DESEGREGATING HEALTH STATISTICS: WHAT SHOULD BE DONE?

In a special article in the *South African Medical Journal*, Ellison *et al.* have contended that inter-ethnic segregation of health statistics should be abandoned. They maintain that such data are rarely useful and often damaging. They imply that when social factors are taken into consideration, the differences in morbidity/mortality largely, if not wholly, fall away. The belief that racial differences may share aetiological responsibility was considered by them to be ‘discredited’.

The opinions expressed are in disagreement with practices and findings elsewhere. In the USA, in *Morbidity and Mortality Weekly Reports*, data on various health indicators of Blacks and Whites are regularly published, and occasionally data are supplied for Hispanics, American Indians, Eskimos, Inuits and Pacific Islanders. This practice is followed nationally, regionally and in city health departments. For example, in the 1990 *Summary of Vital Statistics* of New York, Table 25, entitled ‘Live-births by selected characteristics and mother’s ancestry’, contained 20 subdivisions. From a recent analysis of the vital statistics of that city, it was concluded ‘that neither biologic nor social-class explanations suffice to explain disparities in health, but that race, culture, poverty, and environment are interactive’. The authors emphasized that ‘the opportunity to address these heterogeneous profiles of risk with programs should be tailored to meet the health needs of specific communities’. A similar attitude prevails in the UK. As an example, in a study on gonorrhoeal infection, it was found that 30% of those infected were Black people who make up only 1.6% of the country’s population. In this context, it was considered important to know the characteristics, including the ethnic group, of those most affected by infectious diseases, ‘in order to target local resources appropriately’.

Populations differ greatly in their reactions to risk factors. The situation in a number of developing populations is particularly complex. In many African countries, considerable changes in health and disease linked with transition have occurred, especially among urban dwellers. Among rural Africans a generation or two ago, neither weight nor blood pressure rose with age; moreover, diabetes was absent. Nowadays, in urban areas, obesity in the case of Black women, and hypertension and diabetes in both sexes, have reached higher prevalence rates than those in the White population. In contrast, coronary heart disease (CHD) has risen only slightly. In Soweto (3–4 million Africans), the disease still accounts for less than 1% of deaths, compared with 4%–6% in the case of Mediterranean populations, and 20%–25% in certain western populations. The diet of urban Africans has become westernized, with fat now supplying close to 30% of energy. Serum cholesterol levels have risen from a mean of 4 mmol/L or less to 5 mmol/L. Smoking is more common in Black men than in White men. Physical activity has decreased. Yet, despite these promotive factors, CHD remains very uncommon, as it does in all indigenous populations in the African continent. At the extreme is colonic cancer; it is absent in rural areas, and has an extremely low incidence in urban centres.

These changes in disease patterns cannot be explained on the basis of changes in known environmental risk factors.

In India, too, there are puzzling situations. The commonality of sweetness of urine and anginal pain, were observed by the great ancient physicians Charaka and Sushruta, more than two millennia ago. At present, it is well known that migrant Indians, be it in South Africa or UK, who have prospered, have a higher propensity to develop diabetes and CHD, exceeding the rates prevalent in Indians in India. In London, numerous studies have demonstrated that this increase remains conspicuous even after adjusting for social conditions. The disparity is regarded as ‘unexplained’. Interestingly, in a study of South Indians in India, there was a high risk of CHD, when judged from answers to the Rose questionnaire and abnormal ECG tracings. Yet the occurrence of the disease was much lower than expected. The conclusion reached was that the tests mentioned have limited reliability in an Indian setting.

These and so many other pieces of information underline how limited is our knowledge of the forces of nature and nurture which decide who suffers from which disease. Knowledge of the risk factors of chronic lifestyle diseases is far less than most appreciate. Thus, risk factors for the greatest of ‘killers’, CHD, explain only about half the variance in the occurrence of the disease. The same applies to many cancers including breast cancer. Regarding dental caries, the most ubiquitous of diseases, sugar intake (totally contrary to the popular view) explains only one-tenth or so of the variance. Thus, in most situations we are dealing with the likelihood of a particular factor being in operation, rather than of proof of involvement. A further problem is that even with the same set of evidence, both individuals and authoritative bodies can reach diametrically opposite interpretations, for example the role of sodium chloride in hypertension.

Clearly, the situations described are far removed from the key-in-lock relationships which prevail with the classical deficiency diseases—vitamin C and scurvy, vitamin D and rickets, and iodine and goitre. Certainly, there has been an eagerness to invoke the operation of a racial or ethnic factor. Yet, there is little doubt that in many diseases, such a factor is influential. The challenge is thus to seek to elucidate all the factors, non-environmental and environmental, protective and causative, which may have a bearing on the occurrence of ‘killer diseases’. However, lack of such information will not hinder treatment efforts. For whether the components of nature be listed as racial, ethnic or genetic, these are of little consequence in how best to detect and treat individuals or populations in need of specific public health interventions.

Despite the often strong condemnation of the segregation of health statistics which have been made in South Africa and elsewhere, their effective replacement by an alternative approach has yet to be advanced. Any change from present practices would require clear-cut demonstration that sub-division of a nation into say, socio-economic strata rather than ethnic groups, would afford a better means of focusing upon, and of combating, the various ailments to which reference has been made. Thus far, no attempt, in this respect has been made.

REFERENCES


Kerala has been the first major state of India to successfully complete the demographic transition from high mortality and fertility levels to those comparable to the developed nations. This achievement has attracted worldwide attention; and researchers, policy analysts and others have been exploring and analysing the factors which could explain this feat. Kerala was considered a role model for the rest of India for attaining demographic transition until it was pointed out that the high level of education attained by women in Kerala played an important role in it. The rest of the country is nowhere near that level of literacy and is unlikely to attain it in the next 30 or 40 years.

All the same, it is important to document Kerala’s transition to low mortality and fertility, its determinants and the consequences in one volume for students of demography, policy analysts and Kerala watchers. Zachariah and Irudaya Rajan, both well known demographers of India, have successfully accomplished this task. The volume is a scholarly work which presents the demographic history of Kerala since Independence with the help of more than 100 statistical tables. The volume is divided into four sections which deal with population trends, the determinants of population growth and change, consequences of changing population and migration. The authors of the 16 chapters are experts, most of whom work in Kerala and have written extensively on Kerala’s subcontinent living in West London and their siblings in India. The highlight of the chapter by Zachariah is the effort to determine how relevant Kerala’s experience is for the other states of India.

The highlight of the chapter by Zachariah is the effort to determine how relevant Kerala’s experience is for the other states of India. While accepting the fact that Kerala’s demographic transition is due as much to historical factors which cannot be repeated elsewhere, as to recent policy interventions, he outlines a few lessons for other states. He argues that a government-sponsored family planning programme through efficient delivery of services, can contribute to decline in fertility rate. He also argues that the sequencing of policies which affect the determinants of fertility is as important as the policies themselves. In areas with high infant mortality rate and low female literacy, education and improvement of health, through a well-executed maternal and child health programme should receive high priority. These measures would, on their own, create additional demand for fertility control. In addition, increase in age at marriage and redistribution policies such as minimum wages, land ceiling and better working conditions have also helped in creating a desire for smaller families in Kerala and may do so in other parts of the country.

P. S. Nair presents the estimates of fertility, mortality and use of family planning in Kerala on the basis of data from the NFHS, conducted in 1992–93, and Irudaya Rajan, Bhat and Dyson present evidence on the onset of mortality and fertility decline from the records of six parishes of the Archdiocese of Thrissur. The baptism records, maintained since the 1890s and the burial and nuptial registers, available since the 1920s are used to calculate time-series of birth–death ratios and birth–marriage ratios which have been compared to the ratios calculated from the records of four parishes in Mumbai. The ratios indicate that onset of mortality transition in Kerala began before 1920.