to each participating city. All school districts which had not submitted the questionnaire by December 3, 1963, were contacted by a follow-up letter (Appendix D). A total of fifty-one completed questionnaires were returned.

The questionnaire was divided into the following sections:

- I. Name of city
- II. Number of pupils enrolled grades 1-8
- III. Number of pupils enrolled grades 9-12
- IV. Personnel
- V. Organization of the Health Services Program
- VI. Financial structure
- VII. Services
- VIII. Follow-up and control program
- IX. Integration into the curriculum
- X. Miscellaneous questions

Questionnaire findings were tabulated in three groups: Group I, Board of Education administered health service programs, Group II, Board of Education and Health Department, joint administered health service programs, and Group III, Health Department administered health service programs. Wichita, Kansas, used as the test city and detailed in Chapter III is included in the Group I data. Tables and charts were made to show results of the survey, similarities and differences, and analyze relationships present.

Local Questionnaires

The local questionnaires were distributed in Wichita, Kansas, which was used as a test city. This was done for two reasons. (1) The availability of source material. (2) Wichita is approximately the median population of cities sampled.

The local questionnaires were developed, recognizing that the existing health services program in the Wichita Public Schools has been rendered by school nurses.

Patron Questionnaire

The questionnaire sent to patrons (Appendix E) of the Wichita Public School District was for the purpose of determining need of the health services in the schools, to see if the services offered are desirable and to see to what extent the program needs to be expanded.

A sampling of the patrons of the district was taken from the meter books of Kansas Gas and Electric Company, taking ten names from each meter book, giving a sample from each area of town. There was a total of 350 meter books, giving a total of 3,500 households surveyed. The questionnaires were mailed directly to each household with a return self-addressed stamped envelope enclosed. A total of 947 completed questionnaires were returned. The statistical formula (Appendix F) taken from the National Education Association Research Bulletin,⁸ was used to determine the sampling; however, a larger sample was taken to add validity to the study.

School Personnel Questionnaire

The questionnaire sent to school personnel (Appendix G) of the Wichita School District were for the purpose of determining need of the health services in the schools, to see if the services offered are desirable and to see to what extent the program needs to be expanded.

⁸Small-Sample Techniques, National Education Association Research Bulletin, Vol. 38, No. 4, December, 1960, pp. 99-104.

The school personnel questionnaires were given to the school principals to distribute to all personnel in their building. Approximately 2,850 questionnaires were distributed of which 2,361 were completed and returned. The results were tabulated by a division of three areas for the purpose of analysis of the following experimental program. This experimental assignment of nurses was organized to determine an adequate nurse-pupil ratio.

Administrative Plan. - The Wichita North High School and feeder schools with an enrollment of 13,528 pupils were assigned to one nurse. This plan was a recommendation of the Wichita Board of Education for the school year 1963-64. The nurse coordinated the health services needed in this area. Six other nurses made up a team to do the vision, hearing, and dental screening. This was in addition to their regular assignment which carried a pupil load of 1,800-3,000.

National Recommended Plan. - The National Health Service League recommends the nurse-pupil ratio be from 1,200-1,500 pupils. The Wichita West High School and feeder schools received nursing service in accordance with this recommendation. The nurses in this area followed all recommended health service procedures.

Traditional Wichita Plan. - This plan was based on nursing assignments as they had been in the past years. The nurse-pupil ratio was 1,800-3,000 pupils. Members of the team to work in the North High School area were chosen from the nurses in this area.

Physician - Dentist Questionnaires

The questionnaire sent to physicians and dentists (Appendix H) having offices in the City of Wichita was for the purpose of determining need of the health services in the schools, to see if the services offered were desirable and to see to what extent the program needed to be expanded.

This questionnaire, with a return self-addressed stamped envelope enclosed, was sent to 200 physicians and 118 dentists. A total of 125 physicians and eighty-five dentists responded. The questionnaires to each group are tabulated separately.

The Wichita City-County Health Department Questionnaire

The questionnaire sent to the Wichita City-County Health Department (Appendix I) was for the purpose of determining need of the health services in the schools, to see if the services offered were desirable and to see to what extent the program needed to be expanded.

Eight questionnaires were sent to the Wichita City-County Health Department, but the Director of the Health Department felt their opinions could be combined and only one questionnaire was necessary.

The Wichita City-County Health Department questionnaire was included in the analysis, and the opinions of the Health Department were used in the analysis of the need for health services in the public schools.

TREATMENT OF DATA

The returned questionnaires were tabulated and tables prepared giving the results of the responses to each question. The results found in these questionnaires showed current practices in health service programs and were

evaluated in light of the established and accepted criteria. Opinion results were also applied to these criteria.

DEFINITION OF TERMS

Nurse - A nurse who is employed by the Board of Education or one who works within a school.

Physician - A licensed medical doctor.

Psychiatrist - A licensed medical doctor with special training in psychiatric work.

Dentist - A licensed graduate of a qualified dental school.

Dental Hygienist - A graduate or registered dental hygienist.

School Health Services - Services provided for the pupils in a school for their physical needs: (1) to appraise the health status of pupils and school personnel; (2) to counsel pupils, parents, and others concerning appraisal findings; (3) to encourage the correction of remediable defects; (4) to assist in the identification and education of handicapped children; (5) to help prevent and control disease; and (6) to provide emergency service for injury or sudden sickness.

School Personnel - All employees of the Board of Education working within a school building.

Patron - Those who maintain a residence within school districts.

⁹Wilson, loc.cit.

CHAPTER II

A SURVEY OF HEALTH SERVICE PROGRAMS OF VARIOUS CITIES

INTRODUCTION

The fact that school health services are provided in varying degrees in school systems throughout the United States, as shown in the results of the returned questionnaires, indicates a universal agreement that a need for school health services exist. The ways in which and the degrees to which these services vary and the comparison of existing services to accepted criteria, as established by the National Education Association, the American Medical Association, and other authorities, ((1) appraise the health status of pupils and school personnel; (2) counsel pupils, parents, and others concerning appraisal findings; (3) encourage the correction of remediable defects; (4) assist in identification and education of handicapped children; (5) help prevent and control disease; and (6) provide emergency service for injury or sudden illness)¹⁰ are of importance in the development of a sound, and defensible school health services program. Such information lends support to a proposed program to the degree that services are currently incorporated into existing health service programs.

¹⁰Wilson, loc.cit.

Where accepted criteria are not met in existing health service programs, the proposed program in this study is strengthened by this knowledge.

PROCEDURES

The sixty selected schools were sent questionnaires of which fifty-one were completed and returned.

Questionnaires were tabulated; tables and charts were made showing results of the survey, similarities, differences, and analyzing relationships present. The fifty-one returned questionnaires were placed into three groups for analysis: Group I, cities in which the Board of Education administers the health service programs; Group II, cities in which the health service programs are administered jointly by the Board of Education and the Public Health Department; and, Group III, cities in which the Public Health Department administers the health services program. A detailed listing of the data for each city is presented according to these groups in the Appendix (J, K, L).

ANALYSIS OF THE DATA

Analysis of the responses is not confined to a discussion of individual items or "sections" as they appear in the questionnaire, but have been developed by "areas of common interest." Repetition of tabulated material may appear, but only if the item is related to other areas under discussion at the time.

The three groups of cities responding to the questionnaire are compared in Tables 1, 2, and 3, relative to the range, mean, and median respectively of: school population, annual budget for health services program, cost of health services program per pupil, number of nurses employed, and the

TABLE 1

SCHOOL POPULATION AND BUDGET FOR HEALTH SERVICES DESCRIBED BY RANGE

	NR*	School Population	NR*	Budget	NR*	Cost Per Pupil	NR*	Number Nurses	NR*	N-P Ratio
Wichita	1	64,000	1	\$183,100	1	\$2.86	1	30	1	2,133
Total Cities	51	24,571-188,794	41	11,025-802,726	41	.18-9.93	34	0-69	45	924*-31,002
Group I	31	25,175- 98,439	27	17,606-802,726	27	.23-9.93	31	1-69	31	1,033 -31,002
Group II	8	28,191-114,006	8	11,800-226,669	8	.42-7.03	7	0-35	7	924*- 4,902
Group III	12	24,571-188,794	6	11,025-583,751	6	.18-7.31	7	9-64	7	1,564 - 4,968

NR* - Number Responding

924* - Lowest Nurse-Pupil Ratio of Schools Reporting Nurses

TABLE 2

SCHOOL POPULATION AND BUDGET FOR HEALTH SERVICES DESCRIBED BY MEAN

	NR*	School Population	NR*	Budget	NR*	Cost Per Pupil	NR*	Number Nurses	NR*	N-P Ratio
Wichita	1	64,000	1	\$183,100	1	\$2.86	1	30	1	2,133
Total Cities	51	58,596	41	221,793	41	4.38	45	27.6	45	3,288
Group I	31	52,997	27	254,919	27	4.90	31	29	31	3,558
Group II	8	57,870	8	108,917	8	2.32	7	20	7	2,650
Group III	12	73,743	6	223,234	6	4.76	7	29	7	2,730

NR* - Number Responding

TABLE 3

SCHOOL POPULATION AND BUDGET FOR HEALTH SERVICES DESCRIBED BY MEDIAN

	NR*	School Population	NR*	Budget	NR*	Cost Per Pupil	NR*	Number Nurses	NR*	N-P Ratio
Wichita	1	64,000	1	\$183,100	1	\$2.86	1	30	1	2,133
Total Cities	51	53,923	41	171,614	41	4.73	45	27	45	1,735
Group I	31	48,120	27	191,868	27	4.63	31	27	31	1,722
Group II	8	53,923	8	110,000	8	1.51	7	16	7	2,078
Group III	12	58,081	6	179,628	6	5.83	7	18	7	2,366

NR* - Number Responding

nurse-pupil ratio. Wichita, included in the Group I data, is also shown separately as being the test city detailed in Chapter III.

Board of Education administered health service programs (Group I) were reported by thirty-one of the fifty-one cities surveyed (60.8 per cent). Joint Board of Education and Health Department administered health service programs (Group II) were found in eight or 15.7 per cent; and Health Department administered health service programs (Group III) were reported by twelve or 23.5 per cent.

The school population range of all systems included in the sample was from 24,571 to 188,794. The method of administering a health services program seemingly has little relationship to the size of the school system. The participating school with the largest pupil population has a health services program administered by the Health Department; this is also true of the smallest school.

Forty-one of the fifty-one reporting schools included their budget figures for health service programs. Budgets ranged from \$11,025 to \$802,726 per year; however, the largest population system reporting did not have the largest budget figure. The range of cost per pupil was from \$.18 to \$9.93. The nurse-pupil ratio ranged from 924 to 31,002; however, Appendixes J, K, and L show the overall figure somewhat distorted by Mobile, Alabama, and Fort Wayne, Indiana, who report nurse-pupil ratios of 25,387 and 31,002 respectively.

Following the same grouping of cities, Table 4 lists by percentage the cities' basic requirements of educational qualification for school nurses and the per cent of cities employing a coordinator of nurses and director of health services and their educational background.

TABLE 4
EDUCATIONAL BACKGROUND OF HEALTH SERVICE ADMINISTRATORS
(in percentages)

	Nurses			Nurse-Coordinator				Director Health Services				
	Educational Qualifications			Percentage Employing	Educational Background			Percentage Employing	Educational Background			
	RN	+BA	+MA		Nurse	Physician	Educ		Phy	Educ	Nurse	Psy
Wichita	X				X							
All Cities												
Responding	57.0	40.0	3.0	71.0	71.0	2.0	6.0	78.7	46.9	18.8	8.0	4.0
Group I	41.0	55.0	4.0	87.0	77.0	3.0	9.6	83.0	53.0	20.0	6.6	3.0
Group II	86.0	14.0	---	62.5	62.5	---	---	87.5	33.0	33.0	12.5	---
Group III	100.0	----	---	30.0	30.0	---	---	55.5	44.0	----	11.0	---

The basic educational requirement for school nurses in 57.0 per cent of all the cities surveyed was Registered Nurse: while in Group I, 55.0 per cent required a Bachelors Degree plus Registered Nurse and 4.0 per cent required a Masters Degree plus Registered Nurse. In Group II, 86.0 per cent required only a Registered Nurse, while Group III, was 100.0 per cent in basic educational requirement being a Registered Nurse. Seventy-one per cent of the cities employed nurse-coordinators, with an educational background being that of a nurse (71.0 per cent). A director of health services was employed by 78.7 per cent of the schools with an educational background as a physician in 46.9 per cent of these systems.

Table 5 lists the percentage of cities having other available personnel. Of the fifty-one cities responding, 70.0 per cent had the services of a physician available, 29.4 per cent a psychiatrist, 64.7 per cent a psychologist, 39.2 per cent a dentist, 33.3 per cent a dental hygienist, 68.6 per cent had clerical help with 29.0 per cent employing other personnel such as vision and hearing testers, audiometrists, etc.

Table 6 shows the responses to questions relating to finance, services, follow-up procedures and integration of health services into the curriculum. The percentages are based on fifty-one cities responding.

The school nurses in 52.9 per cent of the cities wear uniforms. The principal source of income in 84.3 per cent of the cities was from the general fund, with only 2.0 per cent having state allocations. A special health fee charged at the time of enrollment was reported by 3.9 per cent, and 17.6 per cent reported other methods of financing their program. Four of these cities reported that the County Health Department assumed all or partial expense. Flint, Michigan, reported the use of private funds in addition to the budget;

TABLE 5
 ADDITIONAL PERSONNEL AVAILABLE TO HEALTH SERVICES
 (in percentages)

	Physician	Psychiatrist	Psychologist	Dentist	Dental Hygienist	Clerical	Other
<u>Wichita</u>							
<u>All cities responding</u>	70.0	29.4	64.7	39.2	33.3	68.6	29.0
<u>Group I</u>	78.0	32.2	61.2	41.9	35.4	83.8	29.0
<u>Group II</u>	62.5	12.5	75.0	37.5	25.0	87.5	50.0
<u>Group III</u>	58.0	25.0	50.0	35.3	33.3	16.6	17.0

TABLE 6

**ITEMS RELATING TO FINANCE, SERVICES, PROCEDURES
(in percentages)**

Item	Yes	No	No Response
School nurses wear uniforms	52.9	41.2	5.9
Principal source of income:			9.8
General school funds	84.3		
Special health fees	3.9		
State allocation	2.0		
Other methods of financing the health services program	17.6	66.7	15.7
School assumes responsibility for health of pupils	74.5	19.6	5.9
Physical examination required of new pupils	60.8	39.2	
Physical examination conducted by:			5.0
Health services physician	41.0		
Pupil's own physician	50.0		
Health department physician	4.0		
Physical examination report form is:			7.8
Supplied by school	76.5		
Differs from pupil to pupil	2.0		
Supplied by health department	13.7		
School requires pupils to fill out a medical history	68.6	25.5	5.9
Responsible for evaluating pupil's medical histories (specify)			11.7
Nurse	76.5		
Physician	3.9		
Teacher	5.9		
Parent	3.0		
School requires new pupils immunized for:			
Smallpox	64.7	35.3	
Tetanus	35.3	54.9	9.8
Typhoid	19.6	68.6	11.8
Polio	49.0		
Diphtheria	37.0		
Pertussis	14.0		

TABLE 6 (Continued)

Item	Yes	No	No Response
New pupils required to have:			
Chest x-ray	7.8	78.4	13.8
Tuberculosis skin test	15.7	68.6	15.7
Dental examination	41.2	49.0	9.8
Vision examination	58.8	33.3	7.9
Hearing examination	45.1	47.0	7.9
Speech examination	11.8	78.4	9.8
Psychiatric examination	2.0	84.2	13.8
Psychological examination	13.8	74.4	11.8
Physical examination	9.8		
Medical requirements apply to all pupils	64.7	19.6	15.7
Pupils exempt from medical requirements	58.8	31.4	9.8
Religious	43.3		
Medical	13.8		
Parent request	7.9		
Special requirements for particular group of pupils	52.9	41.2	5.9
Athletics	23.5		
Special education	31.4		
Driver's education	3.9		
Personnel required to have a physical examination before employment or shortly after	72.5	21.6	5.9
Psychiatric examination	3.9	68.6	27.5
Provided by:			
Health services department	23.5		
Own physician	52.9		
Health department	9.8		
First-aid supplies provided for buildings	100.0		
Classroom teachers trained to handle emergency treatment	54.9	43.1	2.0
Injuries treated by school nurse	82.3	15.7	2.0
In the absence of school nurse a faculty member appointed to handle first-aid cases	96.1	3.9	

TABLE 6 (Continued)

Item	Yes	No	No Response
Pupils required to have another routine physical examination	64.7	33.3	2.0
Every 3 years	41.2		
Annually	5.9		
Before 8th grade	17.6		
Cumulative health records kept on individual pupils	100.0		
Kept by:			19.7
Nurse	52.9		
Teacher	17.6		
School office	9.8		
The school keeps them:			3.9
Permanently	33.3		
K-12	35.3		
Until pupil is 21-36 years old	5.9		
2-8 years after graduation	21.6		
Microfilming used for permanent record	33.3	64.7	2.0
Cumulative health record on every pupil	98.0	2.0	
Standard procedure for notifying parents if pupil becomes ill or injured	100.0		
School nurse counsels with parents concerning child's illness	100.0		
School nurse makes home visits	92.2	7.8	
School buildings inspected for cleanliness	70.6	29.4	
Teachers and supervisors required to have a regular routine physical examination:	41.2	56.8	2.0
Every year	21.6		
TB - once a year	5.8		
Every 2 years	2.0		
Every 3 years	11.8		
Every 5 years	5.8		
Psychiatric examination	2.0	90.2	7.8

TABLE 6 (Continued)

Item	yes	No	No Response
Regular in-service training program for teachers	33.3	64.7	2.0
The school offers lectures, courses in health, hygiene, mental health and other fields of health	90.2	7.8	2.0
Health services department teaches or acts as advisors in health education	74.5	23.5	2.0
Resource area	43.2		
Secondary level	2.0		
Upon request	3.9		
Consultants	7.8		
Health education program directly supervised by someone on the health services staff	29.4	70.6	
Member of health services staff on committee, board or faculty which supervise health education	45.1	49.1	5.8
Health services staff serve as consultants or advisors in health education	84.3	11.8	3.9
Staff serve as consultants or advisors to the faculty in pupil assignments	92.2		7.8
Formal textbook used in health education	72.5	21.6	5.9
Teachers in cooperation with health services or health education developed their own course of study	72.5	17.6	9.9
Non-school agencies which make services available			
County health department	28.8		
T. B. Association	32.7		
Dental Society	21.2		
Medical Society	17.3		

TABLE 6 (Continued)

Item	Yes	No	No Response
Health services program meets the needs of community	76.5	21.5	2.0
Additional personnel needed			19.6
Nurses	52.9		
School physicians	27.5		

and Spokane, Washington, reported that the Junior Red Cross assists in financing the dental clinic. Memphis, Tennessee, gave no explanation.

The survey of the school systems show that 74.5 per cent assume responsibility for the health of students in some way. New pupils in 60.8 per cent of the schools are required to have a physical examination before or soon after entering school. Pupils are required to have another routine physical examination during their school careers in 64.7 per cent of the sampling. This examination is conducted every three years in 41.2 per cent of the cities. The school physician conducts the examination in 41.0 per cent of the cities with 50.0 per cent showing the examination conducted by the pupils' own physician. Several schools indicated both a physician associated with health services and the family physician made the examinations. The school physician, in most cities, examines only the pupils who cannot afford a private physician. The physical examination report form is standardized and supplied by the school in 76.5 per cent of the cities and the nurse in 76.5 per cent of the school systems evaluates the pupils' medical histories.

The most frequent vaccinations or immunizations required of new pupils were Smallpox required by 64.7 per cent of the cities and Polio required by 49.0 per cent. The examinations most consistently required of new pupils were vision, hearing and dental. The individual requirements in 64.7 per cent of the cities applied to all pupils as well as new ones. There were exemptions from these medical requirements in 58.8 per cent of the cities, the major reason being religion in 43.3 per cent of the cities. Special requirements were made of a particular group of pupils in 52.9 per cent of the cities. Physical examinations were required of all school employees in 72.5 per cent of the cities, psychiatric examination was required in 3.9 per cent. Employees in 41.2 per cent of the cities were required to have routine physical examinations. The period of time lapse varies. The physical examination was conducted by the employees' own physician in 52.9 per cent of the cities.

All the cities sampled provided first-aid supplies for each building. Teachers were trained-in-service to handle emergency first-aid treatment in 54.9 per cent of the sampling. The school nurse in 82.3% of the cities could treat slight injuries; and in the absence of a school nurse, there was a faculty member appointed in 96.1 per cent of the school systems to handle first-aid cases in the building.

All cities kept cumulative health records, and 52.9 per cent reported they were kept by the school nurse. The cumulative record was kept various lengths of time. Microfilming was used in 33.3 per cent of the cities for preserving records. There was a cumulative record for every child in 98.0 per cent of the schools.

The schools in all cities had standard procedures for notifying parents if children became ill or injured, and provisions for the nurse to counsel with parents about the childrens' illnesses; and in 92.2 per cent of the cities, she visited the home when the child was out of school because of illness or other health problems.

The health services staff in 70.6 per cent of the cities had the responsibility of inspecting the building for cleanliness. Regular in-service training programs for teachers were conducted by the health services department in 33.3 per cent of the cities. The health services staff offered special courses or programs in 90.2 per cent of the schools and in 74.5 per cent of the cities either taught or acted as advisors in health education. Their largest service in this area came as resource personnel.

The health education program was supervised by someone on the health services staff in 29.4 per cent of the cities. A member of the health services staff in 45.1 per cent of the cities was on a committee, board, or faculty which supervised health education, and 84.3 per cent of the cities reported that the health services staff served as consultants or advisors in health education. The health services staff acted as advisors or consultants to the faculty in pupil assignments or extra-curricular activities in 92.2 per cent of the cities.

A formal textbook was used in 72.5 per cent of the cities and the same percentage reported their teachers had cooperated with the health services staff in developing their own course of study.

The respondents, 76.5 per cent, reported their health service programs were meeting the needs of their communities. The non-school agencies most

frequently mentioned as providing services to the school were: County Health Department, 28.8 per cent; T. B. Association, 32.7 per cent; Dental Society, 21.2 per cent and Medical Society, 17.3 per cent.

In response to the question, "What personnel would you add if it were possible for you to do so?", 52.9 per cent would add more nurses, and 27.5 per cent would add school physicians.

SUMMARY

It was evident from the information received that health services varied throughout the fifty-one cities. The three most prevalent areas of agreement were: (1) a need for a health services program was recognized universally; (2) the largest percentage of health service programs are administered and financed by the Board of Education; and (3) the types of health services offered are dependent upon the type of personnel employed.

It was also pointed out by a large percentage of the respondents, that the health service departments are concerned with the mental and emotional, as well as the physical aspect of health; however, in all school systems it was recognized that the organizational structure varies. For instance, the school district might employ psychologists, but they would be placed in the guidance department and not considered as members of the health services staff.

A large percentage of the health service programs employed a physician, who in several instances served as the director of the department. The extent of his services varied greatly. All the fifty-one cities

employed registered nurses, and over half the cities surveyed listed more nursing personnel as their greatest need.

The results of these surveys indicated that the accepted criteria are recognized and that existing health service programs appear to meet the needs of the various and individual communities, however, sufficient deviation in the responses pointed to the fact that the criteria are being met in varying degrees.

CHAPTER III

AN OPINION SURVEY OF HEALTH SERVICES

PROGRAM IN THE TEST CITY

INTRODUCTION

While the national survey of school health services indicated universal agreement regarding the need for health services, this survey was limited to responses of school administrators. For the purpose of this study it was important to study in detail the opinions, feelings and wishes of participants, recipients, and other interested and individual persons related to a school health services program in relationship to the accepted criteria ((1) appraise the health status of pupils and school personnel; (2) counsel pupils, parents, and others concerning appraisal findings; (3) encourage the correction of remediable defects; (4) assist in identification and education of handicapped children; (5) help prevent and control disease; and (6) provide emergency service for injury or sudden illness)¹¹ as established by the National Education Association and the American Medical Association. Wichita, Kansas, a city with a population of 275,000 and a school population of 64,000 was selected as the test city in which to conduct the detailed

¹¹Wilson, loc.cit.

survey, as it was near the median of the population range of the cities selected for the national survey.

PROCEDURES

Employees of the Wichita Public Schools, patrons of the Wichita School district, dentists and physicians of the City of Wichita, and the Wichita City-County Health Department were given the opportunity to voice opinions regarding the health services program existing and/or desired in the public schools.

The local questionnaires were developed for the purpose of determining needs of the health services in the schools, to see if the services offered were desirable and to determine to what extent the program needed to be revised.

ANALYSIS OF THE DATA

Analysis of the questionnaires was not confined to a discussion of individual questions or "sections" as they appeared in the questionnaire, but have been developed by "areas of common interest." Repetition of tabulated material was used, but only if the item was related to other areas under discussion at the time.

Patron Questionnaire

Questionnaires were mailed to 3,500 households in the Wichita School district, with 947 returning the questionnaire. Table 7 shows a tabulation of responses to each of the items included in the questionnaire.

TABLE 7

ITEM RESPONSES TO PATRON QUESTIONNAIRE
(in percentages)

Item	Number Responding	Yes	No	
Children in school	947	58.2	41.8	
Grade levels:	551			
K-3		40.1		
4-6		25.0		
7-9		16.2		
10-12		18.7		
Acquainted with school nurse	745	21.1	78.9	
Need for school nurses	849	90.9	9.1	
Additional health service personnel needed	785	33.8	66.2	
Specify:	242			
Physician		58.3		
Dentist		16.1		
Dental hygienist		10.3		
Other		15.3		
Health services make a significant difference in educational development of pupils	925	79.9	20.1	
	NR*	a*	b*	c*
Services provided in the schools:				
Vision and hearing	787	72.0	21.9	6.1
Observation in classroom	770	45.5	38.8	15.7
Counseling parents and children	768	48.8	39.7	11.5
Referring children with health problems	761	52.6	34.3	13.1
Providing resource material and instructional assistance	742	38.9	43.7	17.4
Rendering emergency first-aid	773	72.7	22.4	4.9
Assisting with dental examinations and acting as resource person	763	42.5	40.4	17.1
	NR*	A*	TF*	TM*
Thirty nurses to service 64,000 pupils	808	26.0	68.9	5.1

TABLE 7 (Continued)

Item	NR*	H*	M*	L*
In relationship to other special services rank health services	827	62.8	26.7	10.5
NR* - Number Responding				
a* - very desirable b* - desirable c* - undesirable				
A* - adequate TF* - too few TM* - too many				
H* - high M* - medium L* - low				

It is interesting to note that of the 947 responding to the questionnaire, 58.2 per cent had children in school, the largest percentage in this area being in grades K-3. The patrons responding reported 21.1 per cent were acquainted with their school nurse and 90.9 per cent of the 849 responding to the question believed there was a need for school nurses. A need for additional health services personnel, other than school nurses, was reported by 33.8 per cent. Over three-fourths (79.9 per cent) thought health services made a significant difference in the educational development of the pupil. The two services offered by the school rated the highest were the screening examinations for vision and hearing of pupils (72.0 per cent) and rendering emergency first-aid care (72.7 per cent); however, all the services were rated significantly as very desirable or desirable with only a small percentage rating each service undesirable.

Of the 808 responding, 68.9 per cent thought thirty nurses were too few to provide adequate health services to 64,000 pupils.

In relationship to other special services provided by the schools, 62.8 per cent of the 827 responding ranked health services high.

School Personnel Questionnaire

Questionnaires were given to the school principals to distribute to all personnel in their building. Approximately 2,850 questionnaires were distributed, with 2,361 or 82.8 per cent returning the questionnaire. Tables 8, 9, 10, and 11 show a tabulation of responses to each of the items included in the questionnaire. The responses were tabulated in the following groupings: (1) West High area, (2) North High area, (3) Traditional area, and (4) all areas. A further tabulation was made by title of person responding to the questionnaire.

It was significant to note that an overall majority of all personnel believed there was a need for school nurses in the Wichita Public Schools; 52.0 per cent of all administrators, 49.0 per cent of school counselors, 35.1 per cent of teachers, 35.1 per cent of clerical and 61.8 per cent of other personnel employed in the schools saw a need for additional health services personnel. A large majority of the personnel thought that the health services provided by the schools make a significant difference in the educational development of pupils. Over half the respondents thought that school nurses should wear uniforms, and that nurses with comparable training should be placed on the teachers' salary schedule as shown in Table 11, page 46.

A high percentage felt that the school nurses were accepted as members of the faculty and over half the personnel felt that health services were coordinated with the instructional program as well as other special services as shown in Table 11, page 46.

It was significant to note that the personnel in the West High area (nurse-pupil ratio of 1,300-1,500) did not spend time on duties

TABLE 8

WEST HIGH AREA ITEM RESPONSES TO THE
SCHOOL PERSONNEL QUESTIONNAIRE
(in percentages)

Item	Number Responding	Yes	No
Need for school nurses			
Administrators	24	95.8	4.2
Counselors	10	100.0	
Teachers	379	96.0	4.0
Clerical	16	100.0	
Other	23	95.7	4.3
Additional health service personnel			
Administrators	26	46.2	53.8
Counselors	8	62.5	37.5
Teachers	358	36.9	63.1
Clerical	13	30.8	69.2
Other	20	95.7	4.3
Specify personnel			
<u>Physician</u>			
Administrators	13	15.4	
Counselors	4	50.0	
Teachers	134	44.8	
Clerical	4	25.0	
Other	16	56.2	
<u>Dentist</u>			
Administrators	13	23.0	
Counselors	4	25.0	
Teachers	134	21.6	
Clerical	4	25.0	
Other	16	12.5	
<u>Dental Hygienist</u>			
Administrators	13	15.4	
Counselors	4	25.0	
Teachers	134	10.4	
Clerical	4	---	
Other	16	31.3	
Health services make significant difference in educational development of pupils			
Administrators	25	84.0	16.0
Counselors	10	90.0	10.0
Teachers	363	87.3	12.7
Clerical	15	86.7	13.3
Other	23	95.7	4.3

Item	Number Responding	Yes	No
School nurses should wear uniforms			
Administrators	24	58.3	41.7
Counselors	10	70.0	30.0
Teachers	355	51.8	48.2
Clerical	15	73.3	26.7
Other	21	42.9	57.1
Nurses placed on teachers' salary schedule			
Administrators	25	52.0	48.0
Counselors	9	100.0	
Teachers	361	68.2	31.6
Clerical	14	64.3	35.7
Other	21	76.2	23.8
Nurse accepted member of the faculty			
Administrators	24	58.3	41.7
Counselors	10	100.0	
Teachers	381	96.1	3.9
Clerical	16	100.0	
Other	23	100.0	
Health services coordinated with instructional program as well as other special services			
Administrators	25	56.0	44.0
Counselors	10	80.0	20.0
Teachers	373	71.0	29.0
Clerical	11	90.9	9.1
Other	19	63.2	36.8

	<u>Number Responding</u>	<u>Time Spent</u>
Time spent weekly on duties usually handled by the nurse		
Administrators	26	None
Counselors	11	None
Teachers	325	None
Clerical	11	None
Other	15	None

TABLE 8 (Continued)

Item	NR*	A*	TF*	TM*
Health services received this year are				
Administrators	24	70.8	29.2	
Counselors	10	60.0	40.0	
Teachers	372	62.9	35.8	1.3
Clerical	15	60.0	40.0	
Other	23	47.8	52.2	
Thirty nurses to service 64,000 pupils				
Administrators	24	8.3	91.7	
Counselors	9	11.1	88.9	
Teachers	366	16.9	80.6	2.5
Clerical	14	14.3	85.7	
Other	23	4.3	91.4	4.3
	NR*	a*	b*	c*
Services provided in the schools				
Vision and hearing				
Administrators	26	73.1	26.9	
Counselors	10	100.0		
Teachers	374	78.1	21.4	.5
Clerical	15	93.3	6.7	
Other	22	77.3	22.7	
Observation in classroom				
Administrators	25	20.0	64.0	16.0
Counselors	10	40.0	60.0	
Teachers	357	30.8	47.6	21.6
Clerical	15	40.0	46.7	13.3
Other	20	50.0	40.0	10.0
Counseling parents and children				
Administrators	26	57.7	38.5	3.8
Counselors	10	90.0	10.0	
Teachers	370	56.2	38.7	5.1
Clerical	15	53.4	33.3	13.3
Other	21	76.2	23.8	
Referring children with health problems				
Administrators	26	65.4	34.6	
Counselors	10	100.0		
Teachers	369	66.4	31.2	2.4
Clerical	15	66.7	33.3	
Other	21	81.0	19.0	

TABLE 8 (Continued)

Item	NR*	a*	b*	c*
Providing resource material and instructional assistance				
Administrators	26	34.6	57.7	7.7
Counselors	10	80.0	20.0	
Teachers	364	38.5	54.1	7.4
Clerical	15	53.4	40.0	6.6
Other	21	62.0	33.3	4.7
Rendering emergency first-aid				
Administrators	26	65.4	30.8	3.8
Counselors	10	90.0	10.0	
Teachers	366	74.6	21.3	4.1
Clerical	15	66.7	33.3	
Other	21	76.2	23.8	
Assisting with dental examinations and acting as resource person				
Administrators	26	53.8	42.4	3.8
Counselors	10	70.0	30.0	
Teachers	364	47.3	47.5	5.2
Clerical	15	73.3	20.0	6.7
Other	20	60.0	35.0	5.0
In relationship to other special services rank the need for health services				
Administrators	25	44.0	48.0	8.0
Counselors	10	80.0	20.0	
Teachers	377	68.4	23.9	7.7
Clerical	14	71.4	28.6	
Other	21	81.0	14.3	4.7

NR*	H*	M*	L*
-----	----	----	----

NR* - Number Responding

a* - very desirable b* - desirable c* - undesirable

A* - adequate TF* - too few TM* - too many

H* - high M* - medium L* - low

TABLE 9

NORTH HIGH AREA ITEM RESPONSES TO THE
SCHOOL PERSONNEL QUESTIONNAIRE
(in percentages)

Item	Number Responding	Yes	No
Need for school nurses			
Administrators	29	100.0	
Counselors	11	100.0	
Teachers	421	95.7	4.3
Clerical	25	92.0	8.0
Other	11	100.0	
Additional health service personnel			
Administrators	26	50.0	50.0
Counselors	10	60.0	40.0
Teachers	368	42.9	57.1
Clerical	20	45.0	55.0
Other	11	63.6	36.4
Specify personnel			
<u>Physician</u>			
Administrators	13	46.2	
Counselors	5	100.0	
Teachers	153	54.8	
Clerical	9	33.3	
Other	7	71.4	
<u>Dentist</u>			
Administrators	13	15.4	
Counselors	5	----	
Teachers	153	13.1	
Clerical	9	----	
Other	7	14.3	
<u>Dental Hygienist</u>			
Administrators	13	7.7	
Counselors	5	----	
Teachers	153	9.2	
Clerical	9	66.7	
Other	7	14.3	
Health services make significant difference in educational development of pupils			
Administrators	28	92.9	7.1
Counselors	10	100.0	
Teachers	401	83.0	17.0
Clerical	25	84.0	16.0
Other	11	100.0	

TABLE 9 (Continued)

Item	Number Responding	Yes	No
School nurses should wear uniforms			
Administrators	27	63.0	37.0
Counselors	11	63.6	36.4
Teachers	396	65.2	34.8
Clerical	23	65.2	34.8
Other	11	45.5	54.5
Nurses placed on teachers' salary schedule			
Administrators	27	63.0	37.0
Counselors	10	80.0	20.0
Teachers	408	73.3	26.7
Clerical	25	76.0	24.0
Other	11	100.0	
Nurse accepted member of the faculty			
Administrators	28	89.3	10.7
Counselors	11	100.0	
Teachers	396	86.6	13.4
Clerical	24	100.0	
Other	11	100.0	
Health services coordinated with instructional program as well as other special services			
Administrators	29	58.6	41.4
Counselors	10	70.0	30.0
Teachers	383	50.4	49.6
Clerical	21	61.9	38.1
Other	11	63.6	36.4
		<u>Number Responding</u>	<u>Time Spent</u>
Time spent weekly on duties usually handled by the nurse			
Administrators	27	20.0	
Counselors	10	10.0	
Teachers	370	3.3	
Clerical	21	20.0	
Other	11	None	

TABLE 9 (Continued)

Item	NR*	A*	TF*	TM*
Health services received this year are				
Administrators	29	3.4	96.6	
Counselors	11		100.0	
Teachers	426	10.6	89.4	
Clerical	24	8.3	91.7	
Other	10	10.0	90.0	
Thirty nurses to service 64,000 pupils				
Administrators	28	17.9	82.1	
Counselors	11		100.0	
Teachers	411	10.9	88.8	.3
Clerical	25	12.0	88.0	
Other	11	9.1	90.9	
	NR*	a*	b*	c*
Services provided in the schools				
Vision and hearing				
Administrators	29	79.3	20.7	
Counselors	11	81.8	18.2	
Teachers	417	71.9	23.3	4.8
Clerical	24	83.3	16.7	
Other	11	54.5	36.4	9.1
Observation in classroom				
Administrators	28	28.6	53.6	17.8
Counselors	11	27.3	63.6	9.1
Teachers	395	25.3	44.6	30.1
Clerical	23	39.1	34.8	26.1
Other	11	18.2	72.7	9.1
Counseling parents and children				
Administrators	29	72.4	27.6	
Counselors	11	72.7	18.2	9.1
Teachers	412	50.2	39.3	10.5
Clerical	24	62.5	29.2	8.3
Other	11	36.4	45.5	18.1
Referring children with health problems				
Administrators	29	65.5	34.5	
Counselors	11	72.7	27.3	
Teachers	411	58.9	32.8	8.3
Clerical	24	75.0	20.8	4.2
Other	11	63.6	27.3	9.1

TABLE 9 (Continued)

Item	NR*	a*	b*	c*
Providing resource material and instructional assistance				
Administrators	29	55.2	44.8	
Counselors	11	45.5	45.5	9.0
Teachers	404	30.7	53.2	16.1
Clerical	23	47.8	30.4	21.8
Other	11	27.3	54.5	18.2
Rendering emergency first-aid				
Administrators	29	48.3	44.8	6.9
Counselors	11	72.7	27.3	
Teachers	410	71.0	20.7	8.3
Clerical	24	58.3	25.0	16.7
Other	10	70.0	30.0	
Assisting with dental examinations and acting as resource person				
Administrators	29	55.2	44.8	
Counselors	11	54.5	45.5	
Teachers	399	41.1	46.1	12.8
Clerical	24	62.5	29.2	8.3
Other	11	27.3	54.5	18.2
In relationship to other special services rank the need for health services				
Administrators	29	75.9	20.7	3.4
Counselors	11	72.7	27.3	
Teachers	423	60.5	31.2	8.3
Clerical	24	87.5	8.3	4.2
Other	11	90.9	9.1	

NR* - Number Responding

A* - adequate TF* - too few TM* - too many

a* - very desirable b* - desirable c* - undesirable

H* - high M* - medium L* - low

TABLE 10

TRADITIONAL AREA ITEM RESPONSES TO THE
SCHOOL PERSONNEL QUESTIONNAIRE
(in percentages)

Item	Number Responding	Yes	No
Need for school nurses			
Administrators	79	96.2	3.8
Counselors	32	100.0	
Teachers	1209	94.5	5.5
Clerical	45	97.8	2.2
Other	47	100.0	
Additional health service personnel			
Administrators	75	54.7	45.3
Counselors	31	41.9	58.1
Teachers	1092	31.9	68.1
Clerical	44	31.8	68.2
Other	37	56.8	43.2
Specify personnel			
<u>Physician</u>			
Administrators	43	46.5	
Counselors	12	50.0	
Teachers	359	35.9	
Clerical	13	38.5	
Other	24	29.2	
<u>Dentist</u>			
Administrators	43	14.0	
Counselors	12	25.0	
Teachers	359	27.3	
Clerical	13	15.4	
Other	24	25.0	
<u>Dental Hygienist</u>			
Administrators	43	14.0	
Counselors	12	8.3	
Teachers	359	15.6	
Clerical	13	7.6	
Other	24	29.2	
Health services make significant difference in educational development of pupils			
Administrators	74	90.5	9.5
Counselors	30	90.0	10.0
Teachers	1170	83.1	16.9
Clerical	41	82.9	17.1
Other	48	97.9	2.1

TABLE 10 (Continued)

Item	Number Responding	Yes	No
School nurses should wear uniforms			
Administrators	79	51.9	48.1
Counselors	32	71.9	28.1
Teachers	1159	56.3	43.7
Clerical	43	69.8	30.2
Other	45	53.3	46.7
Nurses placed on teachers' salary schedule			
Administrators	78	62.8	37.2
Counselors	31	71.0	29.0
Teachers	1134	72.3	27.7
Clerical	41	63.4	36.6
Other	46	87.0	13.0
Nurse accepted member of the faculty			
Administrators	78	93.6	6.4
Counselors	31	93.5	6.5
Teachers	1188	90.6	9.4
Clerical	42	92.9	7.1
Other	46	100.0	
Health services coordinated with instructional program as well as other special services			
Administrators	78	60.3	39.7
Counselors	29	51.7	48.3
Teachers	1139	62.8	37.2
Clerical	40	65.0	35.0
Other	42	78.6	21.4

	Number Responding	Time Spent
Time spent weekly on duties usually handled by the nurse		
Administrators	69	10.0
Counselors	29	5.0
Teachers	800	None
Clerical	42	6.0
Other	24	None

TABLE 10 (Continued)

Item	NR*	A*	TF*	TM*
Health services received this year are				
Administrators	75	29.3	70.7	
Counselors	31	29.0	71.0	
Teachers	1182	39.4	59.3	1.3
Clerical	45	37.8	62.2	
Other	44	36.4	63.6	
Thirty nurses to service 64,000 pupils				
Administrators	76	14.5	82.9	2.6
Counselors	31	22.6	77.4	
Teachers	1146	18.8	79.5	1.7
Clerical	44	15.9	84.1	
Other	46	10.9	89.1	
	NR*	a*	b*	c*
Services provided in the schools				
Vision and hearing				
Administrators	78	83.3	15.4	1.3
Counselors	31	87.1	12.9	
Teachers	1212	75.5	21.4	3.1
Clerical	44	61.4	36.4	2.2
Other	47	85.1	14.9	
Observation in classroom				
Administrators	76	27.6	44.8	27.6
Counselors	30	40.0	40.0	20.0
Teachers	1154	27.6	46.4	26.0
Clerical	41	17.1	58.5	24.4
Other	47	53.2	38.3	8.5
Counseling parents and children				
Administrators	78	65.4	34.6	
Counselors	31	64.5	32.3	3.2
Teachers	1200	54.8	38.2	7.0
Clerical	44	47.7	38.6	13.7
Other	46	71.7	23.9	4.4
Referring children with health problems				
Administrators	78	75.6	20.6	3.8
Counselors	31	77.4	22.6	
Teachers	1194	63.5	32.4	4.1
Clerical	44	52.3	43.2	4.5
Other	47	72.3	25.5	2.2

TABLE 10 (Continued)

Item	NR*	a*	b*	c*
Providing resource material and instructional assistance				
Administrators	78	38.5	57.7	3.8
Counselors	31	32.3	64.5	3.2
Teachers	1170	32.1	53.5	14.4
Clerical	43	18.6	65.1	16.3
Other	46	50.0	43.5	6.5
Rendering emergency first-aid				
Administrators	78	74.3	23.1	2.6
Counselors	31	90.3	9.7	
Teachers	1191	73.4	22.0	4.6
Clerical	44	61.4	34.1	4.5
Other	47	70.2	27.7	2.1
Assisting with dental examinations and acting as resource person				
Administrators	78	57.7	38.5	3.8
Counselors	31	41.9	54.9	3.2
Teachers	1163	47.0	44.0	9.0
Clerical	44	38.6	50.0	11.4
Other	46	52.2	39.1	8.7
	NR*	H*	M*	L*
In relationship to other special services rank the need for health services				
Administrators	78	62.8	30.8	6.4
Counselors	33	75.8	15.1	9.1
Teachers	1200	61.7	29.5	8.8
Clerical	44	63.6	29.5	6.9
Other	47	87.2	12.8	

NR* - Number Responding

A* - adequate TF* - too few TM* - too many

a* - very desirable b* - desirable c* - undesirable

H* - high M* - medium L* - low

TABLE 11

ALL AREAS ITEM RESPONSES TO THE
SCHOOL PERSONNEL QUESTIONNAIRE
(in percentages)

Item	Number Responding	Yes	No
Need for school nurses			
Administrators	132	96.9	3.1
Counselors	53	100.0	
Teachers	2009	95.1	4.9
Clerical	86	96.5	3.5
Other	81	98.8	1.2
Additional health service personnel			
Administrators	127	52.0	48.0
Counselors	49	49.0	51.0
Teachers	1818	35.1	64.9
Clerical	77	35.1	64.9
Other	68	61.8	38.2
Specify personnel			
<u>Physician</u>			
Administrators	69	40.6	
Counselors	21	61.9	
Teachers	646	42.2	
Clerical	26	34.6	
Other	47	44.7	
<u>Dentist</u>			
Administrators	69	16.0	
Counselors	21	19.1	
Teachers	646	22.8	
Clerical	26	11.6	
Other	47	19.1	
<u>Dental Hygienist</u>			
Administrators	69	13.0	
Counselors	21	9.5	
Teachers	646	13.0	
Clerical	26	26.9	
Other	47	27.7	
Health services make significant difference in educational develop- ment of pupils			
Administrators	127	89.8	10.2
Counselors	50	92.0	8.0
Teachers	1934	83.9	16.1
Clerical	81	84.0	16.0
Other	82	97.6	2.4

TABLE 11 (Continued)

Item	Number Responding	Yes	No
School nurses should wear uniforms			
Administrators	130	55.4	44.6
Counselors	53	69.8	30.2
Teachers	1910	57.3	42.7
Clerical	81	69.1	30.9
Other	77	49.4	50.6
Nurses placed on teachers' salary schedule			
Administrators	130	60.8	39.2
Counselors	50	78.0	22.0
Teachers	1903	71.8	28.2
Clerical	80	67.5	32.5
Other	78	85.9	14.1
Nurse accepted member of the faculty			
Administrators	130	86.2	13.8
Counselors	52	96.2	3.8
Teachers	1965	90.8	9.2
Clerical	82	96.3	3.7
Other	80	100.0	
Health services coordinated with instructional program as well as other special services			
Administrators	132	59.1	40.9
Counselors	49	61.2	38.8
Teachers	1895	61.9	38.1
Clerical	72	68.1	31.9
Other	72	72.2	27.8

	Number Responding	Time Spent
Time spent weekly on duties usually handled by the nurse		
Administrators	122	7.4
Counselors	50	8.0
Teachers	1495	.1
Clerical	74	10.8
Other	50	None

TABLE 11 (Continued)

Item	NR*	A*	TF*	TM*
Health services received this year are				
Administrators	128	31.3	68.7	
Counselors	52	28.8	71.2	
Teachers	1980	37.6	61.4	1.0
Clerical	84	33.3	66.7	
Other	77	36.4	63.6	
Thirty nurses to service 64,000 pupils				
Administrators	128	14.1	84.4	1.5
Counselors	51	15.7	84.3	
Teachers	1923	16.7	81.7	1.6
Clerical	83	14.5	85.5	
Other	80	8.8	90.0	1.2
	NR*	a*	b*	c*
Services provided in the schools				
Vision and hearing				
Administrators	133	80.4	18.8	.8
Counselors	52	88.5	11.5	
Teachers	2003	75.2	21.8	3.0
Clerical	83	73.5	25.3	1.2
Other	80	78.8	20.0	1.2
Observation in classroom				
Administrators	129	26.3	50.4	23.3
Counselors	51	37.3	49.0	13.7
Teachers	1906	27.8	46.2	26.0
Clerical	79	27.8	49.4	22.8
Other	78	47.4	43.6	9.0
Counseling parents and children				
Administrators	133	65.4	33.8	.8
Counselors	52	71.2	25.0	3.8
Teachers	1982	54.1	38.5	7.4
Clerical	83	53.0	34.9	12.1
Other	78	67.9	26.9	5.2
Referring children with health problems				
Administrators	133	71.4	26.3	2.3
Counselors	52	80.8	19.2	
Teachers	1974	63.1	32.3	4.6
Clerical	83	61.4	34.9	3.7
Other	79	73.4	24.1	2.5

TABLE 11 (Continued)

Item	NR*	a*	b*	c*
Providing resource material and instructional assistance				
Administrators	133	41.4	54.9	3.7
Counselors	52	44.2	51.9	3.9
Teachers	1938	33.0	53.6	13.4
Clerical	81	33.3	50.6	16.1
Other	78	50.0	42.3	7.7
Rendering emergency first-aid				
Administrators	133	66.9	29.4	3.7
Counselors	52	86.5	13.5	
Teachers	1967	73.1	21.6	5.3
Clerical	83	61.4	31.3	7.3
Other	78	71.8	26.9	1.3
Assisting with dental examinations and acting as resource person				
Administrators	133	56.4	40.6	3.0
Counselors	52	50.0	48.1	1.9
Teachers	1926	45.8	45.1	9.1
Clerical	83	51.8	38.6	9.6
Other	77	50.6	40.3	9.1
	NR*	H*	M*	L*
In relationship to other special services rank the need for health services				
Administrators	132	62.1	31.8	6.1
Counselors	54	75.9	18.5	5.6
Teachers	2000	62.7	28.8	8.5
Clerical	82	72.0	23.2	4.8
Other	79	86.1	12.7	1.2

NR* - Number Responding

A* - adequate TF* - too few TM* - too many

a* - very desirable b* - desirable c* - undesirable

H* - high M* - medium L* - low

usually handled by the school nurse, while in the North High area

(nurse-pupil ratio of 1-13,528) the average time spent was: Admin-

istrators 20.0 per cent, Counselors 10.0 per cent, Teachers 3.3 per cent.

and Clerical 20.0 per cent. The average time spent in the Traditional area (nurse-pupil ratio of 1,800-3,000) was: Administrators 10.0 per cent, Counselors 5.0 per cent, Teachers 0.0 per cent, and Clerical 6.0 per cent.

The West High area personnel thought the health services received by their schools were adequate, while the North and Traditional areas thought they received too few health services. A very small percentage reported they received too much service. Over 80.0 per cent of all personnel thought that thirty nurses were too few to give adequate health services to 64,000 pupils. The two services offered by the school that were rated the highest were the screening examinations for vision and hearing and rendering emergency first-aid care; however, all the services were rated significantly very desirable or desirable with only a small percentage rating each service undesirable.

Over sixty-two percent of all personnel ranked health services high in relationship to other special services offered.

In reference to the question, "Do you feel the health services your school received this year were: Adequate - Too few - Too many", over 89.0 per cent of all personnel in the North High area and over 59.3 per cent in the Traditional area thought the services their schools received this year were too few. The time spent by the personnel on nurse-related duties justifies this statement.

The West High area with a nurse-pupil ratio of one nurse to 1,300-1,500 pupils thought the health services they received were adequate and spent no time on nurse-related duties.

Physician - Dentist Questionnaire

Questionnaires were mailed to 118 dentists and the Sedgwick County Medical Society mailed questionnaires to 200 physicians. The dentists returned 85 or 73.3 per cent of the questionnaires and the physicians returned 125 or 62.5 per cent. Tables 12, 13, and 14 show a tabulation of responses to each of the items on the questionnaire.

It was significant to note that of the 196 dentists and physicians responding to the question, 89.8 per cent recognized the need for school nurses in the Wichita Public Schools. The opinions of the respondents, 89.6 per cent, were that the school does have some degree of responsibility for the health of children, and 73.5 per cent thought that health services did make a significant difference in the educational development of children. It was evident that the majority of respondents did not think the school should employ a physician or dentist; however, they did think it would be beneficial for the School Health Services Department to have a committee of physicians and dentists for advisory purposes and 78.7 per cent of those responding were willing to serve on this committee. The forms furnished by the school system to the respondents for the purpose of reporting the health of pupils were reported satisfactory by 87.3 per cent. The health services program was understood by 54.9 per cent; however, 70.2 per cent felt the needs of the community were being met by the health services program. The respondents did not feel that the health services should be placed with the Wichita City-County Health Department.

TABLE 12

PHYSICIAN ITEM RESPONSES TO
PHYSICIAN - DENTIST QUESTIONNAIRE
(in percentages)

Item	Number Responding	Yes	No	
Need for school nurses	114	86.0	14.0	
Responsibility for the health of children	111	86.5	13.5	
Health services make a significant difference in educational development of pupils	116	62.1	37.9	
Board of Education employed school physician	117	16.2	83.8	
Board of Education employed school dentist	113	15.9	84.1	
A committee of physicians and dentists for advisory purposes	119	80.7	19.3	
Willing to serve on this committee	107	70.1	29.9	
Forms furnished office satisfactory	103	90.3	9.7	
Understand health services program	114	54.4	45.6	
School health services are meeting the needs of the community	90	73.3	26.7	
Health services should be placed with City-County Health Department	112	31.2	68.8	
	NR*	A*	TF*	TM*
Thirty nurses adequate to service 64,000 pupils	107	45.8	38.3	15.9
	NR*	H*	M*	L*
In relationship to other special services rank the need for health services	118	44.9	33.9	21.2

TABLE 12 (Continued)

Item	NR*	E*	S*	B*
Health services provided in	103	19.4	1.9	78.7
	NR*	a*	b*	c*
Services provided in the schools				
Vision and hearing	120	72.5	27.5	
Observation in classroom	117	35.0	47.0	18.0
Counseling parents and children	119	21.8	37.8	40.4
Referring children with health problems	120	57.5	31.7	10.8
Providing resource material and instructional assistance	113	31.9	46.9	21.2
Rendering emergency first-aid	122	67.2	27.9	4.9
Assisting with dental examinations and acting as resource person	108	38.9	40.7	20.4

NR* - Number Responding

A* - adequate TF* - too few TM* - too many

H* - high M* - medium L* - low

E* - elementary S* - secondary B* - both

a* - very desirable b* - desirable c* - undesirable

TABLE 13

DENTIST ITEM RESPONSES TO
PHYSICIAN - DENTIST QUESTIONNAIRE
(in percentages)

Item	Number Responding	Yes	No
Need for school nurses	82	95.1	4.9
Responsibility for the health of children	82	93.9	6.1
Health services make a significant difference in educational development of pupils	80	90.0	10.0

TABLE 13 (Continued)

Item	Number Responding	Yes	No	
Board of Education employed school physician	81	25.9	74.1	
Board of Education employed school dentist	82	26.8	73.2	
A committee of physicians and dentists for advisory purposes	80	78.8	21.2	
Willing to serve on this committee	67	92.5	7.5	
Forms furnished office satisfactory	78	83.3	16.7	
Understand health services program	79	55.7	44.3	
School health services are meeting the needs of the community	71	66.2	33.8	
Health services should be placed with City-County Health Department	67	26.8	73.2	
	NR*	A*	TF*	TM*
Thirty nurses to service 64,000 pupils	73	31.5	63.0	5.5
	NR*	H*	M*	L*
In relationship to other special services rank the need for health services	83	75.9	16.9	7.2
	NR*	E*	S*	B*
Health services provided in	79	8.9	1.3	89.8
	NR*	a*	b*	c*
Services provided in the schools				
Vision and hearing	78	73.1	23.1	3.8
Observation in classroom	77	53.2	44.2	2.6
Counseling parents and children	77	61.0	33.8	5.2

TABLE 13 (Continued)

Item	NR*	a*	b*	c*
Referring children with health problems	78	75.6	21.8	2.6
Providing resource material and instructional assistance	78	61.5	30.8	7.7
Rendering emergency first-aid	79	87.3	11.4	1.3
Assisting with dental examinations and acting as resource person	79	67.1	29.1	3.8

NR* - Number Responding

A* - adequate TF* - too few TM* - too many

H* - high M* - medium L* - low

E* - elementary S* - secondary B* - both

a* - very desirable b* - desirable c* - undesirable

TABLE 14

COMBINED ITEM RESPONSES TO
PHYSICIAN - DENTIST QUESTIONNAIRE
(in percentages)

Item	Number Responding	Yes	No
Need for school nurses	196	89.8	10.2
Responsibility for the health of children	193	89.6	10.4
Health services make a significant difference in educational development of pupils	196	73.5	26.5
Board of Education employed school physician	198	20.2	79.8
Board of Education employed school dentist	195	20.5	79.5
A committee of physicians and dentists for advisory purposes	199	79.9	20.1
Willing to serve on this committee	174	78.7	21.3

TABLE 14 (Continued)

Item	Number	Responding	Yes	No
Forms furnished office satisfactory	181		87.3	12.7
Understand health services program	193		54.9	45.1
School health services are meeting the needs of the community	161		70.2	29.8
Health services should be placed with City-County Health Department	179		35.2	64.8
	NR*	A*	TF*	TM*
Thirty nurses to service 64,000 pupils	180	40.0	48.3	11.7
	NR*	H*	M*	L*
In relationship to other special services rank the need for health services	201	57.7	26.9	15.4
	NR*	E*	S*	B*
Health services provided in	182	14.8	1.6	83.6
	NR*	a*	b*	c*
Health services provided in schools				
Vision and hearing	198	72.7	25.8	1.5
Observation in classroom	194	42.3	45.9	11.8
Counseling parents and children	196	37.2	36.2	26.6
Referring children with health problems	198	64.6	27.8	7.6
Providing resource material and instructional assistance	191	44.0	40.3	15.7
Rendering emergency first-aid	201	75.1	21.4	3.5
Assisting with dental examinations and acting as resource person	187	50.8	35.8	13.4

NR* - Number Responding A* - adequate TF* - too few TM* - too many
H* - high M* - medium L* - low E* - elementary S* - secondary B* - both
a* - very desirable b* - desirable c* - undesirable

Sixty-three percent of the dentists and 38.3 per cent of the physicians felt that thirty nurses were too few to provide adequate health services to 64,000 pupils; however, in relationship to other special services, 75.9 per cent of the dentists and 44.9 per cent of the physicians ranked health services high. The respondents (83.6 per cent) felt that health services should be offered in both elementary and secondary schools. The two services offered by the school that were rated the highest were the screening examinations for vision and hearing (72.7 per cent) and rendering emergency first-aid care (75.1 per cent); however, all the services were rated significantly as very desirable or desirable with only a small percentage rating each service undesirable.

The Wichita City-County Health Department Questionnaire

The answers to the questionnaire were written in narrative form by Dr. Bauman. The questions and answers as submitted by the Wichita City-County Health Department are as follow:

"In examining the questionnaire which you provided us some time ago which has to do with the nursing services in the Wichita Public Schools, I feel that I cannot answer in direct "yes" and "no" answers as indicated on the questionnaire. I am, therefore, taking the liberty of making comments on each of the questions.

1. Do you feel there is a need for school nurses in the Wichita Public Schools?

There is need for community nursing services. I, personally, feel that the use of specialized nursing services is much over-rated and necessary service can be given on a generalized community nursing service plan.

2. Do you feel the school has any degree of responsibility for the health of children?

The schools do have responsibility in the health of children in the school system. In general, this consists of maintaining

suitable conditions, based on the concept of ecology. This does not mean that the school has to provide these services directly. For example, the state statutes provide that certain dental evaluations shall be made. This can be carried out by an agreement with dentists.

3. The following services are provided in the schools. Please rate the desirability of the services offered:

- a. Screening examinations for vision and hearing of pupils

It would seem to me that screening examinations for vision and hearing of pupils can be provided by non-professional personnel. By this I mean personnel other than nurses. This would save the time of the nurses for evaluating those who show some difficulty.

- b. Observation in the classroom to identify pupil health problems

On the basis of the Astoria Plan, which was developed out of a study a number of years ago, much better information can be obtained by observation in the classroom by the teacher. The health problems she observes can then be discussed with the community nurse and referred to a physician as indicated.

- c. Counseling parents and children concerning health problems

Counseling of parents and children in health problems is a real function of nurses but can be carried out in a better way, in my opinion, by the use of community nurses rather than specialized nurses, because the community nurse would know the total surroundings of the child.

- d. Referring children with health problems, through their parents, to physicians or medical agencies

Children with health problems should be referred, through their parents, to physicians or medical agencies.

- e. Providing resource material and instructional assistance to teachers

Nurses, health educators and others should provide material and guidance in the teaching of health matters.

- f. Rendering emergency first-aid care

I feel it is a mis-use of scarce professional time to use nurses to render first-aid care. Instructions in first-aid care can be had by people other than the nursing group, by

people who are immediately on the job as nurses cannot always be there if they are to do the job they should do.

- g. Assisting dentists with dental examinations and acting as a resource person in dental health

As a professional community person in public health, the nurse should be involved in arranging for and helping develop some understanding of good dental health as a resource person. As to assisting the dentist with dental examinations, this could be done by use of a less skilled person.

List other health services you feel should be added.

This cannot be answered in the short space indicated; and I do not care to comment on this without further study and evaluation of the services.

- 4. The Wichita Public Schools have thirty nurses employed to service 64,000 pupils. Do you feel this is adequate? Too few? Too many?

This question cannot be answered until a program is decided upon and the proper use of nursing skills developed, therefore, to say you need one nurse or double the number of nurses you have, on the basis of an opinion without a thorough knowledge of the program, would be presumptuous.

- 5. Do you think that the health services provided by the schools make a significant difference in the educational development of pupils?

This is a difficult question to answer. I should like to point out, however, that it has been demonstrated that health services provided to children at a pre-school level have a real effect on their progress in school. For example, a study was made a number of years ago comparing children seen in child health conferences or by the family physician or pediatrician on the basis of health guidance. This study showed that there were fewer drop-outs and better work was done by those children who were seen by their physicians or at child health conferences in comparison with those who went to the doctor only when they were ill.

It should be mentioned that certain health services provided directly in schools tend to cause parents to wait until the children get into school before getting things done. A specific illustration is immunizations. Although I am aware that immunizations as a routine matter are not done in our school system, I am using this as an example of the fact that if they were done, it would cause parents to wait until children got into school to get their immunizations. This is too late.

6. In relationship to other special services provided by the schools, such as guidance, special education, music, elementary physical education, how would you rank the need for health services?

Again, this is a difficult question to answer because it seems to me this compares public health nursing services with those services, such as special education, which would not be provided if not by the schools. Education, general and special, in my opinion, as the terms are used in this questionnaire, certainly should be provided by the schools. This does not mean, however, that health services should be carried on by the hiring of school nurses as such. These services, in my opinion, could better be provided by organized community-wide services relating to the community, of which the school is a part.

7. Do you feel it would be appropriate for the Board of Education to employ a school physician? A school dentist?

I do not think it is wise for the Board of Education to employ a school physician or dentist.

8. Do you think it would be beneficial to the School Health Services Department to have a committee of physicians and dentists for advisory purposes? If yes, would you be willing to serve on this committee?

It is always beneficial for any organization to get consultation and advisory information from the professionals in any special field. If I were planning on setting up a school system, for example, I would certainly want advice from professional people on how I should teach fifth grade arithmetic, or whether to teach it at all.

As for the second part of the question, I would be willing to serve on such a committee.

9. Are the forms furnished your office to report the health of students to the schools satisfactory?

I have no comment on this at this time.

10. Do you feel you understand the Health Services Program as it is offered in our schools?

This I am answering in a categorical way by saying "no".

11. Do you feel health services in the schools should be placed with the City-County Health Department?

I feel that better services could be rendered on an organized basis. The Health Department is organized, staffed, and programmed for the

giving of community health services, which does and should include the schools. This approach would develop a better program in a more economical way. For the schools to give health services except as a part of the organized community health services given by the Health Department is analogous to the Health Department's setting up a fifth grade arithmetic class as a part of their services. While I feel school health services should be a part of organized community services, however, I am sure the Health Department would not want school health nursing services discontinued unless provision was made for additional funds to provide additional staff in that department.

12. Health services should be provided only in the elementary school? Secondary school? Both?

Different emphasis should be placed on the health services provided on an organized basis in the different schools.

13. Do you feel the School Health Services Department is meeting the needs of the community?

Just as I believe that the Wichita Public Schools should be organized on a total community basis, as they are, I believe the health services should be organized on a community basis as I have outlined above.

/S/-----
M. Leon Bauman, M.D., M.P.H.
Director of Public Health"

SUMMARY

It was evident from the opinions of the respondents to the questionnaires that there was a need for health services in the test city. The services being offered at the present time in the test city are accepted practices and should be continued.

The opinions of the respondents indicated that health services do make a significant difference in the educational development of pupils.

The experimental study indicated that adequate health services could be provided if the nurse-pupil ratio was less than 1:1800.

The physicians and dentists believed that health services should be a function of the school and should not be placed with the City-County

Health Department and were willing to serve on an advisory board to health services; however, the director of the City-County Health Department felt better school health services could be rendered as a part of an organized community services.

In the opinion of the respondents, health services ranked high in relationship to other special services provided by the school. A large percentage felt health services should be provided in the elementary and high school, and that nurses with comparable training should be placed on the teachers' salary schedule which would indicate that the nurses are accepted in the field of education as professional personnel.

The results of the questionnaires further indicated that the criteria are recognized and accepted in the test city, however, sufficient deviation in the responses pointed to the fact that the criteria are being met in varying degrees.

CHAPTER IV

APPLICATION OF DATA TO THE CRITERIA AND IMPLICATION OF PERSONNEL TO SCHOOL HEALTH SERVICES

INTRODUCTION

The need for and acceptance of school health services have been established by the results of the survey conducted in various cities throughout the United States and by an opinion survey in the test city. School health services are administered in varying degrees by all reporting cities, the differences in existing health service programs indicated a lack of standardization. The results of these surveys indicated that the accepted criteria are recognized and that existing health service programs appeared to meet the needs of the various and individual communities, however, sufficient deviation in the responses pointed to the fact that the criteria are being met in varying degrees.

PROCEDURES

The data obtained from survey questionnaires were applied to the accepted criteria for the purpose of evaluating the extent to which each criterion was met.

Information obtained from the survey questionnaires regarding personnel administering school health services has been reviewed with respect to adequate staffing of a school health services program.

APPLICATION OF DATA TO THE CRITERIA

APPRAISING HEALTH STATUS OF PUPILS

AND SCHOOL PERSONNEL

The objectives of health appraisal were discussed by representatives of education, medicine, and public health at the Third National Conference on Physicians and Schools. The group agreed that evaluation of pupil health should be designed:

"(a) to serve the purposes of all education by contributing to the maximum effectiveness of the child as an individual and a member of the community; (b) to assure the child's maximum fitness to receive an education; (c) to inform school personnel, parents, and the child regarding his health status, including the existence of impairments in need of medical, psychological, dental and social services; (d) to suggest adjustments in the school environment or instructional program, based on individual needs; and (e) to serve as a learning experience for children, teachers, and parents which will be basic to lifelong programs of healthful living."¹²

The results of the questionnaires, both the national questionnaire and the test city questionnaire indicated that school systems recognized the need for and the value of appraising the health status of pupils and school personnel. Cumulative health records were universally kept on individual pupils, with students given screening examinations in the great majority of schools reporting.

¹²American Medical Association, Report of the Third National Conference on Physicians and Schools. (Chicago: the Association, 1951), pp. 9-10.

The major difference of opinion regarding specific methods of appraising pupil health was found in the question, "Observation in the classroom to identify pupil health problems." Twenty-six per cent of the teachers responding felt that observation in the classroom for health problem identification was undesirable, and 23.3 per cent of the school administrators agreed with these teachers.

It was universally agreed that pupils should have "another" routine physical examination during their school careers, with 41.2 per cent recommending examinations every three years. Medical histories were required by only slightly over two-thirds (68.6 per cent) of the schools, with the school nurse evaluating the medical histories in 76.5 per cent of the schools requiring medical histories.

The appraisal of the health status of pupils was the first and the most critical criterion, as all the remaining criteria are dependent upon adequate knowledge of the existing health status of each pupil. Cumulative records point out sustained adequate health, or a deviation and possible breakdown in individual cases. To maintain adequate health records, information obtained from periodic health examinations and pupil medical histories given by parents, are vital.

The methods used in obtaining medical information did, and probably should, vary with the community. The survey showed that exactly half (50.0 per cent) of the schools reporting stated that the physical examination was conducted by the pupil's own physician. In 41.0 per cent of the schools the physical examination was given by a physician associated with health services. Many schools reported staff physicians, while others, like the test city, did not employ staff physicians because of resources available in the community.

As the basic purpose of the school is education, so should the activities associated with the school program have their base in education. If health services are to be a part of the school program, the health appraisal activities should be utilized as a pupil educational experience. In the test city, less than two-thirds (61.9 per cent) of the teachers felt that the health services offered were coordinated with the instructional program as well as other special services, while only 59.1 per cent of the school administrators felt that they were as well coordinated.

COUNSELING PUPILS, PARENTS, AND OTHERS

CONCERNING APPRAISAL FINDINGS

"The follow-up of health conditions identified through school appraisal procedures is a most important aspect of school health services. Discovering...(defects) does not directly improve the health of these pupils. Only when they and their parents recognize the condition that needs attention and obtain necessary treatment is their health improved.

Health counseling, a procedure of prime importance in the follow-up program, is accomplished through face-to-face conferences between a physician, nurse, teacher, or other member of the school staff with individual pupils or parents. It is designed to interpret health problems and to encourage action which will lead to their solution."¹³

"The concept of health counseling has modified many of the traditional follow-up procedures of school health services. It has caused physicians, nurses, and teachers to recognize the limitation of formal, printed notices as a means of informing parents of health appraisal findings. Underlying health counseling are certain basic concepts relating to responsibilities for the health of children and youth and certain ideas concerning the best techniques for securing results."¹⁴

¹³Wilson, loc.cit., p. 111.

¹⁴Wilson, loc.cit., p. 115.

Results of the survey questionnaires showed that in all cases the school nurse counseled with parents about a child's illness, and in 92.2 per cent of the schools reporting, the nurse visited the home when a child was out of school because of illness or other health and sanitation problems.

Counseling parents and children concerning health problems was felt to be highly desirable in the test city, as was the referring of children with health problems, through their parents, to physicians or medical agencies. It was interesting to note that the questionnaire given to physicians in the test city showed that 40.4 per cent of the responding physicians felt that the school nurse counseling with parents and children concerning health problems was undesirable.

The third criterion, "Encouraging the correction of remediable defects", was a part of the counseling procedure and follow-up.

"The value of health appraisal of school children and of subsequent counseling may be almost entirely lost if children are unable to secure the care they need. Fortunately, for most conditions this situation does not occur too often. There is growing community recognition of the need to arrange for treatment and other services for those children whose parents cannot secure it for them. In every instance, however, the follow-up aspect of school health services should include consideration of the adequacy of treatment facilities and, where necessary, should initiate community action to assure needed medical and dental care for children whose parents cannot arrange it."¹⁵

The mere recognition of health problems has relatively little value unless remedial programs are instigated. Counseling with the pupil and with parents of the pupil affected are the first actions necessary in the correction of a recognized health problem. Whether this counseling is

¹⁵Wilson, loc.cit., p. 121.

done by the school nurse or by the pupil's personal physician is of little significance. It is important that as health problems are discovered, they should be dealt with.

Follow-up services are important, as again, mere knowledge that a health problem exists is of little value if the persons responsible (pupil parents) do not know how to, do not want to, or cannot afford to, obtain the needed treatment and attention. Assistance on the part of the representative of the school health services program must be made available to such cases.

ASSISTING IN IDENTIFICATION AND EDUCATION OF HANDICAPPED CHILDREN

"The democratic concept of public education allows no exception; every pupil must have the opportunity for an education according to his needs, interests, and physical and mental capacities. Health appraisal identifies pupils with varying physical and mental capacities; the follow-up program should help these pupils obtain an educational program that is suited to their individual needs."¹⁶

Whereas the appraisal, identification, and counseling regarding health needs of pupils are basic criteria for adequate health services, the identification and education of handicapped children implies added services. The needs of the individual child in achieving an education despite a physical handicap demand special appraisal of the disability, recognition of specific problems, acceptance by the pupil, the parents, and the school staff that the problem exists, the procurement of special

¹⁶Wilson, loc.cit., p. 129.

education services where needed, as well as the enlistment of the parents and school staff to initiate and carry out the required programs. Results of the questionnaire indicated that for the most part schools are aware of the need of identification of handicapped children as it was universally agreed that pupils have physical examinations and over half the schools responding have special requirements for a particular group of pupils. Visits by school nurses to the homes of children with health problems was done in 92.2 per cent of the schools. Observation for the identification of children with health problems was considered a desired practice by approximately three-fourths of the teachers. All health appraisal procedures practiced by the majority of the schools responding provide valuable information in the identification of handicapped children.

HELPING PREVENT AND CONTROL DISEASE

Communicable diseases, while quite well controlled, still occur, at times in isolated cases, while at other times in epidemic form. Effective prevention and control of disease is a responsibility of the school health services program while the child is the responsibility of the school.

Much is being done by school health service programs in the prevention and control of disease, however, little unanimity was found in the questionnaire responses regarding methods used and services offered. Most responses indicated that school personnel felt it was desirable to refer children with health problems, through their parents, to physicians or medical agencies, however, prevention of disease was not uniformly practiced. Only 64.7 per cent of the schools reporting required vaccination and immunization for smallpox, 35.3 per cent required vaccination or immunization for tetanus,

and less than 20.0 per cent required vaccination or immunization for typhoid. Approximately one-half (49.0 per cent) required immunization for polio, 37.0 per cent for diphtheria, and 14.0 per cent for pertusses. Cumulative records were kept on 100.0 per cent of the individual pupils during their stay in school. School buildings were inspected for cleanliness by the health services staff in 70.6 per cent of the schools reporting. The school staff (teachers and supervisors) were required to have regular routine physical examinations in 41.2 per cent of the schools.

The diversity of procedure and in cases the small percent of schools taking any positive action for the prevention and control of disease indicated a need for clearly defined procedures if progress in the prevention and control of disease was to be maintained.

PROVIDING EMERGENCY SERVICE FOR INJURY OR SUDDEN ILLNESS

"Emergency care for pupils who become either sick or injured at school or at school-sponsored functions away from the school is a responsibility of school personnel and an integral part of school health services. Possible emergencies should be anticipated and policies for dealing with them formulated. Consideration should be given to common, day-by-day occurrences and also to the unusual situations which might follow disastrous fires, explosions, floods, tornadoes, and other catastrophes. Careful preparation assures better protection for children and school personnel, helps avoid mistakes that could produce embarrassment or result in legal liability, and reduces the danger of hysterical reactions to unusual conditions.

The school administrator has responsibility for the establishment of policies to guide those individuals who provide emergency care, but it is essential that he obtain competent medical advice and that he confer with others who are concerned with the problem. Policies should be developed jointly by representatives of the school, the local medical and dental societies, the health

department, hospitals, and parents. Policies should be in written form and distributed and interpreted to each teacher as well as to parents, pupils, physicians, and members of hospital staffs.

A realistic program for emergency care recognizes the need for school personnel to accept certain responsibilities and to have readily available the supplies that may be needed. Attention must be given to records and reports. These provide necessary information for analyses of accident experiences, an essential procedure in the development of preventive measures. Records and reports are also needed because of the possibility of legal difficulties growing out of the actions of school personnel, or of their failure to act."¹⁷

The survey showed that for the most part school systems throughout the nation provided adequate first-aid service. First-aid supplies were provided in all of the schools. Slight injuries were treated by the school nurse in 82.3 per cent of the schools reporting and in the absence of the school nurse a faculty member had been appointed to handle first-aid cases in 96.1 per cent of all schools.

The provision of emergency service, while the major responsibility implied in this criterion, is not in itself sufficient to provide an adequate program. The education of the pupils, the school staff, and also parents, regarding emergencies, be they for the individual pupil, or for the entire school is essential. In individual emergencies, care must be given immediately, the pupil's parents notified, transportation and assistance provided, if necessary, to the source of treatment. In the event of disaster or catastrophe, the pupils and school personnel must be trained in proper procedure.

¹⁷Wilson, loc.cit, p. 221.

PERSONNEL FOR SCHOOL HEALTH SERVICES

The success of school health services depends to a great extent on the adequacy and competency of the personnel who administer and conduct the program. Every person associated with the schools influences the health of children in one way or another and the quality of school health services reflects the quality of the entire school staff.

The personnel needed in a school health services program is largely dependent upon the health resources available in the community. The information from the survey indicated that: (1) all cities responding employed registered nurses, with a nurse-pupil ratio range of 924-31,002 and the average nurse-pupil ratio was 3,288. Through the experimental study conducted in the test city it was determined that the nurse-pupil ratio should not exceed 1,800 to do an adequate job of rendering health services; (2) 71.0 per cent of the cities responding employed a registered nurse as coordinator; (3) 78.7 per cent employed a physician as director of health services; (4) 70.0 per cent of the responding districts had the services of a physician available; (5) 29.5 per cent of the responding districts had the services of a psychologist; (6) 68.6 per cent had clerical assistance; and (7) 29.9 per cent employed miscellaneous personnel such as audiometrists, vision testers, etc.

As these figures indicate, the personnel needed is dependent upon the needs and resources available in the community. In defense of this statement, 76.5 per cent of the school districts responding felt that their health service programs were meeting the needs of their communities.

SUMMARY

The purpose of this chapter was to apply the data obtained from the survey questionnaires in relationship to the criteria and to show the relationship of the personnel to the health services program. The data, applicable to the fifty-one school districts responding to the questionnaire and the responses to the local questionnaires, warranted generalizations in relation to the criteria.

There was definite indication that the respondents were aware of the criteria and that they were being met in varying degrees.

The personnel needed in a school health program was greatly dependent upon the health resources available in the community, and the utilization of these resources.

CHAPTER V

SUMMARY AND CONCLUSIONS

INTRODUCTION

School health services are procedures to appraise the health status of pupils and school personnel; to counsel pupils, parents, and others concerning appraisal findings; to encourage the correction of remediable defects; to assist in the identification and education of handicapped children; to help prevent and control communicable diseases; and to provide emergency services for injury or sudden illness.

A sound approach to the development of school health services should involve the following:

- (a) Determination of local school health problems in terms of specific health needs of the school children involved.
- (b) Careful investigation and inventory of all available and acceptable health resources.
- (c) Development of a program which will bring the resources of the community into action and coordinate the health efforts of resource agencies in solving the determined school health problems.

A PROPOSED DEFENSIBLE HEALTH SERVICES
PROGRAM FOR AN URBAN SCHOOL SYSTEM

The following proposed program includes basic procedures necessary in an adequate health services program, however, the way the school accomplishes these procedures is dependent upon the health resources available in the community.

I. BASIC SCHOOL HEALTH SERVICES

A. Health Appraisal

1. Recommend and encourage periodic health examinations of pupils by the family physician.
2. Request annual visit to family dentist for observation and care of all pupils.
3. Evaluate health histories given by parents and school personnel.
4. Conduct systematic and referral observations to determine the health status of pupils and personnel.
5. Provide for yearly measurement and evaluation of vision, hearing, height, weight, and dental status of pupils.
6. Maintain and interpret pupil health records and prepare appropriate administrative summary reports.
7. Utilize health appraisal activities as educational experiences by: pupil preparation prior to all health appraisal procedures, individual counseling during and following health appraisal activities, and assistance in the correlation of health appraisal activities with program in health and safety education.
8. Require pre-employment and periodic physical examinations for all regularly employed personnel.

B. Health Counseling

1. Consult with parents concerning medical and dental needs of pupils.

2. Assist parents in obtaining needed health services.
3. Consult with appropriate school personnel concerning the health status of pupils.
4. Counsel with individual pupils and personnel concerning their health problems.
5. Confer with personnel in community agencies to: interpret health needs of pupils for which community planning is necessary, assure utilization of existing resources, and coordinate follow-through activities of home, school, and community.
6. Counsel with parents, pupils, and personnel to encourage the correction of remediable defects found through the appraisal procedures.

C. Health Care

1. Administer first-aid or emergency treatment in case of accident or sudden illness of pupils and personnel.
2. Recommend exclusion or isolation of pupils and personnel in accordance with state and county health regulations.
3. Assume responsibility for educational follow-through with parents and personnel regarding all school emergencies.
4. Participate in planning appropriate policies and procedures for: care of emergency, reporting of injuries and illnesses, and maintenance of adequate records.

D. Communicable Disease Control

1. Establish appropriate school policies and procedures to ensure cooperation with local health officials in matters pertaining to communicable disease control.
2. Establish policies to ensure education of parents, pupils, and personnel regarding responsibility for communicable disease control.
3. Work cooperatively with classroom teachers to increase the effectiveness of daily health supervision of pupils.

E. Special Services for Handicapped Children

1. Aid in identification of children with physically handicapping conditions and in procurement of special educational services.

2. Share with other pupil personnel service staff in joint planning for services for handicapped children.
3. Counsel with parents regarding: special health needs of the handicapped child, and school and community resources.
4. Counsel with handicapped pupils to promote understanding of and adjustment to specific health problems.
5. Interpret to teachers and other school personnel the health needs of handicapped children as they may pertain to the child's adjustment and development within the school environment.

II. CONCOMITANT SCHOOL HEALTH SERVICES

A. Records and Reports

1. Maintain an accurate and complete cumulative health record for each pupil.
2. Plan procedures to facilitate transfer of pupils' records entering and leaving school.
3. Devise such supplementary record and report forms as may be essential to carry out activities related to basic school health services.

B. Health Education

1. Give individual health information in relation to all health services activities, and on the basis of referral by parents, teachers, or the pupil himself.
2. Initiate classroom instruction in preparation for health appraisal procedures or in relation to current health and safety problems.
3. Serve as a resource person or consultant to the classroom teacher.
4. Serve on curriculum planning committees in relation to health education.

SUGGESTED AREAS FOR FURTHER STUDY

Areas for further study are suggested as a basis for supplementing the findings of this study, as follows:

1. It is recommended that a study pertaining to the implementation of the health services program into the curriculum be made;
2. There is an apparent need for a study concerning state laws and regulations as they pertain to health services;
3. Further study is needed in relation to the personnel administration of the health services program;
4. Help would be derived from a study to determine, through a detailed study of selected programs, the extent to which teacher, student, and volunteer labor is used in the health services program, typical work performed, payments made (if any), and the advantages and disadvantages of the use of such labor. The effects should be related not only to the efficient operation of the program but also to the resulting interest in the program on the part of students, teachers, and the community;
5. A study would be helpful to determine how health services programs are financed, if not through general school funds, and relationships made to those programs financed through general school funds.

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APPENDIXES

APPENDIX A

LIST OF CITIES SAMPLED

Akron, Ohio
Albuquerque, New Mexico
Atlanta, Georgia
Austin, Texas
Baton Rouge, Louisiana
Birmingham, Alabama
Bridgeport, Connecticut
Charlotte, North Carolina
Columbus, Ohio
Corpus Christi, Texas
Dayton, Ohio
Denver, Colorado
Des Moines, Iowa
El Paso, Texas
Flint, Michigan
Fort Wayne, Indiana
Fort Worth, Texas
Gary, Indiana
Grand Rapids, Michigan
Hartford, Connecticut
Honolulu, Hawaii
Indianapolis, Indiana
Jacksonville, Florida
Jersey City, New Jersey
Kansas City, Missouri
Long Beach, California
Louisville, Kentucky
Memphis, Tennessee
Miami, Florida
Minneapolis, Minnesota

Mobile, Alabama
Nashville, Tennessee
Newark, New Jersey
New Haven, Connecticut
Norfolk, Virginia
Oakland, California
Oklahoma City, Oklahoma
Omaha, Nebraska
Phoenix, Arizona High School
Portland, Oregon
Providence, Rhode Island
Richmond, Virginia
Rochester, New York
Sacramento, California
St. Petersburg, Florida
St. Paul, Minnesota
Salt Lake City, Utah
San Jose, California
Shreveport, Louisiana
Spokane, Washington
Springfield, Massachusetts
Syracuse, New York
Tampa, Florida
Toledo, Ohio
Tucson, Arizona
Tulsa, Oklahoma
Wichita, Kansas
Worcester, Massachusetts
Youngstown, Ohio
Yonkers, New York

APPENDIX B

Date

Name
Title
Address
City and State

Dear Sir:

In an effort to develop an appropriate school health services program, the Wichita Public Schools are conducting a study of health services provided by large city school systems. Your participation in the survey section of this study will be sincerely appreciated.

In October, a questionnaire will be sent to those school systems signifying an interest. Upon completion of the analysis of the data, copies of the findings will be provided for each participating school.

Please signify your willingness to participate on the form below.

Sincerely,

Edward J. Wylie
Director of Health Service

EJW:cn

Our school system will participate _____
Our school system will not participate _____

The person to whom the questionnaire should be addressed is:

Name_____
Address_____
Title

APPENDIX C

Date

Name
Title
Address
City and State

Dear Sir:

Thank you for participating in the survey being conducted by the Wichita Public Schools. I am sure this study will be of great help in planning a health services program.

A copy of the results will be mailed to you upon completion of the project. Attached please find our questionnaire which we request you complete and return to this office at your earliest convenience. We are enclosing a second copy of the questionnaire for your files.

Your prompt reply and assistance will be greatly appreciated.

Sincerely,

Edward J. Wylie
Director of Health Services

EJW:cn

Enc: 2

NATIONAL QUESTIONNAIRE

- I. NAME OF CITY _____
- II. NUMBER OF PUPILS ENROLLED GRADES 1-8 _____
- III. NUMBER OF PUPILS ENROLLED GRADES 9-12 _____
- IV. PERSONNEL

1. Services of Professional and Technical Personnel:
(Please check or fill in appropriate answer)

	PERSONNEL		TIME	
	None	Number in Program	Full	% of time on service
Physician				
Nurse				
Psychologist				
Psychiatrist				
Dentist				
Dental Hygienist				
Clerical				
Other				

2. Do you have a Director of Health Services? Yes _____ No _____

3. The Director of Health Services professional background is:

A Nurse _____
 A Physician _____
 Physical Education _____
 Educational Adm. _____
 Other (Specify) _____

4. Do you employ an Assistant Director of Health Services?

Yes _____ No _____

5. The Assistant Director of Health Services professional background is:

A Nurse _____
 A Physician _____
 Physical Education _____
 Educational Adm. _____
 Other (Specify) _____

6. Do you employ a Coordinator of Nurses? Yes _____ No _____

7. The Coordinator of Nurses professional background is?

A Nurse _____
 A Physician _____
 Physical Education _____
 Educational Adm. _____
 Other (Specify) _____

8. Do your school nurses wear uniforms? Yes _____ No _____

V. ORGANIZATION OF THE HEALTH SERVICES PROGRAM

1. The health services department is directly under the supervision of the Superintendent of Schools and the Board of Education.

Yes _____ No _____

2. The health services department is a division of the city or county health department.

Yes _____ No _____

VI. FINANCIAL STRUCTURE

1. What is the amount of your yearly health services budget?

2. Principal source of income for health services:

General school funds _____
 Special health fees _____
 Payment for services performed _____

3. Do you have another method of financing the health services program?

Yes _____ No _____

If yes, please specify:

VII. SERVICES

1. Does the school assume responsibility for health of pupils in any way?
Yes _____ No _____
2. Are new pupils required to have a physical examination before or soon after they enter school?
Yes _____ No _____
3. The physical examination is conducted by:
 1. Physician associated with health services _____
 2. Pupils' own physicians _____
 3. Other (Specify) _____
4. The physical examination report form is:
 1. Standardized and supplied by school _____
 2. Differs from pupil to pupil _____
 3. Other (Specify) _____
5. The school requires all pupils to fill out a medical history or questionnaire.
Yes _____ No _____
6. Who is responsible for evaluating the pupil's medical history or questionnaire? (Specify)

7. Does the school require new pupils to be vaccinated or immunized or show certificate of vaccination or immunization for:

	Yes	No
Smallpox	_____	_____
Tetanus	_____	_____
Typhoid	_____	_____
Other (Specify)	_____	_____
8. New pupils are required to have the following examinations:

	Yes	No
a. Chest X-ray	_____	_____
b. Tuberculosis Skin Test	_____	_____
c. Dental Examination	_____	_____
d. Vision Examination	_____	_____
e. Hearing Examination	_____	_____
f. Speech Examination	_____	_____
g. Psychiatric Exam	_____	_____
h. Psychological Exam	_____	_____
i. Other (Specify)	_____	_____

9. The medical requirements apply to all pupils as well as new pupils.
Yes _____ No _____
10. Are there pupils who are exempt from these medical requirements?
Yes _____ No _____
If yes, specify and explain: _____
11. Does your school system have special requirements for any particular group of pupils?
Yes _____ No _____
12. New teachers, supervisors and other school personnel are required to have a physical examination before employment or shortly after.
Yes _____ No _____
- a. Psychiatric Examination
PROVIDED BY: Yes _____ No _____
1. Health services department Yes _____ No _____
2. Own physician Yes _____ No _____
3. Other (Specify) _____ Yes _____ No _____
13. First-aid supplies are provided for all buildings.
Yes _____ No _____
14. Classroom teachers are trained-in-service to handle emergency treatment.
Yes _____ No _____
15. Slight injuries are treated by the school nurse.
Yes _____ No _____
16. In the absence of a school nurse there is a faculty member appointed to handle first-aid cases in the building.
Yes _____ No _____

VIII. FOLLOW-UP AND CONTROL PROGRAM

1. Pupils are required to have another routine physical examination during their school careers.
Yes _____ No _____
- If yes, how often? _____

2. Cumulative health records are kept on individual pupils during their stay in school.

Yes _____ No _____

If yes, who keeps them? _____

How long are they kept? _____

Is microfilming used for permanent records? Yes _____ No _____

3. There is a cumulative health record on every pupil.

Yes _____ No _____

4. The school has a standard procedure for notifying parents if a pupil becomes ill or injured.

Yes _____ No _____

5. The school nurse counsels with parents about the child's illness.

Yes _____ No _____

6. The school nurse makes home visits when a child is out of school because of illness or other health or sanitation problems.

Yes _____ No _____

7. The school buildings are inspected for cleanliness by the health services staff.

Yes _____ No _____

8. Teachers and supervisors are required to have a regular routine physical examination.

Yes _____ No _____

If yes, how often? _____

Psychiatric Examination? Yes _____ No _____

IX. INTEGRATION INTO THE CURRICULUM

1. There is a regular in-service training program for teachers carried out by the health services department.

Yes _____ No _____

2. With regard to health education, does the school offer any lectures or courses in health or hygiene, mental health or any other field of health?

Yes _____ No _____

3. Does the health services department teach or act as advisors in the courses or lectures in health education?

Yes _____ No _____

If yes, explain: _____

4. Is the health education program directly supervised by someone on the health services staff?

Yes _____ No _____

Who? _____

5. Is anyone from the health services staff on a committee, board, or faculty which supervises health education?

Yes _____ No _____

Explain: _____

6. Does the health services staff serve as consultants or advisors in health education?

Yes _____ No _____

7. Does the staff serve as consultants or advisors to the faculty in pupil assignments either academically or extra-curricular?

Yes _____ No _____

8. Is health education taught directly or indirectly below third grade?

Yes _____ No _____

9. Is a formal textbook used in health education?

Yes _____ No _____

10. Have your teachers in cooperation with health services or health education developed their own course of study?

Yes _____ No _____

X. MISCELLANEOUS QUESTIONS

1. Would you please list the non-school agencies that make services available to your health services program.
2. Do you feel your health services program meets the needs of your community?

Yes _____ No _____

3. What personnel would you add if it were possible for you to do so?

APPENDIX D

Date

Name
Title
Address
City and State

Dear Sir:

A few months ago a questionnaire was mailed to you which I am sure must have been misplaced. I am enclosing another copy of the questionnaire. We would appreciate it very much if you would please complete the questionnaire and return it to us as soon as possible.

Thank you for your participation and help in this matter.

Sincerely,

Edward J. Wylie
Director of Health Services

EJW:cn

Enc: 1

APPENDIX E

SCHOOL PATRON QUESTIONNAIRE

DEAR SCHOOL PATRON:

Your Board of Education is interested in knowing your feelings toward the health services in your schools. Would you please answer the following questions and return the questionnaire at your earliest convenience? A stamped, self-addressed envelope is enclosed.

1. Do you have children in school? Yes _____ No _____
 Grade levels: K-3 _____ 4-6 _____ 7-9 _____ 10-12 _____
 School or schools attended: _____
2. Are you acquainted with your school nurse? Yes _____ No _____
3. Do you believe there is a need for school nurses in the Wichita Public Schools?
 Yes _____ No _____
4. Do you feel there is a need for additional health service personnel other than school nurses?
 Yes _____ No _____
5. Do you think that the health services provided by the schools make a significant difference in the educational development of pupils?
 Yes _____ No _____
6. The following services are provided in the schools. Please rate the desirability of the services offered: (a) very desirable (b) desirable (c) undesirable.
 - a. Screening examinations for vision and hearing of pupils. _____
 - b. Observation in the classroom to identify pupil health problems. _____
 - c. Counseling parents and children concerning health problems. _____
 - d. Referring children with health problems, through their parents, to physicians or medical agencies. _____
 - e. Providing resource material and instructional assistance to teachers. _____
 - f. Rendering emergency first-aid care. _____
 - g. Assisting dentists with dental examinations and acting as a resource person in dental health. _____
 List other health services you feel should be added: _____

7. The Wichita Public Schools have 30 nurses employed to service 64,000 pupils. Do you think this is: Adequate _____ Too few _____ Too many _____
8. In relationship to other special services provided by the school, such as guidance, special education, music, elementary physical education, how would you rank the need for health services?
High _____ Medium _____ Low _____

APPENDIX F

FORMULA USED FOR DETERMINING THE SIZE OF SAMPLE TO BE
TAKEN IN THE WICHITA PUBLIC SCHOOL DISTRICT

$$n = \frac{[x^2 N \pi(1-\pi)]}{[d^2 (N-1) + x^2 \pi(1-\pi)]}$$

n = the required sample size

x^2 = the table value to chi-square for one degree of freedom
and desired confidence level (2.706)

N = the population size

π = the population proportion which it is desired to estimate
(assumed to be .50 since this would provide the maximum
sample size)

d = the degree of accuracy express as a proportion (.05).*

$$n = 2.706 \cdot \frac{102,000}{2} (1-.50) \div .0025 (101,999) + 2.706 \cdot .50 (1-.50)$$

$$n = 138,006 \cdot .50 \div 254.9985 + .6765$$

$$n = 69,003 \div 256$$

$$n = 269$$

*Small-Sample Techniques, National Education Association Research
Bulletin, Vol. 38, No. 4, December, 1960, pp. 99-104.

APPENDIX G

SCHOOL PERSONNEL QUESTIONNAIRE

My title is: Administrator__ Counselor__ Teacher__ Clerical__ Other__
 School: Secondary__ Elementary__

1. Do you believe there is a need for school nurses in the Wichita Public Schools?

Yes ____ No ____

2. Do you see a need for other personnel on the health services staff?

Yes ____ No ____

If yes, please list the personnel:

3. Do you think the health services provided by the schools make a significant difference in the educational development of pupils?

Yes ____ No ____

4. Do you feel school nurses should wear uniforms? Yes ____ No ____

5. Do you think nurses with training comparable to teachers should be placed on the teachers' salary schedule?

Yes ____ No ____

6. Do you feel the health services offered are coordinated with the instructional program as well as other special services?

Yes ____ No ____

7. Do you feel the school nurse is an accepted member of the faculty in your school?

Yes ____ No ____

8. Please estimate the time you have spent weekly on duties in your school that were usually handled by the nurse.

9. Do you feel the health services your school receives this year are: Adequate ____ Too Few ____ Too Many ____

10. There are 30 nurses employed to service 64,000 pupils in the Wichita Public Schools. Do you feel this is: Adequate ____ Too few ____ Too many ____

11. The following services are provided in the schools. Please rate the desirability of the services offered: (a) very desirable (b) desirable (c) undesirable

11. Continued

- a. Screening examinations for vision and hearing of pupils. _____
 - b. Observation in the classroom to identify pupil health problems. _____
 - c. Counseling parents and children concerning health problems. _____
 - d. Referring children with health problems, through their parents, to physicians or medical agencies. _____
 - e. Providing resource material and instructional assistance to teachers. _____
 - f. Rendering emergency first-aid care. _____
 - g. Assisting dentists with dental examinations and acting as a resource person in dental health. _____
- List other health services you feel should be added: _____

12. In relationship to other special services provided by the school, such as guidance, special education, music, elementary physical education, how would you rank the need for health services?
- High _____ Medium _____ Low _____

APPENDIX H

PHYSICIAN - DENTIST QUESTIONNAIRE

1. Do you feel there is a need for school nurses in the Wichita Public Schools?
Yes _____ No _____
2. Do you feel the school has any degree of responsibility for the health of children?
Yes _____ No _____
3. Do you think that the health services provided by the schools make a significant difference in the educational development of pupils?
Yes _____ No _____
4. Do you feel it would be appropriate for the Board of Education to employ a school physician?
Yes _____ No _____
A school dentist?
Yes _____ No _____
5. Do you think it would be beneficial to the School Health Services Department to have a committee of physicians and dentists for advisory purposes?
Yes _____ No _____
If yes, would you be willing to serve on this committee?
Yes _____ No _____
6. Are the forms furnished your office to report the health of pupils to the schools satisfactory?
Yes _____ No _____
7. Do you feel you understand the Health Services Program as it is offered in our schools?
Yes _____ No _____
8. Do you feel the School Health Services Department is meeting the needs of the community?
Yes _____ No _____
9. Do you feel health services in the schools should be placed with the City-County Health Department?
Yes _____ No _____
10. The Wichita Public Schools have 30 nurses employed to service 64,000 pupils. Do you feel this is: Adequate _____ Too few _____ Too many _____

11. In relationship to other special services provided by the schools such as: guidance, special education, music, elementary physical education, how would you rank the need for health services?
High _____ Medium _____ Low _____
12. Health services should be provided only in the: Elementary _____
Secondary _____ Both _____
13. The following services are provided in the schools. Please rate the desirability of the services offered: (a) very desirable (b) desirable (c) undesirable
- a. Screening examinations for vision and hearing of pupils. _____
 - b. Observation in the classroom to identify pupil health problems. _____
 - c. Counseling parents and children concerning health problems. _____
 - d. Referring children with health problems, through their parents, to physicians or medical agencies. _____
 - e. Providing resource material and instructional assistance to teachers. _____
 - f. Rendering emergency first-aid care. _____
 - g. Assisting dentists with dental examinations and acting as a resource person in dental health. _____
- List other health services you feel should be added: _____

APPENDIX I

WICHITA CITY - COUNTY HEALTH DEPARTMENT QUESTIONNAIRE

1. Do you feel there is a need for school nurses in the Wichita Public Schools?
Yes _____ No _____
2. Do you feel the school has any degree of responsibility for the health of children?
Yes _____ No _____
3. The following services are provided in the schools. Please rate the desirability of the services offered: (a) very desirable (b) desirable (c) undesirable
 - a. Screening examinations for vision and hearing of pupils. _____
 - b. Observation in the classroom to identify pupil health problems. _____
 - c. Counseling parents and children concerning health problems. _____
 - d. Referring children with health problems, through their parents, to physicians or medical agencies. _____
 - e. Providing resource material and instructional assistance to teachers. _____
 - f. Rendering emergency first-aid care. _____
 - g. Assisting dentists with dental examinations and acting as a resource person in dental health. _____
 List other health services you feel should be added: _____
4. The Wichita Public Schools have thirty nurses employed to service 64,000 pupils. Do you feel this is: Adequate _____ Too few _____ Too many _____
5. Do you think that the health services provided by the schools make a significant difference in the educational development of pupils?
Yes _____ No _____
6. In relationship to other special services provided by the schools, such as guidance, special education, music, elementary physical education, how would you rank the need for health services?
High _____ Medium _____ Low _____
7. Do you feel it would be appropriate for the Board of Education to employ a school physician?
Yes _____ No _____
A school dentist? Yes _____ No _____

8. Do you think it would be beneficial to the School Health Services Department to have a committee of doctors and dentists for advisory purposes?

Yes _____ No _____

If yes, would you be willing to serve on this committee?

Yes _____ No _____

9. Are the forms furnished your office to report the health of students to the schools satisfactory?

Yes _____ No _____

10. Do you feel you understand the Health Services Program as it is offered in our schools?

Yes _____ No _____

11. Do you feel health services in the schools should be placed with the City-County Health Department?

Yes _____ No _____

12. Health services should be provided only in the: Elementary _____
Secondary _____ Both _____

13. Do you feel the School Health Services Department is meeting the needs of the community?

Yes _____ No _____

APPENDIX J

RESPONSE TO NATIONAL QUESTIONNAIRE
HEALTH SERVICE PROGRAMS ADMINISTERED BY BOARD OF EDUCATION

City	School Enrollment	Health Services Budget	Cost Per Pupil	Number Nurses	N-P Ratio
Columbus, Ohio	98,439	\$	\$	35	2,813
Denver, Colorado	96,936	802,726	8.28	69	1,405
Mobile, Alabama	76,161	17,606	.23	3	25,387
Fort Worth, Texas	75,568	392,670	5.19	51	1,482
Long Beach, California	74,610	527,994	7.07	43	1,735
Oakland, California	74,000	440,000	5.94	50	1,480
Tulsa, Oklahoma	73,694	162,646	2.20	27½	2,680
Kansas City, Missouri	72,883	340,763	4.68	42	1,735
Oklahoma City, Oklahoma	69,333	188,178	2.71	32	2,167
Newark, New Jersey	68,814	598,000	8.69	58	1,186
Albuquerque, New Mexico	66,938	191,868	2.86	26	2,575
Wichita, Kansas	64,000	183,100	2.86	30	2,133
Omaha, Nebraska	56,260	207,870	3.69	27	2,084
Norfolk, Virginia	55,657	154,810	2.78	34	1,637
El Paso, Texas	55,435			34	1,630
Tucson, Arizona	48,120	168,000	3.49	33	1,458
St. Paul, Minnesota	45,432	326,019	7.17	44	1,033
Des Moines, Iowa	44,000	300,000	6.81	33	1,333
Sacramento, California	43,073	312,377	7.25	33	1,305
Gary, Indiana	41,324	233,683	5.65	24	1,722
Corpus Christi, Texas	39,423			15	2,628
Richmond, Virginia	38,679	171,614	4.43	29	1,334
Spokane, Washington	33,842	125,455	3.70	12	2,820
Nashville, Tennessee	31,514	91,571	2.91	13	2,424
Fort Wayne, Indiana	31,002	34,025	1.09	1	31,002
Syracuse, New York	30,890	272,787	8.83	21	1,471
Yonkers, New York	30,000	142,000	4.73	13	2,308
Youngstown Ohio	27,970			14	1,998
Providence, Rhode Island	27,639	167,064	6.04	17	1,626
Phoenix, Arizona H. S.	26,105	79,975	3.06	10	2,611
Hartford, Connecticut	25,175	250,000	9.93	23	1,095

RESPONSE TO NATIONAL QUESTIONNAIRE
HEALTH SERVICE PROGRAMS ADMINISTERED BY BOARD OF EDUCATION
(Continued)

City	Nurses	Director of Health Services	Coordinator of Nurses	Physicians	
	Training Required	Background	Background	Full	P.T.
Columbus, Ohio	R.N. + B.S.	Nurse	None		
Denver, Colorado	R.N. + Degree	Physician	Nurse	4	
Mobile, Alabama	Certificated	Ed. Adm.	Nurse		
Fort Worth, Texas	R.N. + Degree	Physician	Nurse	1	
Long Beach, California	R.N. + B.S.	Physician	Nurse	5	
Oakland, California	R.N. or P.H.N.	Physician	Nurse	1	
Tulsa, Oklahoma	R.N.	Physician	Nurse	1	
Kansas City, Missouri	B.S.N.	None	Nurse		
Oklahoma City, Oklahoma	R.N.	Physical Ed.	Nurse	1	2
Newark, New Jersey	R.N.	Physician	Nurse		24
Albuquerque, New Mexico	B.S.	Psychologist	Nurse		1
Wichita, Kansas	R.N.	None	Nurse		
Omaha, Nebraska	R.N. + B.S.	Ed. Adm.	Nurse		
Norfolk, Virginia	R.N.	Physician	Physician		7
El Paso, Texas	R.N.	Ed. Adm.	Ed. Adm.		
Tucson, Arizona	R.N.	Physician	Nurse		1
St. Paul, Minnesota	B.S.N.	None	Nurse		10
Des Moines, Iowa	R.N.	Physician	Nurse		10
Sacramento, California	R.N. + Degree	Physician	Nurse	1	
Gary, Indiana	R.N. + B.S.	Physician	Nurse	1	
Corpus Christi, Texas	R.N. + B.S.N.		Ed. Adm.		
Richmond, Virginia	B.S.N.		Nurse		2
Spokane, Washington	R.N. + Degree	Physician	Nurse	1	
Nashville, Tennessee	R.N.	Physician	Ed. Adm.		
Fort Wayne, Indiana	R.N.	None	None		11
Syracuse, New York	R.N. + B.S.	Physician	Nurse		11
Yonkers, New York	B.S.N.	Physician	Nurse		4
Youngstown, Ohio	R.N. + B.S.	Physical Ed.	None		1
Providence, Rhode Island	Certificated	Physician	Nurse		5
Phoenix, Arizona H.S.	R.N.	Ed. Adm.	None		2
Hartford, Connecticut	B.S.N. + M.A.	None	Nurse		15

P.H.N. - Public Health Nurse
Ed. Adm. - Education Administrator
P.T. - Part time

RESPONSE TO NATIONAL QUESTIONNAIRE
HEALTH SERVICE PROGRAMS ADMINISTERED BY BOARD OF EDUCATION
(Continued)

City	Other Health Services Personnel			
	Dentist		Psychiatrist	
	Full	P.T.	Full	P.T.
Columbus, Ohio		2		
Denver, Colorado	2	4		5
Mobile, Alabama				
Fort Worth, Texas				
Long Beach, California				
Oakland, California	1			1
Tulsa, Oklahoma				1
Kansas City, Missouri				
Oklahoma City, Oklahoma			3½	
Newark, New Jersey	1	1		2
Albuquerque, New Mexico		1		1
Wichita, Kansas				
Omaha, Nebraska				
Norfolk, Virginia				
El Paso, Texas				
Tucson, Arizona				1
St. Paul, Minnesota		8		3
Des Moines, Iowa	1			
Sacramento, California				
Gary, Indiana		1		
Corpus Christi, Texas				
Richmond, Virginia				
Spokane, Washington		1		1
Nashville, Tennessee				
Fort Wayne, Indiana		1		
Syracuse, New York				2
Yonkers, New York				1
Youngstown, Ohio	1			
Providence, Rhode Island		12		
Phoenix, Arizona H. S.				
Hartford, Connecticut		6		

P.T. - Part time

RESPONSE TO NATIONAL QUESTIONNAIRE
HEALTH SERVICE PROGRAMS ADMINISTERED BY BOARD OF EDUCATION
(Continued)

City	Other Health Services Personnel			
	Dental		Clerical	
	Hygienist		Full	P.T.
	Full	P.T.	Full	P.T.
Columbus, Ohio	3		1	
Denver, Colorado	2		8	
Mobile, Alabama			1	
Fort Worth, Texas			2	
Long Beach, California			2	
Oakland, California			3	
Tulsa, Oklahoma			9½	
Kansas City, Missouri			1	
Oklahoma City, Oklahoma				1
Newark, New Jersey			6	
Albuquerque, New Mexico				1
Wichita, Kansas				
Omaha, Nebraska			1	
Norfolk, Virginia			1	
El Paso, Texas			1	
Tucson, Arizona	3		1	
St. Paul, Minnesota	8		2	
Des Moines, Iowa	5		1	
Sacramento, California	1		2	
Gary, Indiana			2	
Corpus Christi, Texas				
Richmond, Virginia				1
Spokane, Washington	1		1	
Nashville, Tennessee			2	
Fort Wayne, Indiana				2
Syracuse, New York			2	
Yonkers, New York	1		1	
Youngstown, Ohio	1		1	
Providence, Rhode Island		12	2	
Phoenix, Arizona H. S.				
Hartford, Connecticut	7		1	

P.T. - Part time

APPENDIX K.

RESPONSE TO NATIONAL QUESTIONNAIRE
HEALTH SERVICE PROGRAMS JOINTLY ADMINISTERED BY
BOARD OF EDUCATION AND PUBLIC HEALTH DEPARTMENT

City	School Enrollment	Health Services Budget	Cost Per Pupil	Number Nurses	N-P Ratio
Atlanta, Georgia	114,006	\$ 50,000	\$.43	23	1,739*
Portland, Oregon	72,736	110,000	1.51	35	2,078
Charlotte, North Carolina	70,500	137,000	1.94	15	4,700
Dayton, Ohio	53,923	162,586	3.01	11	4,902
Louisville, Kentucky	50,099	40,000	.79	16	3,131
Flint, Michigan	38,899	133,280	3.42	11	924*
Springfield, Massachusetts	32,206	226,669	7.03	30	1,074
Grand Rapids, Michigan	28,191	11,800	.42	None	

*Nurses serve high school only

RESPONSE TO NATIONAL QUESTIONNAIRE
HEALTH SERVICE PROGRAMS JOINTLY ADMINISTERED BY
BOARD OF EDUCATION AND PUBLIC HEALTH DEPARTMENT
(Continued)

City	Nurses	Director of Health Services	Coordinator of Nurses
	Training Required	Background	Background
Atlanta, Georgia	R. N.	Ed. Adm.	None
Portland, Oregon		Physician	Nurse
Charlotte, North Carolina	R. N.	Ed. Adm.	Nurse
Dayton, Ohio	R. N.	Physician	Nurse
Louisville, Kentucky	R. N. or P. N.	None	None
Flint, Michigan	B. S. N.	Ed. Adm.	Nurse
Springfield, Massachusetts	R. N.	Physician	Nurse
Grand Rapids, Michigan	R. N.	Nurse	None

Ed. Adm. - Education Administrator
P. N. - Practical Nurse

RESPONSE TO NATIONAL QUESTIONNAIRE
HEALTH SERVICE PROGRAMS JOINTLY ADMINISTERED BY
BOARD OF EDUCATION AND PUBLIC HEALTH DEPARTMENT
(Continued)

City	Other Health Services Personnel				
	Physicians		Dentist		Psychiatrist
	Full	P.T.	Full	P.T.	
Atlanta, Georgia					6
Portland, Oregon	1				
Charlotte, North Carolina		2		1	5
Dayton, Ohio		5		3	6
Louisville, Kentucky					1
Flint, Michigan		1			
Springfield, Massachusetts	1			6	1
Grand Rapids, Michigan					1 P.T.

P.T. - Part time

RESPONSE TO NATIONAL QUESTIONNAIRE
HEALTH SERVICE PROGRAMS JOINTLY ADMINISTERED BY
BOARD OF EDUCATION AND PUBLIC HEALTH DEPARTMENT
(Continued)

City	Other Health Services Personnel		
	Dental Hygienist	Clerical Full P.T.	Miscellaneous
Atlanta, Georgia			
Portland, Oregon		5	2 audiometrists
Charlotte, North Carolina		2	2 P.T. health educators
Dayton, Ohio		2	
Louisville, Kentucky			1
Flint, Michigan	1	4	
Springfield, Massachusetts	6	1	5 vision & hearing testers
Grand Rapids, Michigan		1	Coordinator of Health Education

P.T. - Part time

APPENDIX L

RESPONSE TO NATIONAL QUESTIONNAIRE
HEALTH SERVICE PROGRAMS ADMINISTERED BY PUBLIC HEALTH DEPARTMENT

City	School Enrollment	Health Services Budget	Cost Per Pupil	Number Nurses	N-P Ratio
Miami, Florida	188,794	\$	\$	38	4,968
Memphis, Tennessee	108,883				
Jacksonville, Florida	108,836			46	2,366
Indianapolis, Indiana	100,097	583,751	5.83	64	1,564
Tampa, Florida	88,531				
Akron, Ohio	58,081	11,025	.18		
Pinellas County, Florida	55,768				
Rochester, New York	43,436	390,000	8.97	18	2,413
Shreveport, Louisiana	43,000				
Austin, Texas	39,691	45,000	1.13	9	4,410
New Haven, Connecticut	25,228	130,000	5.15	13	1,941
Bridgeport, Connecticut	24,571	179,628	7.31	17	1,445

RESPONSE TO NATIONAL QUESTIONNAIRE
HEALTH SERVICE PROGRAMS ADMINISTERED BY PUBLIC HEALTH DEPARTMENT
(Continued)

City	Nurses	Director of	Coordinator
	Training Required	Health Services Background	of Nurses Background
Miami, Florida	R. N.	Physician	None
Memphis, Tennessee		Physician	Nurse
Jacksonville, Florida		None	None
Indianapolis, Indiana	R. N.	Physician	Nurse
Tampa, Florida			
Akron, Ohio		None	None
Pinellas County, Florida		None	None
Rochester, New York	R. N.	None	None
Shreveport, Louisiana			
Austin, Texas		Nurse	None
New Haven, Connecticut	R. N.	Physician	Nurse
Bridgeport, Connecticut	R.N. - Civil Service		None

RESPONSE TO NATIONAL QUESTIONNAIRE
HEALTH SERVICE PROGRAMS ADMINISTERED BY PUBLIC HEALTH DEPARTMENT
(Continued)

City	Other Health Services Personnel					
	Physicians		Dentist		Psychologist	Psychiatrist
	Full	P.T.	Full	P.T.		
Miami, Florida	1					
Memphis, Tennessee	1					
Jacksonville, Florida						
Indianapolis, Indiana		21		14	8	1 P. T.
Tampa, Florida						
Akron, Ohio		1		1	1	
Pinellas County, Florida						
Rochester, New York					26	3 P. T.
Shreveport, Louisiana					1	
Austin, Texas		1				
New Haven, Connecticut		9		4	9	1 P. T.
Bridgeport, Connecticut		5		2	1	

P.T. - Part time

RESPONSE TO NATIONAL QUESTIONNAIRE
HEALTH SERVICE PROGRAMS ADMINISTERED BY PUBLIC HEALTH DEPARTMENT
(Continued)

City	Other Health Services Personnel				Miscellaneous
	Dental		Clerical		
	Hygienist		Full	P.T.	
	Full	P.T.	Full	P.T.	
Miami, Florida					
Memphis, Tennessee					
Jacksonville, Florida					
Indianapolis, Indiana			12		9.60 vision & hearing testers
Tampa, Florida					
Akron, Ohio		1			
Pinellas County, Florida					
Rochester, New York	3				
Shreveport, Louisiana					
Austin, Texas					
New Haven, Connecticut	3		3		2½ nurse-audiometrists
Bridgeport, Connecticut	13				

P.T. - Part time