



Thomas Henry Craig Stevenson

M. G.

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to sterilization, whilst several new schemes were initiated in other directions, including a study of the so-called social problem group. He was a member of the International Federation of Eugenical Organizations, attending several of their meetings abroad, and a paper by him was read at the International Congress of Eugenics of 1932 at New York. His health had been failing for some months, and towards the end this constituted a constant handicap; but he never shirked his duties, though doubtless the difficulties which he had to overcome tried him far more seriously. Putting aside this short period of his life, there are very few men whose name will so certainly recall happy pictures to the mind, whilst the widespread sorrow at his death testifies to the solid worth of his qualities.

THOMAS HENRY CRAIG STEVENSON

THOMAS HENRY CRAIG STEVENSON was born at Strabane, County Tyrone, in 1870, and received his scientific education at University College, London. He obtained the diplomas of M.R.C.S., L.R.C.P., in 1896, and graduated M.B. in the University of London. After graduating he set up in general practice, but his interests were soon directed to the public health field. While in practice he read for the public health diploma and his M.D.—which he decided to take in the branch of State medicine. One of his examiners was Sir Arthur Newsholme, and the contact of examiner and examinee was the first in a friendship destined powerfully to affect the course of statistical history. Stevenson received an appointment under Newsholme in the Brighton Public Health Department, and the older man's enthusiasm for statistical analysis was communicated to his assistant. From Brighton, after a short period under the County Medical Officer of Essex, the late Dr. Thresh, Stevenson entered the School Medical Service of the London County Council and from that service passed into that of the Somersetshire County Council, whose school medical officer he became. In 1909 Stevenson was appointed Superintendent of Statistics in the General Register Office, in succession to the late Dr. John Tatham, who was the second in succession to William Farr. From that time Stevenson's life was that of a statistician in the strict sense of the word; but it is material to notice that *before* specializing, he had acquired practical experience of (a) the general practice of medicine, surgery and midwifery, (b) the ordinary work of a large public health department, (c) the work of a school medical officer.

Stevenson's three predecessors were distinguished in various ways. Farr was—Farr! and there is no more to be said. Ogle was a physician and an exact scholar, Tatham an experienced medical

officer of health. Stevenson had less knowledge of general medicine and history than Ogle, less experience of public health administration than Tatham and less originality and versatility than Farr, but his whole stock of knowledge was more complete than that of any of his predecessors. No medical reader of the reports issued from the General Register Office in Stevenson's time can fail to perceive that they are the work of a man to whom statistical analysis is not an end but a means, and a means of discovering preventable evils. Stevenson did not try to attract attention to his discoveries by the use of picturesque rhetoric or quaint illustrations in Farr's way, but his persistence is, to the constant reader, quite as impressive. In the first of the series of newly modelled reports (beginning in 1911) for which he was responsible, one finds an analysis of mortality from pneumonia by age, sex and area, showing that mortality in the North compares badly with that of other parts, and the comment: "Evidently pneumonia is to a large extent a preventable disease, and the North of England has still much to learn with regard to its prevention." In the report of the following year this is repeated, and again in 1913 with the grim addition: "It is a striking fact that all these statements as to relative mortality, copied verbatim from the Report for 1912, apply equally to the year 1913." In 1914, this addition includes the years 1912, 1913, 1914. The same *motif* inspired the increasing elaboration of the analysis of mortality in the first year of life, which characterized his regime. In 1911 mortality in the first year of life was examined in five sub-divisions—deaths under 1 month, 1-3 months, 3-6 months, 6-9 months, 9-12 months. By 1928 Stevenson had secured publication of a detailed analysis of the causes of death in the first 30 minutes of life, and his comments on the data are hardly less vivid than Farr's would have been. "The conclusion seems inevitable that many of these early deaths have been deliberately brought about, and this impression is greatly strengthened by their special incidence on the illegitimate and on the female sex, and by the very significant causal distribution of this excess." . . . "It would appear that, amongst the 'unwanted' illegitimate, females are even more unwanted than males." . . . "One of the most sinister features of this comparison is pictured in Diagram I, which shows that on the first day of life the excess mortality of the illegitimate of each sex is not only, as shown above, especially high, but is rapidly increasing, owing to rise in the rate for the illegitimate coincident with steady slight fall in that for the legitimate."

A desire to tabulate the statistical data in such a way as to bring to light correlation (in the general sense of the word) between variations of mortality and variations of economic or social environ-

ment informed the whole of Stevenson's official work and is as prominent in a paper read to the Society in 1910 as in his latest contribution to our proceedings, his paper of 1928.

Not the least of his services to medical statistics was his gallant and successful effort to maintain and improve the occupational as distinct from the industrial element of classification in the decennial analyses and census returns. In his 1928 paper, Stevenson wrote: "Our so-called occupational classifications in use at previous censuses were really in large measure industrial, being based not entirely upon the nature of the work performed by the individual, but in many cases upon the nature of the employer's business. Thus we distinguished carpenters and clerks—occupational groups from which social position and degree of wealth can be broadly inferred—but we also distinguished as occupations the manufacture of many articles such as motor-cars and bedsteads. So-called 'occupations' of this nature indicate neither the nature of the work performed nor the social position of the worker, as such groups include both large employers and the humblest members of their staffs. The British Census of 1921 avoided such confusion by providing separate tabulations by occupation and by industry, and it is the use of the former which is advocated as a means of social grading."

Few of the readers of that passage know that acceptance of the occupational point of view was not secured without a struggle; it is the *medical* statistician to whom that point of view is of importance, and medical statisticians are not numerous or influential. Medical statisticians were anxious to investigate the putative effect of working conditions and processes upon health, and, of course, from that point of view, whether a painter is employed by a builder and decorator or in a motor-car manufactory is unimportant; from the industrial point of view it is important. That does not mean that an industrial classification may not be of value for statistical purposes, and sometimes, I think, Stevenson carried less than his proper weight in committees owing to a difficulty in seeing a problem from the other man's point of view. To the fact that he had his way in the occupational dispute we may attribute the practically uncontested superiority of our means of assessing the effect of occupation upon mortality over those of most other countries. But there have been times when a certain dourness exaggerated by shyness hampered his success in obtaining improvements or resisting changes not for the better. He had a powerful but not a flexible intellect.

Stevenson's largest single enquiry was his analysis of the data on fertility of marriage which is printed in Vol. XIII (Pt. II) of the Report on the Census of 1911. A report issued twelve years later than the Census and in a new era of fertility—or infertility—inevitably

attracted less attention than its intrinsic merits deserved. Stevenson's methods of analysis were conservative; he did not himself make any use of the calculus of correlation or other "mathematical" methods, but relied on the old plan of detailed tabulation and description, using, however, methods of standardization which Newsholme and he had first introduced to the notice of vital statisticians, viz., the application to statistics of fertility of the method used in connection with rates of mortality by Ogle.

Although, as Dr. Snow pointed out eighteen years ago,* data obtained from surviving parents cannot provide a complete account of changes in national fertility, since there may be a negative correlation between low fertility and the probability of surviving, so that data obtained from survivors may over-estimate the average fertility of a previous generation, the value of the analysis is great. It is doubtful whether any statistician of our time will have the opportunity of handling so large a mass of information, and certain that if anybody does he will profit from Stevenson's work.

This, if Stevenson's greatest statistical work, was hardly the most generally interesting. Probably his investigation of the causes of mortality in the first year of life, to which I have already alluded, and his studies of mortality from cancer are more attractive. Stevenson first demonstrated on an adequate body of data, the influence of marital condition on mortality from cancer of the female sexual organs, that married women died at a higher rate from cancer of the uterus and at a lower rate from cancer of the breast than unmarried women. He also brought to notice the correlation of mortality from cancer of certain sites and economic status, so proving the opinion that cancer, unlike tuberculosis, was not a *morbus pauperum*, to be rather less than a half-truth.

Stevenson was a hard worker and, like some other men of his generation, overtaxed his strength in the war years. Some of his best work was indeed done after the war, and the quality of his annual commentaries on the official data showed no deterioration; but he was older than his years and appreciated the fact. It was hoped that release from official duties might enable him to recuperate. *Dis aliter visum*. He retired on August the 8th, 1931, and died on the 12th of September, 1932. To those who took an active part in the work of the Society he was a familiar figure and a valued friend, having in common with another great statistician whose death we recently lamented, H. E. Soper, a diffidence which made it hard for him to realize how highly his colleagues respected his abilities. He was created C.B.E. in 1919 and the Society conferred on him its greatest distinction, the Guy Medal in gold, in 1920. In 1931 the

* *J.R.S.S.*, Vol. LXXVII, 1914, p. 313.

Royal Society of Medicine conferred on him the Jenner Medal, and a few weeks before he died the Royal College of Physicians awarded him the Bisset Hawkins medal. There are still a few fellows of the Society who may have seen and heard William Farr, but none who can have known him in his prime. We have had the privilege of knowing well that successor of Farr who came nearest to Farr's ideal, and perhaps some of us may be listened to with interest by our grandchildren because we can say that we knew Stevenson. If not, the future of medical statistics is gloomy. M. G.

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