

# CONFERENCE OF MEDICAL OFFICERS OF HEALTH.

## ADDRESS

BY

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THE census returns of 1891 show some remarkable results. The population of England and Wales, as estimated to April, 1891, amounted to 29,704,068, while, as enumerated, the actual numbers were 29,001,018, a difference of 703,350 persons.

The decennial rate of increase was 11·65 per cent., against 14·36 in the previous decade, and it was lower than in any previous intercensal period.

The natural increase of population amounted to only 3,630,761, whereas it would have been 3,919,543 had the increase been in the same proportion as it was in the preceding decennium. This was due to a steady fall in the birth-rate which has been going on continuously since 1876, when it was at its maximum. It was lower in 1890 than in any year during the last half-century, and it was 5·8 per 1,000 less than in 1876. This decline cannot be accounted for by a decrease in the marriage rate, and it will probably be found that in a considerable section of the population large families are not so often met with as in former periods. It is a fact well worthy of notice that whereas the death-rate for 1881-90 was lower than in any previous decennium, yet the diminution in the birth-rate was much greater, so that the loss in numbers due to the falling off in the births amounted to 288,782.

A second cause of the decline was due to an increase in the number of emigrants over immigrants. Had the balance of emigrants been in the same proportion in the last as in the previous decade the decrease would have been only 189,614, whereas it actually amounted to 604,182, or an access of 414,568. These two deficiencies account for the error of 703,350 in the estimated as compared with the enumerated population. Of the emigrants 410,648 were males and 193,534 were females; and although the ages of these people cannot yet be given, there can be little doubt that they include a large number of young adults at the active and productive period of life. The excess of males over females who leave the country

causes a large increase in the proportion of females to males at home; this increase has steadily gone on since 1851, and now there are 106·4 females to every 100 males.

There are in this country 900,000 more females than males, a fact of much importance when the competition for existence is so keen.

This excess of females is confined to urban districts; in rural districts the males are slightly in excess of the females, while in the urban districts there is an immense difference.

The erroneous estimates of population affect urban much more than rural districts. The twenty-eight large towns with a population of 9,405,108 had an estimated excess of 605,318; while in the rest of the country, with a population of 19,595,910, the estimated excess was only 98,032.

The estimates of the population are based upon the hypothesis that the rate of increase prevailing during the period 1871-80 had been maintained during the last decade. This method is untrustworthy, for in the case of the twenty-eight large towns the rate has varied from 28·3 per cent. to 11·2 per cent. during the last ninety years; and since the estimates have been wrong, it follows that the recorded birth-rates and death-rates have in most cases been given in error. In London the population was over-estimated by 271,255 persons; in Liverpool, by 103,327; in Salford, by 52,307; and in Nottingham, by 39,555. On the other hand, Newcastle was under-estimated by 22,486, and Portsmouth, by 15,457.

In the first or second year after a census the error is not great, but it increases rapidly towards the end of the decade; and during the last five years of an intercensal period the estimates for large towns are in most cases very misleading.

Mr. Noel Humphreys has shown that in Liverpool, on the old estimates, the death-rate had declined from 26·7 in 1881 to 23·6 in 1890, whereas the actual figures show it had risen from 26·8 to 27·8; in Salford the error was still greater; on the old estimates the death-rate was 22·6 in 1881, and 22·4 in 1890, whereas the actual figures show that it had risen from 22·7 to 27·6 per 1,000.

These are the most extreme examples, but it is very important for us to consider what can be done to prevent such errors in future. It is useless to prepare annual reports and to spend much time and labour in working out birth-rates and death-rates when the estimates on which we rely are so misleading.

We talk of lives saved when we really mean deaths postponed.

A low death-rate is not the only thing for which we should strive. A high wage-rate is just as important as a low death-rate.

In rural districts the population increases very slowly, and in

many counties it shows a decline. There is the same exodus towards the large towns as there was when Arthur Young wrote his surveys, and when Cobbett bewailed the growth of the Great Wen. The figures for each parish are not yet published, and there seems to be no reason for the delay. In 1881 the results were known a few weeks after the census was taken, but last year an instruction was given that no information should be granted to the public by those engaged in the census taking.

In rural districts the superintendent-registrar is very often the clerk to the sanitary authority, so that the medical officer may be giving his authority for erroneous birth-rates and death-rates for his district, while the clerk has in his pocket the correct figures, which he cannot disclose. There seems to be no good reason for this secrecy, for the corrected returns differ very slightly from the results sent in by the registrars, and as the public pay for the census-taking, they ought to know the main facts as soon as possible. If every superintendent-registrar sent in to each sanitary authority the summarised results for each parish at the same time that they were sent in to the census office the chief facts would be known within a month instead of having to wait for a period of two years. Any corrections hereafter to be made would hardly affect the birth-rates or death-rates.

The general public believe in a low death-rate as a sign of a healthy district, but this belief will be shaken unless more nearly correct information can be given. The errors at the next census-taking may be greater than those recently recorded, because emigration appears to be on the increase, and the returns on this subject are very imperfect. If young adults leave the rural districts for large towns or for other countries, there must be an accumulation of older people in our villages, and this raises the death-rate, while it is made slightly higher by the presence of so many males in the population. The age and sex distribution of a rural district may raise the death-rate 2 per 1,000, as compared with a standard population.

On the other hand the excessive proportion of females in large towns and the smaller proportion of aged persons tends to lower the death-rate, so that as compared with a standard population a recorded urban death-rate may be 3 per 1,000 below the corrected death-rate.

No one can view with satisfaction the results of the last census. We can speak of a lowered death-rate, but a declining birth-rate has had the effect of more than neutralising any increase in numbers from that cause. The increasing numbers of the young and active who emigrate, the excessive proportion

of females in our large towns, and the admission of pauper aliens are not elements which add to our prosperity.

The care which is taken of the idiot, the pauper, the lunatic, and the criminal may do credit to our humanity, but it does not add to the strength of a nation. To a great extent we are cultivating the weeds in our garden. In the great social questions which lie before us these facts must be taken into account.

It has often been urged that a quinquennial census should be taken, and this is now done in France and Germany, and in some of our colonies. There is a great need of a simple population enumeration every five years, which will give the correct numbers of males and females in each sanitary district, and the ages at which they live. The results should be published as early as possible after the census taking, while every ten years, as at present, more elaborate results could be obtained, which would be useful for actuarial purposes.

The returns of emigration and immigration should be more accurately given, and the age and sex of each person should be recorded.

There should be a statistical department established at the Local Government Board, so that men trained to the use of statistics may each year give nearer estimates of the growth or the decline of towns and country districts than we can at present obtain.

This Conference might aid in pressing upon the Government these much needed reforms.

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*On "Isolation Hospitals,"* by J. GROVES, M.D.

ANY person who is able to look back a quarter of a century to a time when he was intelligently observant, can scarcely fail to note, when he compares the present with the past, that a great change in public opinion has taken place, and is still going on, with reference to the views held as to what may be described as the relation of the individual to the community, and more particularly as regards matters appertaining to the interests of the public health. Sometime since, I was walking down Parliament Street, and observing a structure in the middle of the roadway not far from the offices of the Local Government Board, curiosity prompted me to ascertain its object. Descending a flight of steps from the road-level I found myself in a spacious apartment lined with white glazed tiles, and having a tessellated pavement, on one side of which was a row of water closets, on the other side a row of white enamelled earthenware urinals, and at the end a lavatory with marble fittings. There was absolutely no smell, and the apartment was such a one as