A HEALTH SURVEY OF THE ONE- TWO- AND THREE-ROOM SCHOOLS OF MARICOPA COUNTY

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A HEALTH SURVEY OF THE ONE- TWO- AND THREE-ROOM SCHOOLS OF MARICOPA COUNTY IN RELATION TO HEALTH DIAGNOSIS AND REMEDIAL PROCEDURE

by

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CHAPTER I

INTRODUCTION

Importance of Health

Health is a most important aim in life both of the individual and of a nation. "It is the foundation of the realiaztion of all the big aims in education."[1] Realizing the importance of health to the children of the nation, both the educators and physicians of our country formed a joint committee to study the subject in 1930.[2]

It is important to have good health to be a worthy citizen. In Polonius' advice to his son he says- "To thine own self be true, and it must follow, as the night the day, thou canst not then be false to any man".[3] If one would be true to himself he, then, must have a sound mind in a sound body. We now know that all men are not born equal either physically or mentally but, like the servants of Biblical times, one must improve the 'talents' that have been bestowed upon him that greater blessings may follow. One should strive to have the best body and the best mind that it is within his power to cultivate. In so doing one benefits his fellow men with whom he comes in daily contact.

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1. Andress, J. Mace, Health Education in Rural Schools, p. 2.
2. Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association, Health Education.
3. Shakespeare, William, Hamlet, Act I, Scene 3.

To earn one's daily bread one must have good health. Illness causes reduced vitality, a reduction in the output of labor, and work of an inferior quality. Studies by manufacturing plants and industrial concerns have shown the loss in dollars of sick individuals. It pays these concerns in money value to have sanitary surroundings, to provide a company doctor and nurse, and to provide recreational facilities to keep their employees in the best of physical and mental health.[4]

To become educated by experience and knowledge one must be in good health. Rapeer says, "fifteen percent of elimination, sixteen per cent of non-promotion, and seventeen per cent of retardation is caused by the illnesses and physical defects of school children."[5]

Good health increases one's chance for happiness. It makes one more livable. It has been observed how irritable one becomes if he is a dyspeptic or has a bad toothache. One cannot think about others if pain is racking the body. There have been outstanding examples of those suffering with some physical ailment who have overcome difficulties in spite of their illnesses. A worthy example is that of Robert Louis Stevenson who wrote charming stories when an

4. Hackett, James D., Health Maintenance in Industry.
5. Rapeer, L. W., Educational Hygiene, p. 20.

invalid. The two Roosevelts, Theodore and Franklin Delano, are examples of overcoming a handicap with grit and determination. We have all met invalids who were like a breath of fresh air or invigorated all they met with a cheerfulness akin to intoxication but such examples are rare.

In the United States in the year 1908 the death rate from suicide was 17.8 per 100,000 persons. This decreased in 1925 to 12.1 per 100, 000 persons.[6] "I would conservatively estimate the annual waste of human life by self-destruction in this country at not less than 15,000."[7]

> "No phase of the suicide problem demands more thoughtful consideration than that of physical disease to the propensity to self-destruction. In my own collection of suicide cases are countless illustrations of suicides in which the immediate causative factor is alleged to be some incurable or exceptionally painful disease or bodily deformity."[8]

Dr. O. Kurtin in an article on "Suicides in Saxony" shows that over fifty per cent of the deaths from suicide are caused by mental and physical illnesses.[9]

It is said that the Virginia State Board of Health prints on all of the bulletins that they send out, "Happiness is health". An old gentleman once said to be

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6. Hoffman, Frederick L., Suicide Problems, pp. 8-9.
7. Ibid, p. 7.
8. Ibid, p. 25.
9. Ibid, p. 46.

happy one should have a 'clear conscience and keep his bowels open'. Some one has paraphrased the Bible passage and said, "What doth it profit a man to gain the whole world and lose his own health?"

Summary of Various Health Studies

The Aims of Health Education as stated by the Joint Committee in Health Education are-

1. "To instruct children and youth so that they may conserve and improve their own health.

2. To establish in them the habits and principles of living which throughout their school life, and in later years, will assure that abundant vigor and vitality which provide the basis for the greatest possible happiness and service in personal, family, and community life.

3. To influence parents and other adults, through the health education program for children, to better habits and attitudes, so that the school may become an effective agency for the promotion of the social aspects of health education in the family and community as well as in the school itself.

4. To improve the individual and community life of the future; to insure a better second generation, and a still better third generation; a healthier and fitter nation and race."[10]

To have a healthy mind there are several things to consider as so stated by Burnam-

1. Attention to Present Situation- living one day at a time.

2. Orderly Association- definite tasks with concrete directions.

10. Joint Committee of Health Problems in Education, op. cit., p. 13.

3. Mental Work- the great preventive of injury to the organism, body, and mind alike, is to be found in work itself.

4. Alternation of Work and Rest- a tendency to rhythmic activity is a law of our nature.

5. Normal Reaction to Feeling- The vigorous explosion of nervous energy seems to be an essential for thoroughly normal functioning.

6. An Active Attitude- By attempting always to meet difficult situations, a habit of the utmost importance for the mental health is soon developed.

7. Control- the need for self-conquest is still great both for individuals and for the nation.

8. Confidence- The confidence that results from action and an ordinary degree of success is an essential condition of mental health.

9. Normal Social Relations- To act with others as follower or leader, to serve, to cooperate.

10. Adjustment- The mental health of the individual depends largely on obtaining the proper balance between one's strength and the demands of one's environment.

11. A Normal Sense of Dependence- The normal sense of dependence is relative to the stage of the individual's development.

12. The Scientific Attitude- the attitude of facing reality. [11]

To have a healthy body one must know the simple rules of personal hygiene. One must feel that it is his duty as a good citizen to maintain the best health standards for himself. One should be taught that it is an irresponsible person who by late hours, improper diet, or lack of exercise makes himself unfit for his daily task.

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11. Burnham, William H., The Normal Mind, Chapter 20.

Some of the simple rules for healthful living as given in "How to Live" are-

AIR

1. Ventilate every room you occupy.
2. Wear light, loose and porous clothes.
3. Seek out-of-doors occupations and recreations.
4. Sleep out, if you can.
5. Breathe deeply.

FOOD

6. Avoid overeating and overweight.
7. Eat sparingly of meats and eggs.
8. Eat some hard, some bulky, some raw foods.
9. Eat slowly.
10. Drink sufficient water.

POISONS

11. Eliminate thoroughly, regularly and frequently.
12. Stand, sit, and walk erect.
13. Do not allow poisons and infections to enter the body.
14. Keep the teeth, gums and tongue clean.

ACTIVITY

15. Work, play, rest, and sleep in moderation.
16. Keep serene and whole-hearted.[12]

There are any number of good books published which tell us how to live well.[13]

The White House Conference called by former President Hoover showed us the importance of health and the wide scope of the field. This conference gave us the Chil-

12. Fisher, Irving and Fisk, Eugene L., How To Live, p. 138.
13. Osborne, Oliver T., What Everyone Ought To Know.
Meredith, Florence L., The Health of Youth.

dren's Charter which shows the hopes of the future for healthful living.

The Children's Charter

I For every child spiritual and moral training to help him to stand firm under the pressure of life.

II For every child understanding and the guarding of his personality as his most precious right.

III For every child a home and that love and security which a home provides; and for that child who must receive foster care, the nearest substitute for his own home.

IV For every child full preparation for his birth, his mother receiving prenatal, natal, and postnatal care; and the establishment of such protective measures as will make childbearing safer.

V For every child health protection from birth through adolescence, including; periodical health examinations and, where needed, care of specialists and hospital treatment; regular dental examinations and care of the teeth; protective and preventive measures against communicable diseases; the insuring of pure food, pure milk, and pure water.

VI For every child from birth through adolescence, promotion of health, including health instruction and a health program, wholesome physical and mental recreation, with teachers and leaders adequately trained.

VII For every child a dwelling-place safe, sanitary, and wholesome, with reasonable provisions for privacy; free from conditions which tend to thwart his development; and a home environment harmonious and enriching.

VIII For every child a school which is safe from hazards, sanitary, properly equipped, lighted, and ventilated. For younger children nursery schools and kindergartens to supple-

ment home care.

IX For every child a community which recognizes and plans for his needs, protects him against physical dangers, moral hazards and disease; provides him with safe and wholesome places for play and recreation; and makes provision for his cultural and social needs.

X For every child an education which, through the discovery and development of his individual abilities, prepares him for life; and through training and vocational guidance prepares him for a living which will yield him the maximum of satisfaction.

XI For every child such teaching and training as will prepare him for successful parenthood, home-making, and the rights of citizenship; and, for parents, supplementary training to fit them to deal wisely with the problems of parenthood.

XII For every child for safety and protection against accidents to which modern conditions subject him-- those to which he is directly exposed and those which, through loss or maiming of his parents, affect him indirectly.

XIII For every child who is blind, deaf, crippled, or otherwise physically handicapped, and for the child who is mentally handicapped, such measures as will early discover and diagnose his handicap, provide care and treatment, and so train him that he may become an asset to society rather than a liability. Expenses of these services should be borne publicly where they cannot be privately met.

XIV For every child who is in conflict with society the right to be dealt with intelligently as society's charge, not society's outcast; with the home, the school, the church, the court and the institution when needed, shaped to return him whenever possible to the normal stream of life.

XV For every child the right to grow up in a family with an adequate standard of living and the security of a stable income as the surest safeguard against social handicaps.

XVI For every child protection against labor that stunts growth, either physical or mental, that limits education, that deprives children of the right of comradeship, of play and of joy.

XVII For every rural child as satisfactory schooling and health services as for the city child, and an extension to rural families of social, recreational, and cultural facilities.

XVIII To supplement the home and the school in the training of youth, and to return to them those interests of which modern life tends to cheat children, every stimulation and encouragement should be given to the extension and development of the voluntary youth organizations.

XIX To make everywhere available these minimum protections of the health and welfare of children, there should be a district, county, or community organization for health, education, and welfare, with full-time officials, coordinating with a state-wide program which will be responsive to a nation-wide service of general information, statistics, and scientific research. This should include:

a. Trained, full-time public health officials with public health nurses, sanitary inspection, and laboratory workers.
b. Available hospital beds.
c. Full-time public welfare service for the relief, aid, and guidance of children in special need due to poverty, misfortune, or behavior difficulties, and for the protection of children from abuse, neglect, exploitation, or moral hazard.

FOR EVERY CHILD THESE RIGHTS, REGARDLESS OF RACE, OR COLOR, OR SITUATION, WHEREVER HE MAY LIVE UNDER THE PROTECTION OF THE AMERICAN FLAG.[14]

14. White House Conference called by President Hoover in 1930. Children's Charter, American Child Health Association, 370 Seventh Ave., New York.

Limitations of This Study

The words Health Education and Control include such a numerous variety and quantity of phases they are almost overwhelming in their scope. It would be impossible to deal with all of these phases and yet they are so closely related that it is hard to define a point where one would leave off and the other phase would begin. There is the instruction of the child in health habits, his study of his own body and the various systems and their needs and care, his study of how to stay well, first aid, home nursing, and many of the branches of medical care.

The Problem of This Study

It is the purpose in dealing with this problem to give a survey of the physical care of the children in the one, two, and three-room schools of Maricopa County rather than to stress the instruction of health.

The Importance of the Problem

It has been said that cleanliness is next to godliness. Whether that be true or not we know that a sick child cannot learn well. He may need castor oil instead of arithmetic. "The problem of health is one of the most serious that the country faces."[15] "Recommendations made by physicians cannot be ignored by school boards or teachers because the responsibility for human life has

15. Rapeer, L. W., op. cit., p. 13.

thus been placed squarely upon them."[16]

Teachers must understand health procedures in order to cope with this ever increasing imperative problem. "Today the educator and the social worker receive instruction in health matters as an essential part of their training."[17] "The weak spot in the work of physical education as ordinarily practiced is the lack of medical knowledge on the part of the instructor."[18]

Method of Procedure

There is splendid outline of the Health Examination in the Arizona State Bulletin of Health and Physical Education. The plan of procedure of the present study has been to discover whether or not the rural schools of Maricopa County were receiving such health examinations and what they were doing about it after such an examination had been given. Cornell has given a good outline of the purpose of Medical Inspection.

1. "The detection and correction of physical defects.
2. The detection and exclusion of cases of parasitic and contagious disease.
3. The maintenance of good hygienic conditions in the schools.

16. Cornell, Walter S., Health and Medical Inspection of School Children, p. 2.
17. Ibid, Preface.
18. Ibid, p. 2.

4. The diagnosis and treatment of cases of mental deficiency.

5. The correlation of medicine and pedagogy in order to produce the maximum of efficiency in the school system consistent with the preservation of health."[19]

We must have correction after the physical defects have been discovered or the children and teachers will lose interest and have a "what's the use" attitude. Schools should be permitted to pay for doctors' services if they wish to do so. Parents are responsible for their children but when parents shirk that responsibility it develops upon the state, whose future citizens the children are, to care for them. If parents are notified of defects and children are not cared for it should be the right and duty of the school to see that proper treatment is given. A child thirteen or fourteen years old cannot be dismissed from school for pediculosis or impetigo if belonging to families who are only too glad of an excuse to keep their children at home to work and thus swell the family income. Far better to treat the child at school and keep his interest in school and his regular attendance.

If parents are notified and requested to take their children to the physician of their choice and have defects corrected the regular practicing physician can have no criticism of the school inspection. If the parents do not

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19. Cornell, W. S., op. cit., p. 2.

have the children cared for it is most generally through lack of funds and if such a child is taken to a free clinic again the regular practicing physician cannot object as then that child is an object for free aid. If the practicing physician has not been interested in the children of the families he has cared for he can hardly call them his clients.

Sore throat and rash exclude children from school and the teacher should be able to recognise the symptoms when she sees them. "Let our teachers live health as well as teach it."[20] "The fault lies not with our teachers, but with their training."[21]

Common physical defects lower the mental ability of children. "Some of the common physical defects of children, particularly adenoids, may lower the mental ability by lowering the general health."[22] Some of the common defects of children are bad teeth, diseased tonsils, adenoids, defective hearing, poor nutrition, eye-strain, common colds, and lack of nervous energy.

In order to discover these defects and what was being done for them a questionnaire was compiled. It was intended at first to have interviews with the principals of the various school districts but this plan did not seem feasible so the questionnaire was used.

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20. Cornell, op. cit., p. 66.
21. Ibid, p. 67.
22. Ibid, p. 368.

These questionnaires were sent to fifteen one, two, and three-room schools and to twelve accommodation schools in Maricopa County. Replies were received from twelve of the one, two, and three-room schools and seven replies were received from the accommodation schools. A copy of the questionnaire sent to the schools will be found in the appendix.

CHAPTER II

AN IDEAL HEALTH PROGRAM

Essentials of a Complete Program

In looking at the chapter headings in various books on health one finds that the items most frequently suggested in a health program are- (1) healthful surroundings, (2) medical inspection, and (3) the teaching of hygiene. A complete, well rounded program for health should also include remedial procedures.

Good Healthful Surroundings

One cannot teach health without living it. It is similar to the old saying, "I cannot hear what you say because of what you do." If one would have his precepts result in some good examples of habit formation one must surround the child with every sanitary advantage. Rapeer states this in a splendid way.

> "What any new day may bring forth can be, of course, only problematical, but all things point to that better time when every child in our schools will not only be well taught but will have about him every life-giving and healthful condition: when he will have God-given fresh air to breathe and not the baked air that devitalizes; when he will have pure water to drink and not the germ-laden fluid from well and stream and pool that often carries disease and death; when the great and beautiful light of God's out-of-doors will have unhindered access to every schoolroom in place of the half-lights and

> shades that dim the eye and worry the nervous system; when every child shall have play-ground space enough to exercise all his body powers; when every teacher and school administrator shall know accurately what school conditions ought to be, and shall leave no stone unturned until those conditions are obtained; when the world shall demand that every school be a perfect place for children and that there they may attain to the fullest development of their mental and physical powers."[23]

The first thing a school board should consider when planning to build a new school is the site. The site for the school should be off the main thoroughfare if possible, should be well drained, and should provide ample space for a suitable playground. The rural school is the one that is being considered now so that it seems as if the school site should be on a quiet road but within easy access to every part of the district. If the site is high and well drained there will be no danger of muddy spots which are not only unsightly in a school yard but are also a breeding place for harmful insects. The playground should be planned for the future growth of the school. Many schools have found that in a few years after the school was built more ground must be added and that the cost was much higher than at the time of the building the school. From five to ten acres makes a splendid school site. There will be plenty of room for buildings that need to be added

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23. Rapeer, L. W., op. cit., p. 313.

later and there will be room for a baseball field, volley and basket ball courts, tennis and other games requiring space.

> "The common recommendation of fifty square feet per child allows him only about two and a half times as much space as he is allotted in the average forty-pupil classroom. Such an arrangement is well fitted to quiet games of marbles, mumble-peg, or jackstones; but if children are to join in active sports with running and jumping they must be provided with at least two hundred square feet of playground space for every pupil enrolled."[24]

One should not forget the effect of beautiful surroundings and there should be room enough for a small plot in the front of the building for landscaping. Something green, some interesting shrubs, beautiful flowers and perhaps an intriguing fish and lily pond in a shady nook is worth while. One should not forget the benefits to worthy home membership of the child's own vegetable or flower garden where he might see the fruits of his own labors.

The buildings should be built so that they will be as nearly fireproof as possible with wide exits and doors that swing outward. There should be provision for fire fighting equipment in each room in the building.

The heating and ventilating system to warm the buildings and carry out the foul air and bring in the fresh air should be of the best it is possible to buy. The heated

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24. Ayres, May, Williams, Jesse F., Wood, Thomas D., Healthful Schools, p. 6.

air should be about fifty five per cent moisture, heated to sixty five or sixty eight degrees and should be kept moving. It has been found that the ill effects which are reported to have been caused by foul air are the result of improper temperature, lack of humidity in the air, or non-movement of the air.[25] Experiments have shown that persons can live comfortably in the same air for hours if that air is kept circulating and is of the proper moisture and temperature. There should be thirty cubic feet of circulating air per person per minute in the classrooms. The Arizona School Law makes a statement about the air in the schoolroom.

> "School authorities shall not crowd children into school rooms in excess of one child to each two hundred twenty-five cubic feet of space, and it shall be the duty of all health officers having jurisdiction to dismiss forthwith any schoolroom in which two hundred twenty-five cubic feet of air space is not supplied to each pupil; and the school authorities shall without delay make provision for pupils in accordance with the requirements herein set forth."[26]

If it is impossible to have a regular heating and ventilating system in a very small rural school, thus making it necessary to use stoves burning wood, coal, or oil, then the stoves should be jacketed for the proper circulation. It has grown in popularity in recent years to have open air classrooms by having one wall made into doors that may be opened during the school day so that the pupils receive all the fresh air possible.

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25. Ayres, Williams and Wood, op. cit., p. 155.
26. Arizona State School Law, Rules and Regulations of State Board of Health, Chapter V., Section 1, p. 30.

The plumbing should be of the latest improved kind and kept in a sanitary condition. Rural schools are putting in pressure tanks in places where electricity is available and the sanitary toilet is coming to be as common as in the city school. Where it is not possible to have flush toilets the government has greatly aided these rural schools by furnishing the labor with the only expense to the school being the material used, for sanitary toilets which meet with the approval of the government. These toilets have closed pits and cement floors. They are arranged with fly proof lids and are much better than the old type of toilets found many years ago. Lime should be used in these toilets to keep them in a clean condition. A place for the children to wash their hands before eating should be provided and, of course, the common drinking cup is a thing of the past. There are sanitary drinking fountains on the market for those who have electricity. In visiting a school where there was no electricity, the writer noticed a large board which contained a hook for every pupil in school where he might hang his tin drinking cup. It is within the reach of all to have sanitary conditions if the desire to do so is there. Certainly the school which has electricity and running water will have shower baths for after-the-game showers and for some little stray who forgot or was not inclined to take a bath before he came to school.

The water supply should have been considered first if the importance of it to the school had been considered. The well should be a drilled well, deep enough to exclude the surface water and far enough away from toilets or other sources of possible contamination. If drinking fountains are used the side flowing type bulb with a rim protector is the best kind to use. This prevents the mouth and nose of the individual from coming in contact with the bulb. Paper towels and soap should be provided for the use of the children. A clean, pure water supply is the best means to prevent an epidemic of typhoid fever.

The building should be arranged so that the lighting comes from one side of the room only and the light should come over the left shoulder of the pupil to prevent shadows on his paper when he writes. The window lighting space in each classroom should be from one fifth to one fourth of the floor space. In places where the light is very strong one fifth of the floor space for windows is sufficient. The windows should have large panes of glass. Electricity or other artificial light should be provided in sufficient amount for use on dark and cloudy days of school.

Blackboards should be arranged for suitable height and for the best lighting. Dustless chalk should be used. Desks must be adjustable for the varying heights of the

children and screens should be used to keep out flies and other undesirable insects.

There is nothing else so helpful for sanitary surroundings as an intelligent, interested janitor. He will use damp or oiled mops and use a cleaning sawdust on the floor before he sweeps it. He will take pride in the clean, shining windows in his school. Where it is possible cleaning is best accomplished with a vaccum cleaner.

Health Examinations

A room large enough to use the Snellen Chart in testing vision should be provided for the health examination. This room should contain running water and an electric plate for heating water or sterilizing needles used in inoculations. The medicine cabinet and the cumulative record cards should be kept in this room. The success of the health examination depends largely upon the examiner himself.

> "The number of cases seen by the medical inspector depends as much on his own efficiency as upon the size and distribution of the school population. The inefficient inspector visits his schools just as often as he is compelled to by his regulations, but no more. Beyond the routine signal bells announcing his presence, the teachers are never made to know of his existence, and soon the "doctor's bell" rung through the school has about as much awakening influence as the trolley gong on the street.
>
> The efficient inspector carries on his work with the aim of securing the co-operation of principal and teachers, parents, and children. The cases are followed up with the idea of producing results. Under this stimulus the school wakes up. Teachers see the improvement in the

> pupils after treatment. Children themselves report their discomforts, knowing that advice as to relief may be obtained at once. A school inspector who thus handles his work becomes one of the greatest forces in the neighborhood embracing his activities." 27

The health examination must have a well defined purpose and not be merely a matter of routine with no incentive and no expectations of results.

> "Accurate knowledge of the physical and mental natures of children must be the basis of all curative, preventive, educational, and developmental work." 28

The health examination should come early in the fall. It will be readily seen that rural schools depending on the county doctor and county nurse could not all have their examinations in the fall. It would be impossible for the county doctor and county nurse to cover all county schools within one or two months. The teacher, then, should be trained to give a preliminary examination and note the cases which she feels are of particular importance for the nurse and doctor to see when they have time for a visit to the school. Teachers should be taught to keep the cumulative record cards as a sacred trust. Some times it is the only evidence that a foreign born adult has to prove his length of residence in the United States. It would show his vaccinations and inoculations received in case he moved to another district and did not desire to be a human guinea pig by repeated inoculations. " The cen-

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27. Cornell, op. cit., p. 19.
28. Rapeer, op. cit., p. 197.

tral instrument in all medical supervision("inspection") is the individual, cumulative health-record card of each pupil."[29]

> "In Sweden the public medical examination reaches beyond school life for most children, there being an actively enforced law requiring that each minor under eighteen years of age be medically examined annually, at the expense of the government, to determine how far the work in which the youth is engaged may have injured his health. If the examination shows that the occupation has been injurious to the youth's health, he is forbidden to continue, and is given simple vocational guidance of a health character."[30]

> "Right here it may be said that some boards of education are not doing their full duty toward the children under their charge, by forcing them to study while they are physically unfit."[31]

The health examination should consider items under the following general heads.

1. Personal data
2. Eyes
3. Ears
4. Mouth
5. Skin
6. Chest
7. Bodily deformities
8. Disease experience
9. Vaccinations
10. Health habits

Remedial Procedures

After the health examination has been completed, then one should consider what is going to be done about it.

There should be trained physicians and trained nurses

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29. Rapeer, op. cit., p. 205.
30. Ibid, p. 200.
31. Ibid, p. 235.

paid full-time salaries to conduct the work of medical inspection and health work. Physicians should receive sufficient remuneration so that they will not cast longing glances at their brothers in private practice. The full-time physician, then, will have time to conduct remedial work. Aside from the local school board the county is the smallest governing body in the state of Arizona connected with health problems of rural schools. Several physicians receiving full-time salaries could be employed at the present time. Among the physicians employed there should be included a specialist in eye, ear, nose, and throat diseases, a dentist, a physician trained in public health and a nutritionist. There should be a county fund established for county medicines and supplies which could be used by the schools.

If the child shows by his height-weight chart and examination that he is suffering from malnutrition, he should be referred to the nutritionist. If he has any eye, ear, nose, or throat troubles he should be referred to the specialist along that line. If his teeth need to be cared for an appointment should be made with the county dentist.

County clinics could be established in strategic places where the specialists could have hours arranged for the children of various school districts and the

patrons of those districts.

The visiting medical inspector and nurse could care for the simple ailments and administer the vaccinations and inoculations necessary for preventing the spread of disease.

With such a planned medical arrangement and teachers trained in the instruction of health and knowledge of health habits, children should in a few generations become more health conscious and develop health minds and bodies.

Positive Health Instruction

The teacher of the future must have special training in health and be a good salesman for her product. No deformed or maimed individual should enter the classroom where the gospel of health is of prime importance. Dale Carnegie says in his new book on "How to Win Friends and Influence People".

> "What do adults really want to study? That is an impostant question: and, in order to answer it, Chicago University, the American Association for Adult Education, and the United Y. M. C. A. Schools made a survey that cost $25,000 and covered two years.
>
> That survey revealed that the prime interest of adults in health. It also revealed that their second interest is in developing skill in human relationships: they want to learn the technique 32 of getting along with and influencing other people."

32. Carnegie, Dale, How to Win Friends and Influence People. p. 3.

The above statement includes both mental and physical health. Health courses for prospective teachers should be given in teacher training institutions. Such a course should include the following items.

1. Personal Health and How to Attain It.
   a. Physical
   b. Mental
2. Nutrition
   a. Simple food elements necessary for bodily growth and health.
   b. How to keep a height-weight chart for her pupils and what it indicates.
   c. What to do for the malnourished child, the overweight child.
   d. How to cooperate with the county nutritionist in the selection of proper foods for all types of children.
3. First Aid
   a. What to do before the doctor arrives or before the child can be taken to the doctor in case of accident.
   b. How to use the simple remedies for cuts, burns, and bruises so frequently found in school.
   c. How to carry out the doctors' orders for skin diseases or other simple orders he wishes carried out.

d. How to recognize the sick child who must be removed from the group.

4. Health records and how to keep them.

5. Health Hygiene

a. Habits desirable to be formed at certain age levels.

b. Knowledge of systems of the body and their functions.

c. Mental attitudes and how to form them.

(1) Cooperation in group activities

(2) Feeling of Success

(3) Orderliness

(4) Self-control

d. Ideals

(1) To foster in the child a desire to improve his home environment in sanitation.

(2) To foster in the child an interest in the health welfare of his community.

This program seems as if too much were being expected of the already overburdened teacher. A wide-awake teacher who has herself learned the principles of health and is interested in people, especially the children under her care, will not find the task a hard one.. The things people most desire in life may be attained by her unselfish service.

CHAPTER III

HEALTH EXAMINATIONS

Basic Philosophy

The problem of the health examination is primarily sociological. The individual demands attention so that the group in which he lives may be benefited. Vaccinations are given against smallpox so that an epidemic may be avoided. An epidemic, if unchecked, may ravage a whole people; no one is exempt from its terrible clutches. One can hardly forget the ravages made in early history by some pestilence such as the Black Death. "Disease, for example, is recognized as a problem of sick individuals, and requiring medical control, but also as resulting from social factors, and leading to disturbed social relations."[33] In order to prevent some terrible scourge in the nation it must be prevented in the individual. To prevent disease in the individual one must first know whether or not he has any pre-disposition to disease or whether measures to prevent disease have been administered to him. One wishes to go about this in a scientific way. What is a scientific method? "The scientific method starts with observation of facts, followed by their recording and comparison."[34]

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33. Bossard, James H. S., Social Change and Social Problems, p. 24.
34. Ibid, p. 25.

It follows, then, that before anything can be done about the health of the child it is essential to understand his condition at the present time.

> "Nowhere today is the vital importance of health recognized more clearly than in educational circles, primarily because it has been found that physical well-being is indispensable to school progress."[35]

Realizing this importance the school has cooperated with whatever agencies could be found to promote the health of the child. The health examination is a primary step in the right direction.

> "Meanwhile, it had been found necessary to employ physicians in the schools to detect and control communicable diseases, primarily for the protection of the community. Somewhat incidentally in the pursuit of this work, physicians began to see, and as a result of their discoveries educators began to realize, that a very large proportion of children in the schools were handicapped by physical defects of various kinds. Because the correction of these defects led so frequently to improvement of school work, the relationship between the two began to be recognized. This led in time to the extension of the scope of medical inspection to include the physical examination of school children, with the aim of discovering whether or not they were suffering from such defects as would handicap their educational progress and prevent them from receiving the full benefit of the free education furnished by the state. Twenty years ago this work was in its infancy; today it is an integral part of the public school system not only in the United States but throughout the civilized world.
>
> Medical inspection rests upon the recognition of the close connection which exists between the physical and mental condition of the child and the whole process of education. That this connection exists has been amply proven by recent

35. Bossard, op. cit., p. 321.

researches in the fields of medicine and psychology, showing that mind is not a separate entity functioning independently in the body, but rather that both function as one element in the whole life process."[36]

Groves in his interesting book "Understanding Yourself", speaks of the value of knowing our physical and mental condition as a matter not of scientific procedure but as a matter of improving ourselves for the fullest possible life.

> "Investigation of the body or mind, when there is threat of disease, seems to us an act of common sense. Unfortunately we are not so apt to see that the gaining of similar information regarding the body and the mind, that is, the self, for the purpose of making the best of oneself and of gaining the greatest possible vigor of body and mind and of squeezing out of life's experiences the fullest quantity possible of satisfaction is also good sense.
>
> He who is sound in his knowledge of himself is most likely to meet successfully the social problems that confront him in life."[37]

The right of the school to give health examinations to children in school with a view to improving the health of the child and the community is based upon the same principle as the right to give him an education. Briggs in "The Great Investment" states this well and one could wish that everyone would read it again using the word health where Briggs has used the word education. It is certainly as true of one as it is of the other.

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36. Bossard, op. cit., p. 322.
37. Groves, Ernest R., Understanding Yourself, p. 14.

> "The state supports free public schools to perpetuate itself and to promote its own interests. Education is then, a long-term investment that the state may be a better place in which to make a living.....Free education is a business investment and not a benevolence.....What promises a reasonable return to the state, directly or indirectly, can be justified in the public school curriculum; what does not, cannot be."[38]

Terman states in no uncertain terms that health is of prime importance if our scheme of education for a democracy is to stand.

> "The conservation of the child is a problem which, like that of world peace, is bound to take possession of the minds of all humanitarian people. To the ethical principle of humanitarianism is added the stern counsel of biological laws, which teacheus that an elaborate scheme of mental culture which proceeds without regard to the needs of the body is but a house built upon the sands."[39]

Some believe that laws should be established to make such examinations compulsory.[40] In Arizona there is a law requiring teachers to submit to an examination in health twice yearly if the school trustees so desire it, to determine whether or not they are afflicted with tuberculosis. If such evidence proves that the teacher is afflicted, she forfeits her right to teach in Arizona schools. This is a good law as far as it goes. But, who is to protect the teacher from coming in contact with this insidious disease if the children are not likewise compelled to

38. Briggs, Thomas H., The Great Investment, pp. 8, 9, 107.
39. Hoag, Ernest B., and Terman, Lewis M., Health Work in the Schools, p. 1.
40. Arizona State School Law, Art. 6, Sec. 1045, p. 65.

have annual health examinations. Is the trained teacher not as valuable as any child under her care?

> "A definite law should exist in every state. An ideal law would include the following provisions:
>
> 1. Coordination of health service and supervision of health education and physical education programs. Some specified state department or departments should be made responsible for the administration of this law.
>
> 2. Constant vigilance against contagious and infectious diseases and suitable provision for the exclusion from school of pupils presenting suspicious signs of recognized importance. At the same time definite regulations should secure effective effort to insure the return to school of each pupil, after an illness, at the earliest possible moment consistent with the safety and welfare of the individual child and the school as a whole.
>
> 3. The frequency and extent of the health and physical examinations should be made clear, and the person or persons who may make any or all parts of such examinations should be specified. Parents should have written notice of physical defects discovered at these examinations."41

Annual Examinations

Data regarding the administration of the annual physical examinations are shown in Table I. The numbers in the table refer to the remarks listed at the side of the table. These items were taken from the various reports.

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41. Wood, Thomas D., and Rowell, Hugh G., Health Supervision and Medical Inspection of Schools, p. 26.

TABLE I

PLAN OF ADMINISTRATION OF HEALTH EXAMINATIONS

IN THE SMALLER SCHOOLS OF MARICOPA COUNTY

SCHOOL DISTRICT		Riverside No. 2	Agua Fria No. 22	Jordan No. 26	Union No. 62	Aguila No. 63	Sentinel No. 71	Morristown No. 75	Nadaburg No. 81	N. Marinette No. 85	Mobile No. 86	Winters Wells No. 90	Cave Creek No. 93	Underwood Accommodation	Rainbow Valley Accommodation	Horse Mesa Accommodation	Vulture Mine Accommodation	New River Accommodation	Bartlett Dam Accommodation	Volcanic Accommodation
Were the children in your school given physical examinations during the school year 1936-37?	yes		x	x	x	x	x	3		4 x		x	7				x	x	x	x
	no	x						x	x		x		x	x	x	x				
Who gave these physical examinations in your school?	school nurse																		9 x	
	teacher			x															x	
	county doctor				x			x												x
	county nurse		X	X	x	x	x	x				x					x	x		
Were parents notified of physical defects and recommendations given that children be cared for?	yes		x	x	1 x	x	x	x		5 x		x					x	x	x	
	no												x							
How were such notifications made?	card		x	x	x		x	x												
	letter							x												
	telephone																			
	personal call			x	x2	x	x					x					x	x	x	x
What means would you recommend?	card																			
	letter							x												
	telephone		x																	
	personal call			x	x	x	x		x		x		x	x			x	x	x	x10
Do you report on the health condition of the children on the regular report card that you use?	yes			x				x	x		6 x	x							x	
	no	x	x		x	x	x			x			x	x	x		x	8 x		x

Remarks

1. "Only in case of serious defects."
2. "In a few cases."
3. "Not this year for some unknown reason. Dr. and nurse in previous years."
4. "There were only teeth and tonsils examined."
5. "It is almost impossible to notify parents only by children."
6. "If the examination has been made by the county nurse."
7. "Nurse(county) come once gave a few vaccinations for smallpox and diphtheria. Our school nurse (county) has not offered typhoid inoculations this year. We have had no nurse and no medical supervision since the first of the school term."
8. "No records were sent to us as promised by nurse (county) who took cards containing weight, etc."
9. "Company nurse."
10. "(personal call) in as small a community as ours."

The first question asked was "Were the children in your school given physical examinations during the school year 1936-37?" It will be noticed from this table that of the nineteen schools reporting on the health examination, there were eight schools(42 per cent) where no examinations were given this year. There were eleven schools(58 per cent) which reported that health examinations were given this year. One school indicated that although the examination was usually given in that school it had not been given durint the year 1936-37. One school indicated that the examination had been given but that they neglected to notice anything but the teeth and tonsils, while another school indicated that vaccinations against smallpox and inoculations against diphtheria were the only things done this year. There were ten schools(53 per cent) that had complete health examinations this year. At least it is a step in the right direction when 50 per cent of the small rural schools in a large county are taking such an interest in the health of the child.

The second question was "Who gave these physical examinations in your school- school nurse, teacher, county nurse, county doctor?" There were eleven schools(58 per cent) which answered this question. Two schools indicated that the county doctor and county nurse gave the examinations, six indicated that the county nurse alone gave the examina-

tions while one said that the county doctor gave the examinations. In one school the county nurse and the teacher cooperated in the giving of the examinations while in one school a company nurse gave the examinations. It is interesting to notice that the greater per cent of the small schools are availing themselves of the help that can be furnished by the County Board of Health. There were ten schools out of the eleven reporting, or 91 per cent, that used this county aid. This indicated a splendid spirit of cooperation. The cooperation of county nurse and teacher is good for it is a beginning in having the teacher help keep the cumulative health cards and be present at the examinations so that she realizes the difficulties of some of her handicapped children.

The third question asked was "Were the parents notified of the physical defects and recommendations given that children be cared for?" Twelve schools(63 per cent) reported that the parents had been notified. Only one school, said that no notice was sent to parents; one school said that in serious defects only were the parents notified. The greater per cent of the schools, then, are endeavoring to cooperate with the parents in the care of the children.

The fourth question asked how such notification was make whether or not by card, letter, telephone or personal call. Of the eleven schools(58 per cent) reporting on this question six indicated that the personal call was used, three

used the card and personal call method, one used the card and letter and one used a card only. Nine schools, or 81 per cent, of those reporting used the personal call method. This brings the school in closer touch with the home so that parents and teacher can work together for a mutual understanding of the child's problems.

When the schools were asked which was the preferred method of notification of parents- card, letter, telephone, or personal call- fourteen schools answered the question. Eleven schools(78.57 per cent) indicated that the personal call was the preferable method, one school indicated that the personal call and card was preferable, and two schools preferred to send letters of notification.

The last question was "Do you report on the health condition of the children on the regular report card that you use?" Twelve schools(63 per cent) indicated that they did not report the health condition on the regualr report card while six schools(30 per cent) did report on the health condition of the children on the regular report card. One school did not answer this question. It seems possible for the home to keep regularly informed on the improvement of the child if such reports could be made on the regular report card. If the child is under care because of some defect discovered in the health examination and the parents have been notified of this defect it seems only fair that improve-

ment should also be reported to the parent. This gives a permanent record of the physical defects that have been remedied and the progress in the inculcation of health habits. One reason for the lack of reporting on the regular report cards may be the fact that many schools are dropping the use of the regular report card and are sending letters of information to parents where the child is in need of especial help.

Table II gives a list of the items noticed on the annual health examination.

TABLE II

ITEMS INCLUDED IN THE HEALTH EXAMINATIONS IN THE SMALLER SCHOOLS OF MARICOPA COUNTY

		SCHOOL DISTRICT	Riverside No. 2	Agua Fria No. 22	Jordan No. 26	Union No. 62	Aguila No. 63	Sentinel No. 71	Morristown No. 75	Nadaburg No. 81	N. Marinette No. 85	Mobile No. 86	Winters Wells No. 90	Cave Creek No. 93	Underwood Accommodation	Rainbow Valley Accommodation	Horse Mesa Accommodation	Vulture Mine Accommodation	New River Accommodation	Bartlett Dam Accommodation	Volcanic Accomodation
Age				x	x		x						x					x	x	x	x
Height				x	x		x						x					x	x	x	x
Weight				x	x		x						x					x	x	x	x
Nutrition					x															x	x
Eyes-	Vision						x						x					x	x	x	
	Infection				x			x										x	x		
	Inflamed lids			x	x			x					x								x
	Strabismus																				
Ears-	Hearing																				
	Inflammation																				x
Mouth-	Teeth			x				x	x	x		x						x	x	x	x
	Caries				x																
	Gums						x	x													x
	Adenoids			x			x		x												x
	Tonsils			x	x		x	x	x		x							x	x		x
	Inflamed Throat			x	x		x		x		x									x	x
	Nasal passages							x	x												
Skin-	Impetigo				x			x	x												
	Favus																				
	Ringworm								x												
	Pediculosis				x																
Chest-	Pigeon breast								x												
	Heart							x	x												x
	Lungs							x	x												x
Scoliosis																					
Disease Experience								x													
Vaccinations-	Smallpox			x	x		x	x	x				x	x					x		
	Diphtheria			x	x		x	x	x				x	x				x	x		
	Typhoid				x				x				x								
Health Habits					x								x								

Twelve schools(63 per cent) reported on the items noticed in the annual physical examination. The number of schools reporting on each item is indicated below.

Item		Number of Schools
Age		8
Height		8
Weight		8
Nutrition		3
Eyes-	Vision	5
	Infection	4
	Inflamed lids	5
Ears-	Inflammation	1
Mouth-	Teeth	10
	Caries	1
	Gums	3
	Adenoids	4
	Inflamed throat	7
	Tonsils	9
	Nasal passages	2
Skin-	Impetigo	3
	Ringworm	1
	Pediculosis	1
Chest-	Pigeon breast	1
	Heart	3
	Lungs	3
Disease Experience		1
Vaccinations-	Smallpox	8
	Diphtheria	9
	Typhoid	3
Health Habits		2

It will be noticed that 50 per cent of the schools noticed the age, height, weight, teeth, tonsils, inflamed throat, and whether or not the child had received vaccination against smallpox or inoculation against diphtheria.

Daily Inspection

There are several reasons for a daily health inspection in the classroom.

1. To follow up the annual health examination and see

that those pupils who needed attention are being cared for.

2. To see that health habits which are being taught in the classroom are being practiced.

3. To exclude from the group all those who give any indication of illness.

The bulletin on Health and Physical Education issued by the Arizona State Board of Education as a part of the course of study for elementary schools contains suggestions as to how such an inspection could be successfully carried out.

> "During the regular morning health inspection the early symptoms of disease can be noted and referred on to the nurse or physician for further diagnosis and follow-up work. Except where qualified the teacher should not attempt to prescribe treatment."42

> "Health supervision and inspection of school children has two main purposes:
> 1. The discovery and control of communicable diseases, including infectious and contagious cases.
> 2. The discovery of defects and diseases: informing the parents about these, and persuading the parents to obtain or accept advisable attention.
> 3. The discovery and control of communicable diseases includes the early exclusion of contagious diseases of children; also the control of such infectious diseases as itch and ringworm. For carrying out this task there must be the daily health inspection."43

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42. Course of Study of Elementary Schools of Arizona, Bulletin Number Nine, p. 15.
43. Wood, Thomas D., and Brownell, Clifford L., Source Book in Health and Physical Education, p. 457.

Wood says that "daily health inspection, primarily for the control and prevention of communicable diseases in schools,"[44] is one of the health services which should be included.

Andress gives daily inspection a large place because of the opportunity for practicing habits at school.

> "The teacher must not only instruct children as to desirable habits and present motives of vital interest, but she must also follow up the children to see that these habits are actually established. The teacher will find in school plenty of opportunity to get children to practice hygienic habits. For example, children may have toothbrush drills as a part of the regular work in hygiene and the mouths of the children may be inspected every few days. Not only the teeth, but the hands and nails, may also be inspected. The necessary number of minutes should be assigned on the daily program for this purpose. This may be done very rapidly if properly systematized. The teacher may call on the different rows in turn to hold up their hands. She may then pass along rapidly, giving a word of approval or disapproval as may be warranted. Since clean hands are so necessary as a means of preventing disease, such an inspection ought to be made every day until unclean hands are quite exceptional."[45]

Table III shows the number of smaller schools in Maricopa County providing daily inspection and the items included on such inspections.

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44. Wood and Rowell, op. cit., p. 35.
45. Andress, op. cit., p. 49.

TABLE III

SCHOOLS PROVIDING DAILY INSPECTION AND THE ITEMS INCLUDED IN SUCH INSPECTIONS IN THE SMALLER SCHOOLS OF MARICOPA COUNTY.

SCHOOL		Do you have daily inspection?		Face	Hands	Neck	Ears	Teeth	Clothing Clean	Need of bath	Others
Name	No.	Yes	No								
Riverside	2		x								
Agua Fria	22	x		x	x	x	x	x	x	x	
Jordan	26	x		x	x	x	x	x	x	x	hair
Union	62	x[1]		x	x	x	x	x	x	x	
Aguila	63	x		x	x	x	x	x			hand-kerchief
Sentinel	71	x							x		Eye lids
Morristown	75	x[2]		x	x	x	x		x	x	
Nadaburg	81	x		x	x	x	x	x	x		
North Marinette	85		x								
Mobile	86	x		x	x	x	x	x			
Winters Wells	90	x		x	x	x	x	x	x	x	General appearance
Cave Creek	93	x		x	x	x	x	x	x	x	
Underwood	A		x								
Rainbow Valley	A	x		x	x	x	x	x	x	x	
Horse Mesa	A	x		x	x			x	x		
Vulture Mine	A	x		x	x			x	x	x	
New River	A	x		x	x	x	x	x	x		
Bartlett Dam	A	x		x	x	x	x	x	x	x	
Volcanic	A		3 x								

The A in the column for the Number of the school district in the last seven places refers to Accommodation school. The numbers in the table refer to notes taken from the reports as follows:-

1. "In lower grades only."
2. "In some respects."
3. "Not a formal one with only nine pupils."

There were nineteen schools that reported on the daily inspection. Four schools(21 per cent) did not give daily health inspection. One school states that the inspection was in the lower grades only. Another school reported that daily health inspections were given "in some respects," while one school reported that they did not have a "formal one with only nine pupils." The items noted and the number of schools noticing those items are given as follows.

Item	Number of Schools
Face	14
Hands	14
Neck	12
Ears	12
Teeth	13
Clothing Clean	13
Need of bath	9

Other items noted by different schools were hair, eyelids, handkerchief, and general appearance. The daily inspection in most of these small schools seems to be for the checking of health habits only. Other physical defects were either not mentioned or were not inspected. The writer

feels that they were not mentioned as the items under the medicine cabinet would indicate that children were being treated for various defects.

Periodic Examination

> "Periodic health examinations are necessary to check progress in individual cases. Without them the taking of preventive and corrective steps would be practically impossible."46

The question was asked on the letters sent out to the smaller schools of Maricopa County, "How often do you weigh and measure the children?"

Of the nineteen schools answering the letters, eight schools(42 per cent) did not have periodic times to weigh and measure or they did not answer the question, six schools held semi-annual examinations, four schools only did it annually, and one school had weighing and measuring every six weeks. There were seven schools(37 per cent) that had some sort of an examination beside the annual health examination. If this had been carried out regularly it could have been a check on the annual examination to see whether or not the defects noticed at that time had been corrected. The writer feels that the modern trend in health care of children demands that there be a periodic check on the progress they are making. If periodic examinations were given each six weeks there would be six examinations a year. That would be a good plan for

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46. Arizona State Course of Study, Bulletin Nine, p. 14.

children having physical defects. Twice yearly should be sufficient for normal children if they are re-examined when entering school again following any illness.

Pre-School Round-Up

Of the nineteen schools answering the question, "Do you have an annual pre-school round-up?" fourteen schools (74 per cent) said that they did not have such a round-up. There were three schools that did not answer the question. Two schools(10 per cent) had pre-school round-ups. In the two schools that had the pre-school round-ups there were six children examined in each. Other schools had had such a round-up in other years but not in the year 1936-1937.

Table IV shows the schools having pre-school round-ups.

TABLE IV

THE SMALLER SCHOOLS OF MARICOPA COUNTY HAVING A PRE-SCHOOL ROUND-UP AND THE NUMBER OF CHILDREN INCLUDED IN THIS ROUND-UP.

SCHOOL		Do you have an annual pre-school round- up?		Number of children included in this round-up.
Name	No.	yes	no	
Riverside	2	x		6
Agua Fria	22			
Jordan	26		x(1)	
Union	62		x	
Aguila	63		x	
Sentinel	71	x		6
Morristown	75		x	
Nadaburg	81		x	
North Marinette	85		x	
Mobile	86		x	
Winters Wells	90		x	
Cave Creek	93		x	
Underwood	A		x	
Rainbow Valley	A		x	
Horse Mesa	A		x	
Vulture Mine	A		x	
New River	A		x	
Bartlett Dam	A			
Volcanic	A	(2)		

(1) "Have had(pre-school round-up) other years with immunizations against diphtheria."
(2) "Do not know. There was no school here until November."

The schools should canvass their districts to obtain the names of all pre-school children residing there. The parents of these children should be informed about the time of the visit of the county doctor and nurse and urged to come and bring their pre-school children. Inoculations against diphtheria and vaccinations against smallpox should be given at this time. If this were done there would be the double advantage of protection against the ravages of these diseases and both parents and children would not dread the coming of the child's first year in school. Many young children in their first year of school learn to dislike the coming of the nurse or doctor as it means to them more of something disagreeable.

A record of the defects discovered in these annual health examinations will be taken up in the following chapter on Remedial Procedures.

CHAPTER IV

REMEDIAL PROCEDURES

Basic Philosophy

The interest in health in so many places has seemed to stop with the health examination. This should be only a beginning. The form which remedial procedures takes has been different depending upon the locality. That remedial procedure is necessary is a point upon which most authorities agree.

> "The modern school is interested in the best health of all its pupils and all its employees, and in the highest possible accomplishments in remedial measures for cases requiring treatment. To attain these ends, it is necessary and expedient that every "health facility" of the community should be made available through cooperation between the school and other health organizations, such as hospitals, social agencies, and the Board of Health. Successful education is so dependent upon the pupil's good health that almost any necessary degree of school health service can be justified on this basis alone.
>
> What health service the school will provide depends largely:
>
> 1. Upon the needs of the pupils;
> 2. Upon the facilities which the community already has or can provide for cases requiring treatment.
>
> The intelligently planned health service program will therefore include:
>
> 1. Provision for first aid treatment of some diseases and injuries;
> 2. Other types of service which are not already available in the community, and which it is practicable for the school to undertake."47

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47. Wood and Rowell, op. cit., p. 51-52.

Ayres says that "it is of little value merely to discover defects. It is of immense value to see that such defects as are discovered are remedied."[48] In speaking of the success of medical inspection Cornell says that "the success of the work of medical inspection is judged by the reduction in the number of cases of contagious diseases, and the number of physical defects corrected."[49]

> "Regarding the suppression of the minor contagious diseases, the work of the medical inspectors and nurses has produced marvelous changes. The number of pediculosis cases is only a fraction of that of six years ago, and the same can be said of ringworm, scabies, pustular eczema, and impetigo....The success of medical inspection in correcting the physical defects of children depends upon the character of the population, the existence of free dispensaries, the help of the school nurse, the energy of the medical inspector, and the cooperation of the teacher."[50]

The National Child Health Council includes in its scope of health work in the schools the remedial work.

> 1. "Health training and instruction, meaning training in health habits, acquisition of health knowledge, and the formation of ideals and attitudes tending to promote personal and community health, to be given to all school children, either in the course of regualr classroom work or in special classes if needed.
> 2. Physical-training activities as related to health, meaning all supervised play, school athletics, gymnastics, etc.
> 3. Health supervision of children and teachers, which includes:

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48. Ayres, Williams and Wood, op. cit., p. 220.
49. Cornell, op. cit., p. 140.
50. Ibid, p. 141.

a. Health inspection, daily, to detect communicable and other acute diseases, and any other conditions adverse to health.
b. Health examinations to chart the condition of the child, reveal his physical and mental defects, and indicate the relation of such defects, if any, to his capacities.
c. Health correction to include all steps necessary to secure the remedial treatment of children with defects, in cooperation with parents and the family physician. Also work in the correction of malnutrition, including the preparation and serving of school lunches.

4. Preparation of teachers for health training and instruction, meaning all steps necessary to prepare teachers now on the school staff, as well as those who are being prepared for teaching, to take an efficient part in health education, by giving them a better knowledge of the subject matter and methods to be used, and by encouraging them to practice health habits.

5. The hygienic arrangement and administration of the school program....This would include such questions as the determination of length and arrangement of the school day; length of periods; alternation of work and rest; number, length, and character of recesses; number and sequence of subjects; examinations and tests; size of classes; forms of discipline; extra curricular activities, including home study, etc.; the composition and make-up of school texts and the personality and influence of the teacher.

6. Mental hygiene...Mental hygiene, which began with the care of the feeble-minded and mentally disordered, is now concerned also with the mental health of normal children. This includes the prevention of mental disorder and training in habits of healthful mental activity. It has to do with the mental tests of children, the education of the defective and those whith arrested development in special classes and the like, and the application of the principle of mental hygiene in the training of the normal.

7. The hygiene of the school plant, meaning the correct construction and equipment of school buildings, the proper planning of play-grounds, adequate and sanitary toilet facilities, the hygienic heating and ventilating, cleaning, lighting, correct adjustment of furniture, etc."[51]

51. National Child Health Council, Health for School Child-

Of course the school could exclude those who have physical defects which might endanger others with whom they come in contact. This is shifting the responsibility to other shoulders. If the school knew that by notification of parents and exclusion from school the child with defects would be cared for it could perform these services joyfully but it is known that such is not true.

Correction by Parents

Because of poverty, religious beliefs, ignorance, shiftlessness, or superstition parents have many times neglected to care for their children properly. Although it is considered the responsibility of the parent to care for his minor children one is sometimes confronted by queer happenings. For example in Arizona in the spring of 1937 it was found that no law existed in Arizona whereby a father could be forced to accept and care for his own child if he did not wish to do so. The example was the case of a father who refused to allow his wife to bring home a baby girl to whom she had given birth, because he wanted only boys in his family.

As many other duties have fallen upon the school where the home has ceased to function so health is coming to be a necessary and primary function of the school.

By reading the various reports of authorities it seems that the correction of defects by parents depends largely

upon the financial ability of the parents.

> "The average medical inspector, by the use of printed notices, can secure in an American neighborhood treatment for about 30 per cent of his eye-strain cases, and about 50 per cent of his nose and throat cases....Among the best classes the correction of eye-strain and diseased nose and throat conditions, after notification, is the rule. ... Among the poor Americans the response, if a dispensary be handy, is better than in any other social class.....The response of the foreign poor to written notices is practically nil.... The correction of decayed teeth is an almost impossible task in this present generation. Among the better classes considerable success attends the medical inspector's efforts, but these are the smallest fraction of the whole school population."[52]

In the remarks following Tables V, VI, VIII and IX it will be noticed how many times the health work of the school was hindered by the refusal of consent by the parent or the opposition to some form of remedial treatment by the parent. Wood says, "The average parent, strangely enough, pays as little attention to the customary notice sent from school as to form letters, from any source. Notices alone are worth sending but get no remarkable result as compared with notices plus visits."[53]

Table V on the following page shows the number of children vaccinated against smallpox in the smaller schools of Maricopa County, the provisions for vaccinations, and the number never vaccinated and the reasons why vaccinations were not given.

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52. Cornell, op. cit., pp. 142-143.
53. Wood and Rowell, op. cit., p. 57.

TABLE V

NUMBER OF CHILDREN VACCINATED AGAINST SMALLPOX IN THE SMALLER SCHOOLS OF MARICOPA COUNTY, PROVISIONS FOR VACCINATIONS, NUMBER NEVER VACCINATED, AND REASONS WHY VACCINATIONS WERE NOT GIVEN

School		Who provided vaccinations?				
Name	No.	Co. Dr.	Co. Nurse	Private Doctor	No. Vaccinated	No. never vaccinated
Riverside	2	x			27	
Agua Fria	22				12	24
Jordan	26		x		50	10
Union	62	x			50	47
Aguila	63	10	21	1	32	10
Sentinel	71		x		11	3
Morristown	75		x		33	29
Nadaburg	81		x		8	2
No. Marinette	85		x		8	7
Mobile	86			1	1	
Winters Wells	90	9			9	6
Cave Creek	93		x	10	40	20
Underwood	A			2	2	10
Rainbow Valley	A	x		x	7	
Horse Mesa	A			x	3	12
Vulture Mine	A		5	1	6	9
New River	A		x		10	4
Bartlett Dam	A			x(1)	8	5
Volcanic	A(2)					

(1) Company doctor
(2) Did not know as there were no reports left in school.

Reasons Why Children Were Never Vaccinated

1. "Parents did not five their consent." This appeared 10 times. The same reason was expressed variously as:

"Prejudice on part of parents."
"Parents objected."
"War Veterans had such a dose of shots in World War they object to children being inoculated."
"Parents opposed to it."
"Objection of parents could not be overcome."

"Parents not interested."
"Some parents would never agree."

2. "Not in school when vaccinations given." There were three arguments given similar to this statement. They were expressed as:-

"Were not in state at the time."
"Parents move so often children can't get treatment."

3. "County nurse has not been to the school this year." This argument was given twice.

4. "Lack of funds." This reason was given once.

5. "Isolation." This reason was given twice.

6. "Children had had the smallpox already." This reason was given twice.

There were 196 children in these 19 schools who have never been vaccinated against smallpox. This is 26.58 per cent of the total number enrolled in these schools who reported on the vaccinations or fifteen schools. It will be noticed that out of the 317 vaccinated against smallpox only fifteen(4.7 per cent) of these were vaccinated by a private doctor.

When the great mortality of smallpox is considered it becomes the duty of every citizen to see that the spread of such a disease is prevented. It is unbelievable that over one fourth of the children of school age in our rural communities have never been vaccinated. The greatest reason for non-participation in this health precaution was the opposition of the parents. It is high time, then, that

parents were being interested in adult education classes in order to overcome some of their superstitions and ignorance.

Table VI showing the number of inoculations given to prevent typhoid, the provisions for such inoculations, the number never inoculated, and the reasons why inoculations were not given will be found on the following page.

TABLE VI

NUMBER OF CHILDREN INOCULATED AGAINST TYPHOID IN THE SMALLER SCHOOLS OF MARICOPA COUNTY, PROVISIONS FOR INOCULATIONS, NUMBER NEVER INOCULATED, AND REASONS WHY INOCULATIONS WERE NOT GIVEN

SCHOOL		Who provided vaccinations?				
Name	No.	Co. Dr.	Co. Nurse	Private doctor	No. Vaccinated	No. never vaccinated
Riverside	2	x			30	
Agua Fria	22				17	26
Jordan	26		x		47	13
Union	62				75	22
Aguila	63					6
Sentinel	71				11	3
Morristown	75				29	29
Nadaburg	81				7	3
North Marinette	85				12	3
Mobile	86				0	
Winters Wells	90				9	6
Cave Creek	93				10	50
Underwood	A	1		2	3	9
Rainbow Valley	A				0	
Horse Mesa	A		x		8	7
Vulture Mine	A		x		6	9
New River	A				0	9
Bartlett Dam	A				1	12
Volcanic	A	"I do not know."				

Reasons Why Children Were Never Inoculated

1. "Parents opposed it." This reason was given nine times in varying forms.
2. "Our school nurse(county) has not offered it(inoculations) this year." This reason was given four times.
3. "The children were not in school in the district when

the inoculations were given." This reason was given three times.

4. The children were "too remote" from facilities. This reason was given twice.

5. The next three reasons were each given just once.

"The inoculations will be given later in the year."

6. "There are no records in the school about inoculations."

7. "Lack of finances."

There were sixteen schools reporting on inoculations. There were 265 children who had been inoculated against typhoid. This was 44.83 per cent of the children enrolled in these sixteen schools. There were fifteen schools reported on the number of children who had not been inoculated. There were 207 children who had not been inoculated against typhoid. This was 39.73 per cent of the children enrolled in these fifteen schools.

In an irrigated region where open canals are seen in abundance and where these canals are used as swimming places for a large number of people it seems only reasonable to expect that the population should be protected as much as possible from this disease. It should be required by law that not only the children in the public schools but that the entire population above two years old be inoculated against typhoid in the parts of the state where open irrigation canals are found.

Through an oversight the question asking the number of

children inoculated against diphtheria was omitted. However, the data as to whether the inoculations were given and by whom were obtained. These data will be found in Table VII.

TABLE VII

SMALLER SCHOOLS IN MARICOPA COUNTY GIVING INOCULATIONS AGAINST DIPHTHERIA, AND PROVISIONS FOR THESE INOCULATIONS

SCHOOL		Who provided vaccinations?		
Name	No.	County doctor	County nurse	Private doctor
Riverside	2			
Agua Fria	22		x	
Jordan	26		54	
Union	62	x		
Aguila	63	x	x	
Sentinel	71		x	
Morristown	75			
Nadaburg	81			
North Marinette	85			
Mobile	86			
Winters Wells	90	x		
Cave Creek	93		x	
Underwood	A			
Rainbow Valley	A			
Horse Mesa	A			
Vulture Mine	A		x	
New River	A		x	
Bartlett Dam	A			
Volcanic	A			

Table VIII indicated the number of tonsillectomies performed, by whom, who paid the bill, how many tonsillectomies should have been performed that were not and the reasons why they were not performed.

TABLE VIII

NUMBER OF PUPILS IN THE SMALLER SCHOOLS OF MARICOPA COUNTY HAVING TONSILLECTOMIES PERFORMED, PROVISION MADE FOR THESE TONSILLECTOMIES, NUMBER OF PUPILS NEEDING TONSILLECTOMIES WHO DID NOT HAVE THEM, AND THE REASONS FOR NOT HAVING THE TONSILLECTOMIES PERFORMED

SCHOOL		Who provided tonsillectomies?		Who paid the bill?	Tonsillectomies needed.
Name	No.	Co. Dr.	Private doctor	Co. Parents	
Riverside	2		11	x	5
Agua Fria	22				4
Jordan	26	2			0
Union	62		5	x	10
Aguila	63	0			5
Sentinel	71	0			0
Morristown	75		2	x	17
Nadaburg	81	0			0
North Marinette	85	0			
Mobile	86	0			
Winters Wells	90	0			
Cave Creek	93	0			4
Underwood	A	0			3
Rainbow Valley	A	0			
Horse Mesa	A		1	x	1
Vulture Mine	A	0			
New River	A	0			3
Bartlett Dam	A				3
Volcanic	A	0			5

Reasons Why Tonsillectomies Were Not Performed on Those Who Needed the Operation

1. "Parents do not want it." This reason was given seven times.

2. "Lack of funds." This was the reason for six persons.

3. "The 1935 relief funds removed all who needed it then." Two schools reported that such was the case.

4. "Waiting till summer." This was given once.

5. "Parents want tonsillectomies but object to the County Doctor." This was given once.

6. "Too remote from facilities." This reason was given once.

7. "None needed." This was given by one school as the reason for no tonsillectomies.

Table VIII shows that 21 tonsillectomies were performed and only two(9 per cent) of these were performed by the county doctor. The remainder of the tonsillectomies were performed by a private physician and were paid for by the parents. There were sixty children who needed tonsillectomies who did not get the operation. This is 13.24 per cent of the enrollment in the schools where tonsillectomies were needed. Under the reasons for not having these tonsillectomies performed the lack of finances accounted for about one third of the reasons given, while the lack of interest or opposition of the parents accounted for another third of the reasons for not having the operation performed.

Table IX deals with the teeth of the children, how many teeth were pulled, how many teeth filled, who provided this care, and how many needed care who did not get it, and the reasons for the neglect of treatment.

TABLE IX

NUMBER OF CHILDREN IN THE SMALLER SCHOOLS OF MARICOPA COUNTY WHO NEEDED DENTAL CARE, NUMBER OF CHILDREN HAVING TEETH PULLED AND FILLED, NUMBER OF TEETH PULLED AND FILLED, PROVISION MADE FOR THIS CARE, AND REASONS FOR NOT GIVING CARE TO THE CHILDREN WHO NEEDED IT

SCHOOL		Children needing dental care	Children having teeth pulled	Teeth pulled	Children having teeth filled	Teeth filled
Name	No.					
Riverside	2					
Agua Fria	22	6				
Jordan	26	1	1	3		
Union	62					
Aguila	63	3				
Sentinel	71					
Morristown	75	35	20	44	2	3
Nadaburg	81		2	4		
North Marinette	85	"very few"				
Mobile	86					
Winters Wells	90	2	2	3		
Cave Creek	93					
Underwood	A					
Rainbow Valley	A					
Horse Mesa	A					
Vulture Mine	A	2				
New River	A	6	4	10		
Bartlett Dam	A		5	11	1	2
Valcanic	A	2				

In every instance where children received care for teeth the parents paid the bill. There were 57 children who needed dental care. Thirty-four children had teeth pulled and three had teeth filled, making thirty-seven children who had dental care. There were twenty children(6.5 per cent of the enrollment) who needed dental care who did not receive it.

The reasons given for not caring for those who needed dental care were:-

1. "Parents could not afford it." This reason was given five different times.

2. "Lack of interest." "Bull-headed parents." This was given as a reason twice.

3. "Parents moved before teeth were cared for." One school gave this reason.

The reason given 62.5 per cent of the time was the lack of finances. It seems advisable under the circumstances that a county dentist be employed.

In speaking of the teeth of children and adults Cornell says-

> "In childhood the decayed material swallowed is rendered aseptic by the hydrochloric acid of the stomach. Nature thus safeguards against an only too common unhygienic factor. Certainly with 40 per cent of all school children and 70 per cent of younger school children possessing decayed teeth the depressive influence can be operative in only a limited number of cases or our whole juvenile population would be invalids.
>
> In adult life, however, when dyspepsia is frequent and the protective power of the secretion diminished, there may occur the gravest diseases and most marked debility from decayed teeth. Dyspepsia, poor nutrition, anemia, and tuberculosis, and possibly pernicious anemia and malignant growths of the stomach, are examples of these. Let us, therefore, made our theme present preservation for future protection.. The child should be taught that adenoids cause irregular teeth, and that such teeth decay readily. He should be taught that decayed teeth, chronic gum abscesses, and lost teeth will, after a time, produce certain definite conditions which will lower his adult value."[54]

54. Cornell, op. cit., p. 311.

Table X shows the number of children needing glasses and whether or not they received them.

TABLE X

NUMBER OF CHILDREN IN THE SMALLER SCHOOLS OF MARICOPA COUNTY NEEDING GLASSES, NUMBER OF CHILDREN RECEIVING GLASSES, PROVISION MADE FOR THESE GLASSES, AND PROVISION FOR TREATMENT FOR SORE EYES

SCHOOL		Children needing glasses	Glasses received	Number treated for sore eyes	Who treated them?(1)		
Name	No.				Co. N.	Tea.	Private
Riverside	2	1	1	5		x	
Agua Fria	22	1	0				
Jordan	26	0	0	6		x	x
Union	62	6	3	12		x	
Aguila	63	2	0				
Sentinel	71	0		4(2)	x	x	
Morristown	75	8	0	15		x	
Nadaburg	81	1	0				
North Marinette	85	0	0	0(3)			
Mobile	86	0					
Winters Wells	90	1	0	20		x	
Cave Creek	93			40		x	
Underwood	A	5(4)	0				
Rainbow Valley	A						
Horse Mesa	A						
Vulture Mine	A						
New River	A			2		x	
Bartlett Dam	A			1			x
Volcanic	A						

(1) Co. N.- County nurse; Tea.- Teacher; Private- doctor
(2) "Granulated"
(3) "There have been no sore eyes in school this year."
(4) "One(very badly), four(from appearances)."

Table X shows that there were twenty-five children needing glasses while four were supplied with glasses. In each of these cases the parents provided them. There were twenty-

one children(5.6 per cent of enrollment) who did not receive glasses when they needed them.

There were 105 children(28.45 per cent of the enrollment) who were treated for sore eyes. The majority of the children were treated by the teacher(8 instances), two by private doctors, and one by the county nurse. It has been customary in these rural schools for the county doctor to send a prescription to the teacher or for the county nurse to tell her what to do for the children who have sore eyes.

Table XI shows whether or not the smaller schools of Maricopa County are keeping a height-weight chart and what arrangements are made for school lunches or for special care for malnourished children.

TABLE XI

SMALLER SCHOOLS IN MARICOPA COUNTY KEEPING HEIGHT-WEIGHT CHARTS, NUMBER OF TIMES MEASUREMENTS ARE TAKEN, NUMBER OF SCHOOLS SERVING SCHOOL LUNCHES, AND SPECIAL ATTENTION PAID TO MALNOURISHED CHILDREN

SCHOOL		Do you keep a height weight chart?		How often do you weigh and measure the children?(1)			Do you serve school lunches?		Do you serve special diet to children below normal weight?	
				A.	S-A.	6wk.				
Name	No.	yes	no				yes	no	yes	no
Riverside	2	x				x		x(2)		x
Agua Fria	22	x			x			x		x(3)
Jordan	26	x			x			x		x
Union	62	x			x			x		
Aguila	63		x(4)				x(5)			x
Sentinel	71		x					x		
Morristown	75	x			x			x(6)		
Nadaburg	81		x(7)					x		x
North Marinette	85		x		x			x		
Mobile	86	x			x			x		
Winters Wells	90	x				x	x(8)			x
Cave Creek	93		x		x			x		x
Underwood	A									
Rainbow Valley	A		x					x		
Horse Mesa	A		x(9)					x		
Vulture Mine	A		x					x		
New River	A		x					x(10)		x
Bartlett Dam	A		x		x			x		
Volcanic	A		x(11)				x(12)			

(1) A.-Annual; S-A.- Semi-Annual
(2) "We keep soup and crackers and peanut butter on hand for children who for some reason or another did not bring their lunch that day."
(3) "All pupils, with the exception of one, are well nourished and in good health. One boy has more or less trouble with sinuses but is under a physician's care."
(4) "Nurse failed to send it(height-weight chart), when it was requested."
(5) "apples"

(6) "No equipment, no room, and no finances."
(7) "I have no scales. The nurse has been here but once this year."
(8) "We give our children fresh fruit, tomato juice, pineapple juice etc."
(9) "no equipment."
(10) "We furnished milk and fruit through W. P. A. for year 1935-36. No lunches furnished this year except that cocoa was servwd by teacher during expecially cold whether and when "flu" was prevalent."
(11) "No scales here."
(12) "Fruit at noon for better balance. I have been buying fruit since January until this week, when the County Superintendent deliverad a sack of oranges."

The question was asked "Do you give children who are below normal weight anything beside food to bring up their weight?" Six schools answered "no" to this question. Three schools answered "yes".

The next questions were "What do you use?" and "Was this prescribed by a physician?" The three schools that answered "yes" to the previous question said that cod liver oil was given. Two schools reported that a physician had prescribed it while one school reported that it was given without a doctor's prescription.

Another question "Who pays for school lunches?" was asked. The Governor's fund paid for lunches in four schools when lunches were given. The teacher paid for it in one school. The following remarks were given by different schools regarding school lunch funds:-

> "Federal funds used but not this year. Lunches were served with federal funds in 1934-35 and in 1935-36. There were no such funds this year and we needed it as the children do not bring a balanced lunch. They need milk and fruit especially. The Governor's fund was not sufficient for lunches so was used for clothing. Last year and for several years past we have given the worst cases of
> ecial diet and two were given

sun baths. This was under a doctor's orders."

"All this fund(Governor's) received by us has been used for shoes. Clothing has been obtained from Red Cross."

"The Mothers' Club and American Legion cooperate with us and raises a little money from dances."

Correction Through School Clinic

The school clinic cooperating with the state board of health seems to be the ideal situation if such is possible. In some places the rural schools are provided with such a clinic by having traveling dental wagons. Arizona started in the right direction when the traveling clinic for the testing of tuberculosis was established.

"Some school systems, as in Detroit, have the benefit of their own diagnostic clinic; in the particular case, under the direction of the Board of Health. Here the staff consists of an eye specialist, a nose and throat specialist and an internist. This is group medicine appled to school health work. Cases are referred by the teachers when it is believed necessary. A clinic of this type has considerable merit. It would seem the logical agency where the school population is large enough; otherwise the same duties are carried out by physicians less specialized."[55]

Table XII indicates the number of schools providing medicine cabinets and the articles contained in those medicine cabinets.

55. Wood and Rowell, op. cit., p. 57.

TABLE XII

SMALLER SCHOOLS IN MARICOPA COUNTY HAVING MEDICINE CABINETS AND THE ARTICLES CONTAINED IN THOSE CABINETS

	Riverside 2	Agua Fria 62	Jordan 26	Union 62	Aguila 63	Sentinel 71	Morristown 75	Nadaburg 81	North Marinette 85	Mobile 86	Wintersvells 90	Cave Creek 95	Underwood Accommodation	Rainbow Valley Accommodation	Horse Mesa Accommodation	Vulture Mine A.	New River A.	Bartlett Dam Accommodation	Volcanic Accommodation
Do you have a medicine cabinet? yes	x	x	x	x	x	x	x	x	x[1]	x	x	x[2]	x	x	x	x	x		x
Do you have a medicine cabinet? no																			
Swab sticks	x	x	x	x			x	x				x	x	x	x		x	x	
Thermometer			x									x	x	x	x		x	x	x
Tongue Depressor	x	x	x				x	x				x	x	x	x		x	x	
Splinter forceps		x		x								x						x	
Scissors	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Gauze	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Cotton	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Adhesive Tape	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Argyrol			x	x			x				x	x		x	x	x	x		x
Iodine		x	x			x	x				x	x			x				x
Alcohol	x		x	x			x	x	x			x	x	x	x	x	x	x	
Lysol			x																
Yellow Mercuric Oxide		x	x				x					x		x					
Green Soap			x																
Aromatic Spirits of Ammonia							x	x						x	x		x	x	
Mercurochrome	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

1. "We have first aid kit only."
2. "Teacher buys all medical supplies."

All of the nineteen schools reporting had medicine cabinets. All of the schools provided scissors, gauze, and adhesive tape. Eighteen of the schools provided cotton and mercurochrome. Thirteen schools(68.42 per cent) provided alcohol; twelve schools (63.15 per cent) provided swab sticks; eleven schools (57.72 per cent) provided tongue depressors; ten schools (52.63 per cent) provided argyrol; eight schools (42.10 per cent) provided thermometers and iodine; six sxhools (31.57 per cent) provided aromatic spirits of ammonia; five schools(26.31 per cent) provided yellow mercuric oxide; four schools(21.05 per cent) provided splinter forceps and one school provided green soap. Items not mentioned in the list that the schools listed as having in their medicine cabinets were:-

Snake bite kit---------- ----5 schools
Unguentine----------2 schools
Turpentine----------2 schools
B. K. ----------1 school
Zinc Oxide----------1 school
Buhack----------1 school
Phenol----------1 school
Olive Oil----------1 school
Mercuric Oxide----------1 school

Correction Through County Clinic

The smaller rural schools of Maricopa County and the County Health Units have cooperated to a large extent in the health care of school children.

Tables IV to XI on the preceding pages have reference to the various remedial procedures as based upon the health examinations which are being employed in the smaller schools om Maricopa County.

In Table V(Page 53) of the 317 children vaccinated against smallpox, 302(95.26 per cent) were vaccinated by either the county doctor or the county nurse.

In Table VI(Page 56) the figures show that of the 265 who were inoculated against typhoid, 263(99.24 per cent) were inoculated by either the county doctor or the county nurse.

Through an oversight the questions regarding the diphtheria inoculations were left out of the questionnaires. However from other parts of the reports we know that at least ten of the nineteen schools had given the inoculations against diphtheria. These schools(52.63 per cent) had the inoculations given by either the county doctor or the county nurse.

In Table VIII(Page 59) there were only two cases in which the county doctor performed the tonsillectomies. These were given to the children as a gift as the county does not pay the county physician for such operations.

In Table X(Page 63) the reasons for not fitting the children who needed glasses and who did not receive them were not given. It will be noted, however, that all but two cases of sore eyes were cared for by either the county nurse or the teacher.

Free Service

It was noted under the discussion of Table VIII(See Page 59) that two tonsillectomies were performed by the county doctor who received no remuneration for his services. The county pays physicians in different localities to care for general care of indigents. This does not include operations or maternal care. The county work in vaccination and immunization is all free to the children of Maricopa County. The advice that the county physician gives to the teacher in relation to sore eyes or any other ailment is all free to the children. Under the "Practices Regarding Medical Care" at the end of this Chapter it will be noted that one school mentions this fact, "if there is a problem I cannot solve, I write or telephone Dr._____, the County Doctor. I have secured several pairs of glasses from W. P. A. and one pair from American Legion Child Welfare."

Too much cannot be said for the kindness and consideration that the doctors both private and county have shown the schools in the advice and care of children who were too poor to pay for treatment. One case was discovered where a den-

tist in private practice had given his services over a period of several years to a school. He had pulled teeth using his own medicines for deadening the nerve in the gums for many children during that time and had filled teeth for others at the cost of the materials. "A servant is worthy of his hire," and the state should not expect the trained dentist to donate his services. He should receive proper remuneration from the county in which he serves.

What Attitudes Are Being Developed

With each passing year people are developing a greater health consciousness. They are beginning to know that health must be maintained if one is to earn a living and have any reasonable amount of happiness in life. They are realizing that health is of prime importance and must be sought first. They feel that where the fees of the private physician are beyond the means of a majority of the people that some means must be furnished by the state to keep them in good health.

As citizens of the state who are being educated by the state and who are being compelled to attend such schools they feel that their health should be cared for and not ignored. Free help they must have and will have wherever they can obtain it. To prevent the ignorant from becoming the prey of quacks the state will have to find a better way to care for its citizens.

As free textbooks came to be desired and expected the schools took over the responsibility. Health which is of

more importance even than learning should also become a duty of the school and of the state.

The last question on the questionnaire was "Please indicate practices regarding medical care and the improvement of health conditions which have not been touched on above. Also indicate problems which you have found especially difficult."

The following answers were given to this question by the different schools answering the questionnaires.

Practices Regarding Medical Care

"Our biggest problems are sore eyes every fall, impetigo, and pediculosis. After two months of school we get them under control but every fall the same round has to be taken.

It would be a fine thing to have a clinic where these people could go the year round and have regular hours for dental work, eyes examined and other ailments. The vaccinations could be carried on there and the schools could take the children to these clinics instead of having the county nurses come at irregular times."

"1. School lunches. Even with Federal assistance to pay salary of cook, the district simply could not afford lunch room. Many children are undernourished:- these from families recently moved to Arizona from Oklahoma.

2. A serious problem here is created by practice of dairymen feeding lettuce culls to cattle, creating breeding places for flies. County authorities have failed to remedy this.

3. Conditions in some cotton camps create school health problem. Children come with dirty clothes. They are taken home, and teacher is told to wash them or get them more new ones. "Poor white trash." Many of these children come to school simply because the truant officer forces parents to send them."

"The greatest drawback to the health of school children is the indifference of parents and their lack of responsibility in seeing that the child form proper health habits in regard to sleep, food, etc.

The inspection of water supply and improvement of conditions by county health unit is commendable."

"We need to get the cooperation of county nurse and county doctor. They seem to visit the smaller schools, only when they are making a trip to and from the larger schools, and never have time to make a thorough examination, neither do they respond to requests for help in diagnosing contagious diseases at times.

It would be a decided help to the smaller schools who seriously need the services of a county health unit, if a specified stated time was set and kept by the county nurse to visit the small rural schools. The large communities have doctors and hospitals, where children can have proper care, the rural schools are sadly neglected....."

"We have used the school or Governor's fund for clothing for very poor children. During the time Mrs._____, the county nurse, had our school in charge, children who wanted inoculation received it. Mrs._____, also, came out regularly to take care of children last year but so far this year the nurse has made only one professional visit. She was to come back to weigh and measure, but has not to this date.

Many of the parents do not care for these services and prefer to have their family physician perform these duties.

This is a desert school and draws its attendance from widely separated localities. I think the nurses especially, Mrs._____, Mrs._____ and Mrs. _____ have done all they could under the circumstances."

"If there is a problem I cannot solve, I write or telephone Dr. _____, the county doctor.

I have secured several pair of glasses from W. P. A. and one pair from American Legion Child Welfare.

Our youngsters compete in Health Contest in _____Junior Fair. This promotes enthusiasm

and the youngsters welcome the chance to be examined."

"The problem I have found especially difficult is combating skin troubles."

"_____ is a construction camp. The children are from homes of the officials. We have a camp doctor and nurse."

"Four cases of trench mouth have been cured, the boy with the frightful case having been removed from school. Two children have been taken to Phoenix for tubercular skin tests and X-rays; results still unknown. County doctor suspected one of these of having T. B.(the rest of the children were not taken in because parents would not agree.)

The county doctor suspected a seven year old girl of having syphilitic parents, but although a case worker was promised us a month ago, nothing has as yet been done.

Since being furnished with cod liver oil the sores on little bodies have disappeared. These were caused by vitamin deficiency, according to the doctor.

Atrocious lighting has been made satisfactory by the addition of three windows."

CHAPTER V

POSITIVE HEALTH INSTRUCTION

Basic Philosophy

Considering health from the standpoint of cold cash it pays the state to care for its future citizens. It is estimated that an American boy is worth $9000 at birth and at the age of fifteen is worth $25,000. His life, then, is too valuable to be wasted, yet each year $100 is spent on his general academic education and $1.00 is spent on the care of his health.

> "The wastage of children under fifteen years of age is enormous, the loss reaches the astounding total of $1,650,000,000."[56]

> "There can no longer be any excuse for continuing the disgrace of the neglect of our children."[57]

Kate Douglas Wiggins says- "To cure is the voice of the past, to prevent the divine whisper of today."

> "We know that the cause of premature death from degenerative diseases is largely bad health habits, and that they are a fundamental contributing cause of death from infectious diseases. The chief cause of all disease is bad health habits. Habits- in cleanliness, rest, exercise, food, and the other subjects vital to physical, mental, and moral health are a man's own action.
>
> Good health habits are the only anti-dote yet discovered for bad ones: and as the latter

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56. Dublin, Louis I., Health and Wealth, p. 52.
57. Ibid, p. 61.

> are the chief deterrent for health, good habits should be the main objective of health teaching in schools."[58]

There are many phases of health education and all have a part when health is being considered. Health education must include the instruction of health habits and attitudes, physical education and recreation, sanitation of school and community, and community health problems, and the political health department and school relationship.

> "A committee of which Jesse Feiring Williams was chairman, reported on the "Definition of Terms in Health Education," They define Health Education in such a way that Physical Education must be included in its scope:
>
> "Health Education is the sum of all experiences which favorably influences habits, attitudes, and knowledge relating to individual, community, and racial health."[59]

The responsibility for community health and that of the school should be so interrelated that one could not be distinguished from the other. Both will ultimately become responsibilities of the state.

> Personally, I am convinced that the major responsibility of the state today is to make adequate provision for an educational program designed to meet not only the intellectual but the social, physical and emotional needs of this age group."[60]

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58. De Forest, Charles, M., "Health Training in the Schools," Journal of Social Forces, Vol. 1, 1922-23, p. 567.
59. Rogers, Frederick Rand, "Physical Educators and Health," Education, May 1937, Vol. 57:557.
60. Phair, J. T., "Child Health and the Elementary School," American Journal of Public Health, 26:456, (May 1936).

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"Second, that a well directed interest in the present and future health of this age group is a responsibility jointly shared by the educational and health authorities.

Third, that the grade teacher is the individual who has the greatest single contritution to make to any worth while type of school health program and the special fields of effort with which most of us are concerned, are merely designed to aid the teacher in the better doing of his or her job."61

Instruction

The many phases of health education have been mentioned above. Here is the way Blanchard expresses it.

"Any successful school health program must concern itself with three distinct factors: (1) healthful school living, (2) health service and (3) health instruction."62

"Community health consists of the cooperation of the citizens in the community; a safe milk supply; careful food inspection; sanitary disposal of city waste, garbage, and sewerage; protection against communicable diseases; mental hygiene; and lastly but increasingly imperative, education in health."63

It is to be regretted that Physical Education should ever have been separated even in thought from health education. One is the outgrowth of the other. If a child is taught in health education that exercise is fundamental to the proper functions of the body, then, how natural to find him desiring to exercise in a way which gives him

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61. Phair, op. cit., p. 461.
62. Blanchard, V. S., "Integration of the School Health Program with Community Health Education," American Journal of Public Health; 26:625, (June 1936).
63. Ibid, p. 626.

pleasure. No child should be permitted to engage in any activity included in the physical education program which does not improve his body. It is not desired to produce professionals in boxing, football, baseball, or any other sport but it is desired to produce healthy individuals who will reach adult life with a desire for some form of recreation which they can carry on during their leisure time which will bring to them relaxation and enjoyment.

Health education must not be knowledge alone; it must not be simply an attitude developed, but it must be a habit which includes both knowledge and attitude.

In order to deserve the name community those people living near each other must have come definite, common purpose for which to work. Why should not that purpose be that the community be a better place in which to live. Health education should not be confined to the school but should be considered as a community project.

Habits which the educator wishes to become a part of every individual member of the community must hinge upon the necessities of human life.

Health habits could well take the form of a community slogan.

1. EAT WELL
2. SLEEP WELL
3. PLAY WELL
4. LEARN WELL
5. WORK WELL
6. BE WELL
7. STAY WELL

It is not enough that the homes of the prominent members of the community have sanitary facilities but to protect themselves each home in the community must have sanitary facilities.

The plan of instruction must of course have three main divisions-

I Objectives

II Activities to meet those objectives

III Testing to measure whether or not the objectives have been reached.

The first two divisions, objectives and activities, will be considered in this section while measurement will be taken up in the section following.

These objectives may follow the form of the slogan.

I EAT WELL. To see that every one in the community beginning with the children in the school, are well nourished, having a balanced diet, a sufficient amount of food and that the food is the best that the family pocket book can afford.

II SLEEP WELL. To see that the children first and then the adults have the proper amount and kind of rest. To see that the place where they sleep is clean with plenty of fresh air and that the bed and bedding are of sufficient amount and comfortable.

III PLAY WELL. To see that there is a comprehensive recreational program for the community which will not exclude any member of the family group. That this recreation is suitable for the age and physical ability of each person and that it will build good mental and physical health and stimulate a continuing interest in recreational games.

IV LEARN WELL. To develop the child in school and the community mind to the greatest extent of which they are capable, and to develop attitudes for the best mental health.

V WORK WELL. To develop an interest in occupations which are desirable and possible for members of the community and a pleasure in successful achievement.

VI BE WELL. To develop in each member of the community a health consciousness and a desire to be the best individual that it is possible to make himself, by knowing how to be healthy and what to do when attacked by disease.

VII STAY WELL. To develop in each member of the community a desire to have his community the best place in which to live by cooperating in the inspection of the water supply; the milk supply; the disposal of waste and sewerage; the health inspection and remedial measures suggested; the

prevention of disease and the learning through clubs of valuable information concerning the making of better homes.

It will be of interest to note a few of those activities which may be used to meet successfully those objectives which have been set for the community. It is an ambitious program for any community but one worthy of an attempt to carry out. One must never forget in the struggle to reach any part of the goal set, the infinite value of the end to be accomplished. Any program which is so far reaching in its scope will be difficult to accomplish in any community. The method used through all time to accomplish anything worth while has been to slowly but steadily educate the community mind in those things which is desired to be accomplished. It may not be achieved in the lifetime of any one person but much can be done by each adding his part until upon the lives of many forward-looking individuals the structure is at last securely established. What if it does take a hundred years, is not the end in happiness and human salvage worth the effort? It is now the centennial of the birth of the public school which can be attributed to the long and untiring efforts of Horace Mann. He sacrificed by accepting a place where the remuneration was not equivalent to his value because he believed the future generations were worth the sacrifice. Who would say today that our fine system of public school education was not worth his sacri-

fice? Surely the people who have passed through the doors of such a school system would not say so.

The objectives will be considered one at a time and a brief sketch of activities which might help to accomplish the end in view will be given. References will be made to many sources which will undoubtedly help the individual who is interested in the subject to establish such a program.

I EAT WELL.

> "The object of nutrition teaching is better health- more effectiveness and greater happiness for every growing child." "Facts to be taught must relate to individual and community needs, and lead to a definite and feasible course of action.....
>
> Experience of school workers generally has been that weighing and measuring of the children will do much to stimulate their interest in health. To fail to grow is to give tangible evidence that something is not right. Some plan for systematic weighing should be a part of every health program, and in these lessons is assumed as a part of the regular health work of the school."64

Individual height-weight charts should be kept by the children so that they may watch their progress more closely. If the child is underweight he will be interested in the amount of gain he makes when he has started a program for such gain.

Pictures of athletes, aviators, engineers, and others who must eat so that they will have a steady hand and nerve, can be shown to children to show the need for food.

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64. Rose, Mary Swartz, Teaching Nutrition to Boys and Girls, Introduction.

To compare the amount of food needed the example of the automobile or engine can be taken.

Here are a few suggestions for stimulating interest in the subject of foods. Scrapbooks can be made containing pictures of a good breakfast, lunch and dinner for a growing child. Food models can be made for an exhibit or a miniature store. A play showing the value of milk drinking or the class may experiment on white rats with and without a milk diet, can be engaged in.

Milk, the Ideal Food. Stress the milk drinking habit in children by giving a mid-morning lunch of graham crackers or wholewheat bread and milk to the younger children in school.

> "Well I should try to develop in the youngster a genuine liking for milk as a beverage that would persist throughout life, strengthening this with a feeling for the poetry and philosophy of milk in its fundamental relations to life. But if this liking cannot be developed, or has not been, milk is extraordinarily versatile in its possibilities of disguise."[65]

If the child is under weight notes can be added to his regular report card on the value of drinking milk. A personal call on the mother with suggestions for milk drinking may also be of value.

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65. Hambridge, Gove, Your Meals and Your Money, p. 141.

Introduce foods foreign to the child gradually and in small amounts till he has learned to like the food. The school lunch room can accomplish wonders in the teaching of good dietary habits. Allow the children to make posters of foods in the lunch room showing how much energy certain foods produce for the amount of money spent for that food or the comparative vitamin content of foods with relation to milk or orange juice.[66] Milk, fruits, and vegetables are the protective foods.

> "Our present knowledge of nutrition is one of the major contributions toward this great advance in our working conception of the ways in which, and the extent to which, we can each actively advance his own health and efficiency and contribute to the progress of human well being."[67]

Steibling has suggested a splendid Family Food Guide to help along in the instruction of correct dietary habits in the communities which one serves.

"Every Meal-	Milk for children, bread for adults.
Every Day-	Cereal in porridge or puddings. Potatoes Tomatoes(or oranges) for children. A green or yellow vegetable. A fruit or additional vegetable. Milk for all.
Two to Four Times a Week-	Tomatoes for all. Dried beans and peas or peanuts. Eggs(especially for children) Lean meat, fish or poultry, or cheese."[68]

66. Rose, Mary Swartz, op. cit., Illustration opposite p. 127.
67. Sherman, Henry C., Food and Health, p. 186.
68. Steibling, Hazel, K., "The Family's Food at Low Cost," p.1.

> "Here let me point out again that it is not so difficult to formulate a rattling good diet for the family with an ample purse. When you have something less than an ample purse, it is a little more difficult. With a still smaller purse, it is still harder. And when you have to rake and scrape and count every cent you spend and then don't have enough to go around, it is extremely difficult."[69]

Some suggestions for community participation in the dietary problems of school children are given by Ruth Odell.[70]

A survey should be made after the physical examinations have been given. Following the survey a plan of work should be made. The plan of work could include case work, health talks by a nutritionist, an exhibit, moving pictures on a health problem, or a popular entertainment. Short courses under the direction of the school may be given which could embody such subjects as (1) food selection, (2) simple disorders of the alimentary tract, (3) amounts of food necessary for growth and maintenance, (4) food supply and (5) child fooding. The school health program in a rural school could center around the lunch. One hot dish could be furnished each day which could foster a study of a good lunch and a discussion of what a good breakfast should consist.[71]

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69. Hambridge, op. cit., p. 13.
70. Odell, Ruth M., "Improving the dietary Habits of a Rural Community," Report of Milbank Memorial Fund, N. Y., 1929.
71. Nutrition Books,
    Steibling, Hazel K., and Ward, Medora M., "Diets at Four Levels of Nutritive Content and Cost," U. S. Dept. of Agriculture, Circular #296.
    McCollum, E. V. and Simmonds, Nona, Food, Nutrition and Health, Published by the Authors, Baltimore:1926.
    Sansum, W. D., Hare, R. A., and Bowden, Ruth, The Normal Diet and Healthful Living, Macmillan Co., N. Y., 1936.
    Bogert, L. Jean, Diet and Personality, Macmillan Co., New York, 1934.

Good manners could enter into the pleasant noon day lunch and perhaps a health club could be organized. Health talks by the children, magazine pictures, slides, health books to read, booklets of food habits, contest material, and games could keep up the interest in such a club.[72] A game suggested that was used was the old game of authors where fruits and vegetables were substituted for the authors.

II SLEEP WELL. It is essential for good health to see that the body receives sufficient rest. The younger the person the more hours of sleep are required. Ill or malnourished persons require more sleep than the normal person. The adolescent child needs about ten hours of sleep while an adult needs from seven to nine hours of sleep. Regularity of the bed time hour encourages the habit of sleep so that there is no restless wakefulness upon going to bed. The room for sleeping should be well ventilated, cool, and darkened. Rest is as important to the body as exercise. Sleep, oxygen, water, and food are called the four main body needs.[73]

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72. Books on any subject relating to health and physical education including some childrens' reading books will be found in the following bibliography.
"Bibliography of Health and Physical Education to December 31, 1931," C.H. McCloy, The Research Quarterly of the American Physical Education Association, October 1932, Vol. 3:3.
Arizona State Course of Study, Bulletin Number Nine, p. 172. This gives a splendid bibliography for both teacher and pupil.

73. Galbraith, Anna M., Personal Hygiene and Physical Training for Women, pp. 190-192.
Meredith, op. cit., pp. 238-253.

The youngest children should have a rest period during the day at school. Booklets could be made illustrating sleep with the windows open and a comfortable bed. Children could have a conversation period about where, how and how long they sleep. Proper hours for sleep, well ventilated room, sleeping without light could be kept on the health chore chart each day. Pictures and discussions about pets at home and other animals' habits of rest and sleep. Poems could be learned and stories read which stimulate the interest concerning rest and sleep.

III PLAY WELL. The ancient Greeks had high ideals of physical perfection. They fostered the play spirit, community participation in pageantry and athletic sports encouraging physical prowess. To them the human body was a thing of beauty to be developed to its best proportions. We would do well to emulate the ancient Greeks in this respect. The body must be developed to exhibit all of its beauty of form. In order to do this great emphasis must be placed upon good posture.

Good posture[74] gives one the esteem of his fellow men. It indicates good health and poise. It gives one the feeling of self-respect and success. Any game used in the physical education curriculum which develops good posture, then, seems to have a legitimate place.

74. Bancroft, Jessie H., The Posture of School Children. Burkard, W., Chambers, R., and Maroney, Frederick W., Health Habits by Practice.

Play is one of the best ways to develop the traits of good citizenship. The inter-scholastic sports develop loyalty to a group, cooperativeness, unselfishness, ability to get along with one's fellows, to be a good loser and, as the athletes say, "to be a good sport." Any game or sport which develops these traits in the individual can well have a place in the physical education curriculum. Sports not only improve the growth of the young but also stimulate the play spirit of the adult. They knit the community together by a common bond.

Pageantry,[75] especially of the local history type, should be used for binding all members of the community with a common interest. The rural school should be the community center for educational play as well as the center for educational work.

The primary function of exercise is to keep the body functioning properly and to stimulate the proper growth and development of the body. Games should be taught which interest the person at whatever age level he may have reached.[76] Games which stimulate the interest and at the same time develop the body should not be omitted from the Physical education curriculum.[77]

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75. De Goveia, C. J., The Community Playhouse.
Wise, C. M., Dramatics for School and Community.

76. Maroney, Frederick W., Physical Education for Public Schools.
Bancroft, Jessie H., Games for the Playground, Home, School, and Gymnasium.

77. Arizona Course of Study, Bulletin Number Nine, p. 179.

IV LEARN WELL. If the body is in the best physical condition by the development of correct health habits it can help the pupil to learn. A poor body is a forceful deterrent upon the mind. Sanitary, congenial surroundings are conducive to good mental habits. Intelligence tests should be given to know something about the mental capacity of the child.

By using the child's natural curiosity one should develop in the child as many interests as possible. Through his work and play the good-citizenship traits of honesty, courtesy, and self-control can be developed. He can be taught to have responsibility, think a thing through, concentrate on what he is doing, and finish a task well started. His interests can be developed through his play, excursions to various places as the zoo, museum, and industrial concerns, through dramatization, clubs, hobbies, and the activities belonging to the collecting instinct. He should be constantly taught that mind and body are one and those things which affect one are bound to affect the other. Just as surely as good food and exercise in the body bwnefit the mind just so do mental states affect the body. He should be taught the paralyzing effect of fear upon his personality and he should learn that knowledge is the enemy of fear.

> "The true scholar is one who has been brought to see the full meaning of the words development and history.....The free man is he who has largeness af view which is unmistakable and which permits him to see the other side; a knowledge of the course of man's intellectual history and its meaning; a grasp of principles and a standard for judging them; the power and habit of reflection

> firmly established; a fine feeling for moral and intellectual distinctions; and the kindliness of spirit and mobility of purpose which are the support of genuine character."[78]

V WORK WELL. To be able to develop with the proper mental poise one must have the feeling of success. The child should be encouraged to develop those abilities in which he excels. A study of various industries and occupations should be made.[79] Community talks by successful men and women in varying fields of industry should be encouraged. Motion pictures showing the work done in different industries will be of interest and help to the adult members of the community as well as the child. One grows only through the drive of his ambition and desires. Ambition and desire can be stimulated by showing how others live and the work they accomplish, by showing modern inventions and appliances, and by showing beautiful scenery of desirable places to visit.

VI BE WELL. The old superstition that it was sin that caused disease was not perhaps such a bad idea. More people should feel their own responsibility for private and public health. One should be made to feel direct responsibility for an epidemic of influenza if he has gone about among the populace sneezing and coughing when he should have been in bed taking care of himself. One can hardly proclaim

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78. Butler, Nicholas Murray, Scholarship and Service, p. 9.
79. Personnel Journal, 29 W. 39th St. New York.
Occupations, 227 Fulton St, New York.

public health measures from the housetops if he is himself suffering from some contagious or infectious disease. The custom of taking all the children to spend an afternoon visiting the sick, which is so prevalent among some classes of people, should be discouraged. It should be popular and fashionable to be strong and able bodied. It is interesting to notice in recent years that the most popular man and the most popular woman chosen each year on our various university and college campuses are usually the outstanding, all around athletic boy and girl. It should be required not only of the students in school but of the teachers that they carry on daily some recreational activity which gives them pleasure. The curriculum should not be so overloaded with work that there remains no time for play.

> "He(the scholar) is not a recluse or unfit for practical work, because he knows that every opportunity for action passed by is a loss of power."[80]

Dr. Mayo has said that every other bed in the hospitals in the United States is filled with either mental or nervous patients.

Mal-adjusted teachers are those suffering with nervous breakdowns and disorders because they had no recreational life.[81]

VII STAY WELL. In order to judge what needs the com-

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80. Butler, op. cit., p. 10.
81. Survey of Schools- Chicago, Vol. 3, Mental Hygiene, p. 158.

munity has a health survey of the district should be made. In this survey there should be considered-

1. the water supply of each home,
2. the disposal of garbage and waste at each home,
3. the milk supply for each family,
4. breeding places for flies, mosquitoes and rats,
5. sanitary facilities in each home,
6. construction of homes for the best sanitary living, as screens at windows and doors, windows in sleeping rooms as well as all other rooms of the house, the chance for sunlight to penetrate each room at some time during the day, and floors which can be kept clean,
7. inspection of food supply, markets, gardens, bakeries, butcher shops, dairies, and any other place from where any of the food products of the district come.

In the P. T. A. or any other service club which the community fosters there should be discussions on community health and sanitation. The radio, press, billboards, summer camps, health contests, and the annual May Day festivities should receive the cooperative efforts of all clubs and organizations in the district. The community should be made health conscious.

Measurement

It is difficult to measure the health outcomes in such a comprehensive health program. If the "proof of the pudding is the eating" to the housewife, then the proof of health instruction in a community must be health itself. If the community has no outbreaks of contagious diseases, if the infant mortality is reduced to a minimum, if the mater-

nal death rate is no higher than for the state, and if tuberculosis cases are not in evidence in large numbers, then, perhaps, one may say that the community has attained its health objectives. The State Health Department can judge as to the sanitary facilities of a community and be able to say whether or not they are equal to those in the other communities of the state.

In the school there are definite health measurements that have been worked out. These measurements are meager at present but are tending in the right direction. Health knowledge can be measured by the Gates-Strang Health Test[82] or by scales worked out by Wood and Lerrigo. This, however, does not measure habits or attitudes. The daily inspection can perhaps measure the habit formation of the child to some extent. Habits can be also measured by the child's daily health chart which he keeps of his own habits and body growth. There are some habit tests on the market. One will be mentioned later under physical education tests. After all habit formation influences the attitude of health which remains with one throughout life.

The educators interested in physical education have been working on tests for various abilities for several years.

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82. Gates-Strang Health Knowledge Test, Bureau of Publications, Columbia University, New York.
Wood, Thomas D., and Lerrigo, Marion G., Health Behavior.

There are several knowledge tests for the different athletic sports and of course there is the hygiene test which includes what habits have been formed.[83] It is not sufficient that the child know what it is good to do but that he has understood why it is necessary to inculcate those habits of health and that he has done so. A copy of such a hygiene test will be found in the Appendix.

McCloy says that by using the Sargent Jump test,[84] the Brace Test or the Johnson test,[85] and the Burpee test[86] one can "form a battery which measures General Motor Capacity and which can be interpreted in the form of a Motor Quotient, which in the motor field is somewhat analogous to the Intelligence Quotient in the mental field."[87] He says that these tests should be given every three years at the fourth, seventh, and tenth grade levels. These tests form the basis of grouping children so that a child will not be placed in a

83. American Physical Education Association Research Quarterly; 6:78-95, (October 1935). Knowledge tests of Hygiene, Hockey, and Archery are given.
A.P.E.A. Research Quarterly 7:73-82,(March 1936). This gives knowledge tests of Volleyball, Soccer, and Basketball.

84. McCloy, C. H., "A Program of Tests and Measurements for the Public School," Journal of Health and Physical Education 6:18, (October 1935).

85. McCloy, C. H., "Recent Studies in the Sargent Jump," A.P.E.A. Research Quarterly III:235, (May 1932).

86. Johnson, Granville B., "Physical Skill Tests for Sectioning Classes into Homogeneous Units," A.P.E.A. Research Quarterly III:128, (March 1932).

87. McCloy, C. H., "The Measurement of General Motor Capacity and General Motor Ability,"A.P.E.A. Research Quarterly; V:46-61, (March 1934), # 1, Supplement.

group that is doing exercises too difficult for him. Exercise for which his body is not adapted would prove detrimental rather than developmental for his body growth. McCloy suggests[88] Strength Tests, the Classification Index for boys, the Measurements Involving Body Mechanics,[89] Sport Achievement Tests and Ratings, and pencil and paper tests which have been spoken of under knowledge tests.[90] McCloy describes these various tests in an article in the Journal of Health and Physical Education. The Athletic Badge Tests are perhaps the most common measure for physical ability used in the various elementary and junior high schools at the present time. These badges inspire the pupil to put forth his best efforts until exercise becomes a pleasure instead of a task. The whole field of testing in physical education is covered very thoroughly in Bovard and Cozens book.[91]

The child is led into the responsiblility of dressing himself by giving help until the child has understood what is expected of him. Then he is allowed to practice and, through his errors and retrials and more help, he finally masters the ability to dress himself correctly. In the same

88. Rogers, Frederick R., Fundamental Administrative Measures in Physical Education.
89. Bovard, John F., and Cozens, Frederick W., Test and Measurements in Physical Education.
90. McCloy, C. H., "Tests and Measurements for the Administration Program of Physical Education," Journal of Health and Physical Education; 3:7, (September 1932).
91. Bovard and Cozens, op. cit.

way health habits are to be taught. First, the child must understand what is expected of him and why such habits are essential. Second, he must be helped in the formation of those habits. Third, he must be expected to be responsible for his own care of his body which will be gained by practice, additional help and instruction until final success is achieved. He will soon learn that a clean mouth with well brushed teeth feels better and his breath will not be offensive to his companions. It reminds one of the little boy who always came to school dirty until the school nurse, despairing of ever being able to impart the knowledge of the value of a clean body, took him to the wash room and gave him a good bath with warm water and soap. After the bath he said, "Gee, Miss_____, I feel so good I wish you'd give me another bath."

One of the fundamental desires of the human being is the desire to be important, to be noticed, to stand out from the crowd. The child who has developed the responsibility for his health habits can now stand out from the crowd. Mary may have a gold star for bringing a handkerchief to school every day. John may be the teacher for a group of younger children because he is so neat and clean. It may be carried into higher age levels in the form of good sportsmanship. If Jimmie overeats of sweets and has indigestion he can hardly expect to make the baseball team. If Margaret doesn't eat vegetables and fruits instead of too many starches she will

be overweight and can never expect to be captain of the volley ball team. She just wouldn't look the part. By these means the school approaches the life situation where the persons poor in physical health are denied the pleasure of many sports and occupations which they might otherwise enjoy.

Remedial Procedures

Instruction has been given to develop health knowledge, health habits, and health attitudes. Tests have been given to see whether or not the desired results have been reached. What can be done with the child who did not learn? Perhaps there are transient children who were not in school when the instruction was given and who have not developed the desired habits. What can be done about them?

Health knowledge which the pupil did not master, must be retaught. During the free reading period these retarded children can be given stories dealing with good health habits. They can make scrap books dealing with health habits. Talks on health habits may be given before the other members of the group. Stories on health may be written for the school paper.

If health habits are lacking there are several means one could employ. The child should be given a personal interview in which he should be told of the habits he should develop as they are the habits which all good citizens use. A letter might be sent to the parents asking for their cooperation in the formation of these desirable habits. Per-

haps the parents could be invited to attend a meeting of the P.T.A. where such things were being discussed. Perhaps some service club could be persuaded to offer prizes to the child or room which have successfully carried out for several months the activities which are listed on their health charts. The annual May Day Festival could be made the incentive for successful participation in the health work during the year. The most healthy boy and the most healthy girl could be given the most prominent parts in the program.

Some child who has developed responsibility for his own health could be given the responsibility for a group of retarded pupils in the keeping of health charts or the participation in the health drills, such as brushing the teeth.

The child who refuses to cooperate should be made to feel that he has been disloyal to his group. The disapproval of his classmates has a far greater effect upon the child than anything that the teacher might say.

> "The morale of each individual would be improved if he might have at least once or twice each week the thrill that comes from a consciousness of worthwhile achievement."[92]

92. Larson, Emil L., "The Development of School Morale," Education 53:105-107, (October 1932).

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CHAPTER VI

RELATED PROBLEMS

Scientific Attitudes

To be scientific one must deal with facts not theories. One may start with theory but it must be proven true or false by the accumulation of many facts based on repeated observations. Scientific attitudes are well expressed by Curtis.

I. "Conviction of universal basic cause and effect relations, rendering untenable
   - a. Superstitious beliefs in general, as "signs" of "good or bad luck", and charms;
   - b. "Unexplainable mysteries,"
   - c. "beats all" attitude, commonly revealed by
     1. Too ready credulity;
     2. Tendency to magnify the importance of coincidence.

II. Sensitive curiosity concerning reasons for happenings, coupled with ideals
   - a. Of careful and accurate observation, or of equally careful and accurate use of pertinent data previously collected by others;
   - b. Of patient collecting of data;
   - c. Of persistence in the search for adequate explanation.

III. Habit of delayed response, holding views tentatively for suitable reflection(varying with the matter in hand),
   - a. To permit adequate consideration of possible options;
   - b. To permit a conscious plan of attack, clearly looking forward to a prediction of the probable outcome, or solution.

IV. Habit of weighing evidence with respect to its

a. Pertinence,

b. Soundness

c. Adequacy.

V. Respect for another's point of view, an open-mindedness, and willingness to be convinced by evidence."93

If the health of the child and the rural community is the subject under consideration there are many questions which must be answered.

Some of the questions that must be answered are:-

1. Are people in rural communities healthy?

2. If they are not, why aren't they?

3. Are they receiving the proper medical care?

4. If they are not receiving the proper medical care why is such care not received?

5. What experiments are being carried on to find a better way to care for the health of individuals?

The scientific attitude assumes that by experiment the method proven most successful will be the method used. The scientist is constantly on the alert for better ways of doing things. Objections will be voiced at every stage of any experiment but the voice of the proven experiment is the one that must be heard. It mattered little to Robert Fulton that objectors said the steam driven motor would not run the boat or that the boat had a devil in it. The boat did run.

93. Curtis, Francis D., Some Values Derived from Extensive Reading of General Science, p. 48.

That has been the history of progress in many lines. The experiments are now progressing along the lines of community health.

The five questions that have been stated will be discussed in this chapter. The first three questions will be discussed under Interests of the Teacher. The fourth question will be discussed under the section on Paternalism and the fifth question will be discussed under Socialized Medicine.

Interests of the Teacher

The teacher in the rural community is interested in the health of her pupils and their families.

Are the people in rural communities healthy? If they are not, why aren't they? Are they receiving the proper medical care? These are pertinent questions which the educator in the rural community must ask herself.

Smiley and Gould[94] in their chapter on the Health of the Rural Population gives several interesting findings. Instead of the city's being the least healthful it has now become more healthful than the rural areas.[95] Since 1920 the death rate has been higher in the rural areas than in the urban areas. In 1921 Wood found that physical defects were more numerous in rural than in urban children.

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94. Smiley, Dean F., and Gould, Adrian G., Community Hygiene.
95. Smith, Gov. Alfred E., "The County Health Unit," Milbank Memorial Fund.

The most common defects were defects of teeth, Abnormal tonsils, adenoids, eye defects and malnutrition. In 1924 Shepard and Diehl, upon examining male students entering the University of Minnesota, found that those who had been raised in small towns and farms showed more defects than those raised in the city. The same common defects were noted as Wood had found. The ones who entered from the city showed a previous history of fewer communicable diseases.

In 1922 Dresslar made a survey of 1500 rural schools. He reports that sixty per cent had insufficient light, sixty per cent had unsafe water, fifty per cent used common drinking cups, and only 1 per cent had sanitary toilets.

In 1925 Bilhuber reported on the health habits of 621 children in thirty six one-room schools in Michigan. She found that 34 per cent of the children ate no vegetables in winter, 24 per cent used no milk in their diet, 48 per cent drank from one to three cups of coffee every day, 36 per cent never opened their windows at night, 11 per cemt never brushed their teeth, and 40 per cent never went to a dentist. She also discovered that not one of the thirty-six schools were offering any courses in physical education or health education.

It has been found that people in rural communities are not so healthy as the persons in the urban sections in the United States. Why are they not so healthy? It has been

attributed to the fact that in the past few years cities have taken great strides in sanitation of their water supplies, milk supplies, food supplies in general, and have arranged for sanitary sewage disposal. It seems, then, as if the rural population must organize to provide for themselves more sanitary facilities. In one of the counties in the state of New York under the direction of former Governor Alfred[96] Smith a county health unit was organized and operated. The workers in this unit found that good health work costs more in the rural sections than in the city because of the inaccessibility to the doctor. Dr. Biggs, a former Health Commissioner in New York says that "Public health is purchasable.....within natural limitations any community can determine its own death rate."

Smiley and Gould[97] show that in communities where the population is less than 1000 there is only one physician to 1238 persons. In towns of 2500 to 5000 there is one physician to 749 persons and in cities of more than 100,000 there is one physician to 536 persons. The same seems to be true of trained nurses. In the states which are predominantly rural there are only seven or eight nurses to every 10,000 persons while in the predominantly urban states the number of nurses range from 37 to 104 nurses per 10,000 persons. In 1925 there were 44 per cent of the 3,069 counties in the United

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96. Smith, op. cit.
97. Smiley and Gould, op. cit., p. 285.

States without hospital facilities.

People in rural communities are not so healthy as are those in urban sections because they do not have the proper sanitary facilities or medical opportunities. It has been found that as health instruction and health service increase disease decreases. The people in the rural communities must, then, demand that they have the proper instruction. Some of the service has been pushed upon the school and it will have to bear the responsibility. The teacher is, then, interested in cooperating with all agencies that will help in the problem of better health for the rural community.

Paternalism

The dictionary defines paternalism as "Benevolent despotism, whereby the state, corporation or other authority seeks to maintain with the governed or employed a relationship like that between a father and his dependent children." The American, bred and educated with the ideals of independence for which his forebears fought, looks to his government as an advisor, counselor, helper whom he has employed to look after his interests while he, the citizen, is engrossed with his problem of obtaining those commodities which mean life itself to him and to his family. Any trend which seems to smack of a landlord-tenant relationship is viewed with distrust by him. He is forever watchful to see that no group or organization should gain in power who desire to force upon some class needless restraints or compulsions.

He must have the "Look to the end" policy to protect his principles of democracy.[98] He will tell you that "a paternal government is not a republic." He does not desire the "Great White Father"[99] attitude. He craves the right to work to earn a decent, healthful living for himself and his family. He doesn't want dole, he wants work. This is the attitude of those who fight government ownership, government security and government "meddling" in the life of the common man.

After the world War when it was found that many of the young men were not physically fit to endure the hardships of war there has been a great surge of health education. But education was not enough.

> "But the good doctor(Dr. Louis Dublin) does not explain what these millions of American mothers must do after their last penny is gone. And he is a little unclear about just how many pennies these death-fighting foods and services cost. And last and most important, he must know that you can't eat, wear, or keep warm---on education."[100]

Health must be purchased. How can it be done when there is not enough money to buy the bare subsistence of life for nearly half of the population of our country?[101] Forty-six per cent of the people with salaries under $1200 receive no medical care, and 42 per cent of the people with salaries between $1200 and $2000 receive no medical care.

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98. Morgan, William C., "The Medical Profession and the Paternalistic Tendencies of the Times," The Journal of the American Medical Association, June 28, 1930.
99. DeKruif, Paul, Why Keep Them Alive?
100. Ibid, p. 52.
101. N.E.A. Journal 22:127(April 1933), "Shall We Provide Medical Care for all?"

It will cost a minimum of $30 per year per capita in the United States for prevention and care of illness. If the majority of the families in the United States cannot buy the proper food, of course, they cannot afford doctor's bills.

Generous doctors have given their services and the state has taken on more and more responsibility for charitable medicine. During the depression years relief families were given medical care. State medicine has become a dominant issue. In 1927 a committee was appointed to study the costs of medical care. After five years of careful study these distinguished men could not agree on a plan which would be best for the American people. The minority report decries government interference in medical care. The members of the committee submitted six recommendations as follows-

1. "The minority recommends that government competition in the practice of medicine be discontinued and that its activities be restricted (a) to the care of the indigent and of those patients with diseases which can be cared for only in governmental institutions; (b) to the promotion of public health; (c) to the support of the medical departments of the Army and Navy, Coast and Geodetic Survey, and other government services which cannot because of their nature or location be served by the general medical profession; and (d) to the care of veterans suffering from bona fide service-connected disabilities and diseases, except in the case of tuberculosis and nervous and mental diseases.

2. The minority recommends that government care of the indigent be expanded with the ultimate object of relieving the medical profession of this burden.

3. Coordination and Control of Medical Services.

4. The minority recommends that united attempts be made to restore the general practitioner to the central place in medical practice.

5. The minority recommends that the corporate practice of medicine, financed through intermediary agencies, be vigorously and persistently opposed as being economically wasteful, inimical to a continued and sustained high quality of medical care, or unfair exploitation of the medical profession.

6. The minority recommends that careful trial be given to methods which can rightly be fitted into our present institutions and agencies without interfering with the fundamentals of medical practice."[102]

Many articles have been written which oppose the plan of State Medicine.[103] From a resume of these studies one finds a few predominant arguments against State Medicine.

1. The liberty of people is being jeopardized.

a. People are forced to submit to a physical examination whether they desire it or not.

b. Public funds are used to compel taxpayers to accept a form of treatment they do not want or deem necessary.

c. No country furnishes free medicine regardless of class. Russia more nearly approaches it than any other country. "Soviet Russia is more paternalistic than Fascist Italy or Nazi Germany."[104]

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102. Final Report of the Committee on the Costs of Medical Care, "Medical Care for the American People, pp.170-181.
103. Johnson, Wingare M., "The Case Against State Medicine," Forum 90:304-307,(November 1933).
Congressional Digest 14:196-222,(August 1935).
104. Ibid, 197.

d. Physicians do not want to be placed in the position of the school men who must cringe before the august political bodies.

2. There will be government domination. If the government gives money for state health departments it will wish to dominate those departments.

> "The goal of all sound public health work should be to make it possible for people to be healthy and strong without the use of artificial means.....During the last war in one company of 248 men, there were 98 who got typhoid, yet they had been vaccinated and inoculated."

The above statement was found among the arguments against State Medicine in the Congressional Digest referred to on the preceding page.

3. The doctor-patient relationship would be ruined with the coming of socialized medicine.

> "But you cannot diagnose thousands of persons as thousands, but only as the sum of individual diagnoses; you cannot treat the diseases of thousands of persons except as the sum of individual treatments; therefore the public health function ceases where diagnosis and treatment begin."[105]

4. The medical profession is not agreed on the value of serums and vaccines.

5. The value of competition is too great to be lost. Competition develops keenness. In the absence of competition there is standardization, ruts of routine, loss of personal relationship, and lethargy. The doctor will make any sacri-

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105. Winslow, Floyd S., "Partners in Public Health," Survey 72:266-267,(September 1936).

fice to merit the trust of his families. State Medicine has killed the medical profession in Germany.

Preventive medicine is a state matter but diagnosis belongs to the private physician.

> "Contract practice is so prone to a certain set of defects that they may almost be said to be inherent. Insufficient pay to overworked physicians encourages superficial service. When financial considerations such as compensation are dominant, incidents have been recounted in official investigations of unnecessary amputations to insure an earlier discharge and release from compensation payments and the use of untrained laymen in giving medical care."106

6. There is danger in bureaucracy. The machinery of this paternalism will become so gigantic that it will become unmanageable. There will ultimately be so many government employees that there will not be enough left in the private industries to support the government by taxes.

> "Disease and education differ widely even though many exposed to both fail to get either. .....Whatever can be done for the people as a whole, the state can usually do with fair success. Where individuals must be distinguished and given widely different and suitable treatment, the mass action of government is seldom successful."107

7. The morale of the people will be destroyed. If people are to be given medical aid, why not food and clothing? People have had government help now till they have lost their independence and initiative. Medical examinations only result in depression and despair and by ruined mental health

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106. Journal of the American Medical Association 107:1227, (October 10, 1936). Edited by Morris Fishbein.
107. Ibid, 107:591,(August 22, 1936).

the physical health would be ruined also.

The question of paternalism goes back to the fundamental question of just how much help a government is supposed to give its citizens. An attempt has been made to answer the question "If they(citizens) are not receiving the proper medical care why is such care not received? Poverty, ignorance, the objection of the organized medical profession, and influential economic groups seem to stand in the way of medical care for the masses.

Socialized Medicine

At the high price of tonsillectomies and appendectommies, it has been proven that even the American with an average income can not receive the proper care. About twenty years ago General Gorgas realized this. In the foreword of a little pamphlet, which contained an address on "The Economic Causes of Disease" he addressed all interested in social hygiene in these words-

> "But however varied the fields of the workers may be, at one point they all converge at last. Every one of these workers, who looks beyond and beneath his particular field, every one who ponders on the primary causes of disease, of vice, of feeble-mindedness, every one, who, in other words, brings his scientific imagination as well as his scientific knowledge to bear upon this problem, is finally forced into the conviction that underneath all obvious and immediate causes there lies one great general and determining cause- poverty."[108]

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108. DeKruif, op. cit., p. 208.

The death rate in this country is in inverse ratio to the salary scale of the individual.

> "As a nation we spend $3,250,000,000 for health or $26 per capita, whereas we should be spending $42. In consequence the death rate is in inverse proportion to income- the unskilled, poorly paid workers die at the rate of 1,440 per 100,000 while the skilled workers die at a lower rate of 829 per 100,000 managers and officials at 793, and professional people at the rate of 670."109

It is not a problem of lack of medical knowledge or medical facilities but an economic problem. The majority report on the "Costs of Medical Care" discovered this. Their recommendations are given here.

> 1. "The committee recommends that medical service, both preventive and therapeutic, should be furnished largely by organized groups of physicians, dentists, nurses, pharmacists, and other associated personnel. Such groups should be organized, preferably around a hospital, for rendering complete home, office, and hospital care. The form of organization should encourage the maintenance of high standards and the development or preservation of a personal relation between patient and physician.
>
> 2. The Committee recommends the extension of all basic public health services--whether provided by governmental or non-governmental agencies- so that they will be available to the entire population according to its needs. Primarily this extension requires increased financial support for official health departments and full-time trained health officers and members of their staffs whose tenure is dependent only upon professional and administrative competence.
>
> 3. The Committee recommends that the costs of medical care be placed on a group payment baiss, through the use of insurance, through the use of taxation, or through the use of both these methods. This is not meant to preclude the continuation of

109. Polakov, Walter N., "Potential Plenty," The New Republic, 81:127, (December 12, 1934).

medical service provided on an individual fee basis for those who prefer the present method. Cash benefits, i.e., compensation for wage-loss due to illness, if and when provided, should be separate and distinct from medical services.

4. The Committee recommends that the study, evaluation, and coordination of medical service be considered important functions for every state and local community, that agencies be formed to exercise these functions, and that the coordination of rural with urban services receive special attention.

5. The Committee makes the following recommendations in the field of professional education: (A) That the training of physicians give increasing emphasis to the teaching of health and the prevention of disease; that more effective efforts be made to provide trained health officers; that the social aspects of medical practice be given greater attention; that specialties be restricted to those specially qualified; and that postgraduate educational opportunities be increased; (B) That dental students be given a broader educational background; (C) that pharmaceutical education place more stress on the pharmacist's responsibilities and opportunities for public service; (D) that nursing education be thoroughly remoulded to provide well-educated and well-qualified registered nurses; (E) that less thoroughly trained but competent nursing aides or attendants be provided; (F) that adequate training for nurse-midwives be provided; and(G) that opportunities be offered for the systematic training of hospital and clinic administrators."[110]

Since this report many schemes of contract medicine and health insurance have been suggested and tried.[111] Both of these plans are based on payment of annual fees for health prevention and care. Dr. Joseph Slavit says that group insurance and health insurance plans do not care for those

110. Final Report of the Committee on the Costs of Medical Care, op. cit., pp. 104-144.

111. Armstrong, Donald B. and Dublin, Louis I., and Steel, Elizabeth J., The Costs of Medical Care. New Plans of Medical Service, The Julius Rosenwald Fund.

of low income group. Are they still to be charity?[112] The doctors have given so much charity now that their incomes are greatly reduced.

> "Reorganization of medical care, practice and remuneration is essential, if the American people are to be assured of proper health care and the American doctors a decent living and unhampered professional activity."[113]

Davis in a recent issue of the Survey Graphic has given a good outline of the coming demands for health.

> 1. "The advance of medical science.
>
> 2. The forward movement of public-welfare and public health, improving and enlarging the services furnished those who cannot meet the cost themselves.
>
> 3. The widespread demand for security against risks with which the individual alone cannot cope.
>
> These three trends in medical service, in public welfare and in social security are broader than medicine and deeper than political parties."[114]

Those who wish to see the citizen receive greater aid from the government look on State Medicine as a step in the right direction.

> "Real health insurance is to be found only in socialized medicine which combines the best features of present day medicine, group medicine and public health."[115]

Some of the outstanding advantages of Socialized

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112. Slavit, Joseph, Congressional Digest 14:206.
113. Ibid, p. 204.
114. Davis, Michael M., "Next Moves in Medical Care," Survey Graphic 26:70-72,(February 1937).
115. Slavit, op. cit., p. 206.

Medicine as given by leading authorities have been listed.

1. Socialized medicine is more efficient than the private practice of medicine. The efficient handling of disease during the World War in the Army and Navy speaks well for the salaried physician.

> "For several decades, in fact, most contributions to the advancement of medicine have emanated from clinics, laboratories, or institutes manned by salaried personnel working together."[116]

2. Socialized Medicine is more economical. At present all of the health agencies under the direction of the state and government along with competitive medicine constitute an expensive way to handle the health proposition. Socialized medicine could not be more expensive.

3. The standing of the physician will be better under the Socialized Medicine plan. It is believed that under the plan of Socialized Medicine the doctors hours will be arranged so that he will not be on duty during the day and still be called out at all hours of the night. He will, then, have more rest and be in better physical and mental health. He will have more time for further study and research.

4. The physician-patient relationship will be benefitted. The present system where the physician is rewarded by illness of the community and not by the prevention of disease does not provide the best motive for his relation to his

116. Haigh, G. W., Congressional Digest 14, op. cit., p. 208.

patient. The fee is frequently in the mind of both the patient and the doctor, thus spoiling their relationship. The specialization of so many doctors in the past few years has hampered the relationship which formerly existed between the general practitioner and his patient. The family doctor is almost a thing of the past. In the plan of socialized medicine where the doctors center around a hospital unit for certain districts the patient will again experience the physician-patient relatiohship.

5. Socialized medicine fills a need. Seventy per cent of the people of the United States need good medical car and do not get it. Society cannot afford illness which reduces incomes and individual efficiency.

6. Ignorance will be reduced under the system of socialized medicine. The physician will become a social worker and educator. He will cooperate with the agencies for educating the public concerning health. Old customs which were injurious to health will be attacked. Some old customs as the common drinking cup, eating from the common bowl, and giving the young children partially chewed food will become a thing of the past when ignorance is not common.

7. Mental attitudes will be improved. The stigma of pauperism will be removed. The feeling of security will be established when care is given as soon as needed and there will no longer be a loss of income and loss of time from preventable illness.

The problem is one that must be solved. The economist will balance the scale in dollars saved when illness and death are prevented. The humanitarian balances the scale with the tears, griefs, and heart aches of fathers, mothers and children. Each citizen should assume his share of the responsibility in this matter. Each should feel as De Kruif when he says-

> "From this preliminary peep at the Cincinnati death-fight it was clear that I was to blame, that all we citizens are to blame, so long as we tolerate our man-made set-up for mass child-murder."[117]

The curse of poverty, the breeder of disease, must be kept constantly before the public mind until the question of responsibility is solved.

> "Having seen that little boy fumbling at the empty breast of that mother half starving herself to feed the rest of her children, would our head men remember that in wartime they would call for the life of this boy, if by chance he should escape the peril of the squalor in which he exists, and have the luck to grow to manhood?
>
> Would they remind themselves that to nourish this soldier boy and his millions of brothers, they, the head men of our Government, would find no lack of wherewithal- borrowed from the bankers- to feed these millions of young men up, to make them strong to kill and be killed in their manhood's blooming?
>
> We have the right to ask this of our chief men."[118]

Japan carried on an interesting experiment in socialized medicine in Formosa.[119] There the Japanese government

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117. De Kruif, op. cit., p. 194.
118. Ibid, p. 220.
119. Kawakami, K. K., "Formosa, Japan's Experiment," Atlantic Monthly 144:838-847, (December 1929).

had not only the ignorance and superstitions of the native to overcome but also the organized, wide spread use of opium by the Chinese. The government went about the answer to their problem in a planned, scientific way. The experiment cost money but so do the materials of war.

America must experiment with large groups in laying out this plan of socialized medicine. It could be tried in some of the states where the death rate is particularly high. Through experiment socialized medicine will prove successful or else a stepping stone to a better plan.

CHAPTER VII

CONCLUSIONS AND RECOMMENDATIONS

The conclusions of a study of such a small section of the country which is only a small sampling of all the rural schools in the country must necessarily be rather broad and general.

From the study in the smaller rural schools of Maricopa County of the health diagnosis and remedial procedures used the following conclusions and recommendations have been made.

1. At the present time the smaller schools of Maricopa County are using the available health agencies- the county doctor, the county nurse, relief agencies, Red Cross, and the American Legion. The agencies have not been used to the extent to which they might have been used. The reasons for this lack of use on the part of the teachers have not been determined from this study.

2. Teachers have not attempted in any large measure to give physical examinations. In De Kruif's book "Why Keep Them Alive?" he describes the help that Detroit teachers gave after-being trained to give physical examinations to children. Their judgement correlated with the doctor's diagnosis in 97 per cent of the cases. Teacher training in health problems should be provided by the teacher training institutions of the state.

3. Schools are not provided with equipment for carrying on health work. Every school should have scales to weigh the children enrolled. Equipment for serving hot lunches should be provided. The medicine cabinet should provide the best first aid equipment.

4. Schools should be provided with sanitary facilities for the best healthful surroundings as running water and sanitary toilets.

5. Adult education should be carried on in each community to combat the superstition and ignorance of parents and other adults in the community. The predominating reason for non-vaccination and non-immunization has been the objection of parents.

6. Money for school lunches should be provided by the county and state. The schools were not serving lunches because of lack of funds.

7. Some plan of county aid for the care of tonsils, eyes, and teeth should be provided. The work done in the schools along this line has been very meager and inadequate.

8. Annual examination, periodic examinations, daily inspections and the keeping of individual cummulative records should be encouraged in every school no matter how small.

9. A pre-school round-up with diphtheria inoculations and smallpox vaccinations should be held annually with the help of county doctors and nurses.

10. Parents should be encouraged to attend any special physical examination of their children where physical defect has been found and special examination is necessary. Their interest in health and community sanitation should be stimulated by the Parent Teachers Association Meetings or community gatherings of some sort. By keeping the parent informed of the progress of his child and the child's needs, and by the personal interview the parent should be encouraged to assume the full responsibility for his child.

11. Instruction in knowledge, habits and attitudes should be given in every school until each child has developed a philosophy of health for himself and a responsibility for putting that philosophy into action.

BIBLIOGRAPHY

A. Books

1. Andress, J. Mace
   Health Education in Rural Schools.
   Houghton Mifflin Company, Boston; 1919.

2. Armstrong, Donald, Dublin, Louis I., and Steele, Elizabeth J.
   The Cost of Medical Care.
   Metropolitan Life Insurance Company, New York; 1930.

3. Arizona State School Law
   Issued by the Superintendent of Public Instruction,
   Phoenix, Arizona; 1931.

4. Arizona State Course of Study, Bulletin Number Nine.
   Health Education and Physical Education.
   State Department of Education, Phoenix, Arizona; 1935.

5. Ayres, May, Williams, Jesse F., and Wood, Thomas D.
   Healthful Schools.
   Houghton Mifflin Company, Boston; 1918.

6. Bancroft, Jessie H.
   Games for the Playground, Home, School, and Gymnasium.
   Macmillan Company, New York; 1916.

7. Bancroft, Jessie H.
   The Posture of School Children.
   Macmillan Company, New York; 1918.

8. Bogert, L. Jean
   Diet and Personality.
   Macmillan Company, New York; 1934.

9. Bossard, James H. S.
   Social Change and Social Problems.
   Harper and Brothers, New York; 1934.

10. Bovard, John F. and Cozens, Frederick W.
    Tests and Measurements in Physical Education.
    W. B. Saunders Company, Philadelphia; 1930.

11. Briggs, Thomas H.
    The Great Investment.
    Harvard University Press, Cambridge; 1930.

12. Burkard, W., Chambers, R., and Maroney, Frederick W.
Health Habits by Practice.
Lyons and Carnahan, Chicago; 1925.

13. Burnham, William H.
The Normal Mind.
D. Appleton and Company, New York; 1924.

14. Butler, Nicholas Murray
Scholarship Service.
Charles Scribner's Sons, New York; 1921.

15. Cabot, Richard C.
What Men Live By.
Houghton Mifflin Company, New York; 1914.

16. Carnegie, Dale
How to Win Friends and Influence People.
American Book Binder, Stratford Press, Inc.,
New York, 1936.

17. Cornell, Walter S.
Health and Medical Inspection of School Children.
F. A. Davis Company, Philadelphia; 1926.

18. Curtis, Francis Day
Some Values Derived from Extensive Reading of
General Science.
Teachers College Contributions to Education, No. 163,
Teachers College, Columbia University, New York, 1924.

19. De Goveia, C. J.
The Community Play house.
B. W. Huebsch, New York; 1923.

20. De Kruif, Paul
Why Keep Them Alive?
Harcourt, Brace and Company, New York; 1936.

21. Dublin, Louis I.
Health and Wealth.
Harper and Brothers, New York; 1928.

22. Fisher, Irving and Fisk, Eugene L.
How to Live.
Funk and Wagnalls Company, New York; 1919.

23. Galbraith, Anna M.
Personal Hygiene and Physical Training for Women.
W. B. Saunders Co., Philadelphia, 1911.

24. Gates-Strang Health Knowledge Test
Bureau of Publications, Teachers' College,
Columbia University, New York; 1925.

25. Graves, Ernest R.
Understanding Yourself.
Greenburg, New York; 1935.

26. Hackett, James K.
Health Maintenance in Industry.
A. W. Shaw Company, Chicago; 1925.

27. Hambridge, Gove
Your Meals and Your Money.
Mc Graw-Hill Book Company, Inc., New York; 1934.

28. Hoag, Ernest B. and Terman, Lewis M.
Health Work in the Schools.
Houghton Mifflin Company, New York; 1914.

29. Hoffman, Frederick L.
Suicide Problems.
Prudential Press, Newark, New Jersey; 1928.

30. Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association
Health Education.
525 W. 120th St., New York; 1924.

31. The Julius Rosewald Fund.
New Plans of Medical Service.
Chicago; 1936.

32. Final Report of the Committee of the Costs of Medical Care.
Medical Care for the American People.
The University of Chicago Press, Chicago; 1932.

33. Meredith, Florence L.
The Health of Youth.
P. Blakiston's Son and Company, Philadelphia; 1928.

34. Maroney, Frederick W.
Physical Education for Public Schools.
Lyons and Carnahan, Chicago; 1928.

35. Mc Collum, E. V. and Simmonds, Nina
Food, Nutrition and Health.
Published by the authors, Baltimore; 1926.

36. National Child Health Council
Health for School Children.
School Health Studies, No. 1, Education Bureau,
Washington, D. C.

37. Odell, Ruth M.
Improving the Dietary Habits of a Rural Community.
Report of the Millbank Memorial Fund, Cattaraugus,
County Health Demonstration, New York, 1929.

38. Osborne, Oliver T.
Health: What Everyone Ought To Know.
C. C. Thomas, Baltimore; 1929.

39. Rapeer, L. W.
Educational Hygiene.
Charles Scribner's Sons, Chicago; 1915.

40. Rogers, Frederick R.
Fundamental Administrative Measures in Physical
Education.
The Pleiades Company, Newton, Massachusetts, 1932.

41. Rose, Mary Swartz
Teaching Nutrition to Boys and Girls.
Macmillan Company, New York; 1932.

42. Sansum, W. D., Hare, R. A., and Bowden, Ruth
The Normal Diet and Healthful Living.
Macmillan Company, New York; 1936.

43. Shakespeare, William
Hamlet.

44. Sherman, Henry C.
Food and Health.
Macmillan Company, New York; 1934.

45. Smiley, Dean Franklin and Gould, Adrian Gordan
Community Hygiene.
Macmillan Company, New York; 1930.

46. Smith, Governor Alfred E., and Others
The County Health Unit.
Milbank Memorial Fund, New York; 1927.

47. Steibling, Hazel K., and Birdseye, Miriam, Schuman, Clyde
The Family's Food at Low Cost.
U. W. Government Printing Office, Washington D. C.,1931.

48. Steibling, Hazel K. and Ward, Medora M.
Diets at Four Levels of Nutritive Content and Cost.
U. S. Department of Agriculture Circular # 296.

49. Survey of Schools- Chicago.
Volume, Mental Hygiene.

50. White House Conference Called by President Hoover in 1930.

51. Wise, C. M.
Dramatics for School and Community.
Stewart Kidd Company, Cincinnati; 1923.

52. Wood, Thomas D. and Brownell, Clifford L.
Source Book in Health and Physical Education.
Macmillan Company, New York; 1925.

53. Wood, Thomas D. and Cassidy, Rosalind F.
The New Physical Education.
Macmillan Company, New York; 1927.

54. Wood, Thomas D. and Lerrigo, Marion O.
Health Behavior.
Public School Publishing Company, Bloomington, Ill., 1928.

55. Wood, Thomas D. and Strang, Ruth
Tentative Course of Study in Health Education.
Grades I to VI.
Bureau of Publications, Teachers College, Columbia University, New York; 1928.

56. Wood, Thomas D. and Rowell, Hugh G.
Health Supervision and Medical Inspection of Schools.
W. B. Saunders Company, Philadelphia; 1927.

B. Periodical Articles

57. Blanchard, V. S.
"Integration of the School Health Program with Community Health Education."
American Journal of Public Health; 26:626, (June, 1936).

58. Congressional Digest; 14:196-222, (August, 1935).

59. Davis, Michael M.
"Next Moves in Medical Care."
Survey Graphic; 26:70-72, (February, 1937).

60. De Forest, Charles M.
"Health Training in the Schools."
Journal of Social Forces; 1:567, (1922-1923).

61. Johnson, Granville B.
"Physical Skill Tests for Sectioning Classes into Homogeneous Units."
American Physical Education Research Quarterly; III:128, (March, 1932).

62. Johnson, Wingate M.
"The Case Against State Medicine."
Forum; 90:304-307, (November 1933).

63. Journal of the American Medical Association.
Volume 107;1227, (October 10, 1936).
Volume 107:591, (August 22, 1936).

64. Kawakami, K. K.
"Formosa, Japan's Experiment."
Atlantic Monthly; 144:838-847, (December, 1929).

65. Larson, Emil L.
"The Development of School Morale."
Education; 53:105-107, (October, 1932).

66. Mc Cloy, C. H.
"Bibliography of Health and Physical Education to December 31, 1931."
American Physical Education Association Research Quarterly; 3:3, (October, 1932).

67. Mc Cloy, C. H.
"Tests and Measurements for the Administrative Program of Physical Education."
The Journal of Health and Physical Education; 3:7, (September, 1932).

68. Mc Cloy, C. H.
"Recent Studies in the Sargent Jump."
American Physical Education Association Research Quarterly; III:235, (May, 1932).

69. Mc Cloy, C. H.
"The Measurement of General Motor Capacity and General Motor Ability."
American Physical Education Association Research Quarterly; V:46-61, (March, 1934), Supplement.

70. Mc Cloy, C. H.
"A Program of Tests and Measurements for the Public School."
Journal of Health and Physical Education; 6:18, (October, 1935).

71. Morgan, William Gerry
"The Medical Profession and the Paternalistic Tendencies of the Times."
The Journal of the American Medical Association; June 28, 1930.

72. National Education Association Journal; 22:127, (April, 1933).
"Shall We Provide Medical Care for All?"

73. Occupations, the Vocational Guidance Magazine.
Published by the National Occupational Conference in Cooperation with National Vocational Guidance Association, 227 Fulton Street, New York.

74. Personnel Journal
Published by Personnel Research Federation
29 West 39th Street, New York.

75. Phair, J. T.
"Child Health and the Elementary School."
American Journal of Public Health; 26:456, (May, 1936).

76. Polakov, Walter N.
"Potential Plenty."
The New Republic; 81:127, (December 12, 1934).

77. Rogers, Frederick Rand
"Physical Educators and Health."
Education; 57:557, (May, 1937).

78. Tests on Hygiene, Hockey and Archery.
American Physical Education Association Research Quarterly; 6:78-95, (October, 1935).

79. Tests on Volley ball, Soccer, and Basketball.
American Physical Education Association Research Quarterly; 7:73-82, (March, 1936).

80. Winslow, Floyd S.
"Partners in Public Health."
Survey; 72:266-267, (September, 1936).

APPENDIX

The appendix contains a letter which was sent to the principals of the one, two, and three-room schools of Maricopa County.

The letter is followed by the questionnaire which was enclosed with the letter. Two copies of the questionnaire were enclosed, one for the use of the school and one to be returned to the writer.

The habit test which follows the questionnaire in the appendix is a copy of one found in "Health Work and Physical Education," Bulletin, 1932, No. 17, Monograph No. 28 United States Department of the Interior, Office of Education, Washington, D. C. The test was used in the East High School in Salt Lake City, Utah.

Tempe, Arizona

Mr. John R. Blank
Principal, Blankville School
Blankville, Arizona

Dear Mr. Blank:

I am making a survey of health practices in the one, two, and three room schools of Maricopa County. The purpose of this study is to determine how much help is being provided to care for the more pressing health problems among the children of these schools and the sources of such help. It is hoped that a thorough analysis of present policies and practices may prove of much value in promoting the most effective health service in the smaller schools.

My original intention was to interview each one of you personally and to secure the facts which are necessary in dealing with this problem. However, it is impossible to carry out that plan so I am using an inquiry blank to secure the necessary data.

I have tried to arrange this inquiry blank in the simplest possible form. The first ten questions can be answered by means of check marks. The last six will require some writing. Any comments which you care to make on any question or at the close of the inquiry blank will add decidedly to the value of the report.

I am enclosing two copies of the inquiry blank. One is for your files. When filled out the other should be returned to me in the enclosed self-addressed and stamped envelope. A response within a week or ten days will prove especially helpful.

This study is being made under the direction of the College of Education at the University of Arizona. I shall be glad to send a summary of the principal findings as soon as the study is completed.

Thank you for your cooperation. I hope to be able to assist you in the solution of our mutual problems.

Very sincerely yours

Mrs. Mattie Y. Meyer, Principal
Jordan School, District # 26

SCHOOL HEALTH CONDITIONS 1936-1937

School District_____
Name Number

Enrollment for 1936-37_____

1. Were the children in your school given physical examinations during the school year 1936-37? Yes....No

2. Who gave these physical examinations in your school?
County doctor County nurse
School nurse Teacher

3. Please check the items noted in the examination in yuur school.

Age
Height
Weight
Nutrition
Eyes-- Vision Inflamed lids
Infection Strabismus
Ears-- Hearing Inflammation
Mouth--
Teeth Gums Caries
Adenoids Tonsils
Inflamed throat Nasal passages
Skin--
Impetigo Ring Worm
Favus Pediculosis
Chest--
Pigeon breast Lungs
Heart
Scoliosis
Disease experience

Vaccinations--
Smallpox Diphtheria Typhoid

Health Habits

4. Were parents notified of physical defects and recommendations given that children be cared for? Yes...No

How were such notifications made?
Card Letter Telephone Personal Call

What means would you recommend?
Card Letter Telephone Personal Call

5. Do you report on the health condition of the children on the regular report card that you use? Yes...No

2.

6. Do you have daily inspection? Yes...No

7. Check items you notice in daily inspection:

Face	Teeth
Hands	Clothing Clean
Neck	Need of Bath
Ears	Others

8. Do you have an annual pre-school round-up? Yes...No

9. Do you have a medicine cabinet?

10. Check items it contains:

Swab sticks	Argyrol
Thermometers	Iodine
Tongue depressors	Alcohol
Forceps for splinters	Green Soap
Scissors	Lysol
Gauze	Yellow Mercuric Oxide
Cotton	Aromatic Spirits of Ammonia
Adhesive tape	Mercurochrome

11. How many children in your school have been vaccinated against smallpox?

Who provided these vaccinations? (Number by each)
County doctor Private physician Nurse Others

How many have never been vaccinated against smallpox ?___

Give reasons why these children were not vaccinated:

12. How many children in your school have been inoculated against typhoid?

Who provided these inoculations? (Number by each)
County doctor Private physician Nurse Others

How many have never been inoculated against typhoid?___

Give reasons why these children were not inoculated:

13. How many tonsillectomies were performed among the children in your school this year? _____

Who performed the operation?
County doctor Family doctor

Who paid the bill? (Indicate number in each case)
Parents County Gift from private party

How many children needed tonsillectomies but did not receive them? _____

Give reasons why needed tonsillectomies were not provided.

14. How many children, as indicated by the physical examinations needed dental care? _____

How many teeth were pulled? _____
How many children had teeth pulled? _____
How many teeth were filled? _____
How many children had teeth filled? _____

Who cared for these children and paid the bill? (Indicate number in each case).
Parents County Free dental work by dentist

Other means (Indicate)

In the case of children who were not cared for give reasons why they were not.

15. How many children in your school need glasses? _____

How many received glasses during the year? _____

Who provided these glasses? (Indicate number)
Parents County Others (Indicate)

How many children were treated for sore eyes? _____

Who treated them?
County doctor Private doctor
Nurse Teacher

16. Do you keep a height-weight chart? Yes.....No

How often do you weigh and measure the children?
Monthly Semi-annually Annually
Other time arrangement (Indicate)

4.

17. Do you serve school lunches? Yes.....No

Do you serve a special diet to the children who are below normal weight? Yes.....No

Do you give children who are below normal weight anything beside food to bring up their weight? Yes.....No

What do you use?

Was this prescribed by a physician ? Yes.....No

Who pays for school lunches?

School district P. T. A.

Governor's fund Children

Others (Indicate)

18. Please indicate practices regarding medical care and the improvement of health conditions which have not been touched on above. Also indicate problems which you have found especially difficult.

Health Habits

Score Sheet

Name_____

1. Bathing habits:
   Do you take a cold bath every morning? _____
   Do you take a cold splash or sponge every morning?_____
   Do you take a warm cleansing bath every night?_____
   When?_____ How often?_____

2. Care of teeth:
   Times brushed per day?_____
   Powder?_____ Paste?_____
   Dental floss?_____
   Do you see a dentist or dental hygienist every six months?_____
   Have you any tooth cavities now?_____
   Are your gums in good condition?_____
   Is your toothbrush clean?_____

3. Care of hair:
   How often do you wash it?_____
   Do you brush it daily?_____
   Do you wash your brush and comb once a week?_____

4. Diet:
   Do you eat at regular intervals?_____
   Hastily?_____ Really chew your food?_____
   How many cups of coffee a day? _____
   How many cups of tea a day? _____
   How many glasses of water a day? _____
   (You need at least 8.)
   How often do you eat meat?(fish and fowl)_____
   Do you eat musc candy and sweets? _____
   Between meals? _____
   Are you eating--
   1. Green leafy vegetables twice a day(in addition to root vegetables)? _____
   2. Bread and cereals made from whole wheat or other whole grains? _____
   3. Butter, milk, cheese, and eggs?_____
   4. Fruit: Raw?_____ And stewed?_____

5. Sleep:
   How many hours do you sleep? _____
   Are your windows open? _____
   Do you sleep out of doors? _____

6. Elimination:
How often do you pass urine through the day?_____
At night?_____
Do your bowels move regularly each day?_____
Are you constipated?_____
Is there often an interval of several days?_____
Have you a regular time for bowel movement, morning and night?_____

7. Menstruation:
Is it regular?_____
Have you pain?_____ Just before?_____
First day?_____ Entire time?_____
Do you have to go to bed?_____
Lose time from your work?_____
Do you take a tub bath or a warm sponge bath of entire body at least every day during the menstrual period?_____

8. Clothing:
Are you comfortable in your usual clothing?_____
Are your muscles strong enough to keep you straight?_____

9. Posture:
Wouldn't you like to stand as well as the straightest, best-poised person you know?_____
Do you?_____
Do you walk easily with feet pointing straight forward and without getting tired?_____
Do you sit well back in your chair and up straight and never slide down and slump?_____
Do you walk upstairs straight and tall like a gay young thing and never go stooping over like a tired woman?_____
If you looked at yourself in a mirror would you see yourself with head high and neck straight?_____
Chest broad and high?_____
Abdomen flat and firm?_____
Back straight and strong?_____
Shoulders level?_____
Do your feet ever get tired or ache?_____
Are the toes beginning to look pinched and pointed like the fashionable shoes?_____
Is the joint of your big toe beginning to get large or red, or painful?_____

10. Shoes:
Is the toe so broad that your toes will not be crowded?_____
If you put your shoes side by side, do the inner edges touch all the way from the heel to the
Is the heel low(1¼ in.)?_____(toe?_____

11. Exercise:
Do you exercise one hour out of doors every day?_____
Are you familiar with any game or sport(tennis, basket ball, swimming, skating, etc.)?_____
How often do you do it?_____
Do you belong to any gymnasium or dancing class?_____

12. Leisure time:
How many hours a week do you devote to home duties?_____

Movies?_____ Dancing?_____
Reading?_____ Clubs?_____
Outdoors?_____

13. Attitude of Mind:
Do you make companions of your parents?_____
Of your brothers and sisters?_____
Have you confidence in yourself?_____
Are you shy_____ Do you get blue?_____
Do you worry about things?_____
Are you getting pleasure out of books, music, pictures?_____
Do you get along with most people?_____
Are you really happy?_____