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Local Death Rates

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MISCELLANEA.

Local Death Rates.

WOULD it not be worth while for an evolutionist statistician to give some attention to the mass of material accumulated in the Decennial Supplements to the reports of the Registrar-General for England and Wales? These contain for each intercensal decade (1851—60, 1861—70, etc.) a series of tables giving the deaths from different causes and at successive age-groups for each of the 632 Registration Districts in England and Wales. The mean population during the decade at each age-group is also tabulated, so that the rates can be easily worked out. The correlations of death rates at different ages would, for instance, form a very interesting study. Thus the question suggests itself, e.g. are the childhood and adult death rates for different districts always positively correlated—i.e. should we in general expect to find a high adult rate where there is a high mortality in infancy and childhood? Very little inspection will show that the general death rates are thus positively correlated, but it is at least open to question whether death rates from specific causes are so; I would instance the death rates from diseases of the nervous system. Should death rates from some causes show a much lower correlation than others, the question would arise whether the reductions might be due to the selectivity of the death rate; were the death rate highly selective, a high infantile or childhood mortality might lead to a reduced adult mortality and so to an actually negative correlation. It is doubtful however whether this would really occur: high death rates are in general due to bad local conditions of one sort or another, and it must be remembered that any selectivity of the death rate acting on the young may be counterbalanced by a corresponding weakening of the survivors due to these very conditions. It must also be borne in mind that death rates have changed with great rapidity in many parts of England, and that the adults now existing are the survivors of a much severer childhood mortality than the present. Unless, moreover, a careful selection be made and the rapidly growing urban districts taken by themselves, the influence of migration may make itself felt. From the point of view of selection many difficulties might be avoided if a group of districts with little migration could be formed, and the *change* in childhood death rate between the two decades, say 1851—60, 1861—70, for each district compared with the *change* (in the corresponding age-groups) of adult death rate between 1871—80 and 1881—90. Were the childhood death rate markedly selective one would expect the districts exhibiting the greatest decreases of childhood death rate in the earlier period, to exhibit the smallest decreases of adult death rate in the later—i.e. the changes would be negatively correlated. Any investigation would certainly present great difficulties as to interpretation of results, but it would seem worth undertaking.

G. U. YULE.