WORK OF THE COUNTY HEALTH UNIT IN THE THIRD CLASS HIGH SCHOOL DISTRICTS IN JACKSON COUNTY, OREGON: A PROPOSED ORGANIZATION

by

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A THESIS

submitted to the

OREGON STATE COLLEGE

in partial fulfillment of
the requirements for the
degree of

MASTER OF SCIENCE

June 1938

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ACKNOWLEDGMENT

The writer wishes to extend his gratitude to the faculty of the School of Education of Oregon State College for their aid and encouragement, and especially to his major professor, Dr. R. J. Clinton, Professor of Education, who has given so liberally of his time and counsel in the compilation of this thesis.

The writer also wishes to extend his sincere thanks to Mrs. Blanche Frisbie, senior public health nurse of the Jackson County Health Department, and to the many others who gave their assistance and helpful suggestions.

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CHAPTER I

INTRODUCTION

Statement of the Problem. The problem involved in this study is to find some definite means of procuring more medical, surgical, and dental care for high school pupils in the second and third class schools of Jackson County. Adequate provision is made for physical examinations, immunizations, and education in health, but very little is done to correct the defects after they have been discovered. Parents are notified of the pupils' physical defects, and unfortunately, it seems folly to expect parents of today to deal adequately with the problem in their own initiatives. Parents are too likely to be satisfied so long as the child shows no outward signs of the defects. Teeth often go unattended until aching begins, infected tonsils often are not removed until there is no other alternative, poor vision often is disregarded until failing grades in school, or other outward evidence brings attention. Many other defects are dealt with in this same light manner.

It is an exceptional father who inspects his child as often and as thoroughly as he does a machine or other piece

of equipment with which he operates his business, and which is a device for production. In the business of life the human machine may be likened to a piece of equipment, in that there is a "construction" cost and a "maintenance" cost which must be met to insure production. From what is known of current practices, it is apparent that outside agencies will need to assist parents far more satisfactorily if all children of today are to be efficient producers among their strong competitors when they reach maturity.

The problem of handling injuries of athletes, when such injuries are serious enough to warrant a doctor's care, is rather burdensome in many of the small high schools. This problem will be treated along with the one mentioned above. The writer will propose several systems by which aid may be furnished and which seem to be adaptable to Jackson County.

Sources of Data. Much of the data has been taken directly from the records on file in the Jackson County Health Department files. The Health Department, the Health Association, and the State Health Department have published pamphlets from time to time that have supplied many facts. The Jackson County School Superintendent's office furnished statistics on the schools' budgets and attendance records. Reference books were suggested by the county health officer and were loaned to the writer by him. Much reading was done on material in the field at the Oregon State College library. The Oregon Code of Laws was found to be a good source of information. Conferences were held with various members of the Jackson County Health Department staff, Dr. Frederick D. Stricker, State Health Officer, and doctors of several cities in the state to get general opinions. Doctors belonging to medical societies were liberal with advice and opinions, but invariably asked not to be quoted. Many school men were interviewed to ascertain the prevalence of existing conditions in their schools in order to compare them with the conditions existing in the Jackson County schools.

Location and Description of Jackson County. Jackson County is located in the extreme southern part of the state of Oregon, and embraces the western slopes of the Cascades on the east and extends westward to Curry County which occupies the southwest corner of the state. It has an area of 2794 square miles or 1,788,160 acres and in 1936 had a population of 32,918 (1), about half of which is rural.

The leading industries in the county are lumbering, orcharding, truck gardening, and stock raising. The leading lumber cut is Douglas fir, with sugar pine following closely. The leading fruit crop is pears, many of which reach European markets. Cattle and sheep are ranged in the mountainous regions in the summer and are taken to broad expanses of semi-arid pasture lands for the winter. Much irrigation is required in the county, and is adequately taken care of by six irrigation districts.

Medford is the largest city in the county. It has a population of 11,028 (1936). Ashland is the next largest city, having a population of 4600. The rest of the towns are much smaller and range in size as follows: Central Point--825, Jacksonville--721, Gold Hill--500, Phoenix--3--, Talent--200, Rogue River--200. Butte Falls is probably less than 200, the population was not obtainable,

(1) Jackson Co. Health Ass'n, Pub. Jan. 1937.

and the same is true of Eagle Point. There are two other high school districts in the county which are not incorporated towns, yet they are large enough communities to support their own high schools. The populations of these are not listed separately anywhere, but the school census for 1935 gives the school populations as 129 for Prospect and 115 for Sams Valley.

Third Class Schools in the County. There are twelve high schools in Jackson County, two of which are of the first class and the other ten are of the third class. Medford is the largest with an enrollment of nearly 1000 for the school year of 1936-37, while Ashland is second with an enrollment of about 450 for the same period. The enrollments of the other ten schools for that year are as follows:(1)

School	Enrollment 1936-37
Central Point	129
Jacksonville	95
Eagle Point	83
Phoenix	77
Gold Hill	77
Rogue River	76
Butte Falls	42
Prospect	38
Sams Valley	33
Total	650

These enrollment figures take into account all the

(1) Directory - School Officers and Teachers of Jackson County. - 1936-37.

high school pupils enrolled, part of which are from non-high school districts and are enrolled as tuition pupils. Medford and Ashland also enroll many tuition pupils.

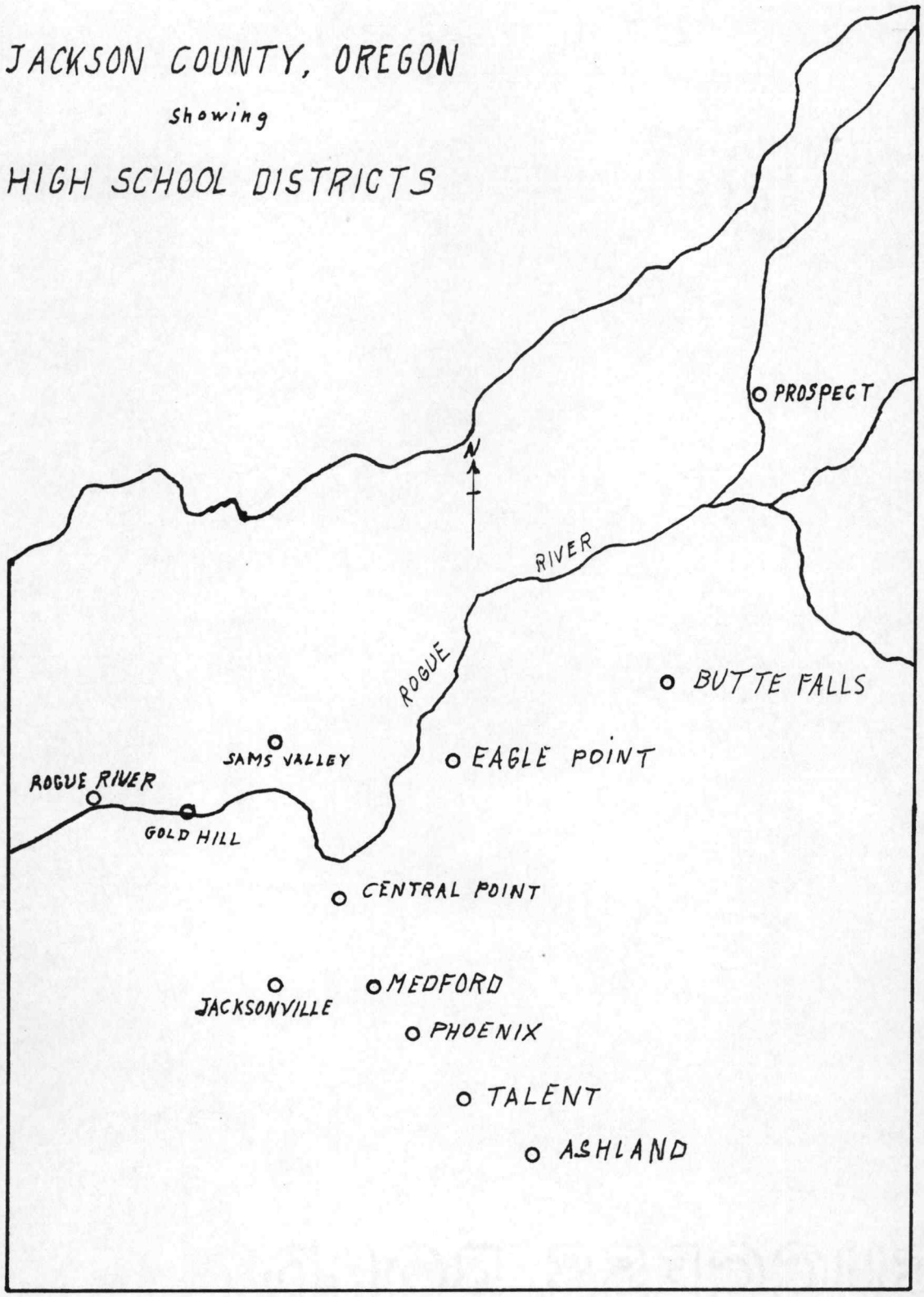
JACKSON COUNTY, OREGON
Showing
HIGH SCHOOL DISTRICTS
PROSPECT
N
ROGUE RIVER
ROGUE
BUTTE FALLS
SAMS VALLEY
EAGLE POINT
ROGUE RIVER
GOLD HILL
CENTRAL POINT
MEDFORD
JACKSONVILLE
PHOENIX
TALENT
ASHLAND

Table I shows the amount of the minimum essential equipment for health service rooms that each school possesses.

Table I

Health Service Equipment in the High Schools (1)

School	Value of Equipment	Size Room	Scales	Sink or Washbowl	Medicine Cabinet
Butte Falls	None				
Central Point	$250	25x20	$35	yes	
Eagle Point	None				
Gold Hill	Teachers' Room		35		
Jacksonville	$100	10x12	35	yes	yes
Phoenix	Teachers' Room		35		
*Prospect					
Rogue River	Teachers' Room		35		
Sams Valley	Teachers' Room				
Talent	School Office		35		

*Prospect is building a new school this year and will be modernly equipped with all the above items plus portable screens and portable lamp.

(1) Jackson County Health Department Files.

It means from the data in Table I that there is room for improvement in the school equipment for first aid and for the school nurse to carry on her work of examining and administering minor treatment on her days of call at the schools. The schools should have a room in which the Health Officer can hold clinics, such as well-baby clinics, and give immunizations, and examinations. This room can also serve as a place for pupils who are injuried or ill to lie down.

All but one of the ten high schools being considered in this study budget some money each year for health service from the county health department. Table II shows the amounts budgeted by the various schools, the annual enrollment, and the average daily attendance for the school year 1936-37.

Table II

Budgets, Enrollments, and Attendance (1)

School	Enrollment 1936-37	Amount Budgeted for Health	Av. Daily Attendance
Butte Falls	42	$ 15	37
Central Point	129	75	107.6
Eagle Point	63	30	64.4
Gold Hill	77	150	62.5
Jacksonville	95	85	74.8
Phoenix	77	71	56.2
Prospect	38	70	30.7
Rogue River	76	35	49.2
Sams Valley	33	0	24.5
Talent	58	75	44.5

The writer used these figures to find out whether therewas a relationship between the amount spent for health measures and the average daily attendance in the schools. The figures did not disclose any such relationship. However, this may not be of much significance since there are many other factors which affect attendance. Some of theschools are in more remote areas and their attendance is affected somewhat by the weather. Some

(1) Jackson County School Superintendent's Files

districts are subject to more or less transient populations which are usually poor risks on attendance. Percentage of enrollment made up of boarding tuition students also affects attendance. Busses and bus routes have some bearing on the situation also.

In all ten of these districts the annual amount budgeted for health covers grade schools as well as high schools. This cuts the per capita amount to about 1/3 to 1/4 of what one would assume from Table II. The average daily attendance for the ten schools for the school year 1935-36 was 1667 and the amount of money budgeted for the same schools was $606, which makes the average per capita amount for that year for health about 36 cents.

Gold Hill budgeted $150 and had an average daily attendance of 201.7 which made about 70 cents per pupil. It had 81.2 per cent of attendance. Butte Falls budgeted $15, had 103.1 in attendance which made the per capita amount 14-1/2 cents and it had 88.1 per cent attendance.

There seems to be no definite relationship between the amounts budgeted and the number of pupils enrolled in school. Neither is there any definite relationship between the amount budgeted and the amount of service received in proportion to the budget and enrollment. Schools which do not pay anything into the health department funds receive only one call per month by the health

nurse. From this, one would infer that the school which budgets is not, in reality, buying anything with the budget money, but is rather contributing to the county organization funds and in return received somewhat more than charitable attention.

Public sentiment plays an important part also in governing the amount of attention received by the various districts. This shows up to a great extent when the health department offers vaccinations, inoculations, Schick tests, examinations, or other aids to the masses. These are always given with parents' consent, and the per cent of pupils immunized or tested vary widely in the districts. The health department officials would like to have 100 per cent immunization against smallpox and diphtheria, but they do not get it because all parents do not want it. It may be that they need more education in the values of such preventative measures or it may be religious beliefs that cause them not to want the service.

In 1936 the health department offered immunizations against smallpox and diphtheria. Table III shows the per cents of immunizations given to pupils who needed it and the number of cases that occurred after the immunizations were given. These figures include all children in the town or community.

Table III

Immunizations Against Smallpox and Diphtheria Given In 1936 (1)

Town	Immunization Against Smallpox	Immunization Against Diphtheria	Number of Cases Reported After Immunization Smallpox	Number of Cases Reported After Immunization Diphtheria
Bute Falls	None	None	None	None
Central Point	92%	85%	24	0
Eagle Point	79%	50%	0	0
Gold Hill	71%	25%	0	0
Jacksonville	75%	78%	1	0
Phoenix	93%	88%	0	0
Prospect	90%	90%	0	0
Rogue River	95%	93%	5	0
Sams Valley	None	None	None	None
Talent	72%	82%	2	0

Here again there is no relationship shown between the per cent of immunizations and the number of cases of the disease that developed after the immunizations were given.

(1) Jackson County Health Department Files

CHAPTER II

GENERAL TREATMENT OF FULL-TIME COUNTY HEALTH UNITS

In the United States. (1) In 1900 from a health standpoint, rural life was safer than city life. By 1927 city life was rapidly becoming safer than rural life. This was due to the health work which was being done in the better governed cities, and lack of it in the rural sections. Just prior to 1927, a study of physical case records of 4000 students entering a western university showed that students raised in rural districts had more physical defects than those from cities. While cities are obtaining definite results, there is still room for improvement when nearly 50 percent of the adult population shows organic defects serious enough to limit their activities. Most of these defects are neglected remediable defects.

The crowded conditions in the cities have caused people to establish full-time health units there to avoid or combat epidemics. Most rural and small town populations have not realized this necessity and have therefore been reluctant to appropriate money for official health departments.

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(1) State Board of Health Pub. - Fourteenth Bien. Report 1928-29, p. 44-45.

Because the county is the local unit of government, the best solution for the rural health problems is the so-called full-time county health unit consisting of a full-time county health officer, two or more nurses, a sanitary officer, and a clerk. The activities of these units are centered on saving life and preventing disease. Their educational program in cooperation with the schools helps in recognizing danger signs that need the attention of a physician.

There are in the United States about 3000 counties, including districts comparable to counties, wholly or in considerable part, rural, to which local health service under the direction of whole-time county or local district health officers is applicable, and in which such service would be highly advantageous. The number of these units of population in which such service was in operation at the beginning of the year 1914, was 3. At the beginning of 1920 there were 109. In 1928 there were 414, and by the end of 1928 there were 481. Eight of those were in Oregon. In 1922 there were 3 in Oregon. (1) The writer was not able to obtain figures for the present year, but was assured the growth had been steady, and had not taken a backward trend.

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(1) State Board of Health Pub. - Fourteenth Bien. Report 1928-29, p. 45.

To establish these county health units aid was received from one or more of the following agencies: The state health department, the United States Public Health Service, the Rockefeller Foundation, and perhaps others. The Rockefeller Foundation has been discontinued in many places, but other newer agencies such as the Social Security Act, Works Progress Administration, Relief Agencies, etc., are supplementing.

Seventy to eighty per cent of our rural population in the United States is as yet unprovided with official local health service approaching adequacy. As a consequence of this deficiency, there is a sacrifice of the health and lives, and of the material resources of many of our people every year--a sacrifice which is needless because it is preventable, and preventable by measures readily within our means and demonstrated to be in the highest sense economical. (1)

Dr. Frederick D. Stricker, state health officer of Oregon, states that experience indicates that the best foundation for rural health service in the United States is the county health department under the direction of qualified whole-time county health officers.

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(1) State Board of Health Pub. - Fourteenth Bien. Report 1928-29, p. 44.

Jackson County Health Association. (1) The Jackson County Health Association was the first health organization to be formed in the county. Volunteer workers who served without compensation formed the organization in February, 1917, and affiliated with the Oregon Tuberculosis Association. Control of tuberculosis is the major activity of the association yet today. From time to time the association assumed new roles in its county health program until today it sponsors and maintains three dental clinics weekly, and also sponsors clinics for crippled and handicapped children, chest clinics, and child guidance clinics. Its work is very much integrated with the present Jackson County Health Department, with which it is very closely associated. In 1929 the association began matching part of the annual budget of the County Health Department. The amount the association was able to offer that first year was $3600. The amount varied each year and has ranged from $2981.29, the lowest in 1934, to $5700, the highest in 1932. The association derives its funds from several sources. The following are the greatest: sale of Christmas seals, sale of nursing service, subscription, and other donations. There are four officers in the personnel of the Association and nine members of the executive committee. The budget of the Association for 1936 will

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(1) Jackson County Health Association Pub. 1937.

serve as an example of how it places its funds.

Health Association Budget for 1936.

Nurses' Salaries	$1500
Travel for nurses	600
Dental clinics	480
Supplies for dental clinics	160
Milk for tubercular children and contacts	100
X-rays for tubercular chests	100
Administration	200
Salary for sanitary inspector	900
Total	$4,040

Jackson County Health Department. (1) and (2) The Jackson County Health Department was organized on January 1, 1925, by a group of taxpayers who saw an opportunity for cooperation with the State Board of Health and the Rockefeller Foundation in the establishment of a much needed health department in Jackson County. Shortly after the organization was formed the Rockefeller and state funds began to be withdrawn, until in 1929 the County Health Association supplemented the funds in part and since 1930 has replaced them entirely. (1)

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(1) Jackson County Health Dept. Pub. 1930 - Our Health Department - p. 1.
(2) State Board of Health - Fourteenth Bien. Report 1928-29, p. 66-67.

At the time the Health Department was first formed, the personnel consisted of the health officer, who was also county physician, two public health nurses, and a secretary. By 1930 another nurse was added to the staff by the aid of the Health Association. (1) Since that time, the personnel has steadily grown until now there is a county board of health, one assistant to the health officer, a county physician, a county sanitarian, four public health nurses, a senior nurse, and a secretary. The County Board of Health is responsible to the State Board of Health and to the county court, while the county physician is responsible to the health officer and to the county court. Since the State Relief organization supplies funds for the care of indigents, he is also responsible to it. The chart showthe County Health Department's organization and its cooperative relations is shown in Chapter IV, page 32.

The County Board of Health was formed in 1934 in compliance with an enactment of the legislature. This did not affect the existing organization in any way except that the Health Officer is now directly responsible to the County Board, and the Board to the County Court and State Board. The County Board is empowered to administer and enforce the health and sanitation laws of the state and of any city within the county.

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(1) State Boart of Health - Fourteenth Bien. Report 1928-29, p. 66-67.

The Health Department has been very active in carrying out special projects during the last ten years. Some of the most outstanding of these may well be cited here: (1) Active cooperation in the early diagnosis of tuberculosis, child guidance clinics, crippled children clinics, establishment of the County Board of Health, and building of the Burr Cottage for a home for tuberculosis patients. It has also extended its work further into the homes by making more home calls to give instructions to parents and advise them at times when there is sickness in the homes. This is also true in cases of pre- and post-natal attention. The number of well-baby clinics held annually has increased materially. There are fourteen of these clinics in the county and in the fiscal year July 1936-37 fifty-five clinic visits were made to examine well babies. (2)

Until the year 1930, the Health Department rooms were located on the second floor of the old court house. During that year the new county court house was completed and the health department was given a suite of rooms on the lower floor. In the old location it had only three rooms. In the new court house it occupies ten rooms. A description of the rooms and equipment and the floor plan are shown in Chapter IV. In the years of 1929 and 1930, three

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(1) Jackson County Health Department Pub. - Our Health Department - 1930 - p. 13, and Files.
(2) Jackson County Health Department Files.

other permanent health centers were established in the county. (1) Central Point built and owns its own. Medford built a model cottage which is used for clubs and clinics in the Mill district, and Jacksonville has a well-fitted room in the old court house.

The Jackson County Health Department has advanced as rapidly as any county unit in the state. With permission I quote Dr. Frederick D. Stricker, Executive Secretary and State Health Officer of Oregon, who says, "We do not attempt to rate the county health units of the state in any order of efficiency, but we do class the unit of Jackson County as one of the best in the state."

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(1) State Board of Health - Fourteenth Bien. Report 1928-29 - p. 66.

CHAPTER III

LAWS AFFECTING THE FUNCTIONS OF THE HEALTH DEPARTMENT (1)

The state laws give the county courts the right to establish county health units, but do not make them compulsory. To show how the laws affect the health units, a summarizing list of legal requirements is shown.

The laws provide for:

1. Legal right of establishment.
2. Manner of establishing.
3. Prescribes offices of County Boards of Health, and, prescribes the qualifications and duties of the officers, and length of terms.
4. The secretary of the county board shall be the county health officer of the county health unit, and, his salary is to be fixed by the county court.
5. The county court is to employ such assistants as may be necessary, and fix compensations therefore.
6. The county court is to furnish suitable quarters and appropriate sufficient funds for the successful administration of the board.
7. The duty of county boards of health to administer and enforce the health and sanitation laws of the state.

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(1) Oregon Code of Laws. Sec. 59-201 1930 Annex 1931.

8. Boards may conduct any activities they may deem necessary for preservation of health in county.
9. Fixes quarantine laws.
10. Makes the county health officer an officer of the law on health and sanitation measures.
11. Sets standards of sanitation for establishments serving the public.
12. Controls public and private water supplies.
13. Controls sewage disposals.
14. Defines and controls public nuisances.
15. Regulates sanitation of labor camps.
16. Provides for certain funds to help the county health units.
17. County courts to make provision for caring for indigents with serious ailments, also for extreme cases, such as feeblemindedness, insanity, cripples in need, and degenerates.
18. Provides for courses in health to be taught in schools.
19. Provides for compulsory physical education as a high school requirement, and also for a physical examination to be given to students taking the course. However, the law does not make physical examinations compulsory.
20. Schools to exclude pupils having or seeming to have contagious or infectious deseases, and county health officer must investigate the cases.

Without doubt, there are numerous other laws which affect the work of the county health units either directly or indirectly. All of these laws are created on the basis of protecting the health of the general public by the establishment of efficient health centers, prevention and control of diseases, dissemination of health education, isolation of infected persons, elimination of nuisances, etc., all with the idea of building a stronger and healthier populace.

No place in the Oregon Code of Laws, State Health Department, County or City Health Departments, nor elsewhere, could the writer find anything in the way of law, rule, or regulation which makes it compulsory for parents, schools, cities, or other, to seek medical, surgical, or dental care for children or others when physical or medical examinations have disclosed defects. Of course, this is excluding the humane laws, which cover extreme cases. There is a law which provides that members of a family who are physically able, must provide for other members of the family who are dependent, but this is food, shelter, clothing, and in general, the bare necessities of life. The writer did not find any laws which make it compulsory for any persons to receive immunizations, innoculations, examinations, or treatment of any kind from a physician, surgeon, dentist, or other doctor unless said person is a menace

to the public, and then the decision for disposition of the case is made by the court. The health department indicated on a questionnaire that health and sanitation ordinances exist, but are not carried out satisfactorily.

Following is an act passed by the Oregon Legislature in 1931.

An Act Providing for the Establishment of County Boards of Health, and Defining the Powers and Duties Thereof.

BE IT ENACTED BY THE PEOPLE OF THE STATE OF OREGON:

Section 1. The county court of any county may establish a county board of health, as hereinafter provided:

The county board of health shall consist of one member of the county court selected by the court, the county school superintendent, the mayor of the largest city of the county which has not withdrawn from participation under this act, who shall be known as the exofficio members, and one physician who has been licensed to practice medicine and surgery in this state by the state board of medical examiners, one dentist who has been licensed to practice dentistry in this state by the state board of dental examiners, and two laymen to be appointed by the exofficio members; provided, however, that in counties in which a member of the state board of health is a resident, he shall automatically be the physician member of said county board of health during the continuance of his residence in such county.

The term of office of each of the appointed members shall be four years, the term of one to expire annually on the first day of February, the first appointments tobe for terms of one, two, three, and four years, as designated by the exofficio members of the board.

Section 2. Whenever any county court establishes a county board of health under the provisions of this act, all city boards of health in such county shall be abolished, and such board

of health shall have charge of all health activities in the county, except that any city having a population of 5,000 or more may elect to maintain a separate board of health, under provision of existing laws. Any city or any school district in such county hereby is authorized to appropriate money to be expended for public health measures in such city or school district by the county board of health.

Section 3. It shall be the duty of the county board of health to administer and enforce the health and sanitary laws of the state and of any city within the county participating under this act. The board may conduct any activities for the preservation of health or the prevention of disease within the county that it may deem necessary. The board shall have all the powers and duties imposed upon county boards of health by section 59-201 Oregon Code 1930, unless otherwise provided herein.

Section 4. The county board of health shall employ a secretary who shall be county health officer, and who shall devote his entire time to such duties. He shall be a licensed physician and surgeon, licensed to practice in this state.

The board, with approval of the county court, shall fix the salary of the secretary and may employ such assistants as may be necessary to carry out the health program of the county, and fix the compensation thereof.

Section 5. The county court shall provide suitable quarters for the office and health work of the county board of health and shall appropriate sufficient funds for the successful administration of the board.

Section 6. Whenever a county board of health is created under the provisions of this act, such board shall be in lieu of the board provided for in section 59-201, Oregon Code 1930.

CHAPTER IV

THE PRESENT HEALTH ORGANIZATION (1) & (2)

Description of Rooms and Equipment. (1) The Jackson County Health Department boasts of having one of the most modern dental clinics in the state. This clinic was donated to the Health Department by the County Health Association and is known as the Sparrow Memorial Clinic. The clinic is fully equipped and is capable of taking care of 600 school children a year.(2) In this past school year, 1936-37, about 450 children were given thorough dental care. (1) Two other rooms are modernly equipped to give minor surgical treatment, immunizations, examinations, and ambulatory treatment. There is a large clinic waiting room for each of the clinic rooms. The largest room in the department is the nurses' room. It is equipped with a large examining table, a filing cabinet, medical and first aid cabinet, and individual desks for each of the four nurses. The Health Officer has his own private office, as does the County Sanitarian. Each of these officers is equipped with the necessary equipment for the men to carry on their work. One small room contains the

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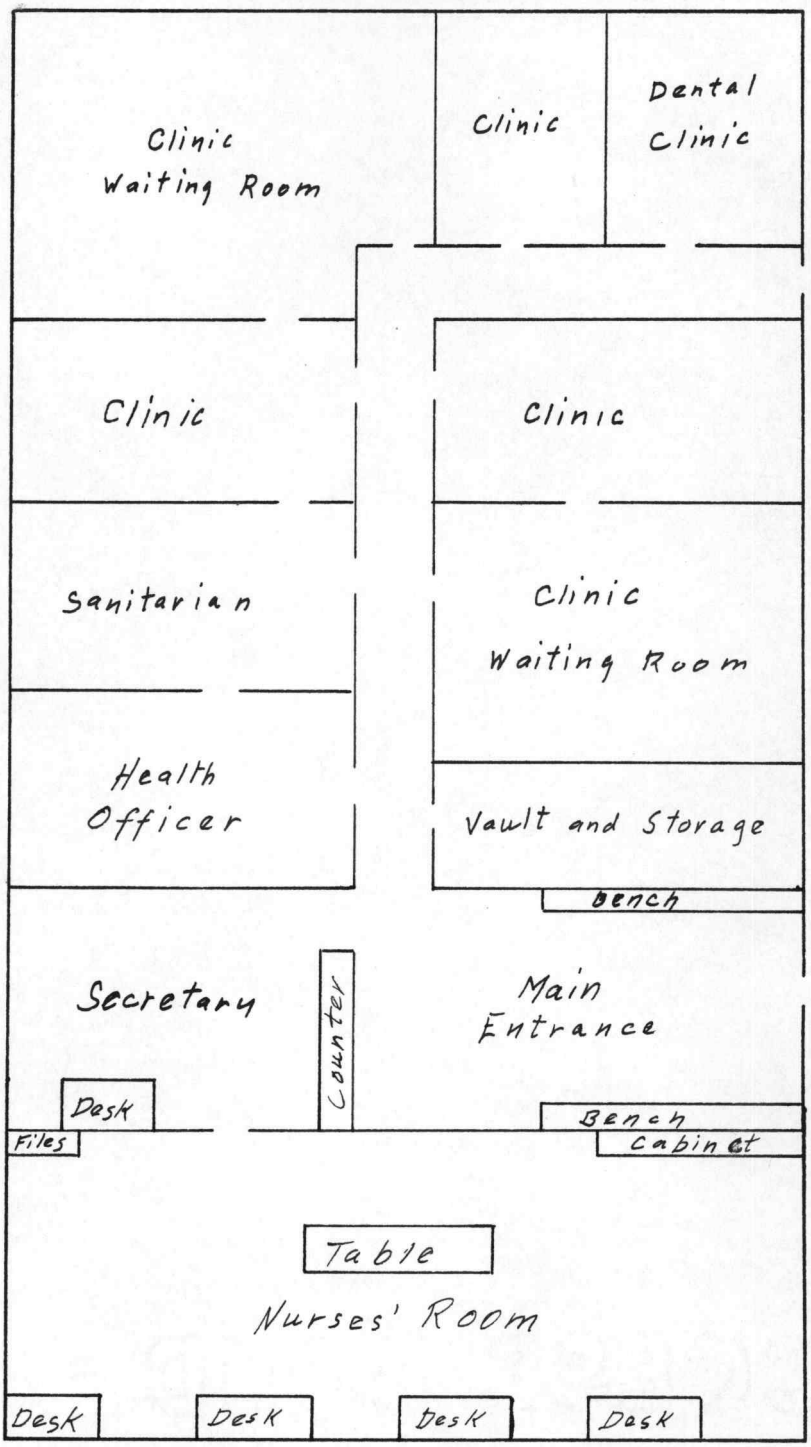
(1) Jackson County Health Department Files.
(2) Jackson County Health Department Pub. 1930. Our Health Department - p. 1.

vault and furnishes storage space for supplies, educational pamphlets, and other small items. The main entrance leads into a room which is divided into a waiting room and an office room, the two compartments being separated by a counter. The diagram on the following page shows the floor plan.

JACKSON COUNTY HEALTH DEPARTMENT

FLOOR PLAN



Personnel of the Jackson County Health Department.(1)

The State Health Department advises county officials in organizing their work, guiding, and supervising the units as a smooth-running and effective agency. The right of the state to do this is established by the state's contribution to the funds of the county units. In this way the State Health Department is considered a part of the personnel of the county unit. The rest of the personnel is within the county and is as follows:

County Court
County Board of Health
Jackson County Health Association
County Health Officer
Assistant County Health Officer
County Physician
County Sanitarian
Senior Public Health Nurse
Four Public Health Nurses
Secretary

State Relief plays an important part in providing funds for care of indigents, but otherwise has no voice in the operation of the unit. The chart showing the personnel and the line of responsibility is shown on page 32.

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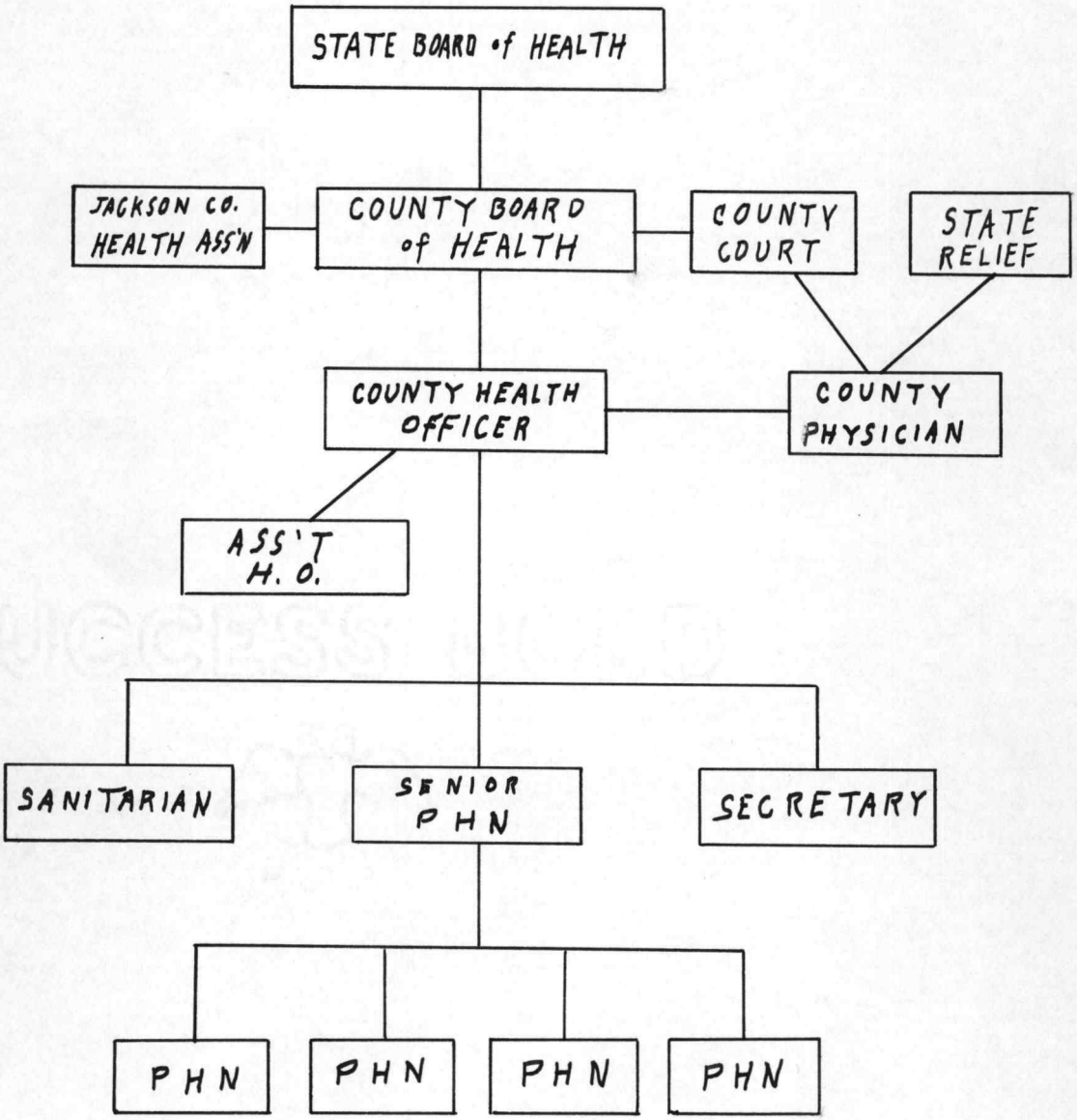
(1) Jackson County Health Department Files.

This organization functions very smoothly with, perhaps, one exception. The present county health officer, Dr. C. I. Drummond, believes a more smooth-working organization could be had by making the county physician responsible only to the county court and State Relief, so the health officer could devote all his time to public health work.

JACKSON COUNTY HEALTH DEPARTMENT AND ITS COOPERATIVE RELATIONS



Funds. (1) The County Health Department derives its funds from several sources. Some money comes from direct taxation in the county, some from the cities of Medford and Ashland for nurses, some from smaller school districts for weekly nurse service, some from the local Health Association, and some from other smaller organizations. The United States Public Health Service contributes, as does the Child Welfare Bureau, the State Relief Agency, and a small amount the Maternal Child Health. The Doernbecher Hospital and also the Shrine and State Medical School and Hospital are available for children which the county court may send. These must be special cases which cannot be handled in the county and are mostly indigents. Five to eight children are sent to the preventorium at the State Tubercular Hospital at Salem each year.

The amounts, sources, and distribution of the Health Department funds are shown on the organization's budget for the year covering the period from July 1, 1937 to June 30, 1938.

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(1) Jackson County Health Department Pub. and Files.

BUDGET FOR COUNTY HEALTH WORK

STATE: Oregon COUNTY: Jackson PERIOD COVERED BY BUDGET: July 1, 1937--June 30, 1938

Item No.		Description	Allotment Nos.	Med.& Ash. Sch.	Source of Funds: County	USPHS	Other Agcy.	Child. Bur.
1	S	H'lth Off.	3700		3700			
	T	" "	1020		1020			
		Extra help-H'lth off.	155		155			
		Malprac.Ins.	48		48			
2	S	Secretary	1182		1122		60	
		Conven.Exp.	85		85			
3		Asst.H'lthOff. Ashland	150		150			
		Office Exp.	620		620			
4	S	1st Nurse	1800		900		900	
	T	" "	600		300	300		
5	S	2nd Nurse	1560		750		810	
	T	" "	600		300		300	
6	S	3rd Nurse	1560		450			1110
	T	" "	600					600
7	S	4th Nurse	1500			1500		
	T	" "	600			600		
8	S	Medf'dNurse	1500	750 City		750		
	T	" "	300	300				
	S	San. Insp.	1500		450	750	300	
	T	" "	600		150	300	150	
		Dental Clin.	480				480	
		Milk	100				100	
	S	Ash.Sch.Nurse	1200	1200				
	T	" " "	180	180				
			$21640	$2430	$10200	$4200	$3100	$1710

Signed: For County

Signed For State

Budget No.

Date

Signed: For U. S. Public Health Service

$15,730 local funds
4,200 P.E. used for this project
4,337 local funds used for matching C.B. funds

CHAPTER V

WORK OF THE HEALTH DEPARTMENT

The County Court. (1) The county judge and commissioners establish the county board of health in accordance with provisions of state legislation. One member of the county board of health must be a member of the county court and is selected by the court. The county court carries out all rules and regulations, state enactments of legislation and all other requirements of the state made upon the court. The court may create and pass rules and regulations, require any reports or records, disburse certain funds, and in general exercise all powers and privileges granted to, or invested in it by the state. It is subordinate to the state legislation at all times. The enactment which gave the county court power to establish a county board of health and prescribed its duties is given in Chapter III of this thesis.

The County Board of Health. (2) The County Board of Health is composed of the following members:

One member of the county court selected by the court.

The County School Superintendent.

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(1) Oregon Code of Laws - 1931.
(2) " " " " "

The Mayor of Ashland, second largest city in the county. These three members are ex-officio members. The other four members are: (1)

One physician, licensed in medicine and surgery in Oregon.

One dentist, licensed to practice in Oregon.

Two laymen, appointed by the ex-officio members.

It is the duty of the county board of health to administer and enforce the health and sanitary laws of the state and of any city in the county participating under this act. The board may conduct any activities for the preservation of health or the prevention of disease within the county that it may deem necessary. The board shall have all the powers and duties imposed upon county boards of health by section 59-201 Oregon Code 1930, unless otherwise provided herein.

The county board employs a secretary, who is a full-time county health officer, and who is licensed to practice medicine and surgery in the state. The board, with the approval of the county court, fixes the salary of the secretary and employs such assistants as may be necessary to carry out the health program of the county, and fixes the compensation thereof. This board has direct supervision over all matters pertaining to the life and health of the

(1) Oregon Code of Laws - 1931.

people of the county. The board is subordinate to the State Board of Health and must act upon advice of the state board. The members of the county board are given authority to act as law enforcing officers in administering and enforcing the health and sanitary laws of the county and state.

The Jackson County Health Association. The Jackson County Health Association has been described previously in this thesis on page 17. This organization, being a volunteer group of workers, does not have its duties prescribed by the laws or by the county board, but must stay within the provisions of the laws. Since the laws of the State Board are administered and enforced by the county board, the Association is governed somewhat by the county board.

The County Health Officer. (1) The Health Officer is the secretary to the county board and as such is responsible for the compilation of vital statistics and other records and reports which both the county and the state may require. He plans, administers, and directs the activities of the department. The various members of the unit are responsible to him for the performance of their duties.

As director of the county health unit, the health officer assumes the wide role of performing the duties of

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(1) Jackson Co. Health Dept. Pub. 1930 with revisions, p.2-4.

the following offices for which he is responsible.

1. Health Officer of Jackson County.
2. Coroner's Physician.
3. Alienist for Jackson County.
4. Physician of the Jackson County Juvenile Court.
5. School physician of Jackson County Schools excepting the schools of Medford and Ashland.
6. Examining physician for the 4-H Health Clubs.
7. In charge of County Convalescent Hospital.

The work under each of these duties is shown in the brief resume that follows:

I. Health Officer.

A. Is director of all activities such as,

1. To formulate programs under which the various units of the department function.
2. To outline methods of applications of the various duties required of the p rsonnel.
3. To direct the division of time and routing of the personnel.
4. To assume full responsibility for the employment, discharging, and efficiency of all employees of the department.

B. Is in charge of the control and prevention of communicable disease.

1. Responsible for strict enforcement of quar-

antine laws.

2. Responsible for the dissemination of all possible information concerning the symptoms, mode of transmission and dangers of after-results of contagious, communicable, or preventable diseases.

3. Makes every effort to keep public adequately informed as to prevalence of disease.

C. Complete data concerning disease and accurate vital statistics are collected in order to note the trend of disease, cuases of death and for the public's information.

D. Maternal Welfare

1. Every effort is made to inform the public concerning the necessity of expert pre-natal and post-natal care.

2. Explicit cooperation is given the medical profession in assisting in effort to lower the maternal death rate.

3. A definite pre-natal and post-natal program is formulated and carried out by the public health nurses in cooperation with the medical profession.

E. Infant Welfare

1. Fourteen well-baby clinics are held in rep-

resentative areas over Jackson County.

2. As much advice and suggestions as possible are given concerning feeding problems of infants. This is done in the clinics, home and office.

3. Every effort is made to educate the public concerning the advisability of constant and regular medical attention of infants so that otherwise unnoticed physical and developmental defects may be detected early and corrected before irreparable damage is done.

4. All information possible is disseminated concerning the mental training and habit formation of infants and children.

5. Fixation of the public's mind upon the essential problems in the general care of children and infants.

6. Every effort is exerted to have as high a percentage of the population as possible, especially the young children, immunized against diphtheria and smallpox.

F. Pre-school Welfare

1. Each summer many clinics are held throughout Jackson County and all effort possible is made to have every child entering school

in the fall examined, defects explained to the parents and every remedial effort made to have the child physically fit to enter upon his school career.

2. Throughout the year mothers are invited to bring pre-school children (ages 1 to 6) for advice and suggestions as to food, habits, physical development and general welfare of this age group.

G. School Activities

1. In so far as possible every school child is given a complete physical examination. Parents are given slips notifying them of defects found in their children and advice is given concerning proper remedial steps to be taken.
2. The health honor roll is directed and carried out to the fullest extent wherever possible.
3. Any work beneficial to the health of the child or informatory as to the health status is carried to every pupil insofar as possible, such as the tuberculin test, Schick test, etc.
4. Upon finding cases of contagious diseases in schools, steps are taken immediately to

protect the other children to the fullest extent. Vaccination or immunization on all contacts or suspects are carried out and any other measures deemed necessary are taken.

H. General Activities

1. All publicity possible is given through the press concerning prevalence of diseases, steps to be taken for prevention of disease and general news concerning diseases and health.
2. A vast amount of literature is distributed concerning general items of health, growth, development, and care of children.
3. The health department offices are always open for dissemination and discussion of general health problems.
4. The health officer is always ready to serve in consultation and to act in an advisory capacity concerning all matters pertinent to public or personal health.

II. Coroner's Physician.

A. Is called upon to determine cause of death of every person dying without the attendance of a physician.

B. Acts in a medical or legal manner in cases in-

volving questionable modes of death.

C. Conducts post mortem examinations in cases where such is necessary.

III County Alienist.

A. Examines before the county court all persons complained of as being insane.

B. Must officially examine and judge insane every person committed to the State Insane Hospital.

C. Examine every person charged as feeble minded and is responsible for the official recommendations as to their disposal.

IV. Physician to the Juvenile Court.

A. Examines and gives medical and surgical care to the wards of the Juvenile court when requested by the court.

B. Responsible for the detection of venereal or contagious diseases of Juvenile delinquents.

V. School Physician.

A. Directly responsible for all measures protecting the health and safefy of school children.

B. Gives first aid whenever necessary to the school children.

C. Acts in consultory and advisory capacity concerning the ills of the school children of Jackson County.

VI. Health Club Work.

A. Medical examiner for the 4-H health clubs and official judge for health contests.

B. Conducts examinations for scouts entering boy scout camps and conducts examinations for scouts wishing to obtain eagle badges in public health, personal health and first aid.

VII. In charge of County Convalescent Hospital, which harbors incurable debilitated patients near Talent, Oregon.

The Assistant Health Officer. The Assistant Health Officer has his office in Ashland, and works in that city and vicinity only. He carries out such duties as the county health officer may direct.

The County Physician. The county physician has been added to the staff of the health department recently and has relieved the health officer of the following duties.

1. Cares for all county indigent cases.
2. Is in charge of County Poor Farm.
3. Is in charge of County Jail.

The County Physician is not a full-time worker. His salary is $150 a month, with 4¢ a mile for travel, and is paid by State Relief instead of by the county. This may be changed for 1938. He works under the direction of the

Health Officer, and is also responsible to the county court and State Relief.

The County Sanitarian. The County Sanitarian makes inspections of schools, auto camps, labor camps, sewage disposals, water supplies, nuisances, etc., and makes reports on same, and orders or recommends corrections. He is directly responsible to the County Health Officer.

During the school year of 1936-37 the Sanitary Inspector visited all the 100 schools in Jackson County. He also makes weekly visits, during the season, to swimming pools, of which there are four, in the county under active supervision.

Of the 100 schools visited, 58 were asked to make corrections, and 35 of these made corrections as are shown in Table IV. (1)

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(1) Jackson County Health Department Files.

TABLE IV

Recommendations and Corrections Made in Schools

Improvements Recommended		Corrections Made
Toilets	28	20
Wells	23	20
Drinking Water Facilities	16	12
Washing (Hands and face)	20	12
Grounds	4	3

It is evident from Table IV that the Sanitarian's work is effective since so many schools responded to his recommendations. No pressure was brought on those schools to effect the changes, which means that they were either "health minded" or else realized they could not operate if they dropped below certain levels in meeting standardization requirements. As a rule the sanitarian gets very good cooperation.

Table V shows a list of places other than schools that the sanitarian visited and the results obtained. (1)

(1) Jackson County Health Department Files.

TABLE V

Places Other Than Schools Visited by Sanitarian

Visited	Number Visited	Number Improved
Auto Camps	50	50
Labor Camps	6	6
Individual Water Supplies in Homes	200	174
Sewage Disposals	215	50
Nuisances	100	75

Inspections of places such as grocery stores, meat markets, dairies, restaurants, beer parlors, etc., are under the Department of Agriculture and the local county sanitarian does not inspect them. It is mostly community sanitation that gets his attention. In table V it will be noted that only a very small percentage of sewage disposals were modernized. The State Department is now carrying on a community sanitation program with the cooperation of the U. S. Public Health Service. (1) This program was made possible with funds supplied by the Works Progress Administration. It deals with the elimination of the insanitary surface type privy which has been a contributing factor in spreading fly-borne diseases.

(1) State Board of Health - 17th Bien. Rep. 1934-35, p. 29

A modern sanitary pit-type privy of approved plan is installed for individuals, schools, dairies, or granges that do not have the advantages of sewage disposals or water systems. This became a national project in 1935, and 42 of the 48 states have such a program. Oregon is one of the states having such a system.

Much good has developed from this work, particularly in decreasing fly-borne diseases such as typhoid fever, dysentery and infant summer complaint, as well as causing the rural populace to become "sanitation minded."

Following is the accomplishment of the state-wide program at the end of the year 1935.

Total Installations	4,572
Installations at Schools	948
Installations at Homes	2,486
*Other Installations	1,136

The Secretary. The secretary of the health department performs the following duties.

1. Acts as secretary to the staff.
2. Does routine office work.
3. Records all vital statistics for the county, checks all records, and forwards same to the State Health Department.
4. Records all activities of the health depart-

*Includes granges, churches, dairies, businesses, etc.

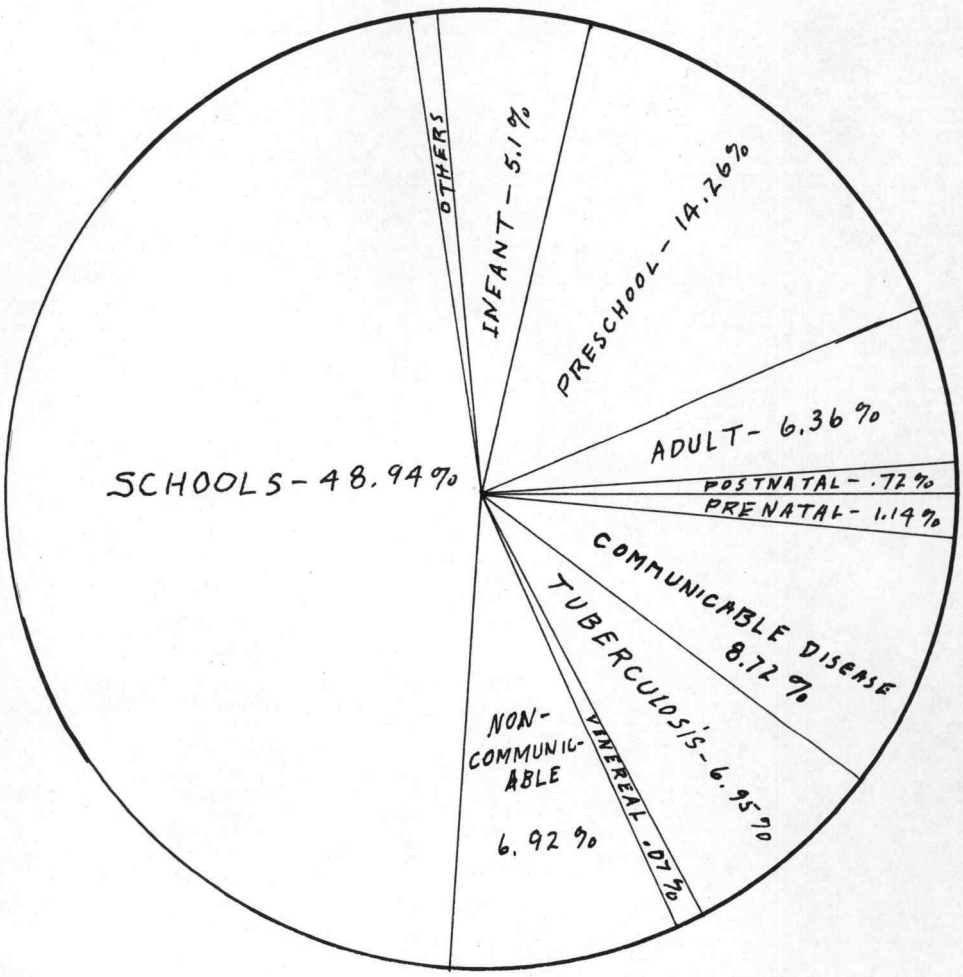
ment staff, that is, immunizations, tuberculin tests, Schick tests, examinations, clinics, etc.

5. Summarizes data for use by the members of the department, county board, and others.
6. Interprets the activities of individual members to the public.
7. Helps with the Christmas Seal Sale.

The secretary is employed on a full-time basis. All physicians and surgeons are required by law to report all cases to the county health department weekly.

Figure 4

GRAPH SHOWING DISTRIBUTION OF NURSES' TIME IN PER CENT(1)



(1) Jackson County Health Department Files.

Program of Activities of the Nursing Unit.(1)

I. Maternal Welfare:

A. Pre-natal Work

1. Make home calls on all cases.
2. Attempt to get these cases under care of family physician as early as possible.
3. Give as much nursing advice as possible during time of stress.
4. Assist physician and family in making preparation for the oncoming event.
5. Instruct prospective mothers as to what peculiarities to expect, what to do about them, and the proper care of baby when it arrives.

B. Post-natal Care.

1. If birth is at home, nurse should call as soon as possible to assist both the mother and the physician.
2. Make frequent calls to advise the mother and acts as a go-between between mother and physician; endeavoring the place mother under regular supervision of physician.
3. Instructs mother in the many varied nursing services a new-born baby requires.

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(1) Jackson County Health Dept.Pub.1930, with Rev.-p.5-9.

4. Endeavors to instruct mother and impress upon her the necessity of having a thorough examination of herself when child is 8 weeks old.

II. Child Welfare. Child welfare is the most important service a health department can render - as in the health of our children lies the fate of our civilization.

A. Infant Welfare.

1. Tries to make calls upon every home where there are children.
2. Discusses problems of feeding, bathing, development, and general care and gives all nursing advice possible to assist the mother.
3. In discovering physical or developmental defects impresses the necessity of expert medical services.
4. Advises and encourages taking baby to physician for periodical check-ups, and gives unlimited welcome and invitation to well-baby clinics.
5. Impresses importance of immunization against diphtheria and vaccination against smallpox at age nine months and thereafter.
6. Warns and explains dangers of improper feeding and against trials of proprietary foods

so frequently recommended by friends and not by physicians.

B. Preschool Care

1. Endeavors to so direct the child's habits, environment, and health that he will be prepared for the abrupt change into school life.
2. Intently advocates immunizations again.
3. Endeavors to have children undergo complete physical examination and if defects are found, try to correct them before child enters school.
4. Gives suggestions and valuable aid in combating peculiar habits and problems of child.
5. Is ever alert to find crippled or mentally handicapped children, or those afflicted with some organic disease, and acts as agent by which these will be taken care of by experts at institutions so provided for this purpose.

C. School Children.

1. Nurse has vital task in guidance and public health supervision of school children.
2. Visits some schools once a week, others only once a month.

3. At such times, she inspects children to determine defects, either physicial, nutritional, or developmental. Makes home calls and instructs parents on the defects, remedies, and outcomes to be expected if not cared for. Encourages parents to have corrections made.
4. Recommends supervision of correction of defects by doctors of medicine and surgery, or dentists, as the case may be. Nurse urges parents strongly.
5. Advocates voccinations again, and Schick tests. If found susceptible, urges immunization.
6. Instructs, advises, and suggests to teachers that they look for various things in the daily inspections of pupils.
7. Aids teachers by suggesting methods of building proper mental health in pupils in work and play.
8. Investigates absences to look for early presence of diseases.
9. Rounds up crippled children, and mentally defective cases for clinics of Drs. Dillehunt and Dixon.

III. Health Education.

A. In the Homes

1. Makes suggestions regarding environment, life, and training in respect to child's future.
2. By making many home calls, the nurse becomes better acquainted and can be more frank.
3. On these calls she looks for problems that should come to the attention of the county physician, sanitarian, or social welfare group.

B. In the Schools

1. The health department works on the theory that real health interest developed in the children at school will be carried into the homes by its own momentum.
2. The most powerful device for centering the thoughts of the children on health, hygiene, and general well-being is the health honor roll. This seems to stimulate the children in school work and improve their attitudes as well.
3. Distributes health literature and posters, but so that it will not interfere at school.
4. Must sell teacher on health ideas. Shows

them how to make morning inspections, health observations, and helps with health education. Suggests games and contests to promote health activities among the children.

C. Well-Baby Clinics

1. Fourteen well-baby clinics are now established in the county and several clinics are held in each of these throughout each year. Mothers bring babies and pre-school children for periodic examinations. Defects are often found which were never suspected. The most important part of these clinics is the health education trend inculcated in the minds of mothers. It cases them to focus more attention on the health, safety and well-being of their children.

2. These clinics are fine places to spread the gospel on immunizations against smallpox, diphtheria, and typhoid fever.

D. Publicity

1. Frequent newspaper articles announcing clinics, giving news concerning contagious diseases, and describing various phases of health work are printed. Regular published reports on the work of the health department

are made from time to time.

2. Radio is a very important method of disseminating health news.

3. All available literature concerning material, pre- and post-natal care, infant welfare, contagious diseases, and general prevention of diseases should be distributed in every available place.

IV. Diseases Commonly Looked For.

A. Tuberculosis

1. Constant looking for, advising and directing the care of, meticulous efforts to prevent the spread of this disease, are practiced.

2. Makes effort to get cases hospitalized, and gives supervision over post-sanitorial cases.

3. Periodic examinations are widely advocated to get the disease in its early stages.

4. Advice given concerning sleeping hours, proper amount of fresh air, proper food and sufficient sunshine, to eliminate the child type tuberculosis.

B. Common Disease of Childhood

1. In the homes, schools, clinics, and to the public at large, all possible information should be given concerning acute contagious

diseases. Individuals should be told what to look for, when to look for it, how to look for it and what to do when it is found.

2. Every rumor of the presence of the disease or the suspicion of the existence of a contagious disease should be investigated to prevent epidemics.
3. Teachers should be instructed in methods available to determine presence of contagious and infectious diseases.
4. Quarantine is our mightiest weapon in preventing epidemics. Every effort is made to enforce it.

C. Filth-Borne Diseases.

1. Typhoid fever is the worst of this group. The best methods of prevention are sanitation of food supplies, water supplies, toilet systems, and the elimination of the common house fly. Every effort should be made to place sanitation on the highest level.
2. Dysentery and the so-called summer complaint or diarrhea are in the catagory also. These are easily preventable, being caused by careless or insanitary handling of foods and water, or by poor sanitation and hygiene.

V. Prevention of Organic Diseases.

A. Heart Disease

1. This disease is by far the cause of the greatest number of deaths. Along with this disease may be grouped rheumatism, chorea or St. Vitus Dance and arteriosclerosis, or hardening of the arteries with its accompanying high blood pressure. The rush and bustle of civilization with its accompanying neglect of little foci of infection such as teeth, tonsils, etc., are the primary causes of heart disease. As much advice as possible should be given concerning the necessity of paying attention to foci of infection and the carrying out of proper hygiene such as rest, sleep, fresh air and good food.

2. Many other preventable diseases can be discussed in the home and precautions suggested to prevent them, such as: the dangers of obesity and its frequent association with diabetes and pneumonia, high blood pressure with nephritis, underweight and its clearly defined general lowering of resistance to diseases such as influenza, tuberculosis,

and upper respiratory ailments. Improper food and eating habits with their constant relation to gastric ulcers, duodenal ulcers, bowel habits and cancer of the stomach and intestines, the dangers of lumps in the breast, cancers of the breast and the dangers of between period shows of blood.

VI. Some General Considerations.

A. The public health nurse does not engage in bedside nursing.

1. County public health nurses are not responsible for nursing care of the poor or indigent except as asked to do so by the Health Officer. Their function is purely that of protecting and bettering the health of the residents of Jackson County. Prevention is their keynote - not cure.
2. Public health nurses are not subject to call for delivery cases - in fact, for no illness.
3. The nurses exert every effort to teach and show by demonstration the art of home nursing, expecially in cases of illness which she finds in her routine schedule of calls.

The Dental Clinic. The Dental Clinic is as much a

function of the Jackson County Health Association as it is of the County Health Department. The dentists who cooperate do so more as a charitable act than as a performance of duty. There are eight dentists appointed by the Dental Society of Medford who take care of indigent, or nearly so, cases which are selected out by the nurses. The work is all done in the Sparrow Memorial Dental Clinic located in the rooms of the County Health Department. The Association puts funds into the Health Department budget to carry on the dental work. It will be noted in the budget as $480 for the tear 1937-38, while none is supplied from any other source. Last year there were 70 dental clinics held and about 450 children received thorough dental treatment. The dentists handle the cases on specified days and a half day at a time. The nurses arrange the appointments and health clubs see that the pupils are brought to the clinic as per arrangement. One dentist handles from five to eight cases a week. These pupils are selected almost entirely from the grade schools. The nurses endeavor to urge parents to see their own dentists for thorough and frequent examinations and corrections of faulty teeth of their children.

It is well known today that bad teeth may be the cause of much ill health. A Dr. William Osler once expressed the belief that more physical degeneracy could be traced

to neglect of teeth than to the abuse of alcohol. (1) It cannot be denied that it directly affect more people. (1). Dr. Jesson named dental caries the "people's disease", since no other is so widespread. (1)

In case of the teeth, there is no other matter of health where the proverbial ounce of prevention will go so far. Dental caries is an ailment of childhood and youth. When a tooth has ached, the best time for saving it has gone by. To insure the necessary treatment no other means is as cheap and effective as the school clinic. (1) Dr. W. G. Smillie, Professor of Public Health Administration (2) at Harvard University, (1935) says, "The routine dental examination should be given along with the physical examination of the school health service, and the children referred to their own dentists for treatment. The dental service of the health department is planned primarily for those children in a community whose parents cannot afford to pay. Such dental clinics are a great educational force. Because they draw heavily on the budget of the health department, it is necessary in most organizations to limit the clinic to children under nine years of age. This age limit is set, not because older children

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(1) Terman, LewiskM., The Hygiene of the School Child - 1914, p. 9, 167, 193.
(2) Smillie, W. G., Public Health Administration in the United States - p. 219.

would not be benefited, but because it is believed that maximum results, both educational and corrective, are secured in the younger children." Dr. Smillie says also, "The school health service should detect actual disease or physical defects that may impede normal development and progress in school, and that this last function has little value unless there is a follow-up system to secure correction of the defects." He also adds that there is some doubt as to whether preventive dentistry should be a public health function; the best principle to be followed is the same as that for correction of other defects.

General or Special Cases. (1) The county court sends many children to the Shrine Hospital, State Medical School and Hospital, Preventorium at the Tuberculosis Hospital at Salem, and the State Institution for the Feebleminded. The cases vary a great deal, and about 15 are sent from the county each year. Some are arthritis, some for intercranial pressure, brain lesions, hernias, tubercular bones, and under-diagnosed cases go up for diagnosis.

Five to eight children go to the preventorium each year from the county.

Fifteen feebleminded went from the county last year . (1936)

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(1) Jackson County Health Department Files.

Twenty seven had bone and muscle cases treated at the Shrine Hospital last year.

There is no Division of Maternal Child Health in the county unit, but the unit does receive some M. C. H. funds.

There is no Division of Laboratories in the county unit, either, but the State Laboratories are so efficient in both equipment and time that it is not deemed economical to establish laboratories throughout the state. The county, therefore, uses the State laboratories.

CHAPTER VI

DEFECTS AND INJURIES OF SCHOOL CHILDREN

Defects are merely located in the school examinations and no attempt is made to diagnose them at this time. (1) Not over five to ten minutes is spent in examining each pupil. A report of the findings is handed to the school principals, who send these to the parents of the children. If the defects in any children are serious enough to warrant immediate attention, the school nurse visits the home and explains the seriousness and possible results if neglected, and urges the parents to see their family physicians for more complete examination. Records of the cases are kept at the county health department office for follow-up purposes. These records are open to the schools upon request. When school men were asked if they made much use of health records, the answer was invariably "no," and it was found that the schools do not keep any detailed records of the defects, and very few health records. It seems that school pay considerable attention to school hygiene, but this in not enough. It is generally accepted today that the school is responsible for the health of its

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(1) Smillie, W. G.- Public Health Administration in the U. S. - p. 51, 218, 220.
(1) Jackson County Health Department Pub. 1930 - Our Health Department - p. 2 - 9.

pupils. (1) One authority says, (1) "For forty years the idea has been growing that the school is responsible for the health of its pupils. Today this viewpoint finds widespread acceptance on the part of school authorities as well as the public. Most school systems, public and private, urban and rural, now have a health program. At the same time we find certain shortcomings in the functioning of these programs. What has been regarded as one of the fundamental elements of school health programs is the medical examination. This has had such widespread appeal that some states have actually passed laws requiring annual medical examination of every school child. So intent has been the effort in getting the examination procedure established, that the utilization of the findings of the examination has been quite overshadowed. The inability to follow-up adequately the indications of the examinations has often resulted in the accumulation of extensive records of defects which continue to remain as such, uncorrected and unattended. The chief purpose of the examination - medical attention and relief - was often not attained." (1)

No follow-up of the findings of the examinations can

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(1) American Child Health Association - 1934 - Physical Defects. p. 1

adequately be carried on without complete and detailed records to work from. (1) Without these records the schools are not giving the proper cooperation to the health department and are not as instrumental as they should be in bringing about corrections of the defects. Complete detailed records are difficult to obtain under the present method of examining. If families cannot afford the services of a physician, for a thorough examination of the defective children, the health department will make the complete medical examination. (2). Otherwise, it is left to the school and nurse to try to get the parents to have the examination made by a private physician. Such examinations either are not made at all or else the schools get no record of them. This factor coupled with the fact that some parents do not let their children go through the examinations at all, make it difficult to get complete physical examination records on the entire enrollment. Reports handed the schools by the health department to be sent home to parents are usually quite brief, containing such remarks as, faulty vision, enlarged tonsils, weak heart, should not take physical training, defective teeth, undernourished, etc., and are not meant to be detailed.

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(1) Massachusetts Dept. of Pub. Health - School Hygiene Handbook. 1934, p. 10

(2) Jackson County Health Department Pub. 1930 - Our Health Department - p. 3.

They are meant for the purpose of revealing to the school and parents that defects exist and should be further investigated. The common reasons given by parents for not investigating further, or for not having corrections made are, "was not convinced of the necessity," "could not afford it," "child objected at this time," or "wanted to postpone it."

The common defects found are eye-strain, tonsils, adenoids, hearing, teeth, nervous disorders, orthopedic, skin diseases, and malnutrition. These defects cause disfiguration, often to the extent of ugliness. The increase susceptibility to illness, and are discomforts inhibiting the true joys and pleasures of life. They retard the mental faculties and lower the productive capacities of the individual, to say nothing of the increased costs of rearing him to adulthood. We must learn to increase our expenditures for child hygiene. Every cent we spend to improve the health of children will be returned by a more productive and healthier citizenship. (1)

Prevalence of Defects and Diseases in School Children.

(2) The principal defects of school children are those of the eye, nose and throut, ear, teeth, nervous

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(1) State Board of Health - Fourteent Bien. Report 1928-29, p. 46.
(2) Cornell, W. S. - Health and Medical Improvement of School Children - 1924. p. 564.

system, skeleton, skin, and mentality. Under each of these headings may be found subdivisions which are important to a specialist, but from the standpoint of the teacher may be ignored.

Table VI shows average figures which may be used for quick reference. Figures were obtained in Pennsylvania prior to 1924.

TABLE VI

Defects and Occurrence in Per Cents

Defect	Per Cent
Eye strain (sufficient to warrant glasses)	28
Enlarged tonsils (varying directly with poverty and indirectly with age)	6 to 12
Nasal obstruction (usually adenoid, varying directly with poverty and inversely with age)	12 to 24
Defective hearing (varying directly with poverty and indirectly with age)	2 to 5
Decayed teeth (primary grades, decreasing with age until 10 years)	50 to 75
Decayed teeth (grammar grades increasing with age)	10 to 30
Nervous disorders	5 to 20
Orthopedic defects	0 to 20
Skin diseases (varying directly with poverty and inversely with age) for eczema	1 to 15
for pediculosis	0 to 67

The figures in Table VI were not wholly in agreement with findings in a study made in New York City in 1932-33. (1) Children in urban districts of New York were compared with children throughout the nation as a whole. In this study, it was found that ten per cent of the *defective children in the fifth and sisth grades alone of our schools had a vision defect of 20/50th or worse and only 26 to 41 per cent of these were waaring glasses. The reason more of them were not wearing glasses was attributed to parents either not being convinced of the necessity or else parents did not have the means.

The results obtained in this study showed very little variance on the findings on tonsillectomies. (3) It was found that out of a sampling of 1000 defective children, eleven year of age, 61 per cent had already had their tonsils removed. Of the remaining 39 per cent, about 45 per cent were recommended for removal by a group of over twenty physicians. Experts agree that the medical history of an individual should be a dominant factor in

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(1) American Child Health Association Pub. 1924 - p. 18
(2) American Child Health Association Pub. 1934 - p. 23
(3) American Child Health Association Pub. 1934 - p. 80

*To use the term "defect," it is necessary to have an objective definition for it. In this study it represents 10 per cent of all students. Ailments in a group of children range from very serious to negligible. Out of 100 children the ten worst, having one or more ailments, were called defective.

recommending tonsillectomies. This accounts for a wide range of opinions of examining physicians on the recommendations for removal of tonsils.

In consulting school men in the county about how they handled serious injuries received in athletics or on the playground, they seemed to be in agreement that it should be the parents' responsibility to have the family physician care for the injury. This feeling is in harmony with what authorities say on the subject. All expressed belief that some aid should be given some parents who are not always able to meet emergencies of this type, and if help is offered to one injured athlete, it should be offered equally to all. The health department should not be called upon to render this service to athletes because their primary function is prevention and control of diseases and defects - not cure. (1) If they cared for one case of a broken bone, dislocation, internal injury, etc., it would set a precedent. This same precedent would be set by a school district, student organization, or any other organization who cared for such a case.

At the start of the season of sports, some schools send blanks home with boys who want to take part in athletics, and ask the parents to sign them if they are

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(1) Jackson County Health Department Pub. 1930 - p. 9.

willing to take the responsibility for the expense incurred in case of injury. If the parent does not want to take the risk, and the school does not want to either, they boy probably should not take part. In all these schools the enrollments are so small that all athletes should be encouraged. It seems unjust that a boy who is a promising athlete should not feel securely protected while contributing his part to the school and community in these extra-curricular activities.

It is often in these small schools that the school activities barely pay for themselves. In the writer's own school, it is necessary to hold a school carnival, a play, or some other function to finance a basketball season. Sometimes a school may hold a benefit affair to help defray the expense of an injury case. Most school men agree that doctors are usually lenient in fixing their charges in many such cases, but all would like to see some definite plan established whereby this problem of injuries would be handled satisfactorily and without embarrassment to anyone.

A statement of K. J. Masterson, of the claims department of the Pacific Indemnity Company, Portland, is that insurance to schools on coverage for athletics is far too high for the small schools. He also states that schools are not liable in cases of injuries on the school grounds

unless it can be proved that there was negligence on the part of the administration or supervision of the playground activities. If accidents occur at times when there is not supposed to be supervision over the school grounds, the school cannot be held liable.

Statements of Medical Doctors. A number of medical doctors were interviewed to get the viewpoints of the medical profession on handling the problem of injuries and also correction of defects of high school students. These men were liberal with their time and comments, and invariably asked not to be quoted. The comments show that their attitudes vary from the one extreme of believing in "state medicine" to the other extreme of believing that we should have laws compelling parents to care for their own children, and that these laws should be enforced as strictly as Mussolini enforces them in Italy. A list of the comments follows:

> "The more we do for children, the more parents expect us to do. I think it is about time we quit supporting the people, and start teaching that it is their own responsibility to raise their own children."
>
> "If schools and parents can't support their children and school activities, they should not call on the medical profession. We are all good

taxpayers and do our share in that manner."

"Most doctors would rather have larger cases than what school cases ordinarily are. These small cases take a lot of time and pay very little as compared with major operations. A few hours time on a major operation will bring $100 and up, but it takes a great many school cases to make that much."

"I would like to have all the school work at a blanket rate, but the Medical Society would not stand for it. This kind of work would be invaluable to me in building up my practice." This was a young doctor just starting his practice.

"We do so much work of a charitable nature that we feel that we should not reduce our rates to schools."

"The old ethical code has outlived all schemes designed to get a lot for very little. We find that when the time comes for parents to meet an emergency of this nature, they can usually find some way of paying for it. It is their own responsibility."

"The State Medical Society sets rates that we should charge for the various cases. There are times when we deviate a little from these rates, but we don't do it unless our better judgment tells us there is no other alternative. School business would be a wholsesale abuse of this practice."

"In a small community where there is only one or at least a small number of doctors, it may be all right to contract with him or them for attention to athletes, but not for care of other types of cases. The funds should not come from tax money either."

When asked if he thought parents were giving enough attention to defects of school children, one doctor said, "As an interne, I did over a hundred tonsillectomies. I have been practicing two years here on the coast and have not had one. It seems to me it is a big waste of time and money to give examinations each year to find that many parents shelve their responsibilities and do nothing to correct defectsppreviously disclosed."

"I think most Medical Societies are opposed to any scheme of clinics for people who wish to pay an annual sum to be kept well."

"The tax-paying public usually cares for its own children and furnishes the educational facilities for the rest. I think any care given to non-taxpayers should be paid for out of funds derived from these non-taxpayers only." This same doctor was in sympathy with the problem of helping injured athletes.

"I really believe in 'State Medicine' but I do not want the Medical Society to know I believe in it. It may come some day, but it is a long way off."

"I would like to take a case or two of adenoids, or tonsils, or something unusual, occasionally, just to keep in practice. When anything goes wrong, though, such cases can bring just as good a malpractice suit as any other case."

"Any time a father brings a child to me for treatment and that father shows me that he simply can't pay, I'll treat the child, but I'll put it on the books at the regular fee and after a certain length of time I'll put an NG after his name and mark the bill paid. In that way it doesn't look like charity work."

CHAPTER VII

SUMMARY AND RECOMMENDATIONS

The Health Department as an Organization. The assumption may be accepted with a fair degree of certainty that full-time county health service has passed the experimental stages and is gaining impetus by its own momentum, since approximately five hundred such units have been established in the United States since 1918. Twenty-five years ago, public health service stood for little more than removal of sanitary defects. Today it has added prevention and control of communicable diseases, health education, and aid to indigents. In smaller districts, it has taken on the burden of school health service to a great extent. Authorities seem to be in agreement that the county is the chief basis upon which to build the health unit in order to reach rural sections more effectively.

Authorities seem to agree also, that the schools are the primary channels through which the whole populace can be reached. Through the work of the present health department, the public seems to be becoming "health conscious," and there is an indication that the barriers raised between the so-called specialties and general medicine are being broken down. This is evident from

the duties listed for the county health officer and county physician. Much of this work, if done at all before, was done in private practice. Just how much farther the health program can be extended in scope under the present type of organization is questionable at this time.

The organization of the health department is that prescribed by law, and it is functioning very satisfactorily from a public health standpoint with, perhaps, the one exception cited earlier in this thesis. The department goes a bit further than its prescribed functions by carrying out special projects. The personnel is much larger than the minimum set by law for such organizations, which gives some indication of the interest, intensity, and scope of the work in the county.

With the probably exception of funds, the facilities for carrying on the work of the unit are modern and adequate. Perhaps, it is one of the best equipped units in the state. As for funds, the department budget called for $21,640, only $10,200 of which is derived from direct county taxation. The population of the county is 32,918. Using the entire budget, it makes sixty-six cents per capita to carry on the health work in the county. When this is compared with the more than $100 per capita for school children spent on education, one gains the impression

that very little tax money is spent annually for the most precious of all things - health.

Better rapport between the department and school officials and teachers should be established if the department is to carry the school health work more effectively, and the schools are to cooperate better with the health department. The methods employed in bringing about more complete examinations and of persualding parents to make corrections of defection need to be intensified. More detailed and standardized health records should be kept by schools, if schools are to carry out a well-organized health program. This means more funds are necessary. The survey of school equipment showed that few schools are provided with special health service rooms and equipment. Nothing was found to show that any periodic check-up was made on the part of the schools in either locating defects or correcting them. No compulsory devices seem to exist for locating and correcting defects, except the laws pertaining to isolation and quarantine of communicable and infectious diseases, and the general sanitation laws. Schools are not compelled to accept the services of the county health department.

It has been shown that parents, first, are responsible for the conditions of their children. It has been shown also, that the health departments of either county or

school should not take over treatment of defects, with the possible exception of indigents, and in these the age limit is set at nine to twelve years. It is found that here the best results, both physically and educationally are obtained.

From the comments of men in the medical profession, one gets the impression that any aid for indigents or for injuries of athletes or other school children should come from sources outside their own ranks, and the latter two not paid for from tax money.

It has been shown that defects in school children exist and are neglected in schools all over the United States. There was nothing found in this survey to indicate the Jackson County schools are an exception. Under proper organization, the schools can be made a more powerful device for persuading parents to make correction of the defects in their children.

Proposed Further Studies.

1. That an experimental study be made to find out how much knowledge and training school men should have in order to be qualified to supervise the work in school health service in the public schools.
2. That a system of obtaining and keeping detailed health records for all pupils be worked out for the schools of Jackson County.

3. Since the school laws provide that a school district may put into its budget an amount for school health service, a study should be made to determine the amount of money needed and the efficient way in which to expend it.
4. That the health status of school children in Jackson County be compared with that of children in other counties in the state in order to check on the efficiency of the present set-up.

CHAPTER VIII

PROPOSALS FOR IMPROVEMENT

The County School Health Service.

Any attempt to correct defects in school children may be made by but two methods. One is persuasion of parents, the other is by legal compulsion. At the present time, there is but one choice. We must grant that many of the defects are minor in nature and do not warrant proceedings against the parents on the grounds of neglect. Poverty is no excuse today, since the health department and many hospitals offer substantial aid to indigents. The problem, then, remains the one of persuasion. The responsibility rests as much with the school as with the county health department, which has already accepted its responsibility.

The plan offered must be approved first, by school officers; second, by school boards; third, by the public; and fourth, by the health department and the county court. The responsibility of getting this approval rests with the school principals and superintendents. It may be presented to them by any interested and informed individual or group at one of their monthly club meetings, or elsewhere. The plan being offered is to coordinate the third class high schools with the county health department; therefore, it

is best to have the full cooperation of all third class high school districts in the county.

With all third class high schools in the county belonging to the organization, the county school health service, with the county health department as the center, would function just as the present county school system functions with the county school superintendent's office as the center. This is the logical place to center it since the county is the primary local unit of government, and the county health unit is already established. It may need a clerk, one more nurse, and a slight revision in the line of responsibility of the personnel and duties of the health officer and county physician. This would be worked out by the health officer if the plan is adopted.

The success of the plan will depend upon the soundness of the organization, the qualification requirements of the personnel and the methods employed in selecting them. It is important also, that the school officers and teachers have specific training for their part in the school health service program, rather than the smattering of school hygiene given in the teacher training courses of our normal schools and other institutions of higher learning which train our teachers.

The first step in inaugurating the plan will be to establish interest and gain the cooperation of the school

officials. After the plan is explained to them, it will be necessary to obtain an estimate of the cost of establishing and administering the system. This should not be difficult to do, since there is an abundance of information and experience at hand on such subjects. It may be difficult to set the cost of establishing the system at a definite figure; since this should include costs of experimenting and other general expenditures. After the system begins to operate, the per capita cost of operating it should decrease if results are obtained on the children. Many defects need correction but once in a lifetime.

What shall be the source of funds? It may as well be stated at first as taxation. Any form of contributory insurance, is, in reality, not different from taxation. The tax system probably whould reach all parents instead of just the present taxable population. This would be a matter of legislation to establish a form of "deposit fee" for health service similar to the method employed by colleges and universities in providing health service to students. Any form of compulsory fees would necessitate legislation. Such compulsion is as just as any of our compulsory education laws. This would be a matter to be worked out by the county court.

Legislation is usually a slow and uncertain process. It will be necessary to have funds with which to experiment

or to carry on research to gain more facts than the writer is giving in order to establish convincing proof of the merits of the plan. This is where the school boards come in. The plan must be sold to them in order to increase the present amounts being budgeted for health service. School board members can be educated to the proposition right along with the tax-paying public which votes on the annual budget.

The most difficult task of all is the education of the adult population to the feasibility and necessity of a good school health service. The best instrument for dissemination of such education is the press. Other forceful channels are the local district health clubs, pupil health education classes in the regular daily class schedules, distribution of pamphlets on the subject from time to time, lectures by well-trained authorities, radio, P. T. A., publishing of reports on the work of the health department, and through other smaller and less direct agencies.

When the public has been made to want the plan, it becomes a matter of requesting it from the county board of health and the county court. The approach is simple enough since by law the county school superintendent is a member of the county board of health and the county health officer, who directs the present health service,

is the secretary to the county court. A member of the county court, usually a commissioner, is also a member of the county board of health by a provision of the law. This line of organization makes a direct channel through which the public may make its request to have the schools become a functional part of the county health department.

By "functional part" is meant that the schools will become a part of the county health service and in their health activities, will be subject to the direction of the county health department. The county health officer, a specially trained man in his field, will direct the activities of the schools in their health work. Under this plan, the writer feels that the smaller schools can have an efficient health service which is the first step to take in making a healthier and happier future population.

There are many advantages in such a set-up. Some of the more important ones may be listed as follows:

1. School health service would come under the jurisdiction of other legal and professionally trained bodies in addition to being under state school laws.
2. Much better use would be made of the most forceful instrument for carrying out a public health program - the schools.
3. There would be uniformity in the health programs of the schools under a well-balanced system.

4. The organization would have more strength to carry out its programs, than it does at present, by having school health service regulated by the county.
5. The per capita cost of administering would be kept at a minimum and would be regulated for the individual districts according to their populations.
6. School boards would be forced to budget the amount required in the county budget for their districts.
7. The health department would direct the work of the school personnel in health activities which would supplement the state course of study for health and physical education. Under this direction the schools could administer treatment for many orthopedic defects, and help correct malnutrition.
8. Uniform and adequate health record blanks, notices to parents, notices to teachers, appointments for consultation with parents, etc., would be adopted and supplied to the schools by the county.
9. There would be conservation of time for the school nurses in having the schools assume more responsibility for making appointments with parents for them, and by having the schools take more active part in convincing parents that the defects need attiontion. Home visits by the nurses are very important and educative to parents.

10. More attention would be given to the bringing about of correction of the more serious defects, at the same time leaving treatment to the family physicians.
11. Complete school records, containing the pupil-health-record would be more easily obtained, and would be assured.
12. It would be easier to convince parents of the necessity of attending to defects if schools became a part of a legally established and well functioning health organization. All notices to parents would bear the signatures of both a professional medical doctor and the school superintendent.

Suggestions on essential health records are taken from Cornell, W. S., Health and Medical Inspection of School Children. These will serve as guides in formulating plans for records to be used should this proposal ever be adopted.

Three sets of records should be adopted for convenience and detail in the child's individual record.

1. The child's individual record of his physical condition.
2. A record of the defective children and their defects.
3. A summary of the defects found, diseases encountered, and the results obtained.

The following principles will be found to be a good guide to follow in making physical examinations and compiling statistics.

1. The principal defects should be clearly recorded and emphasized. Those most frequently met with are eleven in number: eye-strain, enlarged tonsils, nasal obstructions, defective hearing, discharging ears, poor nutrition, decayed teeth, stoop shoulders (including flat chest), lateral curvature, nervous exhaustion, and mental deficiency.

   On the other hand, infrequent physical defects do not require separate spaces nor categorical mention. A space marked "miscellaneous" provides for these.

2. The defects listed upon the card should be placed in logical groups.

3. Non-curable defects, such as weak heart, high palate, and paralyzed limbs; and temporary ailments, such as sties, boils, and infrequent headaches, should receive separate record.

4. Secondary symptoms, such as headache and catarrh, should not only be recorded in such a manner that their secondary character is understood, but should be grouped so that medical knowledge as to their relative frequency may be acquired.

5. The number of physical defects reported to the

parents for treatment should be stated separately from the number of defects noted of minor degree of character.

6. There should be a record of the notification of parents if such notification is made, together with the date and official information as to the correction of the defect.
7. The individual eye records should state the acuity of vision, the existence of squint, and the wearing of eye-glasses.
8. Provision should be made for recording separately the hearing of each ear.
9. The spaces on the card should be large enough to permit the writing of at least one word. Minute spaces allowing only checking marks do not always give intelligible information.
10. Allowance should be made for at least four examinations, since the school life of the average child is eight years. Provision for more than eight years is superfluous.
11. Age, grade, and social condition should be considered in connection with physical defect. By this method developmental defects can be traced, year by year, throughout school life; the maximum prevalence of

nasal obstruction and decayed teeth at definite ages demonstrated, and the relation of these various defects to the environment of the children determined.

12. The age of the child is best stated by giving the date of his birth.

13. The father's nationality should be stated, and the mother's only when the two are different.

14. Records of height and weight are of no practical value unless they are of unusual cases.

15. Records of conduct, effort, and proficiency are not germane to medical inspection.

16. The records of minor diseases contracted during the school term are of no particular value unless they have operated to exclude the child for a long period of time or have a medical significance. Thus, eczema may indicate malnutrition, local eczema may indicate nasal catarrh or pediculosis, and diphtheria may indicate an unhealthy throat. On the other hand, measles, chicken-pox, cuts, and scratches are incidental to the life of the child, and have no after effect.

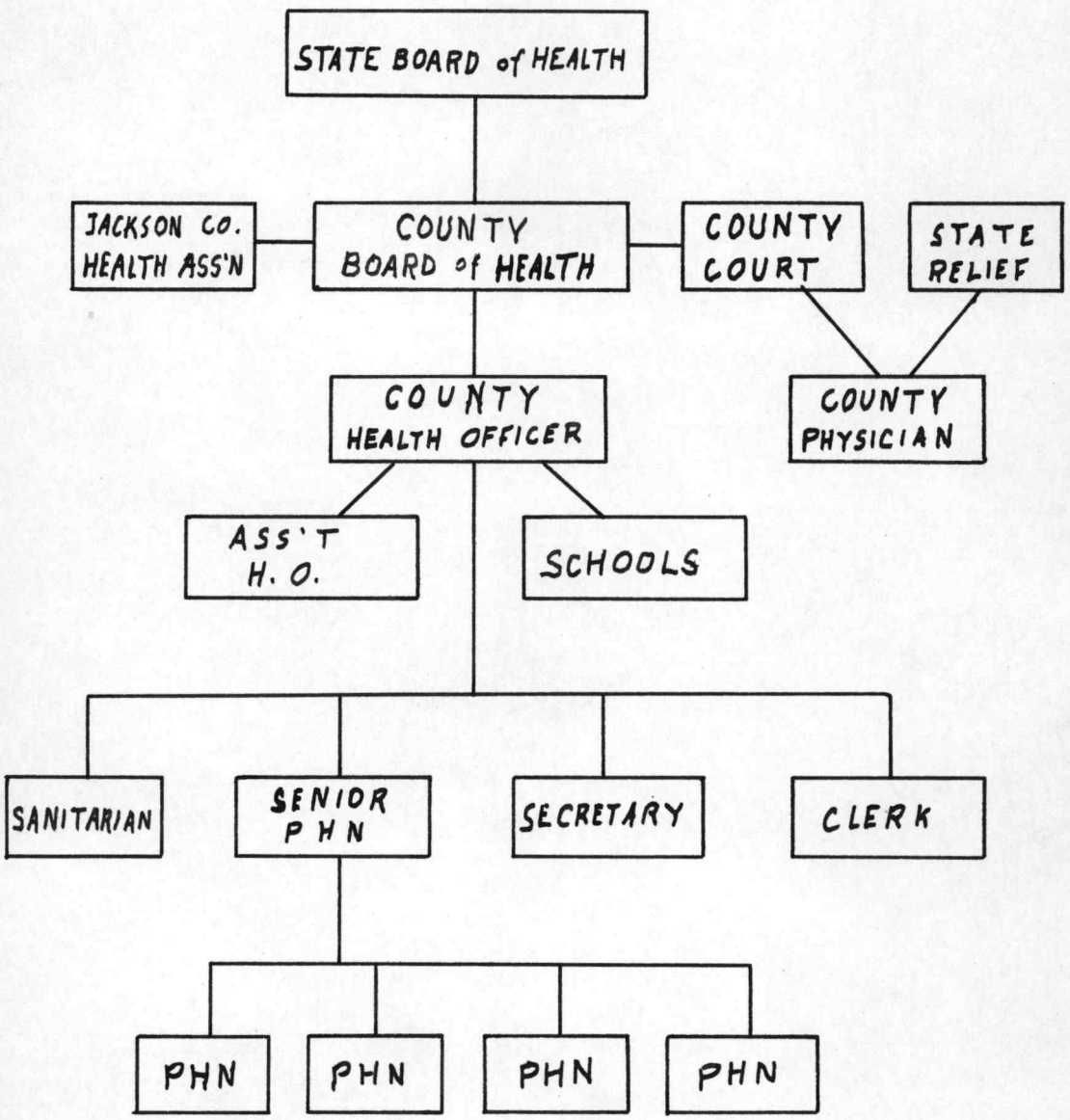
17. Records of the heart and lung diseases cannot be made routinely, since our laws do not permit the undressing of the child.

The data called for and its arrangement on the blanks will be best worked out by health department and the school officials. Blanks for notifying parents of the defects should be specific notice bearing on a definite defect. These are superior to a general blank announcing that the child has a defect. They play an important part in convincing the parents, and causing them to think aboutathe situation. They should be printed and should contain information and instruction to see the family physician at once.

Conferences at school, between the parent and superintendent, pertaining to the bearing the defect may have on the child's scholarship and future endeavors in life will be effected should be very educational to the parent.

Figure 5

JACKSON COUNTY HEALTH DEPARTMENT
AS PROPOSED



A PROPOSAL FOR INJURIES IN ATHLETICS

So many attempts have been made by individual schools to get seasonal service at a certain cost from individual doctors that it is hardly worth while to expect such service can be obtained anywhere.

It was learned from the medical men interviewed that it might be possible to organize the schools in such a manner that all of them as a group could get the services of the medical society. In this manner, the injured athlete could select his own doctor and the bill would be paid by the county athletic organization. Since all the ten high schools are organized in one league, there is already a basis there for a proposal.

Each school would have to be assessed in the same manner that employers are in carrying workmen's compensation insurance. With these ten schools having an average of only fifteen to twenty athletes apiece, the coverage would have to be quite high. It remains a matter of figuring out the average cost per year to schools for injuries and distributing the amount proportionately. If the findings are that the schools could not afford it, they would have to adhere to the present practice of holding a benefit affair occasionally to raise the needed funds.

BIBLIOGRAPHY

American Child Health Association--Research Division, in Cooperation with the Department of Health and the Department of Education. Physical defects, the pathway to correction. American Child Health Association, New York, 1934.

Cornell, W. S. Health and medical inspection of school children. Philadelphia, F. A. Davis Co., 1924.

Jackson County Health Association. What you should know about the Jackson County health department. Medford, Oregon, Mail Tribune Job Dept., January 1937.

Jackson County Health Department Files, 1937.

Jackson County Health Department. Our health department. Medford, Oregon, Mail Tribune Job Dept., 1930.

Massachusetts Department of Public Health. School hygiene handbook, rev. 1934. State Printing Department.

Smillie. Wilson G. Public health administration in the United States. New York, The Macmillan Company, 1935.

Stricker, F. D. State board of health, fourteenth biennial report, including annual reports of 1928-29. State of Oregon Printing Department.

Stricker, F. D. State board of health, seventeenth biennial report, including reports for 1934-35. State of Oregon Printing Department.

Terman, Lewis M. The hygiene of the school child. San Francisco, Houghton Mifflin Co., 1914.