REPORT OF COMMITTEE ON MORE ACCURATE POPULATION ESTIMATES

Read before the Vital Statistics Section, American Public Health Association, at the Fiftieth Annual Meeting, New York City, November 17, 1921.

IN estimating populations in the intercensus years, it has been the custom of the Census Bureau to add on each year one-tenth of the increment of growth shown during the two previous federal enumerations. This method, known as the arithmetical estimate of growth, is generally satisfactory, but there are instances of unusual growth, due to industrial activity, where the arithmetical method introduces a large error. For instance, Detroit's death-rate, as taken from the mortality statistics for 1917, was 19.0. Actually the figure should have been 14.2. The census estimate of population in 1917 was 589,000. The figure determined by a local estimate was 825,000. As the census figures are regarded as official and are widely used, a grave injustice may thus be done to a city by the publication of erroneous mortality rates.

The committee, since its appointment at the San Francisco meeting, has been in correspondence with the census bureau relative to this matter. The following two propositions were made:

(1) That the Census Bureau on May 1 of each year notify the health commissioner of each city of 100,000 or over, and the health commissioner of each state, of the population it proposes to recognize on July 1, and that if any deviation from this is necessary, the health commissioner should submit facts tending to show what the population figure should be.

(2) That the Census Bureau give due consideration to the information submitted and make such alterations as they deem reasonable, so that the annual mortality statistics and the weekly health index may portray the populations and the mortality rates with the greatest accuracy possible.

These propositions were not accepted, but the geographer of the Census Bureau, Mr. C. S. Sloane, is willing to depart from the arithmetical method in certain instances and proposes the following method of checking populations:

From the total deaths certain causes (1, 4 to 10, 28 to 35, and 155 to 186) are deducted. Using the remaining causes for the last six months of 1919 and the first six months of 1920, and the enumerated population of January 1, 1920, a rate is computed. This rate (which is assumed to be constant) is applied to the remaining deaths of any year, after same causes have been deducted from the total deaths; this gives the new population. An estimate can be made arithmetically by using the above population and the latest census as a base, and then projecting forward for a year or so, but not more.

It is possible that this method will prove satisfactory. However, it will be noted that the deaths from pneumonia are not deducted, so that any calculations based on 1919 and 1920 figures will be in error, owing to the effect of the influenza epidemic. Due to the minor pneumonia disturbances that occur every few years, we question whether pneumonia should properly be included in the so-called static death list.

There still remains the case of the city or state which takes an accurate census of its own accord. Under the present plan this will not be recognized. A city-wide census, conducted by the board of education in May, 1921, shows 942,000 people in Detroit. The estimated population, as published in census reports, is 1,070,000. There is every reason to believe that this census is fully as accurate as the federal census and should be given recognition. Otherwise Detroit's mortality rates will now be too low, whereas prior to January, 1920, they were too high.

It is the recommendation of our committee that the Vital Statistics Section endorse the following resolution to be forwarded to the Bureau of the Census.

RESOLVED, That it is the sentiment of the Vital Statistics Section of the American Public Health Association that the Census Bureau, in making estimates of population in the intercensus years, shall give due consideration to local censuses and shall use the local figures in preference to the arithmetical method of determining annual increase if the local census is taken under the supervision of the Bureau of Census and if they are satisfied with the accuracy of the figures.

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THE HYGIENE OF CARDIAC CHILDREN

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Read before the Child Hygiene Section of the American Public Health Association, at the Fiftieth Annual Meeting, New York City, November 15, 1921.

CAN we lay down any rules of hygiene which are applicable in general to all children with heart disease? Before we can decide this it is necessary to consider briefly several aspects of the cardiac problem. By the studies made in the many cardiac classes established in New York and elsewhere in the last five or six years, we have learned a good deal about the systematic care of the cardiac patient. What I shall say is based upon about five and one-half years' experience in the Huddleston Memorial Cardiac Class at Bellevue Hospital and upon similar work at the Vanderbilt Clinic and elsewhere before this.

The problem is no small one. It concerns us all, for about 2 per cent of the population has some form of heart disease, according to surveys made in schools, industry and the army. Most of this is contracted in childhood, so the problem has largely to do with the child.

It has seemed to me that we can not lay down a régime for any cardiac child without keeping four main principles clearly before our minds.

First. An accurate diagnosis and classification must be made.

Second. The heart itself must be treated when this is necessary.

Third. The child's health and nutrition must never be forgotten.

Fourth. The portals of entry for infection must be removed as far as possible.

1. It is obvious that an accurate diagnosis and classification are necessary to treat any patient intelligently. It is especially important here, because there has been too much loose thinking concerning heart disease. All cardiac children do not need the same advice and care. In the past, more children have been needlessly restricted in their activity than have been harmed by overexertion, chiefly because the discovery of any murmur has been regarded as an equivalent of a sentence to a crippled life, and probably to a short one.

The diagnosis must be made by thorough history and examination. It must include:

An etiological diagnosis, or search for the cause.

An anatomical diagnosis as to the lesion of the valves and heart muscle.

A functional diagnosis, or decision as to the capacity for work of which the heart is capable.

The first of these must be decided largely by the history, which is by no means clear in a great many children. We must inquire most carefully for the diseases which cause endocardial involvement. Sore throats, infections of the