

SICKNESS RECORDS IN SCHOOL HYGIENE

*A summary of a study made by the Division of
Research of the Milbank Memorial Fund¹*



THE adequacy of the school medical examination, even in its more highly developed form, as a means of checking the school child's health, properly is being called into question. The principal ground for skepticism is the obvious fact that the periodic health examination takes into account only a few conditions at intervals of two or three years; it can not promptly bring to light any of these conditions as they arise nor can it call attention to changes in the interim. Furthermore, the health examination does not and can not, unless it is made far more searching than it is now, bring to light other impairments and defects, and it can not conform to a fundamental postulate for accurate diagnosis, namely, the opportunity for continuous observation.

It may as well be taken for granted that practical considerations preclude an ideal method of continuous examination and observation of millions of children. What the school health administration wants is improvement in the prevailing procedure that will result in the prompter discovery and correction or treatment of important conditions that now are not brought to light at all or with too much delay.

One method of supplementing the medical examination is a current record of absence from school on account of sickness. The present report is based on the sickness record of two school years and medical examinations in one graded school in Olean, New York.² A total of 475 pupils were enrolled

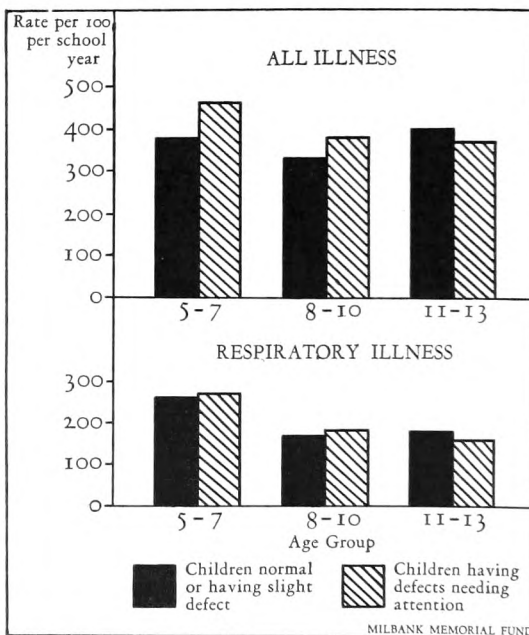
¹The study will be published in the November issue of the *American Journal of Public Health*.

²These records were made available through the cooperation and interest of Dr. C. A. Greenleaf, Director of School Hygiene, Cattaraugus County.

during these two years, but only those pupils who were in attendance one or two full school years were included in the record utilized in this report.

In order to ascertain the extent to which defects and impairments in general are adequate indications of ill health manifested in actual sickness, the children in this school were divided into two categories: (1) Those found upon physical examination to be normal or to have a slight abnormality (1x); (2) Those having any defective condition serious enough to warrant notification of the parents that the condition needs attention (2x and 3x). The accompanying graph

Fig. 1. Absences because of all illnesses and respiratory illness by age groups in one school in Olean, New York, 1926-1928.



(Fig. 1) shows the comparison by age groups. The illness rate was found to vary according to age, as expected, but evidence that it was higher among children with gross defects than among those who were free from them was by no means definite. It may be argued that this lack of association may have been due to inadequate examinations; but our observation

was that the physical examinations in this school, which were made by the director of the school health service, were done with more care than is ordinarily found in routine work of this kind.

This comparison was carried a step further by comparing the prevalence of specific defects among 221 children suffering less than the average number of sicknesses and among 176 children who were sick frequently (five attacks or more per year). This is shown in the accompanying table.

The striking fact shown by this comparison is not that the defect rates were generally somewhat higher in the "sickly" group, but that relatively a small proportion of 176 children who were actually sick five or more times during a school year were discovered to have any *serious* defects upon physical examination. In other words, the findings of the physical examination, even when considered from the point of view of specific and serious conditions, are a poor indication of the extent to which the child is actually sick.

Certain defects were considered which may be reflected directly in sickness of the same specific nature, such as diseased tonsils and tonsillitis, and carious teeth and toothache. By including children who had special nose and throat examinations in addition to the regular physical examina-

Prevalence of serious defects among children sick less than the average and among children frequently sick in a school in Olean, New York, 1926-1928.

DEFECT	PER CENT OF CHILDREN WITH OR WITHOUT SPECIFIC DEFECT			
	221 children having less than 3 illnesses per school year		176 children having 5 or more illnesses per school year	
	Normal or slight defect	Defect needing attention	Normal or slight defect	Defect needing attention
Tonsils	84.1	15.9	76.7	23.3
Glands	100.0	0	99.4	.6
Nervous system	98.2	1.8	97.8	1.2
Heart	98.6	1.4	99.4	.6
Lungs	100.0	0	99.4	.6
Ears	100.0	0	99.4	.6
Eyes	92.8	7.2	89.2	10.8
Temporary teeth	91.4	8.6	89.2	10.8
Permanent teeth	80.1	19.9	72.7	27.3
Orthopedic	99.1	.9	99.4	.6
Thyroid	99.5	.5	97.7	2.3

tion, there was a total of 767 children observed for one year. Relating the sickness record to the same school year in which the examination was made, the children were classified into two groups: those with "normal" or "1x" tonsils and those with "2x" or "3x" tonsils. In the latter group there were 163 children, all of whom presumably were referred for correction. Of the 604 children with "normal" or "1x" tonsils, 59 actually suffered one or more attacks of tonsillitis or sore throat. Six of them had attacks in each of the two school years. A considerable number of these, if not all, probably should be considered as needing examination and attention. Similarly, 177 children were found upon examination to have teeth needing attention, but of the 413 children whose teeth were in satisfactory condition when the examination was made, 73 actually suffered one or more toothaches that resulted in absence from school.

Summarizing the results of the experiment, it appears true that the proposals of the American Public Health Association Committee on Record Forms to utilize sickness records as a means of discovering conditions in school children that may need treatment or correction, is a sound one in principle. A current record of sickness, if specific enough as to cause, undoubtedly reveals many conditions which the medical examination does not bring to light.

