A survey of the health facilities in a Massachusetts community.

McCormick, Harry B
Boston University

http://hdl.handle.net/2144/13470
Boston University
Boston University
School of Education

A SURVEY OF THE HEALTH FACILITIES IN A
MASSACHUSETTS COMMUNITY

Thesis

by

Harry B. McCormick
(B. S. - Springfield College - 1943)

In Partial Fulfillment of the Requirements
For the Degree of Master of Education

1956
First Reader:

Dr. Leslie W. Irwin, Professor of Education

Second Reader:

Dr. Clem W. Thompson, Associate Professor of Education
ACKNOWLEDGEMENTS

The writer gratefully acknowledges the assistance and encouragement of the following persons, without whose co-operation this study would not have been possible.

Dr. Leslie W. Irwin,
Boston University School of Education

Mrs. Dorothy L. Callahan, Supervisor of Cafeterias
Milton Public Schools

Miss Elizabeth Campbell, Supervisor
Visiting Nurses and Social Service League

Miss Elizabeth J. Furey, R.N.
Milton School Nurse

Miss Alice Greene, Supervisor of Nurses
Norfolk County Hospital

John P. Herlihy, D.M.D.
Milton School Dentist

Mrs. Margaret Moynihan, Director
Board of Public Welfare, Milton

Mrs. Francis C. Smith, Secretary to
Superintendent of Schools, Milton

Mr. Edwin S. Warrell, Agent
Milton Board of Health
The assistance of the following agencies also contributed an important part to this study:

American Cancer Society
American Red Cross - Milton Chapter
Community Fund
Heart Fund
March of Dimes
Norfolk County Tuberculosis Association
## CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. INTRODUCTION TO THE PROBLEM</td>
<td>1</td>
</tr>
<tr>
<td>II. TECHNIQUES AND PROCEDURES USED TO MAKE THIS SURVEY</td>
<td>4</td>
</tr>
<tr>
<td>III. THE COMMUNITY</td>
<td>6</td>
</tr>
<tr>
<td>IV. HEALTH TEACHING</td>
<td>8</td>
</tr>
<tr>
<td>Elementary Schools</td>
<td>8</td>
</tr>
<tr>
<td>Junior High Schools</td>
<td>10</td>
</tr>
<tr>
<td>Senior High Schools</td>
<td>14</td>
</tr>
<tr>
<td>V. SCHOOL HEALTH SERVICES</td>
<td>19</td>
</tr>
<tr>
<td>School Physician</td>
<td>19</td>
</tr>
<tr>
<td>School Nurse</td>
<td>23</td>
</tr>
<tr>
<td>School Dentist</td>
<td>29</td>
</tr>
<tr>
<td>School Milk Program</td>
<td>31</td>
</tr>
<tr>
<td>School Lunch Program</td>
<td>34</td>
</tr>
<tr>
<td>VI. TOWN HEALTH SERVICES</td>
<td>37</td>
</tr>
<tr>
<td>Board of Health</td>
<td>37</td>
</tr>
<tr>
<td>Visiting Nurses' Association</td>
<td>45</td>
</tr>
<tr>
<td>Board of Public Welfare</td>
<td>50</td>
</tr>
<tr>
<td>Milton Hospital</td>
<td>54</td>
</tr>
<tr>
<td>VII. VOLUNTARY HEALTH AGENCIES</td>
<td>56</td>
</tr>
<tr>
<td>March of Dimes</td>
<td>56</td>
</tr>
<tr>
<td>Heart Fund</td>
<td>57</td>
</tr>
</tbody>
</table>
VOLUNTARY HEALTH AGENCIES (cont'd)

Community Fund 59
Tuberculosis Fund 60
Red Cross 62
Cancer Fund 65

VIII. SUMMARY AND CONCLUSIONS 68
IX. RECOMMENDATIONS 75

BIBLIOGRAPHY 79
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>DEFECTS DISCOVERED THROUGH PHYSICAL EXAMINATIONS OF PUPILS IN KINDERGARTEN, GRADES THREE, FIVE, EIGHT AND ELEVEN - 1955</td>
<td>22</td>
</tr>
<tr>
<td>II.</td>
<td>RESULTS OF MASSACHUSETTS VISION TESTS IN THE MILTON PUBLIC SCHOOLS, GRADES ONE---TWELVE - 1955</td>
<td>27</td>
</tr>
<tr>
<td>III.</td>
<td>RESULTS OF Audiometer Tests IN THE MILTON PUBLIC SCHOOLS, GRADES ONE---TWELVE - 1955</td>
<td>28</td>
</tr>
<tr>
<td>IV.</td>
<td>Bottles of Milk Purchased Per Pupil, Per School - 1955</td>
<td>33</td>
</tr>
<tr>
<td>V.</td>
<td>Lunches Purchased Per Pupil, Per School - 1955</td>
<td>36</td>
</tr>
<tr>
<td>VI.</td>
<td>Immunization Program of the Board of Health, Milton, Massachusetts - 1955</td>
<td>44</td>
</tr>
<tr>
<td>VII.</td>
<td>Types and Extent of Benefits Received by Persons Under Public Welfare in Milton, Massachusetts - 1955</td>
<td>53</td>
</tr>
<tr>
<td>VIII.</td>
<td>A Chart of the Activities of the Voluntary Health Agencies Within the Town of Milton, Massachusetts - 1955</td>
<td>67</td>
</tr>
</tbody>
</table>
Chapter I

INTRODUCTION TO THE PROBLEM

Although a teacher of health in the public schools in Milton, Massachusetts, my knowledge of public health services and facilities was slight. My knowledge of the extent to which the available services are utilized by the citizens of the town was even less. While my knowledge of both phases of health in the town was probably better than, or at least equal to, that of the average citizen, I felt that, as a teacher of health in the public school system, I should have a more complete knowledge than the layman of what this town could offer to improve the health of its citizens. Thus was born the reason for this particular study.

Having arrived at a reason for doing this study, I then attempted to ascertain, by contacting officials concerned with interested agencies, whether a survey of this type had been previously undertaken. Available evidence indicated that it had not, so I attempted to establish the areas which I intended to cover and to set boundaries or determine the depth or extent of my probe within the specified areas.

The following areas will be covered in this study; all health services sponsored by the public schools, including the
school milk and school lunch programs; the board of health; the visiting nurses; the public welfare and old age assistance agencies; and all of the voluntary agencies which operate within the town of Milton.

My hypothesis, at the outset of this study, is that the people of the town of Milton do not take advantage, generally, of the health services made available to them through either the existing agencies or through the public schools. Should my hypothesis prove correct, the information gained can be invaluable in bringing about better health teaching and more emphasis on areas which are being presently neglected.

In my study of health services in the schools, I shall include only the public schools. My reason for omission of the parochial and private schools in my study is that a large number of students in these schools, of which there are several in Milton, do not live in the town and thus are not citizens of the town. Statistics, although available on the number of parochial students who are residents of Milton, are not available in the areas of school health services which this study will cover. Even if available, statistics could not accurately reflect the extent to which certain health services were utilized by students who were residents of Milton and by those students who were non-residents.
It is my hope that the results of my study will be used by the agencies studied or by the personnel in charge of these agencies to educate the public further to the need for better health and to make the public aware of the services and facilities available to promote better health among the citizens of the town of Milton.
Chapter II

TECHNIQUES AND PROCEDURES USED TO MAKE THIS SURVEY

At the very outset of this study, it was obvious to me that many of the information-gathering techniques available to other studies would not be available to me. Such materials as accurate statistics, reference books and allied studies, or previously completed studies in this field, were not available to me.

The major portion of the information in this survey was attained through personal interviews with department heads or heads of those agencies concerned in this study, through personal interviews with those personnel responsible for the supervision or administration of the many school health services, but most especially, through the statistical facts and figures supplied on the printed pages of the annual publications of both the school department and of the town agencies considered in this study. A third technique, a questionnaire, was used to gather information from the voluntary health agencies involved in this survey.

In summary, this survey involved the following techniques in gathering information:
1. Personal interview

2. Annual reports and publications

3. Questionnaire
Chapter III

THE COMMUNITY

The town of Milton, Massachusetts, is a residential suburb, "seven miles from the center of Boston, and has a population of 24,292, based on 1955 census figures. More than sixty-eight per cent of the population hold managerial, professional or executive positions, compared with the Metropolitan average of forty-eight and five-tenths per cent, while the average annual income is about $1,200 higher than the Metropolitan area average, according to the Massachusetts Department of Commerce. More that seventy-six per cent of Milton homes are single, compared with the Metropolitan average of thirty-three per cent, while only one per cent of these homes are classed as dilapidated by the Massachusetts Department of Commerce compared with ten and four-tenths per cent of the Metropolitan area."¹

Educationally, Milton rates high, if the statement that "seventy per cent of Milton High School graduates go on to further education," from school superintendent, Owen E. Kiernan, can be considered a fair criterion.

With this brief sketch of the economic and educational nature of the town of Milton, let us take a more detailed look at the health facilities and advantages available to the citizens of the town and attempt to discover the extent to which they took advantage of the available facilities during the past year - 1955.
Chapter IV

HEALTH TEACHING

Elementary Schools

In the primary grades, Grades One to Three, seventy-five minutes per week as suggested for Health in the Massachusetts Guide are devoted to the teaching of health. Of this time, five minutes per day are devoted to health appraisal by the teacher and the remaining fifty minutes per week are devoted to actual health instruction. All primary pupils in the town are given this health instruction, as outlined, weekly. The pupils involved numbered 993² in 1955.

In the intermediate grades, Grades Four to Six, sixty minutes are given over weekly to the teaching of health. However, as recommended by the Massachusetts Guide, Health should be taught on alternate months with Science and is so taught in Milton, starting with Health, on a half-year basis. A textbook series, "Health and Personal Development", by Scott-Foresman, is used by pupils in Grades Four to Six. In these grades, 903³ pupils received instruction in Health in 1955.

3. Loc. cit.
The subject matter taught under the general heading of Health over this six-year span is indeed varied and includes such topics as the need for standing and sitting straight in Grade One; nutrition, care of the eyes and ears, exercise, elimination and prevention of disease in the middle grades; through emotional and social adjustment in Grade Six.

Many of the topics or areas covered are similar in several grades, but only because advanced material, suitable to a particular grade level and applicable to that area, is being given.

Health instruction on the elementary school level is given by the classroom teacher, who follows an up-to-date Health curriculum.

During 1955, one hundred per cent\(^4\) of the pupils in Grades One to Six in Milton received instruction in health on a formal, organized basis, plus any correlated health information received in the normal course of instruction. This means, then, that 1,894\(^5\) pupils in these grades received benefit from health teaching.

Junior High Schools

In Milton, Hygiene is taught in the junior high school only on the eighth grade level.

"At this level we not only have Hygiene or Health being taught as a separate course but we have the adolescent. From the standpoint of health, this is a very meaningful statement. It is the time when the student seems to feel a compulsion to be into everything, and yet it is the time when the boy or girl may well have less stamina to carry on the multiplicity of activities due to the rapid and uneven growth which takes place during these years." 6

The course is chiefly a Hygiene and Physiology course, as Chapter 71, Section I, of the General Laws specifies that "Hygiene and Physiology be taught and that in connection with these subjects instruction as to the effects of alcoholic drinks and of stimulants and narcotics on the human system, and as to tuberculosis and its prevention be given to all pupils." 7

In Milton, eighth Hygiene is taught in segregated classes twice weekly. These class periods are entirely independent of

7. Loc. Cit.
the physical education program, which, in itself, involves another two periods weekly.

Every Milton graduate who entered the school system prior to the eighth grade has taken Hygiene as a required subject. The average for the past five years has been 247.8 pupils, and for 1955 the number of pupils involved was 256 or one hundred percent of the pupils eligible to take the course.

OUTLINE OF STUDY IN HYGIENE--GRADE EIGHT *

I. Skeleton
   A. Framework
   B. Support
   C. Protection
   D. Motion

II. Muscle
   A. Composition
   B. Motion
   C. Relationship to posture

III. Your body line-up - advantages of good posture
   A. Social values
   B. Economic values
   C. Hygienic values
   D. Mental values
   E. Causes of poor posture
   F. Spinal deformities

IV. Feet

V. Nervous system

VI. Eyes and their care

VII. Ears and their care
VIII. Circulatory system
IX. Respiratory system
X. Digestive system
XI. Teeth and their care
XII. Excretory system
XIII. Skin and its care
XIV. Hair and its care
Senior High School

In Milton High School, a course in "Hygiene" is offered to seniors and to an occasional junior, as a full-credit, five-period-per-week course. Unlike most schools which have either recently adopted Hygiene as a part of the senior high school curriculum or have not as yet adopted it at all, Milton has offered this course for over twenty years. Hygiene is an elective course, yet out of a senior class of approximately two hundred pupils, fifty to sixty pupils, or about twenty-five per cent, annually elect to take Hygiene.

The course consists of a study of the anatomy and physiology, as well as the hygiene, of each of the major systems of the body, including the endocrine system, plus brief units on heredity and communicable diseases and a more detailed unit on first aid.

"Anatomical charts and models are used when applicable and films on most of the subject matter are available and are used with good results."10

Oral topics on current health problems and research assignments on health and on medical heroes are a part of the course.


An average of three pupils yearly go into the nursing profession and frequently report back that, because of the opportunity afforded them of taking this course, they are better prepared for their first year studies in school of nursing than are most of the candidates from other high schools.

In 1955, of a total of 226 pupils in the senior class, 54 pupils elected to take Hygiene. This means that twenty-three and eight-tenths per cent of the pupils eligible to take this subject elected to take it, while the great majority, or seventy-six and two-tenths per cent, of the pupils in the senior high school received no formal health teaching but only that health information which was correlated with other subjects.

OUTLINE OF STUDY IN HYGIENE--GRADE TWELVE *

I. Cells of the body
II. Tissues as building materials
III. Organs formed from tissues
IV. The skeleton framework of the body
   A. Types of bones and functions
   B. Names and locations of bones
   C. Types of joints
V. Hygiene of the skeleton
   A. Sprains and dislocations
   B. Common foot defects
   C. Spinal defects
VI. Muscles as the motor machinery of the body
   A. Types of muscle tissue
   B. Names and locations of major muscles
VII. Food and its uses - classes and composition of foods
VIII. Digestion of food
   A. Digestive organs and their functions
   B. Teeth - structure and function
IX. Circulation of the blood
   A. Composition of blood

B. Types and functions of vessels
C. Clotting of blood
D. Structure and function of heart
E. Nature of blood pressure and heart rate factors
F. How heart is aided in its work

X. Lymphatic circulation

XI. Hygiene of the circulatory system

XII. Respiratory system
   A. Name and functions of major organs
   B. Diaphragm
   C. Composition of air
   D. Air conditioning
   E. Tuberculosis - life of Edward L. Trudeau

XIII. The nervous system
   A. Functions and structure of nerves
   B. Spinal cord - structure and function
   C. Brain - structure and function

XIV. Hygiene of the nervous system

XV. Sensation and the special senses.
   A. Special and general senses
   B. Eye - structure and function - defects
   C. Ear - structure and function - defects
   D. Hygiene of the special senses
XVI. Special regulative processes
   A. Locations and functions of ductless glands
   B. Control of body temperature

XVII. Heredity and health

XVIII. Bacteria, protozoa, and disease
   A. Types of bacteria
   B. Germ theory of disease - Koch and Pasteur
   C. Types of inventory
   D. Prevention of communicable diseases

XIX. First Aid
   A. Types of wounds
   B. Pressure points
   C. Infected wounds
   D. Shock
   E. Artificial respiration
   F. Injuries to bones, joints, and muscles
   G. General first aid procedure

Visual Aids: -
   A. Charts
   B. Models
   C. Magazines and Newspapers
   D. Torso model
   E. Films - on most subjects covered in course.
Chapter V

SCHOOL HEALTH SERVICES

School Physician

The Milton public school system employs the services of two physicians, one considered the school physician, the other considered chiefly the doctor in attendance at all football games and examiner of junior and senior high school boys.

The school physician, a woman, visits each school twice weekly and spends as much time at each school as needed to see all of those desiring her services. As the school physician, she is on call at any time and if other than immediate care is required, she refers the pupil to the family physician.

Although no record is kept of all the pupils she sees in her routine rounds of the schools unless the case is one for referral or to be sent home, the physician is certain that her services are in much greater demand in the grammar and junior high schools than in the senior high schools.

One of the main duties of the school physician is giving physical examinations which are required in kindergarten, Grades Three, Five, Eight, and Eleven. In 1955 the physician
examined 1,097 grammarschool boys and girls and the football team physician examined 251 juniors and senior high school boys, for a total of 1,348 pupils examined.

During the course of the physical examinations, defects which, in the opinions of the examining physicians, should be called to the attention of the parents are noted and the school physician then sends home a notice to the parents stating the nature of the defect. Pupils taking home such notices of defects are required to return the slips to the school physician with signatures of the parents affixed and indicating whether or not the parent has sought further professional advice. A table follows, in which are noted the defects discovered through the 1,348 physical examinations given in 1955. It might be noted that the number of dental caries listed is comparatively small, due partly to the fact that notices were not sent to the parents of those pupils who, at the time of the examination, were undergoing dental treatment and due possibly to the fact that the physicians might easily have overlooked caries which might have been discovered by a dentist.

Because of a lack of records of the actual number of pupils seen by the school physician during the year, it can be said with certainty that only $1,340^{15}$ pupils of an enrollment of $3,612^{16}$ were seen by the school physician or team doctor. This means that thirty-seven and three-tenths per cent of the pupils are recorded as having been seen by the physicians during the year, but the estimate by the physician herself, and it is only an estimate, is that she sees between fifty and sixty per cent of the total enrollment during the year.

The following chart depicts the types and numbers of defects discovered as a result of physical examinations of 1,348 pupils in Milton public schools in 1955.

### Defects Discovered by School Physicians Through Physical Examinations of Pupils in Kindergarten, Grades Three, Five, Eight, and Eleven - 1955

<table>
<thead>
<tr>
<th>Defect</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caries</td>
<td>26</td>
</tr>
<tr>
<td>Conjunctivitis</td>
<td>1</td>
</tr>
<tr>
<td>Cryptic tonsils</td>
<td>2</td>
</tr>
<tr>
<td>Darkened teeth</td>
<td>2</td>
</tr>
<tr>
<td>Dermatitis</td>
<td>2</td>
</tr>
<tr>
<td>Ear wax</td>
<td>1</td>
</tr>
<tr>
<td>Exzema</td>
<td>1</td>
</tr>
<tr>
<td>Eye scale</td>
<td>2</td>
</tr>
<tr>
<td>Flat feet</td>
<td>18</td>
</tr>
<tr>
<td>Gingivitis</td>
<td>1</td>
</tr>
<tr>
<td>Growth</td>
<td>1</td>
</tr>
<tr>
<td>Heart murmur</td>
<td>24</td>
</tr>
<tr>
<td>Obesity</td>
<td>4</td>
</tr>
<tr>
<td>Postural defects</td>
<td>34</td>
</tr>
<tr>
<td>Teeth (malocclusion, malformation, orthodonture)</td>
<td>7</td>
</tr>
<tr>
<td>T. B. contact</td>
<td>1</td>
</tr>
<tr>
<td>Thyroid (enlarged)</td>
<td>2</td>
</tr>
<tr>
<td>Vaccination (unsuccessful)</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total** 129
School Nurse

The Milton school department employed one school nurse to perform the myriad duties required by a school population of 3,612 pupils in 1955.17

The school nurse in Milton is on call daily from eight until four. Her schedule calls for her to be at the high school daily and to visit each of the five grammar schools and the other junior high school on three days each week. The length of time spent at each school, other than at the high school, is determined by the number of pupils needing her services. Although no official records are available as to the number of pupils in each school requesting her services on each visit, the records of the nurse herself, kept on an unofficial basis, reveal that the average number of pupils requesting her services in 1955, per day, was eleven.

When, in the opinion of the school nurse, a pupil's physical condition warranted his being sent home from school she always called the home of the pupil first, and if the parent was unable to go to the school for the child, the nurse personally took the pupil to his home in her own car. Again, by the record

of the school nurse, kept on an unofficial basis, the number of pupils in the public school system sent home or taken home by the school nurse daily in 1955 was three. The chief reason for sending most pupils home was for apparent symptoms of communicable and/or infectious diseases.

One of the most time-consuming functions of the school nurse was the assisting of the school physician in the physical examination of pupils. To her, also, fell the responsibility of supervising the administering of both the Audiometer Test and the Massachusetts Vision Test to Grades One through Twelve. In the grammar schools and in the Cunningham Junior High School the Audiometer Test is administered by a former nurse in the Milton school system, while in the Central Junior High School and in the high school, the Audiometer Test is given by the school nurse herself. The Massachusetts Vision Test is given in the grammar schools and in the Cunningham Junior High School by the school nurse and is given in the Central Junior High and in the high school by the vice-principal of the high school, a man with many years of experience in administering this particular test.

In 1955, the school nurse was responsible for either administering or supervising the administration of the Audiometer
Test to a total of 3,265\(^{18}\) pupils from an enrollment in Grades One through Twelve of 3,341\(^{19}\) pupils. In terms of percentage ninety-seven and seven-tenths per cent of the pupils in these grades were privileged to receive this test.

During a similar period of time the school nurse either administered or supervised the administration of the Massachusetts Vision Test to 3,221\(^{20}\) pupils out of an enrollment of 3,341\(^{21}\) in the grades tested, One to Twelve. This test, then benefitted ninety-six and four-tenths per cent of the pupils in the grades tested.

At the conclusion of this section is a chart depicting more graphically and in a more detailed manner than I have given here, the results of these two tests just discussed.

In summary, the position of the school nurse in the Milton public schools appears to be, indeed, a full-time one. During the past year she aided in the physical examinations of 1,097\(^{22}\) pupils, or thirty and three-tenths per cent of the

school enrollment. Based on her own unofficial figures, the school nurse saw an average of eleven pupils daily, for a yearly total - based on 185 school days - of 2,035 pupils. Statistically, this means that fifty-six and three-tenths per cent of the school population required her services at some time during the year. Because of the unofficial nature of the figures kept by the nurse and because there is no accurate record of the number of pupils who are frequent visitors to the school nurse, the yearly total, as well as the percentages given, must necessarily not be considered completely valid.

In addition to these duties, the nurse was responsible for the administering of the Audiometer Test to ninety-seven and seven-tenths per cent of pupils and of the Massachusetts Vision Test to ninety-six and four-tenths per cent of pupils. The keeping of records and statistics following these tests, the notification of parents following the discovery of physical defects through the medical examinations, plus the myriad other details necessarily entailed in her job, comprised the work of the nurse in the Milton public schools in 1955.
<table>
<thead>
<tr>
<th>School</th>
<th>High and Central Jr. H.S.</th>
<th>Cunningham Jr. H.S.</th>
<th>Belcher</th>
<th>Collicott</th>
<th>Glover</th>
<th>Pierce</th>
<th>Tucker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number Enrolled</td>
<td>1,075</td>
<td>373</td>
<td>161</td>
<td>449</td>
<td>218</td>
<td>546</td>
<td>520</td>
</tr>
<tr>
<td>Total Number Tested</td>
<td>1,046</td>
<td>373</td>
<td>148</td>
<td>420</td>
<td>207</td>
<td>525</td>
<td>501</td>
</tr>
<tr>
<td>Number Re-Tested</td>
<td>77</td>
<td>58</td>
<td>8</td>
<td>19</td>
<td>17</td>
<td>71</td>
<td>68</td>
</tr>
<tr>
<td>Number of Failures</td>
<td>59</td>
<td>42</td>
<td>5</td>
<td>13</td>
<td>12</td>
<td>36</td>
<td>32</td>
</tr>
<tr>
<td>Number seen by a Specialist</td>
<td>55</td>
<td>40</td>
<td>5</td>
<td>12</td>
<td>7</td>
<td>34</td>
<td>29</td>
</tr>
<tr>
<td>Known Defects not Referred by Parents to Specialist</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Number of Correct Referrals</td>
<td>55</td>
<td>41</td>
<td>5</td>
<td>11</td>
<td>7</td>
<td>33</td>
<td>29</td>
</tr>
<tr>
<td>Unnecessary Referrals</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Number Neither Seen by Specialist Nor under care of Physician</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Per Cent of Pupils who were Tested</td>
<td>97.3%</td>
<td>100%</td>
<td>91.9%</td>
<td>93.5%</td>
<td>99.5%</td>
<td>96.1%</td>
<td>96.3%</td>
</tr>
</tbody>
</table>
### RESULTS OF AUDIOMETER TESTS IN THE MILTON PUBLIC SCHOOLS - GRADES ONE - TWELVE - 1955

<table>
<thead>
<tr>
<th>School</th>
<th>High and Central Jr. H.S.</th>
<th>Cunningham Jr. H.S.</th>
<th>Belcher</th>
<th>Collicott</th>
<th>Glover</th>
<th>Pierce</th>
<th>Tucker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number Enrolled</td>
<td>1,075</td>
<td>373</td>
<td>161</td>
<td>449</td>
<td>218</td>
<td>546</td>
<td>520</td>
</tr>
<tr>
<td>Total Number Tested</td>
<td>1,075</td>
<td>370</td>
<td>155</td>
<td>420</td>
<td>210</td>
<td>525</td>
<td>510</td>
</tr>
<tr>
<td>Number Re-Tested</td>
<td>25</td>
<td>30</td>
<td>20</td>
<td>31</td>
<td>12</td>
<td>50</td>
<td>42</td>
</tr>
<tr>
<td>Number of Failures</td>
<td>13</td>
<td>9</td>
<td>1</td>
<td>10</td>
<td>8</td>
<td>21</td>
<td>24</td>
</tr>
<tr>
<td>Number Seen be a Specialist</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>0</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Known Defects not Referred by Parents to Specialist</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Number of Correct Referrals</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>0</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Unnecessary Referrals</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Number Neither Seen by Specialist Nor under care of Physician</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Per Cent of Pupils who were Tested</td>
<td>100%</td>
<td>99.1%</td>
<td>96.2%</td>
<td>93.5%</td>
<td>96.3%</td>
<td>96.1%</td>
<td>98%</td>
</tr>
</tbody>
</table>
School Dentist

The school department in Milton employs the services of a school dentist and a woman assistant.

Two schools in the town possess dental facilities. Both of these schools are grammar schools, at each of which the school dentist spends one day a week and, on occasion, a second day.

At the beginning of each school year the dentist examines the teeth of all kindergarten pupils and notices are sent home to the parents of those children whose teeth require attention.

If nothing is done by the parents to correct the poor condition of their children's teeth, school authorities then set out to ascertain the financial status of the family. If the child comes from a family of low income status, the school then asks the parents if they wish the necessary work to be done by the school dentist. If the family so desires they must sign a card giving the school dentist the authority to do the necessary work.

Payment for work done by the school dentist is based entirely on ability of the family to pay, and sums might range from twenty-five cents to one dollar, or in some cases, nothing.
In his work with children, much is done by the school dentist to stress the importance of nutrition and mouth care in the prevention of tooth decay. Toothbrushes are supplied to children when needed at wholesale cost or even free in an effort to induce proper attitudes toward oral hygiene.

The school dentist in Milton is often appalled by the condition of the mouths of some children upon whom he works, but he is extremely enthusiastic about his work and considers it to be both challenging and rewarding.

No valid statistics are available at this time to give a fair indication of the work accomplished by the school dentist.
School Milk Program

In the town of Milton there is one high school, two junior high schools and five grammar schools.

All of these schools participate in the school milk program, which is subsidized by the Federal Government, in 1955 to the extent of $8,616.05. All of these schools make milk available to all students during a recess period each morning.

Three of the grammar schools, both junior high schools and the high school serve hot lunches daily and provide milk with the lunch, or make milk available to those students who bring their lunches.

Milk was provided during 1955 by the H. P. Hood Company, which was the low bidder for the school milk contract. As a result of the low bid submitted by the contract winner, together with the Federal milk subsidy, the school department was able to offer milk to pupils for three cents per bottle.

During 1955, there were served to the 3,612 $^{24}$ Pupils in Milton schools 321,001 $^{25}$ bottles of milk. These figures,

when broken down, indicate that per pupil annual consumption was
88.9 bottles of milk. If broken down further, on the basis of a school year of 185 days, we find that the average milk consump-
tion per pupil, per day, was just under one-half (0.48) a bottle.

This figure will probably serve as a surprise to some who observe it and cannot possibly reflect the number of pupils who buy several bottles of milk daily or those pupils who rarely, if ever, buy milk.

The accompanying chart indicates the extent to which milk was purchased per pupil, per school, in Milton in 1955.
BOTTLES OF MILK PURCHASED PER PUPIL, PER SCHOOL - 1955

<table>
<thead>
<tr>
<th>School</th>
<th>Grades Involved</th>
<th>Number of Pupils</th>
<th>Total Bottles Milk Purchased</th>
<th>Average No. Bottles per Pupil per year</th>
<th>Average No. Bottles per Pupil per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cunningham Jr. High School</td>
<td>7 - 9</td>
<td>373</td>
<td>30,971</td>
<td>83.03</td>
<td>.44</td>
</tr>
<tr>
<td>Glover School</td>
<td>K - 6</td>
<td>258</td>
<td>27,167</td>
<td>105.2</td>
<td>.57</td>
</tr>
<tr>
<td>Central High and Jr. High Schools</td>
<td>7 - 12</td>
<td>1,074</td>
<td>102,146</td>
<td>95.4</td>
<td>.52</td>
</tr>
<tr>
<td>Pierce School</td>
<td>K - 6</td>
<td>614</td>
<td>36,291</td>
<td>58.9</td>
<td>.32</td>
</tr>
<tr>
<td>Belcher School</td>
<td>K - 6</td>
<td>182</td>
<td>22,195</td>
<td>121.4</td>
<td>.66</td>
</tr>
<tr>
<td>Collicot School</td>
<td>K - 6</td>
<td>515</td>
<td>32,771</td>
<td>63.6</td>
<td>.34</td>
</tr>
<tr>
<td>Tucker School</td>
<td>K - 6</td>
<td>596</td>
<td>49,160</td>
<td>82.5</td>
<td>.45</td>
</tr>
</tbody>
</table>
School Lunch Program

Hot lunches were provided for the pupils of all but two of the schools in Milton in 1955. These two schools possess no cafeteria facilities but a third school, also possessing no cafeteria facilities, was able to provide for its pupils the opportunity to enjoy a hot lunch by sharing the cafeteria of a junior high school, located next door.

Cafeterias of all schools come under the authority of a graduate, experienced, dietician, who spends most of her time in the high school cafeteria and in her office, located in the high school. Meals are planned by the dietician, who also purchases all food, and menus are submitted to, and published by, the two local papers one week in advance of their serving.

Kindergarten and first grade pupils did not remain at the schools for lunch, but the vast majority of pupils, numbering 2,834, did remain and could, if desired, have shared in the schools' hot lunch program.

To this group of 2,834 pupils, in 1955, were served 155,127 hot lunches, or Type A lunches. Statistically, this

27. Loc. cit.
indicates that the average number of lunches purchased daily was 838.5. A further analysis of these figures indicates that, .30, or about one-third of a hot lunch, was purchased per pupil, per day. The average number of lunches purchased per year, per pupil, ranged from a minimum of 51.2 in one school to a maximum of 63.3 in another school.

Unfortunately, there is no valid way to determine whether or not most pupils occasionally purchase the hot lunch, whether the same pupils purchase it almost daily, or whether the choice of foods affects the buying habits of the pupils.

The accompanying chart will depict the extent to which the hot lunch was purchased in each of the various public schools which served lunches in the town of Milton, in 1955.
<table>
<thead>
<tr>
<th>School</th>
<th>Grades Involved</th>
<th>Total Number of Pupils</th>
<th>Total Number of Lunches Served-1955</th>
<th>Lunches Purchased Per Pupil in 185 Days in 1955</th>
<th>Lunches Purchased per Pupil per Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central High and Junior High Schools</td>
<td>7-12</td>
<td>1,074</td>
<td>53,453</td>
<td>49.8</td>
<td>.269</td>
</tr>
<tr>
<td>Cunningham Junior High School *</td>
<td>7-9</td>
<td>373</td>
<td>56,181</td>
<td>63.3</td>
<td>.312</td>
</tr>
<tr>
<td>Glover School</td>
<td>K-6</td>
<td>258</td>
<td>14,029</td>
<td>54.4</td>
<td>.294</td>
</tr>
<tr>
<td>Pierce School</td>
<td>K-6</td>
<td>614</td>
<td>31,461</td>
<td>51.2</td>
<td>.276</td>
</tr>
<tr>
<td>Belcher School</td>
<td>K-6</td>
<td>182</td>
<td>No Lunch Program</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Tucker School</td>
<td>K-6</td>
<td>596</td>
<td>No Lunch Program</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Collicot School</td>
<td>K-6</td>
<td>515</td>
<td>Used Facilities of Cunningham Jr. High School</td>
<td>-----</td>
<td>-----</td>
</tr>
</tbody>
</table>

* Cafeteria facilities shared by Collicot School's 515 pupils.
Chapter VI

TOWN HEALTH SERVICES

Board of Health

The Board of Health in Milton is composed of three members elected at the town's annual election for a term of three years. Members must be among the "registered voters" of the town, as provided by the General Laws of the Commonwealth, Chapter 41, Sections 1 and 2. Terms are for three years, but election of members is staggered so that only one member is up for election in any one year.

Although it is not required by local law, one member of the Milton Board of Health has always been a physician, the other two, laymen. None of these positions is a paid position; however, for the past three years the board has appointed a full-time health agent to act for them on all matters other than policy, and he is a salaried employee of the town. Oddly enough, no requirements have been set up for the position of health agent and the present agent has no degree in health. He has had, however, twenty-three years' experience in the U. S. Navy

in the medical department and, prior to coming to Milton in 1952, served for four years as health agent in the town of Hingham, Massachusetts. As the agent of the Board of Health, he possesses police powers, if necessary, and was called upon to use them only twice during 1955.

The functions of the Board of Health in Milton during 1955 were varied, as well as obvious. As might be expected, the chief requests upon the Board were for immunization against diphtheria and poliomyelitis, and these will be discussed later. However, the calls for action to be taken against alleged health nuisances occupied a considerable portion of the time of the health agent. On the average, he received eleven calls per day, some of which required investigation and action, others of which did not come under his jurisdiction. Collection of rubbish and of garbage comes under the authority of the Board of Health and calls to complain of failure to collect such materials were quite common, although no accurate record was kept by the health agent in 1955 of the number of such calls.

The collection of data on the prevalence of communicable diseases in the town last year, for the benefit of both town and state records, the hospitalizing of thirteen

patients with tuberculosis, the operation of a Chest Conference which X-rayed one hundred thirty-five \(^{31}\) people, and the supervision of rodent control, milk and food inspections and dental clinics, comprised a large share of the work performed by the health agent and the Board of Health.

Because of recent changes in the quarantine laws of this state, the Milton Board of Health was required to post no quarantine notices during 1955, although seven hundred twenty-three \(^{32}\) cases "declared dangerous to the public health" \(^{33}\) were reported.

The Schick Test, to determine the susceptibility of an individual to diphtheria, is no longer given by the Board of Health in Milton. It is the recommendation of the Board to the citizens of the town that pre-school children be given a series of three inoculations, each protecting against diphtheria, whooping cough, and tetanus, and that a booster shot be given every three years. It is suggested that these inoculations be given either by the person's own physician or by the physicians retained by the Board of Health at its immunization

32. Ibid., p. 1.
33. Loc. cit.
clinics. School-age children were given these protective inoculations by five physicians at two of the schools during the last two months of the year. Specifically, eight hundred forty-five \( \frac{34}{36} \) school children were given booster shots and thirty-eight \( \frac{35}{38} \) started on the original course of three shots, for a total of eight hundred eighty-three school-age children who received inoculations against diphtheria, typhoid, and tetanus. Statistically, twenty-four and four-tenths per cent of the school system's 3,612 \( \frac{36}{37} \) pupils were participants in this program in 1955.

During the year, the Board of Health, at its immunization clinics, gave nine \( \frac{37}{38} \) pre-school children booster shots and started twenty-two \( \frac{39}{40} \) children on the series of three shots. Of the 1,434 \( \frac{39}{40} \) pre-school children in Milton, then, only thirty-one children of pre-school age, or a mere two per cent, took advantage of the Board's immunization program. There

---

35. Loc. cit.
38. Loc. cit.
is, however, no way of determining how many pre-school children were immunized by their family physicians.

Because of the adverse publicity given the Salk vaccine early in 1955, the polio inoculation program of the Board of Health was halted until agreement could be reached by state health authorities on the advisability of continuing the program. Until the program was halted, however, 1,106 40 children in Grades One to Four, inclusive, were inoculated with the Salk vaccine. There were 1,379 41 pupils in Grades One to Four in Milton in 1955, which means that eighty and two-tenths per cent of the pupils in these grades received the vaccine.

Let us take a closer look at the figure of 1,106, the total number who received the Salk vaccine. A breakdown of the total reveals that "350 pupils received one dose of the vaccine, 150 pupils received two doses of the vaccine, and 336 pupils received only a booster shot." 42 Those who received a booster shot were participants in the field trial of the vaccine and received the real vaccine and not the placebo.

40. Ibid., p. 2.
As at its diphtheria immunization clinics, the Board of Health obtained the services of five local physicians to carry out its poliomyelitis program. The services of these physicians were paid for by an appropriation from the town of $400.00.

An accompanying chart illustrates in a brief and graphic way the extent to which the immunization services of the Board of Health were utilized by the citizens of Milton in 1955.

Because of the continuing progress in public education concerning health, stricter laws and enforcement of laws relating to sanitation and building and education in general, the health agent in Milton believes that the function of any board of health, but particularly that in Milton, will be chiefly the sponsoring of immunization programs and chest clinics, as it was in 1955. Laws and education have made more people aware of the need for health and have, therefore, lessened the amount of time devoted to alleviating health nuisances, exercising of police powers, and posting and enforcing of quarantines by the agent of the Milton Board of Health. The health agent of Milton agrees that perhaps that town enjoys a fairly unusual

---

situation in these respects because of the generally high economic level of the town and its citizens.

The apparent course of the Milton Board of Health in 1955 was one of action; namely, the organization and administration of the Board's X-ray, diphtheria and poliomyelitis clinics, as a result of which 2,155 \( \frac{1}{4} \) of the town's citizens were served. Statistically, this means that eight and eighty-nine-hundredths per cent of the townspeople of Milton were directly served by the Board of Health in 1955.

--

\( \text{hh} \). Report of Board of Health, Milton, Mass., 1955, pp. 2-4
<table>
<thead>
<tr>
<th>Grades Involved</th>
<th>Diptheria - Tetanus</th>
<th>Poliomyelitis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Pupils in involved grades</td>
<td>Pre-School - 12</td>
<td>1 - 4</td>
</tr>
<tr>
<td></td>
<td>5,046</td>
<td>1,379</td>
</tr>
<tr>
<td>Number of Pupils who received vaccine</td>
<td>914</td>
<td>1,106</td>
</tr>
<tr>
<td>Per Cent of eligible pupils who received vaccine</td>
<td>17.9%</td>
<td>80.2%</td>
</tr>
<tr>
<td>Per Cent of eligible pupils who did not receive vaccine</td>
<td>82.1%</td>
<td>19.8%</td>
</tr>
</tbody>
</table>
Visiting Nurse Association

In 1910, civic-minded citizens of the town founded the private nursing organization known as the Milton Visiting Nurses Association. Since that time, the requests upon this association have grown with the town, until the present, when the group is requesting the part-time services of a physiotherapist to supplement the full-time services of its four regular nurses.

A nurse from this association will answer the call of any citizen of the town only for an initial visitation. Further calls to the same home are made only upon the advice or request of the family physician. On the initial call the nurse attempts only to ascertain the type of case, the needs of the patient, and to make the patient comfortable. She then contacts the family physician and, as stated above, will make subsequent calls only at the family physician. The services of the visiting nurses are made available on the basis of seven days per week, provided for by a rotation of their schedules.

The services of a visiting nurse are available to all the citizens of Milton, regardless of their ability, or lack of ability, to pay. Even a person of high income is entitled to these services and must pay only the standard fee.
of $3.00 per visit. In cases of definite need and inability to meet the standard fee of $3.00, prices are scaled downward, so that one need not go without the valuable services of the visiting nurse.

In 1955, the total amount of money taken in by the Milton Visiting Nurses Association was $10,341.00.\textsuperscript{15} Comprising this total were 2,248\textsuperscript{16} visits to patients who paid the full fee of $3.00, for a total of $6,744.00 paid for services. This figure of 2,248 comprised thirty-eight and nineteen-hundredths per cent of the total visits made by the visiting nurses in 1955. Patients able to pay only a partial fee last year numbered 2,021,\textsuperscript{17} or thirty-four and forty-five-hundredths per cent of the total number of visits made. No meaningful statistics can be presented in this group of patients who paid partial fees, other than to point out that, as a whole, this group contributed $4,097.00 toward the total monies received. The total of 5,888 visits\textsuperscript{18} made in 1955 is rounded out by the 1,619\textsuperscript{19} patients who paid nothing for the services of the

\textsuperscript{16} Ibid., p. 2.
\textsuperscript{17} Loc. cit.
\textsuperscript{18} Loc. cit.
\textsuperscript{19} Ibid., p. 3.
visiting nurses. Statistically, twenty-seven and thirty-six hundredths per cent of the services of the visiting nurses in Milton last year were given free. Visits to 587 patients, who were charged only $2.25 per visit, and whose charges were paid for by old age assistance benefits, are included in the total of 5,888 visits made by the visiting nurses in 1955.

Let us see how the work of this nursing organization benefitted the citizens of Milton last year. Having made 5,888 visits in a town with a population of 24,292 it is relatively simple to deduce that twenty-four and twenty-four hundredths per cent of the people in the town were recipients of nursing care from the visiting nurses in 1955. However, actual figures kept by the association show that only 563 different people received nursing care, for a true percentage of only two and three-tenths per cent who required, or received, nursing care. By carrying these same figures further, we discover

50. Loc. cit.
51. Loc. cit.
52. Loc. cit.
54. Ibid., p. 3.
that people who received nursing care from the visiting nurses were visited, on an average, ten and five-tenths times each.

The services of the visiting nurses were made available seven days per week, which means that the average number of visits made per day last year was 16.13, arrived at by dividing the total number of visits, 588855 by 365.

It might be of interest to note that 21956 of the total number of visits made were made to cancer victims, and the full fee of $3.00 was paid by the Cancer Society.

As might be expected, the large part of the work done by the Milton Visiting Nurses' Association last year was visiting the sick; however, it sponsored a weekly well-baby clinic, held at Milton Hospital. In 1955, forty-eight weekly sessions were held, at which a total of three hundred ninety-seven babies were present. Of this total, seventy babies

55. Ibid., p. 2.
56. Ibid., p. 3.
57. Loc. cit.
58. Loc. cit.
59. Loc. cit.
visited the clinic for the first time. These statistics reveal that 8.27 babies comprised the average attendance at these well-baby clinics.

Visitation of the sick and the sponsoring of a well-baby clinic comprised the major functions of the Milton Visiting Nurses' Association in 1955.
Board of Public Welfare

The Board of Public Welfare in Milton is composed of four divisions as follows:— Old Age Assistance, Aid to Dependent Children, Disability Assistance and General Relief. Each of the first three mentioned divisions is partially supported by both the state and federal governments to a predetermined extent and amount. For example, whatever the amount decided upon as necessary for support of the recipient, the federal government will pay one-half, up to $55.00 per month, while the state will pay one-half, up to $30.00 monthly. Persons qualified for General Relief differ from those in the other three divisions because they are eligible to receive help in any amount deemed necessary by the administration of Public Welfare in the town of Milton. People in this category are supported solely by town funds and are not assisted by the state or federal governments.

Under General Relief, the only requirement necessary to qualify is need, whereas age, disability, or lack of support must first be established to qualify for aid in the other three categories of Public Welfare.

In Milton last year, $85,296.93 was spent by the Board of Public Welfare on the health of the citizens receiving

help through one of the four divisions of the Board. Among the services provided these patients and paid for by the Board were hospitalization, physicians, drugs, nursing home care, dental, outpatient, eye care, visiting nurse, ancillary and miscellaneous services, such as X-rays and laboratory services. A total of 18061 persons were the recipients of these health benefits in 1955. The greatest amount of money, $37,150.0662 was spent for home nursing care, while general hospital care received $13,249.13.63

Of the four divisions under Public Welfare, Old Age Assistance received the major share of the total monies spent for health needs, in the amount of $68,664.78,64 as opposed to the next highest division, Disability Assistance, which received a total of $13,320.84.65 Compare these figures with the combined total of $3,311.3166 spent for health services

61. Loc. cit.
62. Loc. cit.
63. Loc. cit.
64. Loc. cit.
65. Loc. cit.
66. Loc. cit.
under Aid to Dependent Children and General Relief and the range of discrepancy among the four divisions becomes very obvious.

Using the figure of 180 persons, referred to previously in this chapter, who received assistance from the Board of Public Welfare last year we discover that only seven-tenths of one per cent of the town's population required help but that those who received health benefits did so to the average extent of $173.87 each.

The amounts of money mentioned in this chapter refer only to that which was spent on the health of eligible recipients under Public Welfare and do not attempt to portray the total amount of money spent for general welfare needs of subsistence.

The accompanying chart depicts the ways in which the money was spent for health services and the amounts spent on each of these services in each of the four divisions of the Board of Public Welfare in Milton in 1955.
### Types and Extent of Benefits Received by Persons Under Public Welfare

#### Milton, Mass., 1955

<table>
<thead>
<tr>
<th>Service</th>
<th>Old Age Assistance</th>
<th>Aid to Dep. Child.</th>
<th>Disability Assistance</th>
<th>General Relief</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hospitalization</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Days</td>
<td>1,071</td>
<td>21</td>
<td>120</td>
<td>52</td>
</tr>
<tr>
<td>Amount Spent</td>
<td>$11,906.63</td>
<td>$274.74</td>
<td>$2,511.42</td>
<td>$1,114.80</td>
</tr>
<tr>
<td><strong>Physicians</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of visits</td>
<td>1,152</td>
<td>91</td>
<td>57</td>
<td>26</td>
</tr>
<tr>
<td>Amount spent</td>
<td>$1,362.00</td>
<td>$332.00</td>
<td>$238.00</td>
<td>$94.00</td>
</tr>
<tr>
<td><strong>Home Nursing Care</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount spent</td>
<td>$37,450.06</td>
<td>-----</td>
<td>$8,697.60</td>
<td>-----</td>
</tr>
<tr>
<td><strong>Drugs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount spent</td>
<td>$6,668.59</td>
<td>$156.59</td>
<td>$881.70</td>
<td>$139.46</td>
</tr>
<tr>
<td><strong>Dental Care</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount spent</td>
<td>$1,091.00</td>
<td>$727.65</td>
<td>$273.00</td>
<td>$3.00</td>
</tr>
<tr>
<td><strong>Outpatient Care</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount spent</td>
<td>$97.00</td>
<td>$26.00</td>
<td>$34.00</td>
<td>$22.00</td>
</tr>
<tr>
<td><strong>Eye Care</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount spent</td>
<td>$633.00</td>
<td>$78.00</td>
<td>$3.00</td>
<td>$18.00</td>
</tr>
<tr>
<td><strong>Visiting Nurses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount spent</td>
<td>$1,476.25</td>
<td>-----</td>
<td>$219.50</td>
<td>$8.00</td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount spent</td>
<td>$1,980.25</td>
<td>$136.95</td>
<td>$1,625.50</td>
<td>$150.10</td>
</tr>
<tr>
<td><strong>TOTAL SPENT</strong></td>
<td>$68,668.78</td>
<td>$1,731.95</td>
<td>$13,320.34</td>
<td>$1,579.36</td>
</tr>
</tbody>
</table>
Hilton Hospital

In October, 1950, a new hospital was opened in Milton to serve the citizens of the town. The new hospital replaced an out-dated and undersized hospital, which had been a former private residence.

In 1955, the Milton Hospital admitted 2,258 adults and children as patients. Of this total, 746 admissions were obstetrical, the remainder, surgical and medical. The total of 2,258 patients admitted was composed of 1,327 patients, or fifty-eight and seven tenths per cent of the total, who were non-residents of the town. This means that the remainder of 931 patients, or forty-one and three tenths per cent, were residents of Milton.

During the year, 617 babies were born at Milton Hospital, of which 115 babies, or eighteen and seven-tenths per cent, were born of residents and 502, or eighty-one and three-tenths per cent were born of non-resident parents.

68. Loc. cit.
69. Personal records of Executive Director of Milton Hospital
Free care, in the amount of $3,082.72 was given to patients in 1955. Only residents of Milton are eligible for free care but the number of patients receiving this care was not made available.

In the words of the Executive Director of the Milton Hospital, Dr. George D. Cutler, "The hospital must enjoy 79 - 80 per cent occupancy to break even financially each year." In 1955 the average percentage of occupancy was 76.2%.

Relying solely on the statistics just presented, only three and eight-tenths per cent of the population of 24,292 took advantage of the services of Milton Hospital in 1955.

Chest X-ray clinics and well-baby clinics, held at the hospital, were sponsored by other health agencies in the town and are discussed elsewhere in this study.

73. Ibid., p. 8.
Chapter VII

VOLUNTARY HEALTH AGENCIES

March of Dimes

The National Foundation for Infantile Paralysis, known more commonly as the March of Dimes, last year in Milton received a total contribution of $10,000.75 from all sources, which included mailed-in contributions and contributions left in individual containers in stores and public places. Because of the variety of its sources, no record is available as to the number of individuals who contributed to this fund in 1955, thus the per cent of townspeople who contributed cannot be ascertained. The average per-capita contribution, however, was $0.41 based on a population of 24,292.

A total of eighteen76 citizens of the town, of which three were new patients and fifteen were carry-over patients from 1954, benefitted from the funds of the March of Dimes during the past year to the extent of $1,554.31.77

75. Results of Questionnaire, February, 1956.
76. Loc. cit.
77. Loc. cit.
Heart Fund

The benefits to the citizens of the town from the Heart Fund were of a very indirect nature last year, as in the past.

Because of the nature of the organization, its work is devoted chiefly to research and not to direct benefits to patients with heart disease.

The method of collection of funds by this agency is much like that of the March of Dimes, namely, by subscription through the mail and by contributions left in containers placed in strategic locations. Because of these facts, no records of individual contributions, number of people benefitting from this fund or total benefit to townspeople are available.

The total contribution to the Heart Fund from the town of Milton in 1955 was $8,032.92\textsuperscript{78} making a per-capita contribution of $.33.

It has been said by an official of the Heart Fund that if the fund were to contribute to those people in the state of Massachusetts who suffered some form of symptomatic heart

\textsuperscript{78} Results of questionnaire, February, 1956.
disease were to receive financial aid from this fund it would be in the amount equal to the cost of a carton of cigarettes, or about two dollars and fifty cents.

No direct benefits from the Heart Fund were derived by the citizens of the town last year.
Community Fund

Of the seventeen agencies and hospitals benefitting the citizens of Milton last year and partially supported by the Community Fund, none was located in the town.

The people of the town subscribed $47,151 to this annual drive for funds. The number of individual contributions was 3,847 for a per-capita percentage of fifteen and eight-tenths per cent. The average per capita contribution was $1.94 and the actual average contribution was $12.25.

Although 514 people from Milton used the services of agencies and hospitals receiving partial aid from the Community Fund, there is no way to determine the extent to which these people benefitted, for obvious reasons.

79. Results of questionnaire, February, 1956.
80. Loc. cit.
81. Loc. cit.
82. Loc. cit.
Tuberculosis Fund

Although commonly known just as the "Christmas Seal Drive," the annual drive for funds to wipe out tuberculosis through a program of chest X-rays is sponsored by the Norfolk County Tuberculosis and Health Association, Inc., with headquarters in Quincy. This association attempts to accomplish its objective by sponsoring a mobile X-ray unit which visits the town annually and provides free chest X-rays to those desiring them. Last year 267 people were X-rayed by this mobile unit, while other individuals, mentioned in a preceding chapter, were X-rayed at Milton Hospital at the clinics sponsored by the Board of Health.

Funds required to operate the mobile unit are raised through the annual sale of Christmas seals throughout Norfolk County, of which Milton is a part. Last year in Milton $4,700.00 was raised as a result of the sale of these seals. The number of individuals contributing was 2,305 for a percentage of nine and four-tenths of townspeople who contributed. The average per capita contribution was nineteen cents, the lowest of all the voluntary agencies which canvass the town annually.

83. Results of Questionnaire, February, 1956.
84. Loc. cit.
When tuberculosis is discovered and requires hospitalization, patients are sent to the Norfolk County Hospital in Braintree. This is a county hospital, as its name suggests, and is supported by taxes levied on the towns in the county, said taxes based on population, town value and the number of patient days spent at the hospital. If a person has been a resident of a town for five years, the cost of his care is borne by the town from which he comes. The cost of maintaining a patient is estimated by hospital authorities at twelve dollars 85 a day.

Last year seven 86 Milton residents were patients at the hospital. Of that number, four are still there, one died, one refused to remain hospitalized and one was discharged. Although the Norfolk County Hospital is neither a local health service nor a voluntary agency operating within the town, it is included here because it exists to benefit Milton residents afflicted with tuberculosis.

Of all the voluntary health services discussed in this study, it appears that the funds raised to wipe out tuberculosis are more readily available and the services provided more easily obtainable and more directly felt than any other.

85. Loc. cit.
86. Loc. cit.
Red Cross

Last year in Milton a total of $16,261.08 was contributed to the Red Cross as a result of its annual drive for funds. An additional sum of $3,903.50 was contributed toward a special drive for flood relief following the heavy rains of late last summer. Of the total contributions, $5,575.00 was spent locally and the remainder was sent to the national chapter of the American Red Cross.

The total sum of money collected was contributed by 2,268 donors. Although no records were kept of the size of the average donation, a rough estimate, using the figures given, would indicate the average contribution to be $8.88. Because these figures include contributions from both individuals and concerns the average cannot be considered too reliable, and is, therefore, only of passing interest.

The functions of the Red Cross and the services provided to the people of Milton are many and varied. A group of Nurse's Aides - all unpaid volunteer workers - contribute a total of one hundred fifty hours a month to the Milton Hospital.

87. Results of Questionnaire, February, 1956.
88. Loc. cit.
89. Loc. cit.
90. Loc. cit.
This group is sponsored by the Red Cross and its function is to assume many of the unskilled tasks which would otherwise, of necessity, be handled by trained nurses. The services of this group of Nurse’s Aides have been responsible to an undetermined extent in keeping operating costs of the Milton Hospital to a level considered lower than many nearby comparable hospitals.

A Motor Corps, sponsored by the Red Cross, and consisting of volunteer women drivers, exists to provide transportation in cases of need, financial or otherwise, to hospitals for emergency care, or in some cases, where repeated visits for outpatient care are required and other means of transportation are not available. No record was kept in 1955 of the number of Milton residents who benefitted by this service.

Although no records are available as to the number of persons who contributed blood last year, 36691 pints of blood were donated. This blood is used for the benefit of Milton residents, but because it is turned over to the Boston Chapter of the Red Cross and then distributed to hospitals in and around Boston, wherever Milton residents are patients requiring blood, there is no valid way of determining exactly how many people from this town received blood from the Red Cross last year. However, of importance is the fact that each donor or a member of his

91. Loc. cit.
Immediate family was entitled to receive four pints of blood for each pint of blood donated. There is never a charge by the Red Cross or the hospital for the blood, only for the cost of administering the blood transfusion.

Other services, although only slightly allied to health benefits, of the Red Cross in 1955 were the offering of training courses in first aid and canteen service at the Blood-mobiles and at the induction once a month of men into the armed services.

On the basis of available information it is difficult to appraise fairly the extent to which the services of the Red Cross benefitted Milton residents in 1955.
Cancer Fund

Research is one of the chief functions of the Cancer Society, as it is also of the March of Dimes and the Heart Fund.

Last year, 1955, the town of Milton contributed a total sum of $8,769.0092 to the Cancer Fund. The source of contributions and the number of contributions, as with the March of Dimes and the Heart Fund, are difficult to ascertain because of the nature of the solicitations, by both mail and by containers strategically located in the town.

Because of the fact that many of the victims of cancer from Milton were treated at hospitals receiving benefits from this fund in or around Boston, no accurate figures can be compiled to show the benefits, direct or indirect, received by these people from this fund. However, 59193 visits to cancer patients by the Milton Visiting Nurses Association, for which the Cancer Fund paid three dollars94 per visit, for a total of $1,773.00 95 in benefits, were among the contributions of the Cancer Society to the people of Milton in 1955.

92. Results of Questionnaire, February, 1956.
93. Loc. cit.
94. Loc. cit.
95. Loc. cit.
Clinical facilities in many Boston hospitals, supported in part by the Cancer Fund, were also available to the citizens of the town, but because these same facilities were available to residents of other towns, there are no breakdown figures available to be used in this study.

Milton physicians were able to avail themselves of thirty-four closed television circuits, carrying programs devoted to the treatment of cancer and sponsored by the Cancer Society. These same physicians during the year received from the Society manuals on the diagnosis and treatment of cancer and bulletins on the latest publications and information in the field of cancer research.

It would appear that the town of Milton, on the basis of its total contribution, benefitted greatly from the Cancer Fund in 1955.

96. Loc. cit.
A CHART OF THE ACTIVITIES OF THE VOLUNTARY HEALTH AGENCIES WITHIN THE TOWN OF MILTON, MASS., - 1955

<table>
<thead>
<tr>
<th>March of Dimes</th>
<th>Heart Fund</th>
<th>Community Fund</th>
<th>Red Cross</th>
<th>Cancer Fund</th>
<th>Tuberculosis Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Contribution From Milton - 1955</td>
<td>$10,000.00</td>
<td>$8,032.92</td>
<td>$17,151.00</td>
<td>$16,261.08</td>
<td>$8,769.00</td>
</tr>
<tr>
<td>No. of Individuals who contributed</td>
<td>No records</td>
<td>No records</td>
<td>3,847</td>
<td>2,268</td>
<td>No records</td>
</tr>
<tr>
<td>Per Cent of Townspeople Contributing</td>
<td>No records</td>
<td>No records</td>
<td>15.9%</td>
<td>9.3%</td>
<td>No records</td>
</tr>
<tr>
<td>Average per capita contribution</td>
<td>$.41</td>
<td>$.33</td>
<td>$1.94</td>
<td>$.67</td>
<td>$.36</td>
</tr>
<tr>
<td>No. of Townspeople who benefitted from fund or agency</td>
<td>18</td>
<td>No records</td>
<td>15 - carry-over - 1954</td>
<td>514</td>
<td>No records</td>
</tr>
<tr>
<td>Total Benefit received by townspeople</td>
<td>$1,554.31</td>
<td>No Direct Benefits</td>
<td>no</td>
<td>no</td>
<td>$1,773.00</td>
</tr>
</tbody>
</table>

Community Red Cross Cancer Tuberculosis

$47,151.00 $16,261.08 $8,769.00 $4,700.00

No records No records 3,847 2,268 No records 2,305

No records No records 15.9% 9.3% No records 9.4%

$.41 $.33 $1.94 $.67 $.36 $.19

18 15 - carry-over - 1954 514 No records No records 232

$1,554.31 No Direct Benefits no no $1,773.00 in known benefits no records
Chapter VIII

SUMMARY AND CONCLUSIONS

My hypothesis at the start of this survey, as stated in my introduction, was that the citizens of the town, generally, did not take advantage of the facilities available for the betterment of their health.

It is my opinion that the results of this survey strengthen my original hypothesis.

While 100% of the students in the elementary grades received formal and direct health instruction, pupils in Grades Seven, Nine, Ten and Eleven received none. All pupils in Grade Eight received two periods a week of instruction in health and approximately 25% of the pupils in Grade Twelve take a course in Hygiene five periods per week. During the very important and impressionable years of adolescence, very little is being done in the matter of health teaching in Milton. Natural questions of growth, disease, emotional and personal development, so important to the teenager, are going unanswered because the subject of health in this school system, as in so many others, is not a continuing process.

The function of the school physician is to take care of the physical needs of the pupils of the school system.
This the physician did last year, for there is no record of any pupil failing to receive her services when required or requested. This does not indicate that her services would not have been more fully utilized, had they been available more frequently and regularly; only that she was apparently able to take care of those needing her services.

One of the most important, yet underrated and overworked persons in the school health service is the school nurse, who, like the school physician, apparently was able to perform by herself the many duties placed upon her. Her duties included the administration and supervision of hearing and vision tests, assisting the school physician in physical examinations, the keeping of records and the sending home of notices, and the performance of her basic duty as a school nurse - administering to those pupils who required her help. Using figures found in the Chapter on "The School Nurse," we find that at least 9,618 pupils benefitted either directly or indirectly from the services of the school nurse in 1955. It would appear from this figure that not only was the position of the school nurse a very busy one, but also that the school population in general received a great deal of benefits from the services of the nurse.

The services of the school dentist, while of great importance to those who were unable to have needed work done by
their own dentist, actually benefitted a very minor proportion of the school enrollment. One dentist was readily able to take care of the needs of the pupils in the Milton school system who could not afford private care, primarily because the high economic nature of the town lessens the necessity of free care.

A summary of the school milk and school lunch programs would necessarily have to conclude that the average per day, per pupil, consumption of less than one-half a bottle of milk and less than one-third a hot lunch indicates that, although milk and hot lunches are made available to students, they are not being purchased as one concerned with health might hope and expect. The failure of students to accept these items on a wider scale may lie in lack of education.

Although the Board of Health in Milton exists to serve the health needs of the town, relatively little aid was sought by the adult population of the town last year. The main function of the Board in 1955 consisted of service to pre-school and school-age children, in the form of immunization programs for the prevention of diphtheria and poliomyelitis. The chief benefit to the adult population, on a very small scale, was the operation of an X-ray clinic. It would appear that the need for the services of a Board of Health in a town such as Milton, with a high economic and education level, is not as great as it might be in towns of a different composition and nature.
Although only a fraction over 2% of the people of Milton took advantage of the services of the Visiting Nurses last year, a fair conclusion to reach after studying the work of this organization is that these people were well served and that it would have been almost impossible to take care of the needs of a greater percentage of the population with the existing staff of only four nurses. It is difficult to determine the number of people in the town who did not avail themselves of the services of the Visiting Nurses because of their ability to pay for private care themselves or because pride prevented them from seeking help from an agency which many tend to think of as having been originated for those persons unable to afford private care. The Milton Visiting Nurses Association is truly an organization of service to all the people of the town, with no age barriers, or conditions, and regardless of ability to pay.

In a town of 24,292 people only 180 needed assistance to pay for their health needs through the Board of Public Welfare last year. This group of 180 persons constitutes only seven-tenths of one per cent of the total population, but it is of significance to note that the largest single sum of money was spent for health needs under Old Age Assistance. Of a total budget of $85,296.93, people under Old Age Assistance received $68,664.78 toward their health needs, which would seem to amplify the ever-growing problem caused by the increased number of elderly...
people and tend to point up the increasing need for research and emphasis in the field of geriatrics.

Unlike many of the other public and voluntary health agencies, the Board of Public Welfare is not limited by a set budget in its effort to help people. Wherever need exists, help is given, regardless of the number of people requiring help.

In summarizing my survey of Milton Hospital it becomes immediately obvious that local residents take little advantage of the hospital erected to serve their needs. Only 41.3% of patients admitted for general care were residents, while a mere 18.7% of babies born at the hospital were born of residents. It would appear, at first glance, that the people of Milton had little regard for a hospital only slightly more than five years old, but a more thoughtful analysis might conclude that the reason for the apparent lack of use by citizens of Milton is due to the proximity of the town to Boston and its many hospitals and medical centers, on whose staffs many of the local doctors are members.

An attempt to summarize the usefulness to Miltonians of the voluntary agencies the extent to which these people contributed to these agencies is an extremely difficult task, primarily because of the following factors. First, the number of individual contributions to any of the particular agencies represents, in reality, a contribution from a family, so a true percentage cannot
be obtained. Second, three of the six agencies have no way of determining, even approximately, the number of individual contributions. Third, three of the six agencies have no way of ascertaining the number of people who benefit either directly or indirectly from the funds or services of the agencies. This situation exists either because of a lack of records or because Milton residents use services partially supported by these agencies and scattered over a widely diversified area around greater Boston.

In attempting to draw a final conclusion from my survey, I have decided to place the varied health services into two categories; namely, those services most used or most valuable in measurable terms in the first and those services least used and least valuable in measurable terms in the second.

Into the first category of most valuable and most used services, I would place the Board of Public Welfare, the Visiting Nurses Association, the teaching of health in the elementary schools, the Board of Health and the services of the school nurse. Because of known benefits to Milton residents, I would include in this group the Cancer Fund, the Tuberculosis Fund, and the March of Dimes from among the voluntary agencies. All of the health services in this category are used as fully as seems possible under the limitations of personnel, time, or money.
Into the second category of least used services, I would place the Milton Hospital, the services of the school dentist, the school lunch and school milk programs, the teaching of health in both the junior and senior high schools and voluntary agencies and senior high schools and voluntary agencies such as the Heart Fund, the Community Fund and the Red Cross. These services are classified as less valuable only because they serve fewer people than I believe they should serve, partially due to the nature of the service, such as Community Fund and Red Cross, or partially due to a lack of education in the use of the service, such as the school's program of lunch and milk or the use of the Milton Hospital.

In conclusion, it is my opinion that a relatively few of the total of 24,292 persons in Milton in 1955 were aware of, took advantage of, or benefitted from the services and agencies which exist for the benefit of their health. However, there is no way of determining whether failure to benefit from these services was due to a lack of need or to a lack of information and it is doubtful whether a completely new survey would reveal the answer.
Chapter IX

RECOMMENDATIONS

Health Teaching

While health teaching in schools would be desirable at every grade level, common sense dictates that such a plan would be hard to inaugurate. However, I feel that it should be required on the senior high school level, preferably in Grade Twelve, for if a pupil graduates from high school, as now, full of misconceptions concerning health he is likely to live much of his life with those same misconceptions. To the average person ten years out of high school, the chief concern in his life is his health, not the subjects he took in school, and with the passing of each year his concern for his health grows increasingly greater. While required health teaching on the high school level would not solve all health problems nor would it disseminate all health knowledge, it would help to remove many of the long-existant health misconceptions and would bring about an increase in health consciousness.

School Health Services

While an optimum school health program would involve the full-time services of a school physician, it appears that at the present time the physician can do the job assigned to her. If her services were on a full-time basis, however, much more could be
done in actual practice as well as in health teaching and the setting up of health procedures. A closer liaison between physician and teachers which would benefit the pupils might also result.

The school nurse does an excellent job but should have another nurse working with her to take care of the better than 3,000 children in the Milton School system. At best, she cannot do all that is expected of her as well as keep records, transport sick pupils home and be on call for all the schools in town at any given hour of the school day.

Education is definitely needed through health classes, the school health supervisor and through all school health services to make the pupils cognizant of the school milk program and lunch program, which are not now being used to the advantage for which they were designed, as revealed by the statistics presented in this survey.

It is my intention to bring the facts from this study to the attention of concerned parties in the school department.

Town Health Services

It is my feeling that the Board of Health is doing a creditable job, particularly in the field of immunization, and I cannot make any recommendations at this time which would be necessarily of value in improving the functions of this Board.
If the Visiting Nurses Association were to have increased personnel it could undoubtedly give even greater service than it is now rendering. However, the work that it does is much needed and of a high calibre, therefore I would suggest only an increase in personnel, that the Association might broaden its already excellent work.

Because the Board of Public Welfare already serves all those who require its help, it is difficult to make recommendations to improve its functioning.

The Milton Hospital, though its services rendered are used more by non-residents than by residents, is a modern, well-staffed and well-equipped hospital and will, if necessary, eventually accept only Milton residents, if the time comes when its present facilities are over-taxed. Perhaps in its annual report the hospital should stress the fact that it is intended for, and wishes to encourage use by, Milton Residents.

**Voluntary Health Services**

No recommendations of mine will change the need for the voluntary health agencies which operate within the town of Milton, nor will it encourage the amount of money contributed by, or spent on, Milton residents. As both needs exist, they will undoubtedly be taken care of. I would, however, recommend that more accurate and up-to-date statistics be kept by all of these
organizations so that they can clearly show interested townspeople, how the money is spent, the need for the money, and the amounts spent on the people who are asked to contribute to these agencies.
BIBLIOGRAPHY


Program of Study, 1955, Milton, Massachusetts.

Health Curriculum for Grades 1 - 12, 1955, Milton, Massachusetts.


Annual Report of Milton Hospital, 1955, Milton, Massachusetts.