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## Nutrition Clinic

Eleanor Jackson

Gertrude Peabody

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1920  
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# NUTRITION CLINIC



E. JACKSON

AND G. PEABODY, 1920

Eleanor Jackson

and

Gertrude Peabody

"NUTRITION CLINIC."

7131  
Part



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## NUTRITION CLINIC.

### Introduction.

The nutrition clinic was held in the Old Town public schools and was patterned after Doctor W. H. Emerson's nutrition clinics.

### Selection of children.

Two grades were selected for the work - one a normal fourth grade and the other a grade of backward children doing fourth grade work.

### Weighing and measuring of all children.

Every child from both grades was weighed and measured. The following statistics were secured from the use of the normal weight card prepared by Dr. Thomas D. Wood and published by the Child Health Organization, 156 Fifth Ave., N. Y.

	Grades	
	Backward	Normal
Number normal and over	9	6
0 to 3 % underweight	9	5
3 to 5 % underweight	2	4
5 to 7 % underweight	3	5
7 % underweight	-	2
8 % underweight	-	3
9 % underweight	-	2
10 % underweight	-	1
11 % underweight	-	2
12 % underweight	1	1
13 % underweight	-	2
17 % underweight	-	2
18 % underweight	<u>1</u>	<u>1</u>
Totals	25	36

From this table it may be seen that out of the 61 children weighed and measured only 15, or 24.6 %, were normal, or above normal, and 46, or 75.4%

were sub-normal. Of these underweight children 20, or 43.4 % (32.8% of all children), were less than 5% underweight, 15, or 32.6 % (24.6 % of all children) were between 5 and 10 % underweight, and 11, or 23.9 % (18 % of all children) 10 % and over underweight.

#### Other Figures.

Dr. Emerson in August, 1919, says that one out of every three children are malnourished.

March 1918 - Bureau of Child Hygiene, New York City, 21 % in 1917 -  
 Baher, 200,000 out of 1,000,000. - Thomas D. Wood 15 - 25 %

It was decided to take into the clinic the eighteen children who were 7 % or more underweight. However, in the short time between the weighing and measuring party and the starting of the classes, nine of these children had left school, either because of sickness, or because of conditions in the mills. It is interesting further to note that of the 18 children selected only two came from the backward grade.

#### Description of Children.

Child	Sex	Age	Height	Weight	Normal wt.	% underweight	Remarks
A.	Boy	12	57 3/8"	67 $\frac{1}{2}$ lbs.	83 lbs.	18 %	Typically Mal-nourished
B.	Boy	9	55"	65 lbs.	73 lbs.	11 %	Excellent home conditions. Malnourished conditions a puzzle.
C.	Boy	11	52"	58 $\frac{1}{2}$ lbs.	67 lbs.	13 %	Brother of A.
D.	Boy	9	48"	49 lbs.	55 lbs.	9 %	Active and good spirits.
E.	Girl	11	55 3/8"	61 lbs.	73 lbs.	16.4 %	Too much humored - only child.
F.	Girl	11	56 $\frac{1}{8}$ "	69 lbs.	79 lbs.	12.6 %	Recovering from blood poisoning.
G.	Girl	9	52"	57 $\frac{1}{2}$ lbs.	64 lbs.	10.1 %	Extremely sensitive.
H.	Girl	11	52 $\frac{3}{4}$ "	60 $\frac{1}{2}$ lbs	66 lbs.	8.3 %	Extreme paleness.
I.	Boy	10	47 $\frac{3}{4}$ "	48 $\frac{1}{2}$ lbs.	56 lbs.	12 %	Pinched looking.

#### Physical Examinations.

Physical examinations of these children were given by the school physician. The following reports show the results in each case.



General Health Record of A.

Nutrition - poor

Subcutaneous fat - none

Muscular development - poor

Color - Aenemic

Posture - bad

Deformities - Badly protruding shoulder blades.

Skin - Chicken pox pits - not clean.

Eyes - normal

Ears - normal

Teeth - one molar needs repairs

Tonsils - enlarged

Breathing - fair

Lymphnodes - enlarged - infection

Heart - Marked irregularity - slight enlargement

Lungs - Normal

Abdomen - protrudes

Bladder trouble

Pulse - 80. - 6-10 times remittant during minute

Temperature - 98.3

B - Not present for examination.

General Health Record of C.

Nutrition - poor

Subcutaneous fat - under normal

Muscular development - under normal

Color - aenemic

Posture - slight curvature - probably due to thinness

Deformities - protruding shoulder blades

Skin - normal

Eyes - -30/50 vision in both eyes

Ears - normal

Teeth - One should be removed.

Tonsils - Enlarged - adenoids

Breathing - limited

Lymphnodes - very much enlarged

Heart - normal

Lungs - normal

Abdomen - normal

Impaired digestion

Purple veins

General Health Record of D.

Nutrition - Fair

Subcutaneous fat - good

Muscular development - normal

Color - normal

Posture - normal

Deformities - none

Skin - very good

Eyes - normal

Ears - normal

Teeth - Decaying badly.

Tonsils - normal

Breathing - normal  
Lymphnodes - slightly enlarged  
Heart - Slightly irregular action  
Lungs - Normal  
Abdomen - Normal  
Pulse - 92

General Health Record of E.

Nutrition - poor  
Subcutaneous fat - nearly normal  
Muscular development - good  
Color - normal  
Posture - prominent shoulder blades  
Deformities - flat chested  
Skin - normal  
Eyes - Normal  
Ears - normal  
Teeth - good  
Tonsils - normal  
Congestion at back of throat  
Breathing - normal  
Lymphnodes - slightly enlarged - left more than right.  
Heart - normal  
Lungs - Right bronchail tube not so free as left.  
Abdomen - Heavy  
Pulse - 100 - Probably because of exam.  
Rings under eyes  
Slightly enlarged thyroid  
Temperature - 99.3

General Health Record of F.

Nutrition - poor  
Subcutaneous fat - normal  
Muscular development - good  
Color - good  
Posture - normal  
Deformities - slight curvature  
Skin - Normal  
Eyes - Near vision normal  
Ears - normal  
Teeth - Temporary teeth decayed  
    Pus centre in right lower molar.  
Tonsils - Slightly enlarged  
Lymphnodes - normal  
Heart - normal  
Lungs - normal  
Abdomen - protrudes slightly

G.

So nervous and self conscious over examination that Doctor advised not taking it.  
Color - good  
Nutrition - fair  
Heart - normal

General Health Record of H.

Nutrition - fair  
Subcutaneous fat - not quite normal  
Muscular development - fair  
Color - Anemic

Posture - Shoulders inclined to stoop  
Deformities - Marked lateral curvature of spine (dorsal vertebrae)  
Skin - Anemic  
Eyes - normal  
Ears - normal  
Teeth - Should be looked after  
Tonsils - normal  
Breathing - normal  
Lymphnodes - Enlarged glands  
Heart - Rapid  
Lungs - normal  
Abdomen - normal  
Pulse - 152 - probably nervous  
Temperature - normal

General Health Record of I.

Nutrition - poor  
Subcutaneous fat - quite deficient  
Muscular development - fair  
Color - anemic  
Posture - good  
No deformities  
Skin - normal  
Eyes - good  
Ears - normal  
Teeth - need repair - gums infected  
Tonsils - normal  
Breathing - normal

Lymphnodes - enlarged - nodules all along.

Heart - sounds normal - Rate 104.

Lungs - normal

Abdomen - slightly enlarged

Quality of blood - poor

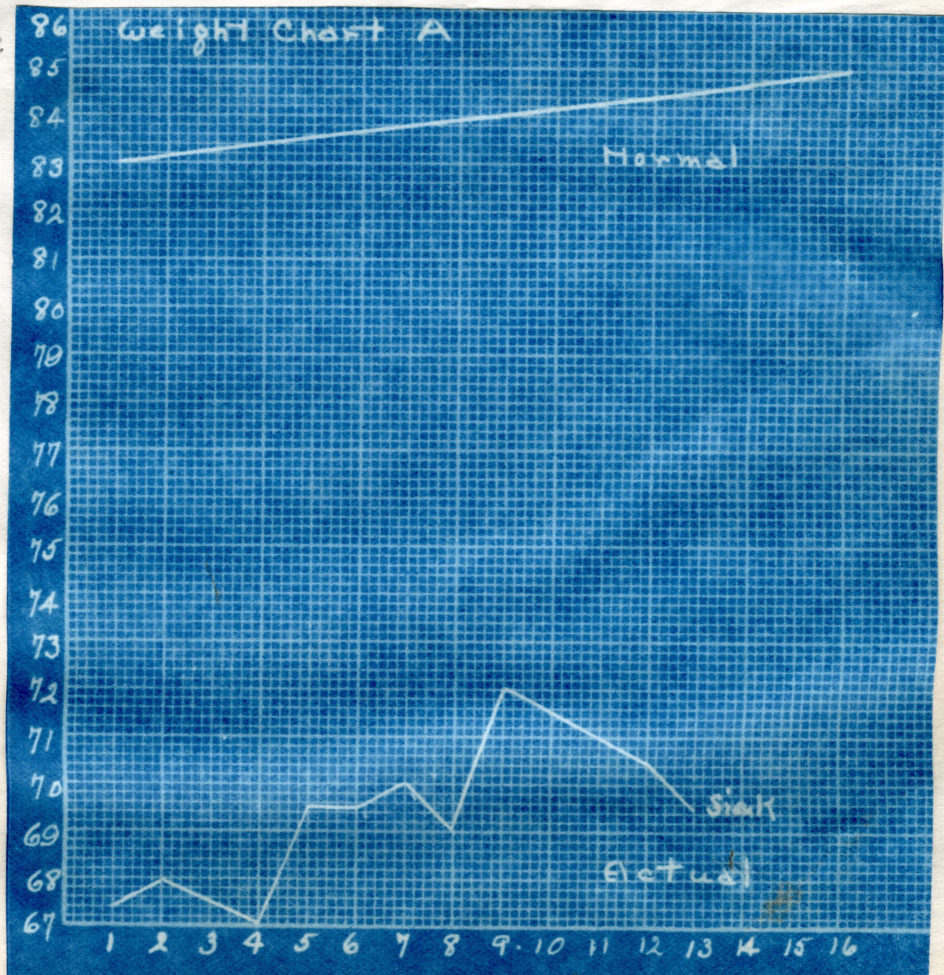
Small stature.

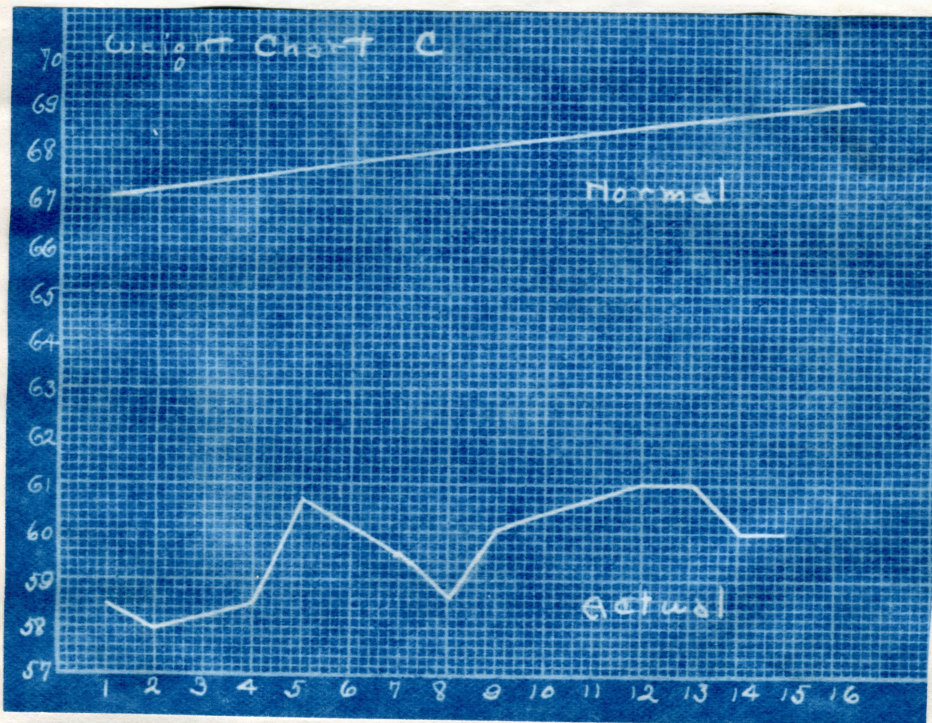
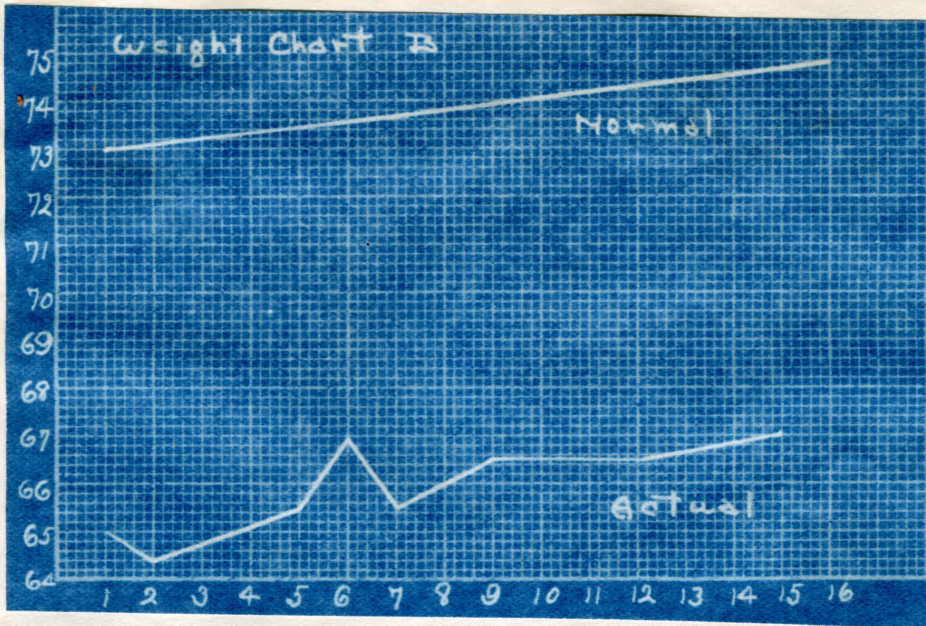
The Clinic.

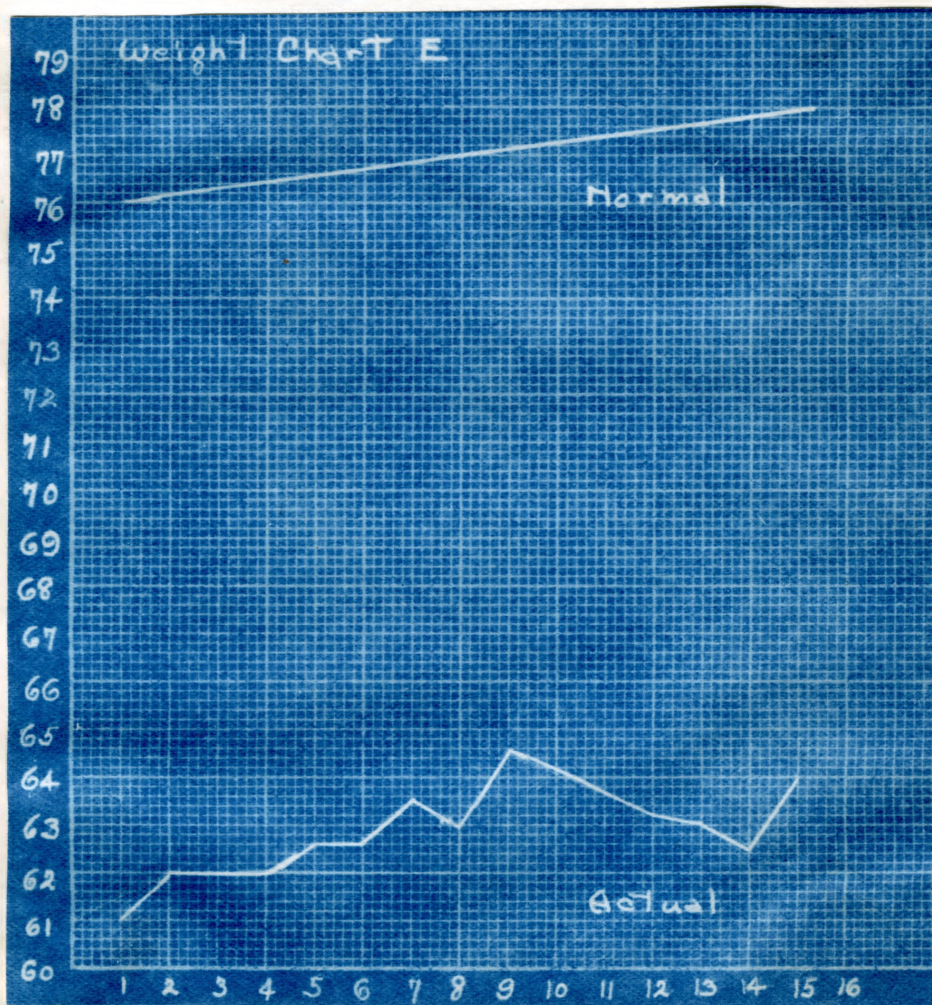
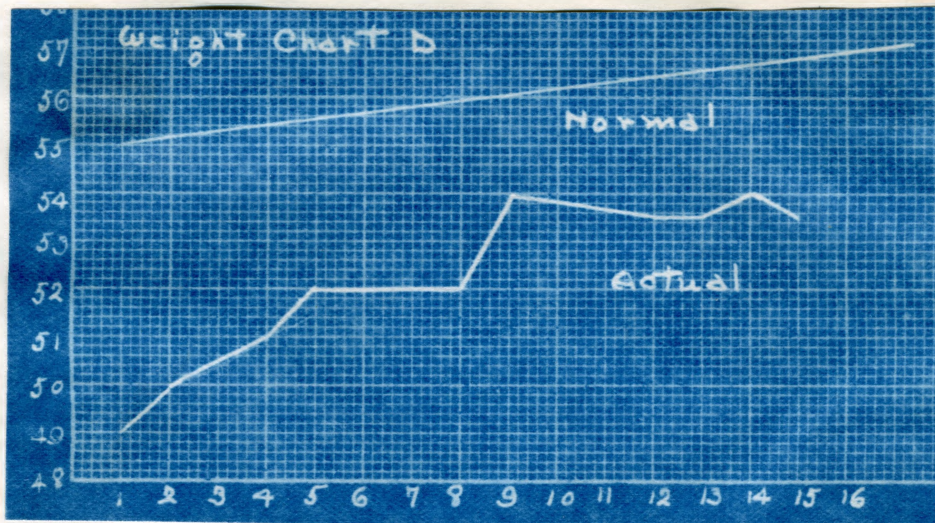
After the examinations were over the regular routine of the clinic was begun. Every Wednesday, at the close of the school hours, the children met for the weekly "weighing party." A class weight chart, published by the Child Health Organization, was kept for this, with a red moon for every child who gained during the week and a gold star for the one who had made the greatest gain. Besides this the individual weight graphs given below were kept and exhibited to further stimulate the children's interest.

Normal gain was determined from Manny's table - Sherman p. 372.

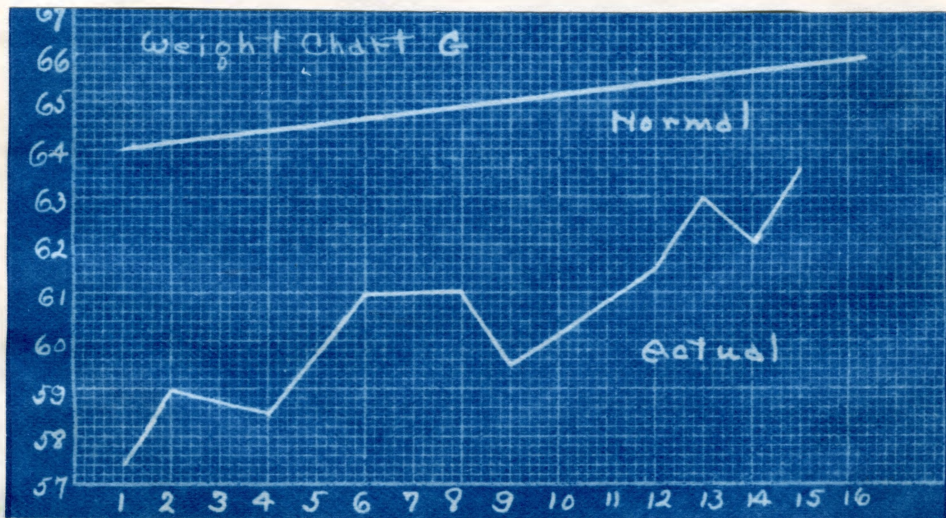
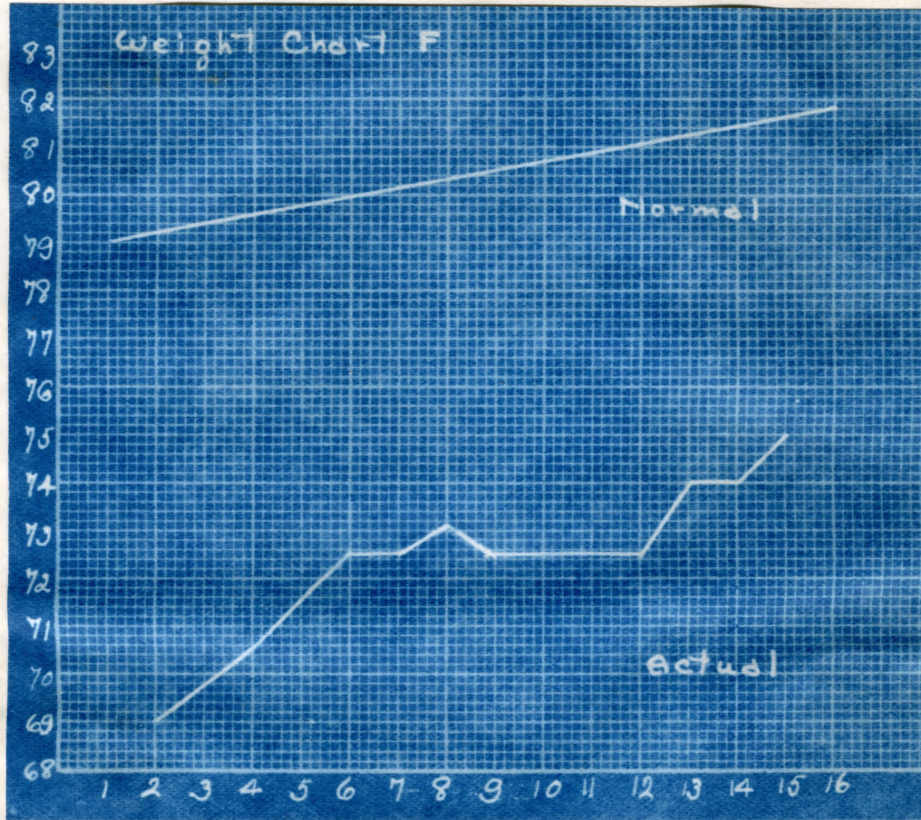
Individual Graphs.

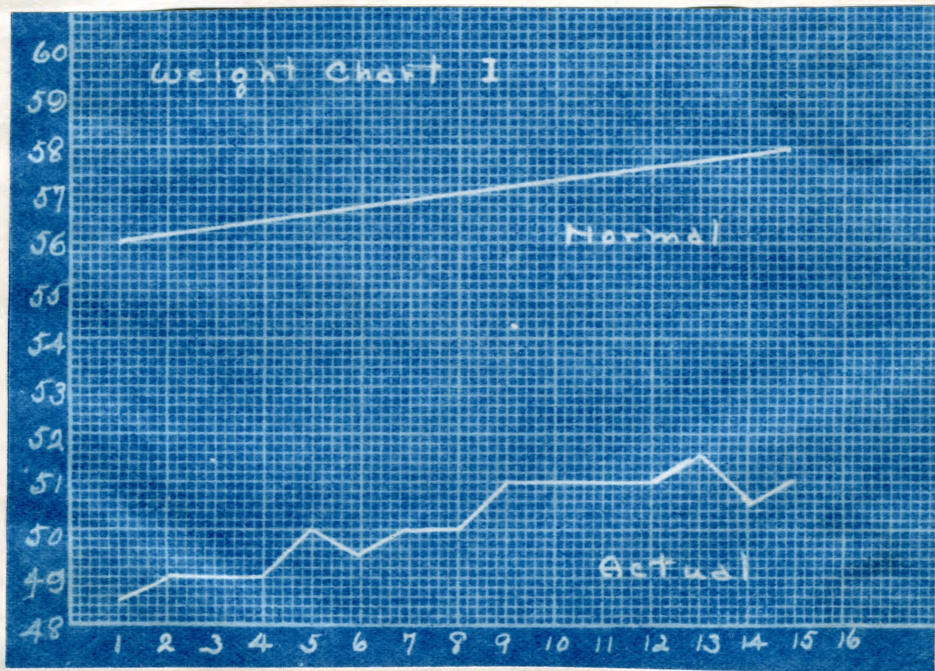
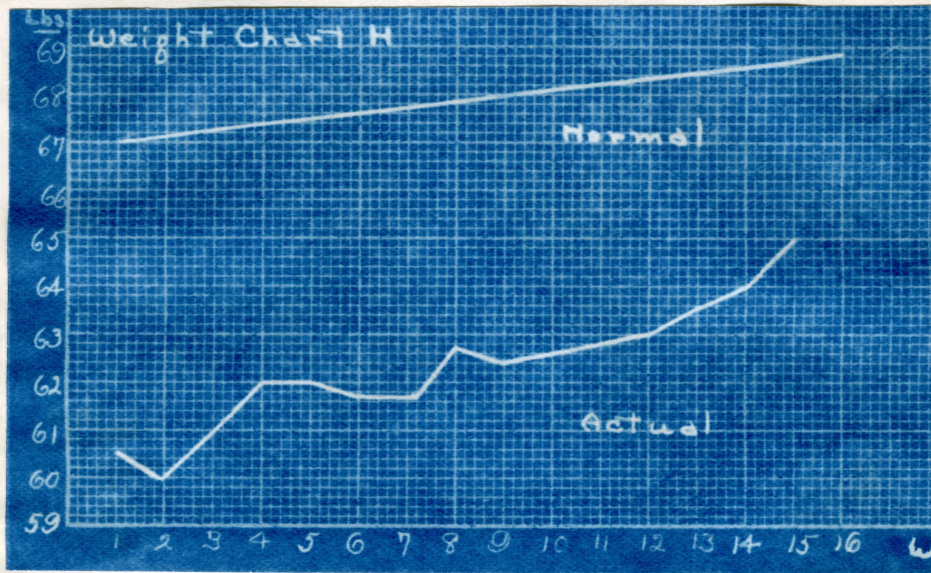












On Friday the clinic was held from 1 to 1:30 P. M., the only time taken from school hours. With alternating teachers the following lessons were given.

1. Good Food Habits as Essentials to Health.

Drink six cups of water daily.  
Drink two cups of milk daily.  
No tea or coffee.  
Either bread or cereal with every meal.  
Fruit or vegetable daily.  
Avoid lunching.  
Eat sweets only at end of meals.

2. Milk

Using chart illustrating growing material in milk.  
Showing harmful effect of tea and coffee.  
Suggesting cocoa and milk soups as a way of using milk.

3. "Mr. Bones."

Chart showing vividly the harmful effect of lunching, fried foods, pickles, pastries and green apples. Helps strengthen character to refuse to eat something we want when we know it isn't good for us.

4. Care of Teeth

How often to clean them and why? The best time to clean them. Compare decay from food particles to decaying log in the woods. Harmful effects from decay. -

Appearance  
Unhealthy  
Ache  
Cause indigestion from improper chewing of food.

Importance of caring for first teeth. Eat proper foods, go to dentist twice a year.

5. Sweets - Dried Fruits.

Stressing harmful effect of candy on teeth - appetite - digestions and general health. Poor candy contrasted with benefits of dried fruits, honey and maple sugar.

6. Cleanliness.

Six cups of water we are drinking serve to bathe us inside - Baths bathe outside.

Frequency of baths and reasons for baths - Washing off dead skin and keeping pores open - Infection from dirty hands - Care of hair - Care of ears.

## 7. Sleep, Fresh air and Exercise.

Explanation of a germ - prevalence - means of getting in body. Sunshine and fresh air their enemies. Fight of the corpuscles in our blood. How to keep strong to guard against them? Sleep, open windows, fresh air play-exercise, (Using physical development of Theodore Roosevelt from a sickly childhood), rest when tired and little worry.

## 8. Summary.

Review of points emphasized in each lesson.

Discussion of results.

## Typical Lesson Plans.

### Review

What are we going to eat instead of candy?

Ans. Fruits, candied and dried, as dates, figs, raisins, currants.

What kinds of candy are best for us to eat?

Maple sugar and honey.

Why should we eat dried fruits? If children don't grasp this, give these suggestions -

What helps our teeth to keep well and strong? (Mineral salts)

Our blood red? (Mineral salts)

Strength to muscles? (Mineral salts)

Heart to beat strong and steady? (Mineral salts)

### Advance

1. The first time we had our class we found that one important thing to do was to drink six cups of water a day. Water is one thing which there is plenty of in this part of the country so we ought all to drink those six cups a day. Are we?

2. Now that keeps our body nice and clean on the inside, but how about the outside?

3. How often do we wash our  
hands?  
Teeth?  
Take a bath?  
Heads?  
Ears?

4. The outside layer of our skin is made up of tiny pores - little tiny holes that go in to the inner layers of skin. These tiny holes or passage ways are used to excrete or give off the waste material which our body has no more use for. What do you think will happen if these passage ways get stopped up? That waste product can't come out of our body and hence stays inside and takes our strength. The outside layer is made up of tiny scales and these gradually wear off. Bathing

helps to keep the skin free from these worn out scales.

5. Why take baths and wash our hands several times each day? Just so these tiny passage ways won't get stopped up.

6. Every one of us should take a bath at least once a day, but if not, two or three times a week.

7. We learned about our teeth in a previous lesson and all know that those should be washed at least twice a day. When? Morning and night. Why? At night to take all the food off so that they won't have a chance to decay while we're asleep. In the morning to wash the tartar off. Then if we can, wash them after dinner at noon time.

8. Hands - need frequent washing.

Wash before meals. Why? Handle our bread, cake, cookies, etc., and don't want to do it with dirty hands. Infection carried into mouth with food and interferes with digestion.

Wash before going to bed. Help mother keep the sheets nice and white.

Wash when we get up in the morning.

9. Heads.

Our scalps need frequent washings as well as the rest of our body to keep the pores clear and make the hair grow.

10. Ears.

We may become deaf if we let the dirt collect for too long a time in our ears.

How many of us are going to try to take a bath once a week or oftener? Wash our hands several times a day? Our teeth morning and night? Our hair once every two weeks anyway? Our ears once a day?

Now I'm going to give you each a calendar for the month of December and each day you keep these rules put a cross on the date. At the end of the month we'll bring them back and see how many of us have been able to remember every day.

Show charts and class chart.

Lesson Plan - December 12, 1919.

Sleep - Fresh Air - Exercise - Rest - Worry.

How often did we learn we should take baths?

Twice a week anyway.

Why did we take these baths?

To keep the pores in our skins from clogging  
and to remove the little particles of worn out skin.

What was the big danger in putting dirty hands in our mouths?

Getting germs from them.

Advance.

What is a germ?

It is a tiny, tiny animal so very small that we cannot see them without an instrument called the microscope, which is like a very, very strong magnifying glass.

They are so very small that thousands of them could rest on the point of a pin.

Why is it that people are so scared of such little bits of living things?

Because they have the power to make us sick and no one wants to be sick.  
Does he?

Where are germs found?

Everywhere - In the air and the soil and the water and in dirty food (milk particularly) and on the outside of our bodies and especially in dirt.

Do they harm us as long as they are on the outside of our bodies?

No - except that it is easier to get in.

How do they get in?

By means of cuts or bruises in our skins and through putting things into our mouths, or in dirty or infected (explain meaning of word) food.

What are the two things that destroy these dangerous little things best?

Sunshine and fresh air. Now you can see why we like our curtains up high and lots of windows in our homes, and we should have them open a great deal and get lots of outdoor exercise.

Now, inside our bodies in our blood there are tiny little things called white corpuscles which band themselves together to fight the germs just as fast as they get in. Some of them are always getting in too, in spite of all the care we can take.

Now you boys particularly know that you can't fight well if you feel tired and weak and haven't had enough to eat and are a little sick, can you?

That is just the way with these little white corpuscles in our blood. They can't half fight the germs if our bodies aren't kept well and strong so the germs have all the chance to give us colds or tuberculosis or many other diseases.

How have we already learned that we can keep our bodies strong to guard against germs?

By eating right food, by care of our teeth and by keeping clean. Now besides these we want plenty of sleep. The earlier we get at it the better it will be, too.

What do we want to remember particularly about our windows?

Have them open wide to let in plenty of fresh air because we really sleep one-third of our time and that means a long time for germs to work.

What might be another thing?

Exercise. Nothing is better to give us an appetite and develop our muscles and help us to grow strong than to play particularly out of doors. (Tell how Theodore Roosevelt was a sick, rather weak little boy and developed himself into such a big powerful man through exercise and play.)

One thing to remember here is not to overdo and get tired, for that often does more harm than the exercise can offset.

It is especially important for us who are trying extra hard to build ourselves up, to rest if we are tired. The best way to do that is to lie down perfectly flat on our backs, without a pillow under our heads and with our arms resting quietly at our sides, and for a little while to stay just quiet and relaxed. A good way to get a good position for this is to put a small pillow in the hollow part of our backs just below the shoulder blades.

The last thing to remember is not to worry.

We mustn't worry about our work in school and all the other bothersome things, if we want to give our bodies a chance to fight the germs.

Now tell me, please, the two biggest enemies to the germs?

Sunshine and fresh air.

How can we help our bodies fight them after they get in?

By exercise  
By plenty of sleep with windows open  
By not getting overtired  
By resting  
By not worrying.

#### Illustrative material.

Illustrative material used in these lessons were health charts put out by the A. I. C. P. of New York City and National Child Welfare Exhibit Association, New York City.

With the Sweets lesson the children were given men and turtles made from

dates, figs and raisins and after the cleanliness lesson they were given calendars to keep a record of their habits of hygiene during Christmas vacation. With each lesson the class record and individual graphs were exhibited and illustrations were used just as much as possible to keep up the interest of the children.

#### Home Visiting.

Several calls were made on the parents, seeking the mother's cooperation, explaining the work by means of the weight charts and graphs, discussing the children's needs, making suggestions for dietaries when needed and observing home conditions.. Under the latter, the child's type of home, habits of hygiene, hours of eating and sleeping and dietary habits were observed. It is interesting to note that none of the children came from homes of actual poverty. B, E and F were of the better middle class, D and G were fatherless, their mothers working out by the day, but still supporting comfortable homes for their children; while the others came from typical mill workers' homes. Fair habits of hygiene were found, except perhaps, in the homes of A and C and of I where the families were large and the parents uneducated.

#### Dietaries.

A record was made from consultation with the mothers and children of a typical day's dietary. The value of the dietary was calculated from this information.

The two poorest dietaries were those of H and A and C.

#### H's Daily Dietary.

##### Breakfast

Cocoa - 1 c.  
Bread - 2 slices  
Rolled oats

##### Dinner

4 potatoes  
1 slice of bread      $\frac{1}{2}$  T. butter  
cake

##### Supper

4 potatoes  
2 slices meat  
pickles



Material	Amount	Protein grams	Calories	CaO	P <sub>2</sub> O <sub>5</sub>	Fe
Bread	3 slices	10.8	300	.0330	.2250	.0009
Cocoa	1 c.	4.36	108.3	.1975	.2704	.0003
Rolled oats	4 T.	4.20	100	.0300	.2160	.0009
Sugar	1 t.	--	16.	--	--	--
Milk	$\frac{1}{2}$ c.	3.89	81.4	.1945	.2467	.0002
Potatoes	8	21.52	800.0	.1520	1.3280	.0120
Butter	1 T	.13	100.	.0030	.0040	--
Meat		21.66	269.2	.0242	1.1306	.0086
Cake (1/5 gingerbread recipe)		3.07	167.1	.2095	.1074	.0003
Pickles						

Totals                            69.63            1942.0            .8437            4.3381            .0232

Standard                            84.15            2244.            .7180            2.4684            .0112

Sherman. 34 calories  
per pound.                    (15 % of cal.  
+ 4)

Normal weight 66 lbs.

A and C's Daily Dietary

Breakfast

Rolled oats 1 c.  
Tea  
Baked Beans  
Toast 1 slice

Dinner

Meat  
Potatoes  
Carrots (A does not eat vegetables)  
Pie  
Tea

Supper

Fried potatoes  
Bread and butter    2 slices  
Tea  
Sauce (apple)

Material	Amount	Protein	Calories	CaO	P <sub>2</sub> O <sub>5</sub>	Fe.
Rolled oats	4 T	4.20	100.	.0300	.2160	.0009
Milk	$\frac{1}{8}$ c	3.89	81.4	.1945	.2467	.0002
Baked Beans		19.56	300.0	.195	.942	.0060
Bread	3 slices	10.80	300.	.033	.225	.0009
Butter	2 T	.26	200.	.006	.008	--
Meat (Beef Round)		19.88	200.	.018	.84	.0034
Potatoes	4	10.76	400.	.076	.664	.0060
Carrots	--	2.57	100.	.168	.22	.0016
Pie (apple)	Sector 3" at circum.	12.00	200.	--	--	--
Sauce (prune)	8	.70	100.	.003	.004	--
Fat for Fried Potatoes	$\frac{3}{4}$ T	--	100.	--	--	--
Totals		84.62	2081.4	.7235	3.3657	.0220
Standard 75 lbs 34 calories		95.62	2550.0	.8160	2.80	.0127

It was interesting here to find that B's dietary was almost perfect for a boy of his age. Considering this and his good general health, it was a puzzle as to why he was underweight. The greatest lack in all the dietaries was milk and considering its present price, it was found to be very hard to impress its importance upon the mothers. The general fault was too much meat and not enough vegetables and fruit. On the whole, however, the dietaries were surprisingly good. The suggestions made to the mothers were from ideal dietaries such as the one given below, which was worked for each child with the right amounts of protein, mineral salts, calories and vitamins for growth and maintenance at the lowest possible cost.

Breakfast (Milk  
Rolled oats (Sugar  
Milk  
Toast - buttered  
Orange

Dinner  
Meat  
Potatoes - carrots  
Bread and butter  
Cocoa

Supper  
Scalloped Rice

Bread and butter  
Milk  
Gingerbread

Material	Amount	Protein grams	Calories	CaO	P <sub>2</sub> O <sub>5</sub>	Fe
Rolled oats	4 T	4.20	100.	.0300	.2160	.0009
Sugar	1 T		16.			
Milk	2 c	15.56	325.6	.7768	.9848	.0010
Bread	5 slices	18.00	500	.0550	.3750	.0015
Butter	2 $\frac{1}{2}$ T	.32	250	.0075	.0100	--
Meat	$\frac{1}{4}$ lb.	21.66	269.2	.0242	1.1306	.0086
Potatoes	2	3.24	122.3	.0232	.2025	.0018
Carrots	1	2.57	100.0	.1680	.2200	.0016
Cocoa	1 c	4.36	108.3	.1975	.2704	.0003
Scalloped Rice		7.44	244.0	.1870	.3037	.0004
Gingerbread		3.07	167.1	.2095	.1074	.0003
Orange		1.41	86.95	.0009	.0007	.0005
Totals		81.83	2289.4	1.6796	3.8211	.0169

### Conferences

Each week conferences were held at the university where lesson plans were submitted for approval, results reported, suggestions received, and references and dietary work assigned. The texts used were Sherman's "Chemistry of Food and Nutrition," and Mrs. Roses' "Laboratory Manual of Dietetics." References studied here were "What is Malnutrition" by Lydia Roberts, "A Malnutrition Clinic" by Lydia Roberts, Dr. Emerson's articles on malnutrition in the Woman's Home Companion and "Food Allowances for Healthy Children" by Gillette.

### Results

Gains and losses in weight and height from October 8 to January 21 are:

Name	Normal Weight	Actual Weight												Total Gain	
A	83	67 $\frac{1}{2}$	68	67	69 $\frac{1}{2}$	69 $\frac{1}{2}$	70	69	72	70 $\frac{1}{2}$	69 $\frac{1}{2}$	sick	:	2 lbs.	
B	73	65	64 $\frac{1}{2}$	--	65 $\frac{1}{2}$	67	65 $\frac{1}{2}$	66	66 $\frac{1}{2}$	66 $\frac{1}{2}$	chicken pox	:	2 lbs.		
C	67	58 $\frac{1}{2}$	58	58 $\frac{1}{2}$	60 $\frac{3}{4}$	60	59 $\frac{1}{2}$	58 $\frac{3}{4}$	60	61	61	60	60	:	1 $\frac{1}{2}$ lbs.
D	55	49	50	51 $\frac{1}{2}$	52	52	52	52	54	53 $\frac{1}{2}$	53 $\frac{1}{2}$	54	53 $\frac{1}{2}$	:	4 $\frac{1}{2}$ lbs.
E	73	61	62	62	62 $\frac{1}{2}$	62 $\frac{1}{2}$	63 $\frac{1}{2}$	63	64 $\frac{1}{2}$	63 $\frac{1}{2}$	63	62 $\frac{1}{2}$	64	:	3 lbs.
F	79	--	69	70 $\frac{1}{2}$	71 $\frac{1}{2}$	72 $\frac{1}{2}$	72 $\frac{1}{2}$	73	72 $\frac{1}{2}$	72 $\frac{1}{2}$	74	74	75	:	6 lbs.
G	64	57 $\frac{1}{2}$	59	58 $\frac{1}{2}$	60	61	61	--	59 $\frac{1}{2}$	61 $\frac{1}{2}$	63	62	63 $\frac{1}{2}$	:	6 lbs.
H	67	60 $\frac{1}{2}$	60	62	62	61 $\frac{3}{4}$	61 $\frac{3}{4}$	62 $\frac{3}{4}$	62 $\frac{1}{2}$	63	63	64	65	:	4 $\frac{1}{2}$ lbs.
I	56	48 $\frac{1}{2}$	49	49	50	49 $\frac{1}{2}$	50	50	51	51	51 $\frac{1}{2}$	50 $\frac{1}{2}$	51	:	2 $\frac{1}{2}$ lbs.

Name	Height at beginning	Gains	Height at finish
A	57 $\frac{3}{8}$ inches		Absent (sick)
B	55 "	$\frac{1}{2}$ "	55 $\frac{1}{2}$ inches
C	52 "	1 "	53 "
D	48 $\frac{1}{4}$ "	1 $\frac{1}{4}$ "	49 $\frac{1}{2}$ "
E	55 $\frac{3}{8}$ "	1 $\frac{1}{8}$ "	56 $\frac{1}{2}$ "
F	56 $\frac{1}{2}$ "	$\frac{3}{4}$ "	57 $\frac{1}{2}$ "
G	52 "	$\frac{3}{4}$ "	52 $\frac{3}{4}$ "
H	52 $\frac{3}{4}$ "	1 $\frac{1}{4}$ "	54 "
I	47 $\frac{3}{4}$ "	$\frac{1}{2}$ "	48 $\frac{1}{2}$ "

This table shows six pounds to be the greatest gain - made by two girls, F and G. The poorest gains were 1 $\frac{1}{2}$  pounds by C and 2 pounds by A and B. Although none of the children reached normal, it is gratifying to find that none really lost.

#### Difficulties.

It was difficult to carry on this clinic because of the crowded condition in the school building. At first an instructor's office, which was only accessible through a class room, was used, but this proved so disturbing that the only other available room, a teachers' rest room was taken. This was satisfactory, except for the fact of frequent interruptions.

The scales used in the work had to be furnished by the Home Economics Department of the University.

One of the greatest difficulties was the fact that so few Friday clinics could be held. The Christmas recess in the Old Town schools and at the University came at different times and a number of holidays came on Fridays. Also some time was lost because of trouble with the cars between Orono and Old Town.

The work might have been more effective if the children's feeding could have been supervised. As it was, results depended on arousing the children's interest and winning the cooperation of the mothers. As was stated before, perhaps the greatest difficulty here was to make the mothers realize the value of milk in the diet, considering its present price.

#### Suggestions for Improvement.

Suggestions for improvement in the work are, first, - a special room, large enough to permit the mothers, as well as the children to attend the clinics and to furnish a place for our scales, charts and equipment, and second, - a school lunch where at least one daily meal could be supervised.

#### Summary.

There is no doubt but that the children were interested because of the eager way with which they watched their lines climb toward the normal in the graphs, the spirit with which they vied with one another for the red moons and the coveted gold star on the class weight chart, their prompt presence at the clinics and the many questions they were always ready to ask. The mothers also showed their interest in questions and general willingness to follow suggestions offered.

Perhaps the most successful changes in the children's dietaries were in substituting other vegetables and fruit for the large amount of potatoes in H's dietary, the substitution of cocoa and milk for tea in F and D's diet and the cutting down of tea, though it was not entirely eliminated in A. and C's day. Also better habits of hygiene, particularly in the matter of baths and the care of the teeth were started.

Besides the immediate results with the children and parents, the clinic undoubtedly accomplished its most permanent effect in the awakening of the school authorities and the teachers to the importance of proper nutrition and hygiene for school children.