

THE CENSUS OF 1911.

BY MAJOR GREENWOOD, JUN.,
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THE seventh volume of the Census Report which has just been issued (Cd., 6610) supplies those vital statistics which are perhaps of most importance to the medical officer of health, *viz.*: the age distributions in administrative counties, urban and rural districts and registration counties and districts. On the present occasion much more detailed results are provided than ever before. Thus, for certain large aggregates, tables proceeding by single years of life are actually published, while similarly detailed figures for each administrative area have been recorded and will be furnished to local authorities or any person to whom the information is of interest. The 431 pages of tables are preceded by a general report, the work of the Registrar-General and Dr. Stevenson, and also by a report on the graduation of ages, due to Mr. George King. With respect to the latter report we may say that it will be specially valuable to those medical officers of health who are interested in the more refined methods of actuarial and statistical science, because the author explains the processes he has employed in such detail that a very moderate acquaintance with the elements of statistical mathematics will enable the reader to check each stage of the main calculation. Mr. King's remarks on the methods appropriate to the graduation of the earlier years of life are of importance. Many attempts to find a suitable mathematical formula having failed, he finally had resort to the graphic method described by Milne and employed by the latter in constructing the Carlisle table.

The difficulties of graduating the entire table by the use of a single mathematical formula may probably be regarded as quite insuperable. We have ourselves attempted to treat the problem with the aid of one of Professor Pearson's family of skew curves fitted by moments, but this process, although possibly applicable to the graduation of part of the experience, does not yield satisfactory results if the whole of the figures are simultaneously brought under consideration. The curve indicated by the momental constants is found to intersect the base line too soon.

The portion of the general report which will be read with the greatest interest is that which analyses the effect of the falling birth-rate upon the age constitution of our people.

This country is compared with France (1906 census), the German Empire, Sweden and Holland, the only foreign countries for which the age tabulation at the latest census was available. The result is that we have a larger proportion of young adults than any of the four countries illustrated and fewer children than any country but France. The age distribution in Scotland closely resembles that of England and Wales, while Ireland resembles France in having a small proportion of young children and many old persons. This comparison will be dealt with more fully in the general report, but it is material to remark that although the age distribution of this country is still extremely favourable to low death-rates it is becoming less so than in 1901. The fall in the birth-rate has now endured long enough to shift the maximum "heaping up" of the population further towards the age groups in which the rate of mortality increases. The result of the change is indicated by the fact that the recorded death-rate in 1911, 14.6 per 1,000, must be diminished to 14.3 to permit of fair comparison with 1901, the difference representing the effect of the change in age constitution.

In this connection it should be noticed that the first effect of a falling birth-rate is to increase the proportion living at the working ages of life and so to increase the relative efficiency, from the economic standpoint, of the nation. If the fall continues this relative advantage must be transformed into a disadvantage, and in our country the reversal is already beginning to operate. Thus the first effect of the changes which have occurred was to increase considerably the proportion living in the age group 20-25, which in the 1901 census was considerably higher than in 1881. In 1911 the proportion is slightly less than in 1881 (in terms of 1911 taken as 100, the proportions are 1881, 102; 1891, 104; 1901, 109; 1911, 100). Similarly in the next age group we are declining from the high-water mark of 1901 (the corresponding figures are 1881, 92; 1891, 95; 1901, 102; 1911, 100). As the authors of the report observe, "these fluctuations are not without importance in their bearing upon the probable future proportion in our population of workers at the most economically efficient ages, and especially upon the supply of recruits to the military services in future years."

It may well be that these silent arguments are destined to exert a more potent influence upon the course of social legislation than are the utterances of platform orators.

We have no space to describe the interesting classification of the different areas into groups exhibiting characteristic age distributions, but this section of the report will be of much value to those who desire to forecast the geographical distribution of our people. To those who have any taste for statistical inquiries such reports as this afford an almost inexhaustible source of instruction, and the authorities are to be congratulated on the manner in which they have presented their results.

CLEAN FOOD.—Much valuable work has been effected by health officials and others in attempting to obtain for the public throughout the country an ample supply of pure water. It may be that the urgency of this problem has to some extent overshadowed the importance of clean food. To look for safety in the ordinary methods of cooking may lead to disaster. In the first place, cooking is often insufficient to destroy micro-organisms; secondly, if the actual organisms be killed the poisons they have produced may still remain; thirdly, food may become infected after cooking has been carried out, moreover some articles of diet are eaten uncooked. Precautions are being taken, and quite rightly, to prevent the spread of consumption, but nothing has been done to meet the case of the consumptive who takes part in the preparation or sale of food. The subject of clean food is a difficult one, but of considerable importance, particularly as regards the health of the infant population. In order to deal effectually with the matter, action on the following lines would seem necessary:—

- (1) A standard of cleanliness for milk, ice cream, and other articles very liable to contamination;
- (2) medical examination of those engaged in the preparation and sale of food;
- (3) frequent and thorough inspection of "food premises";
- (4) regulations as to the precautions to be taken when exposing food for sale;
- (5) the erection of public abattoirs, and compulsory abolition of private slaughter-houses;
- (6) the provision of suitable storage accommodation for food in every dwelling.

—*Joseph Cates, M.D., D.P.H., Annual Report, Medical Officer of Health, Lancaster.*

THE BAKER'S HAND.—An order has just been issued by the Toronto Government on the suggestion of Dr. Hastings, its medical officer of health, that all men who deliver bread and other articles from bakehouses must wear white cotton or linen gloves, or, failing that, must use plated tongs, unless the bread and other products are wrapped in clean tissue paper. Dr. Hastings declares that "the human hand is a common source of the spreading of the germs of communicable disease."

"THE PROGRESS OF SANITARY SCIENCE AND ANOMALIES OF THE PRESENT SANITARY SERVICE."*

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THE medical officer of health is appointed by a local council or group of councils, and performs duties which are laid down by the Local Government Board.

The manner in which these duties are performed depends to some extent upon the individual medical officer of health and to a large extent upon the council by which he is appointed.

As regards the fulfilment of their obligations by councils, the county councils and county boroughs—and, to a certain extent, the large urban districts—are as a rule composed of a class of men who carry out these duties in a conscientious spirit, and pay an adequate salary to a medical officer of health, who is thus able to discharge his duties efficiently and in a contented spirit.

The rural district councils and small urban district councils, in the majority of instances, pay a totally inadequate salary to a medical officer of health, who is in most instances also engaged in private practice, the main desire of the council being that he will not advocate many schemes which will increase the rates, while the medical officer of health, who in most cases has had no public health training and who considers his salary totally inadequate, is only too willing to acquiesce in this state of affairs.

Even should he be qualified to administer public health by previous training he is absolutely unable to carry out his duties in most instances owing to lack of remuneration.

These remarks apply to the smaller rural districts.

In the larger rural districts a more reasonable salary is given, and the medical officer of health, who is generally debarred from engaging in private practice, carries out his duties efficiently and has the chagrin of seeing the majority of his recommendations shelved by a council who take no interest in sanitary matters.

This is no uncommon state of affairs in large rural districts. Other large rural districts, though they are in the minority, pay a reasonable salary to a medical officer of health who carries out his duties efficiently and conscientiously,

* Presidential Address to the Southern Branch of the Society of Medical Officers of Health, Ryde, June 6th, 1913.