

THE RELATION OF HEREDITY TO CONSUMPTION.

The statistician of the Prudential Insurance Company in a paper read by him at the recent Conference on Tuberculosis affirms that the experience of that institution shows that consumption is not as surely heritable as was at one time believed. Indeed the more eminent members of the medical faculty regard the disease in a parent as a very unreliable test of the children's constitutional tendency in that direction. Innumerable cases are on record, and numerous ones are known to those who observe phenomena of this nature, of the children of a parent who died of consumption, being all robust, or even advanced to a great age. On the other hand victims of consumption have been and are found in families which have a clear record for generations of entire freedom from any form of tuberculosis or its allied diseases. In his paper, on this subject, Mr. Hoffman said:

"I cannot but think that even in our ordinary risks we receive a large number who are already in the earliest stage of the disease, largely because our present method of physical diagnosis is imperfect, and too much attention is given to inquiry into family records, which are at best of doubtful value. * * * I believe that less attention should be given to a family record of consumption and more attention to the physical condition of the applicant, and, other things equal, few if any should be rejected for the sole reason that a death from consumption has occurred in the family."

At the same time he thought the family history should not be ignored. What is inherited may not be a distinctive consumptive taint but such physical conditions and habits as tend to develop consumption, such as, morbidly sedentary habits that lead to the neglect of exercise and fresh air, and a preference of food that is unhealthy. He remarks:

"First in the order of importance, we must consider the absolute weight of those who died from tubercular and from non-tubercular diseases. It will be observed in both investigations, based on a large enough number of cases, that the weight of those who died from consumption was invariably less than the weight of those who died from other causes. The same holds true for the average degree of inspiration and expiration between non-consumptives and consumptives. It will be observed that according to our ordinary experience the difference in inspiration or expiration between non-consumptives and consumptives was fully one inch. But the more determining facts are brought out by an examination of the average weight relative to stature. This point has been very clearly expressed by Loomis, as quoted by Knopf, that 'weight, respiratory capacity and chest measurement have no value in establishing the possibilities of the development of phthisis in themselves but must be considered in relation to the height (and age, I should add) of the person, when they furnish important aids to diagnosis.' Of the ordinary risks terminating by death from tubercular diseases 73 per

cent. were below standard weight, but, as you will observe, this tendency to light weight increases with increasing stature, so that the percentage below standard is largest for those who were of stature 71 inches and higher. This, then, is a most important fact to be taken into consideration; namely, that of those most liable to tubercular diseases the most pronounced characteristic will be light weight in proportion to height, but that this will be especially true for tall persons of 71 inches in height and over."

The "Spectator" has an article by Mr. F. S. Crum in which appears the following table:

DECLINE IN GENERAL MORTALITY AND MORTALITY FROM CONSUMPTION COMPARED.—NEW YORK, CHICAGO, PHILADELPHIA.

YEARS.	TOTAL MORTALITY.		MORTALITY FROM CONSUMPTION.	
	Deaths.	Rate per 1000 Pop'l'n	Deaths.	Rate per 1000 Pop'l'n.
1871-75.....	273,495	26.2	35,593	3.41
1876-80.....	269,562	22.3	38,202	3.17
1881-85.....	346,151	24.3	45,568	3.20
1886-90.....	384,287	22.3	47,731	2.76
1891-95.....	464,039	24.1	49,094	2.55
1896-00.....	520,694	18.8	58,778	2.12
1871-85.....	889,208	24.2	119,363	3.25
1886-00.....	1,369,920	21.3	155,603	2.42

In another table is given consolidated statistics of consumption mortality in American States and cities for a period of thirty years. The data are drawn from the five States of Vermont, Massachusetts, Rhode Island, Connecticut and New Jersey, and from the ten cities of New York, Philadelphia, Chicago, St. Louis, District of Columbia, Baltimore, Richmond, Charleston, Atlanta and New Orleans.

2. MORTALITY FROM CONSUMPTION IN AMERICAN STATES AND CITIES, 1871-1900.

YEARS.	Population.	Deaths from Consumption	Rate per 10,000
1871-75.....	23,279,828	75,807	32.6
1876-80.....	30,963,554	94,338	30.5
1881-85.....	42,686,163	127,606	29.9
1886-90.....	48,795,735	129,200	26.5
1891-95.....	55,810,673	128,971	23.1
1896-00.....	60,164,114	124,015	20.6
1871-85.....	96,929,545	297,751	30.7
1886-00.....	164,770,522	382,186	23.2

The author of the valuable article in "The Spectator" remarks:

"It will be observed that there has been a constant decline in the consumption mortality rate from 32.6, per 10,000 of population during the first period, 1871-75, to 20.6 during 1896-1900. Dividing the thirty-year period in half, and comparing the first period with the second, there has been a reduction from 30.7 per 10,000 of population to 23.2, a decrease of 24.4 per cent. Comparing the first and last quin-