

- (c) *After 1st November* there was a considerable increase in illnesses of both types in both test and control areas. (Increase was 2·1 : 1 in test areas and 2·8 : 1 in the controls.)
- (d) The most notable feature after 1st November was that suggestive illnesses of long duration were now much commoner in test than in control areas (1·7 : 1) and the preponderance was greatest in illnesses showing three or more "cardinal" symptoms (3 : 1).

A further analysis was made to discover what age groups and what types of family were most affected. Figures are given in the Appendix, Table IV. It was found that in the period before 1st November the excess of illnesses of short duration noted above was due to the number of illnesses in *adults*, especially adults in families without children. After 1st November, families including children were much more severely affected in test than in control areas, particularly where there were school-children, and there the increase was especially marked in respect of illnesses of long duration (3·2 : 1). After 1st November, illnesses in wholly adult families increased in the control areas, while tending to subside in the test areas.

This part of the investigation suggested, therefore, that the epidemic had been preceded by an increase of illnesses of short duration amongst adults, particularly adults in families without children. As the epidemic developed, illnesses in childless households tended to become less frequent in districts where polio cases were actually occurring : but in areas more remote, childless households now began to show an increase. Concurrently with the early stages of the epidemic, families including children suffered a considerable amount of the kind of illness which has in the past been regarded as possibly related to poliomyelitis. This was much commoner in the neighbourhood of polio cases, and most obvious and definite where there were school-children. Even parts of the city where no positive cases had yet been identified seemed, however, to be going through a similar process at a less advanced stage.

## VI. ILLNESSES IN AFFECTED HOUSEHOLDS

Forty houses in which positive cases had occurred were visited (*a*) in November and December, immediately after notification of the case, (*b*) in January, and (*c*) at the end of March. At the outset more than 150 homes were under observation, but many of these cases proved to be negative, and eventually it was decided to concentrate on cases in the metropolitan area which had commenced before the end of December, 1947. Conditions of spread in rural areas must obviously be rather different from those in the city.

These 40 households included a total of 218 persons, distributed as follows :—

					Primary Cases.		"Secondary" Cases.		Household Contacts.	
					M.	F.	M.	F.	M.	F.
Age 0 and under	5	..	..	..	8	4	..	2	11	14
" 5	..	10	..	..	15	3	..	..	12	13
" 10	..	15	..	..	3	5	..	..	9	10
" 15 and over ("adults")	..	..	..	..	2	..	1	1	49	56
Totals	..	..	..	..	28	12	1	3	81	93