

Smallpox in Pre-vaccination and Vaccination Periods.

The following data, however, is most interesting, as indicating the marked contrast of the ravages of smallpox in pre-vaccination periods when compared with those years after its introduction. In studying these figures it must be remembered that vaccination was purely a voluntary matter in the years immediately following its introduction, and after the passing of compulsory laws some time must necessarily have elapsed before the majority had been vaccinated, hence would follow a gradual decrease in the death rates from smallpox; not a sudden decline.

Vaccination was made compulsory in Sweden in 1816, nearly fifteen years after its introduction, but, as a result of voluntary vaccination before that date, it is found the average yearly death rate per million of the population for the decade 1802-1811 was 623, while in the next decade, 1812-1821, it fell to 133, as against a yearly average of 2,050, for the twenty-eight years immediately preceding vaccination.

The following striking figures are presented as showing the beneficial effects of vaccination in that country, as the figures are obtainable for three distinct periods, viz., pre-vaccination, permissive vaccination, and compulsory vaccination. The mortality in each case is per million of population.

- (a) Pre-vaccination 1774-1810, average 2,045, for 28 years.
- (b) Permissive vaccination 1802-1816, " 480, " 15 "
- (c) Compulsory vaccination 1817-1893, " 155, " 77 "

In Copenhagen for the fifty years 1751 to 1800, the deaths from smallpox averaged 3,422 per annum. While for the first forty years of vaccination it averaged only 286 and so general had vaccination become by the middle of the nineteenth century the number of fatal cases had been reduced in that city to one-eleventh of what they were in pre-vaccination years. While in Berlin the reduction was to one-twentieth.

An equally favorable report is that of London, England, shown by decades from 1761 to 1830.

<i>Before Vaccination.</i>		<i>After Vaccination.</i>	
DECADE.	DEATHS FROM SMALLPOX.	DECADE.	DEATHS FROM SMALLPOX.
1761-1770	20,434	1801-1810	12,534
1771-1780	20,923	1811-1820	7,858
1781-1790	17,867	1821-1830	6,900
1791-1800	18,477		