

6. In houses invaded by small-pox in the course of an out-break not nearly so many of the vaccinated inmates are attacked as of the unvaccinated in proportion to their numbers.

Taking children under 10 years old, in infected houses in Dewsbury, 10.2 per cent. of the vaccinated were attacked, and 50.8 per cent. of the unvaccinated; in Leicester, 2.5 per cent. of the vaccinated, and 35 per cent. of the unvaccinated; in Gloucester 8.8 per cent. of the vaccinated, and 46.3 per cent. of the unvaccinated. These places are selected here because they are centres of antivaccination, as to which it cannot be truthfully alleged that the unvaccinated are weakly children whose vaccination has been postponed by medical certificate, or that the vaccinated and unvaccinated children belong to different classes especially when they are compared in the households actually invaded by the disease. It is urged by antivaccinationists that vaccination does not protect against small-pox, but on the contrary tends to weaken the system against all disease. Yet the vaccinated were attacked in much less proportion than the unvaccinated.

7. The fatality rate among persons attacked by smallpox is much greater, age for age, among the unvaccinated than among vaccinated

Taking the 10,403 cases treated in Homerton Hospital in 1873-84, the deaths among the vaccinated 8,234 were 869, or 10.5 per cent., and among the unvaccinated 2,169, were 938, or 43.4 per cent. We shall see shortly that the deaths among the well vaccinated were only 3 per cent. Taking the epidemics in three towns, Dewsbury, Leicester and Gloucester, where vaccination has been neglected, we find that under 10 years of age, among 72 vaccinated children attacked, two died, or 2.7 per cent., but among 961 unvaccinated children attacked 350 died, or 37.3 per cent. Taking persons over 10 years old, among 1,959 vaccinated persons attacked, there were 136 deaths or 6.9 per cent., and among 331 unvaccinated persons there were 75 deaths, or 22.6 per cent. Again it is to be noted that as vaccination was practically optional in these towns, the unvaccinated children, according to anti-vaccination theories, should have been more able to resist death by smallpox than those who had been subjected to an operation which is alleged to weaken the system and render it more liable to disease and death.

8. It cannot be truthfully alleged that independently of vaccination smallpox is a milder disease now than in former centuries.

If it were the case, as is sometimes argued by anti-vaccinationists, that the smallpox fatality rate in last century was about 18 per cent.* of persons attacked, then the much higher rate now occurring among the un-vaccinated would show the disease to be much more severe now than then. But in the last century, as in the present century, the fatality varied greatly in different outbreaks, as does the fatality of scarlet fever,

* This rate is based mainly on a prevalence of the disease in certain towns in the West Riding of Yorkshire in certain years between 1720 and 1730, but no average, either for a century or for a country can be calculated on such limited data. (*Vaccination Vindicated*, pp. 57-59.)