

THE TEACHER IN RELATION TO COMMUNICABLE DISEASES OF SCHOOL CHILDREN.

E. D. WALKER, M. D., LITCHFIELD, ILL.

As stress is being laid more and more upon the school as a center for effective public good, the writer wishes to present a plan by which the school may be made a means of materially reducing communicable diseases of school children.

One has only to consider some of the losses from this source to realize the important community good in reducing the number of casualties from infectious diseases. "If knowledge now existing among well informed men in the medical profession were actually applied in a reasonable way and to a reasonable extent, forty-two per cent of persons in the U. S. who annually die of communicable disease could be saved.¹"

The estimated loss of life from infectious diseases contracted in the school room, for a selected year, is as follows:²

(For the Registration Area)—10 States.

Colds, Bronch. and Pneum.	5-9.....1906;	10-14..... 925;	15-19.....1438
Influenza (Not Epidemic Year)....	5-9..... 122;	10-14..... 73;	15-19..... 119
Smallpox	5-9..... 6;	10-14..... 6;	15-19..... 17
Mumps	5-9..... 14;	10-14..... 9;	15-19..... 9
Tonsillitis and Diptheria, Croup....	5-9.....3028;	10-14..... 713;	15-19..... 239
Measles	5-9..... 588;	10-14..... 152;	15-19..... 112
Whooping Cough	5-9..... 228;	10-14..... 17;	15-19..... 10
Scarlet Fever	5-9.....1731;	10-14..... 442;	15-19..... 232
Meningitis	5-9..... 683;	10-14..... 365;	15-19..... 294
Totals.....	8306	2702	2470

The financial loss, based on an Illinois estimate for an influenza campaign, counting treatment \$10, loss of time \$15, funeral \$100, life at \$3,000, apportions ages 5-9 at \$25,956,250; 10-14, \$8,443,750 and 15-19, \$7,718,750, approximating \$42,000,000.³

Based upon the foregoing three period school ages, the per cent preventable, for the selected communicable diseases, follows: 5-14 years, colds, pneumonia and accessory, 50%; influenza, 50%; smallpox, tonsillitis and diptheria, 70%; measles, 40%; whooping cough, 40%; scarlet

1. This per cent was computed by a chief with thirty (30) experts in health data.

Authority: 2. U. S. Mortality Statistics and causes of death for registration area.

3. Ill. Statistics for the State July 1, 1918, to June 1, 1919.

fever 50%; meningitis, 70%. For 15-19, similar except whooping cough not reckoned. Estimate average preventable, 50% or 4,200 at 5-9, 1,350 at 10-14, and 1,235 at age 15-19. Total deaths, 15-19 preventable about 24,000.⁴ 5-14, 33,500.⁵

In 1918, 289.9 per 100,000 for influenza, 284.3 per 100,000 for pneumonia. Influenza, 3,517 cases and 396.6 deaths per 100,000 population, 112.7 per 1,000. \$73,710,000 total cost for influenza 1918-19. Whooping cough 10,000; ill 190,000. Scarlet fever, 9,000. Diphtheria and croup, 18,000 annually. Pneumonia, 132,400 lives annually.

Pasteur has prophesied: "It is within the power of man to rid himself of every parasitic disease." "Within natural limitations a community can determine its own death rate."⁶

"Instructions in the methods of preventing disease should be an essential part of our system of education and no individual should have completed his education without the knowledge of how communicable diseases are spread and prevented."

To materially limit the incidents of these diseases, and thereby preventing much of this loss, I desire to submit for your consideration and, I trust your very earnest discussion, what seems to me a very simple plan.

My plan would be to have the school board of each community compel the teachers to familiarize themselves with the easily recognized symptoms which occur in one or more of these infections.

Then have the superintendent of each school insist upon an inspection of each pupil—every morning before classes begin. Such inspection, according to the keenness of the ob-

4. Fisher's Average and U. S. Mortality Statistics.

5. U. S. Mortality Statistics and Fische Preventable Table.

6. Various Official Pamphlets.

server, would require about twenty seconds. The routine inspection should be divided or modified, in accordance with each teacher's plan of organization, in the opening period.

The inspection should include a search for the following symptoms, in the order named:

1. Rash of *any* kind on face, neck or wrist—Skin.
2. Eyes—Redness, watering or puffy.
3. Mouth and throat—bright redness of tongue, gums, pharynx, and tonsils; white spots on pharynx, tonsils, gums or *between* cheek and gums.
4. Under the jaw and along the neck palpable swelling of glands.
5. General symptoms: Nausea, malaize, unusual inattention, coughing and sneezing, hoarseness or unnatural tone of voice.

The instruction of the teacher so that she can recognize these symptoms should be made compulsory and should be given by a physician and made a part of a teacher's certificate requirement.

In order that the school board can put into effective operation this requirement, summer courses of instruction should be given by physicians whose sympathy and experience bring them in touch with the most vital relationships of pupil, teacher and family doctor.

The teacher should be given authority by the superintendent of schools to dismiss any pupil suffering from any of the symptoms mentioned. The teacher should not permit return to school until he could bring with him a physician's certificate of good health.

To sum up: Every teacher should learn to recognize a sick child. Every teacher should make a morning inspection of each pupil. Every sick child should, by the teacher's transfer slip, be sent home for the parent to immediately secure the pupil's careful examination by the family doctor.

The state and local boards of health should co-operate with the school board, school superintendent, the teacher and family doctor in establishing and enforcing this

routine. The attention of the public should persistently be called to the importance of co-operation in this movement.

DISCUSSION OF DR. WALKER'S PAPER

Dr. Pollock suggested that a great many Boards of Education might profit by spending a little more money for personal study in Economics that would be directed along these lines. Dr. East emphasized that special knowledge relative to the control of communicable diseases is essential and that therefore the link of Nursing Services in this connection could not be overlooked.

In this connection the question was brought up of the importance of general publicity and education along public health lines. It seemed to be the general impression of the Section that very little had been and is being done in the way of general education of the public. Mr. Richardson stated that the State Department of Public Health not only maintained constant educational service that embraces special bulletins, motion picture films, lantern slides, posters, exhibit material, and demonstration service but it carried out such special programs as Health Promotion Week and Better Baby Conferences.