

tailed off. The number of cases of influenza in the whole school was 122, which represents a percentage incidence of 52·3.

Influence of Length of Residence.—In order to demonstrate whether the length of residence in the school had any influence on the incidence of infection, the boys were placed in groups according to the number of terms they had been in residence. The following grouping was made: (1) New boys with no previous residence at the school; (2) boys who had been in residence one year only—that is, three terms; (3) boys who had been in residence four, five, and six terms; (4) boys who had been in residence more than six terms.

Incidence of infection according to length of residence in terms is shown as follows:—

Table B.

Number of Terms in Residence.	Number of Boys.	Number of Cases of Influenza.	Percentage of Incidence.
New boys	56	34	60·9
Boys with at least three terms	57	38	66·6
Boys with over three and up to six terms' residence	51	21	41·3
Boys with over six terms' residence	66	27	40·9
Total boys with three terms' residence and over ..	174	86	49·4

The above table demonstrates that with increase of length of residence in the school there was a decrease of incidence of the infection. The percentage incidence amongst the new boys was 60·9, and amongst the longest-residence boys only 40·9. If we group all the old boys together the percentage of incidence of infection was 49·4. It will be noted that the difference between new boys and boys with three terms' residence is in favour of new boys.

Influence of Previous Vaccination with the Anti-influenzal Vaccine.—As has been mentioned, during the year 1927 all boys (whose parents or guardian consented) were given two doses of vaccine. Altogether there were present at the school at the beginning of the present year 159 boys who had been given the vaccine during the previous year. There were, therefore, in the school at the same time 74 boys who had had no vaccine. Amongst the 159 boys who had vaccine there were 80 cases of influenza, a percentage of 51·3. Amongst the 74 boys who had not had vaccine there were 42 cases of influenza, a percentage of 56·7. This is shown in the following table:—

—	Number of Boys.	Influenza.	
		Number of Cases.	Percentage.
Boys given vaccine	159	80	51·3
Boys not given vaccine	74	42	56·7

If one could eliminate the question of the influence of the length of residence, then the result would appear to be very little in favour of the prophylactic use of the vaccine. It must be remembered, however, that amongst the 74 boys not given vaccine were 56 new boys and 3 boys who had been in residence only one term.

There were, however, in addition to 159 boys vaccine-treated, 15 other boys not vaccine-treated—both groups with over three terms' residence—which gives us a total of 174 boys with residential influence. The percentage of incidence amongst these 174 boys was 49·4 (see Table B), as against 51·3 amongst the vaccine-treated boys. This shows a result somewhat in favour of the old boys as a group, as against the old-boy group which was treated with vaccine. It must be remembered, however, the number of boys not treated with vaccine is very small, so very little if any significance can be attached to the figures.

The results, however, would seem to indicate that length of residence, with which goes increasing age, is more important as an immunizing factor than a previous treatment with ante-influenzal vaccine. It is, of course, well recognized that any increase of immunity given against influenza by a vaccine is only of a short duration. The times between the giving of the vaccine and the appearance of the epidemic was at least five months.

In order to demonstrate the difference to susceptibility between new boys and old boys, and also between those treated with vaccine and those not treated, the following table has been prepared. In Table C the total number of cases existing in any one day has been expressed as a percentage of the total incidence in that class. This therefore, introduces the time factor, endeavouring to demonstrate whether the boys in the different classes tended to succumb earlier or later in the epidemic.