



Desegregating health statistics and health research in South Africa

To the Editor: In their Special Article on this topic, Ellison *et al.*¹ conclude, *inter alia*, that 'under most circumstances, the use of these categories [race, ethnicity, population groups] does more harm than good'. While not precluding projects on 'clearly defined groups of people', the authors suspect that there will be very few circumstances in which advantages in this respect can be demonstrated satisfactorily.

We wholly support the concern of the authors¹ where level of treatment is prejudiced by 'category'. Recently, in the USA, an investigation was made of the effect of race and income on mortality and the use of services among Medicare beneficiaries. Both race and income were revealed as having substantial prejudicial effects, that of race being much more pronounced than that of income.²

However, we disagree with the recommendation to remove the categories cited.

First, the authors¹ must know that Central Statistical Services has already excluded ethnic sub-divisions in its mortality statistics reports. The annual reports of the public health departments of our big cities have followed suit, and their data are no longer meaningfully citable in research publications. As an example, one of us (A W and associated workers) recently reviewed changes in total death rate and in coronary heart disease (CHD) death rate in South African populations.³ It transpired that from 1978 to 1989, the CHD mortality rate for the white population had fallen by 56%, and the rates for the Indian and coloured populations each by 36%. Since changes in mortality rates from this foremost 'killer' are continuing, the intention was to update the information. But this is no longer possible, and further advancement of knowledge in this respect is not feasible.

It would surely be disadvantageous to remove sub-divisions of populations as listed in the National Cancer Registry.⁴ How, for example, could assessments of benefits from Pap smears be made, particularly in the black and coloured populations, in whom the incidences of cervical cancer are among the highest in the world?⁵

As regards present practices in other countries, in the USA, in the *Morbidity and Mortality Weekly Reports*, data on numerous health/ill-health parameters of blacks and whites are regularly given;⁶ occasionally, data are supplied for Hispanics, American Indians, Eskimos, Inuits, Pacific Islanders, etc. As an example of data given by city health departments, in the 1990 *Summary of Vital Statistics* of New York, Table 25, entitled 'Live births by selected characteristics and mother's ancestry', contained 20 sub-divisions.⁷ In a recent review on health statistics in populations bordering the Western Pacific Ocean, inter-ethnic data were given where applicable.⁸ Such data are obviously regarded as very valuable.

Ellison *et al.*¹ believe that racial differences generally play little or no role in advancing the understanding of their epidemiology. Yet in the August issue of the *Journal of Pediatrics*⁹ emphasis is laid on 'the importance of determining racial differences in cardiovascular risk factors in childhood'. 'Understanding biologic differences is important in epidemiological studies because differences give clues to differing mechanisms that may be in operation

... Black persons have a much greater prevalence of hypertension and hypertensive cardiovascular renal disease. Further, black women die at a younger age and have a 22% higher risk of having coronary artery disease than their white counterparts ... Black children are less tolerant of our high dietary sodium intake and relatively low potassium intake. Racial differences in carbohydrate and insulin metabolism also likely influence the complex relationship of metabolic factors to increased peripheral resistance and enhanced cardiovascular renal disease in black persons.'

Numerous additional examples can be given of differences in reactivity. In South Africa, urban blacks, still far poorer than whites, have already outstripped whites in prevalences of obesity in women, hypertension and diabetes.

Briewe

Letters to the Editor

Additionally, in big cities in the USA, black men have twice the incidence of prostate cancer compared with white men; moreover, this disease occurs a decade earlier.⁹ Indians in the UK have a far higher mortality rate from CHD than Indians in India.¹⁰

In South Africa, more so than in any other country, we have the widest divergence extant in the occurrence of a variety of diseases in our constituent populations — CHD, appendicitis, colon cancer, hip fractures. If epidemiological information on vital statistics and prevalences of diseases is to become available only for the total population, then, apart from severely stultifying research on disease occurrence and its combating, it will diffuse the identity and magnitude of the very targets who are in most need of help.

A R P Walker

Human Biochemistry Research Unit
Department of Tropical Diseases
School of Pathology
University of the Witwatersrand and
South African Institute for Medical Research
Johannesburg

F Sitas

National Cancer Registry
South African Institute for Medical Research
Johannesburg

P E Cleaton-Jones

Dental Research Institute of the Medical Research Council and
University of the Witwatersrand
Johannesburg

H H Vorster

Department of Nutrition and Family Ecology
Potchefstroom University for CHE
Potchefstroom, North-West

D E Whittaker

Department of Medicine
University of Cape Town

1. Ellison GTH, De Wet T, Ijsselmuiden CB, Richter LM. Desegregating health statistics and health research in South Africa (Special Article). *S Afr Med J* 1996; **86**: 1257-1262.
2. Gornick ME, Eggers PW, Reilly TW, et al. Effects of race and income on mortality and use of services among Medicare beneficiaries. *N Engl J Med* 1996; **335**: 791-799.
3. Walker ARP, Adam A, Kustner HGV. Changes in total death rate and ischaemic heart disease death rate in interethnic South African populations, 1978-1989. *S Afr Med J* 1993; **83**: 602-605.
4. Sitas F, Terblanche M, Madhoo J. *Cancer in South Africa, 1990 & 1991*. Johannesburg: South African Institute for Medical Research, 1996.
5. Whelan SL, Parkin DM, Masuyer E. *Patterns of Cancer in Five Continents* (World Health Organization, IARC Scientific Publication No. 102). Lyon: International Agency for Research on Cancer, 1992.
6. Anonymous. Mortality patterns — United States, 1993. *MMWR* 1996; **45**: 161-163.
7. City of New York. *Summary of Vital Statistics, 1990*. New York: Office of Vital Statistics, New York City Department of Health, 1990.
8. Cavalli-Storza LT, Rosman A, de Boer AS, Darnton-Hill I. Nutritional aspects of changes in disease patterns in the Western Pacific Region. *Bull World Health Organ* 1996; **74**(3): 307-318.
9. Urbina EM, Berenson GS. Importance of determining racial differences in cardiovascular risk factors in childhood. *J Pediatr* 1996; **129**: 191-192.
10. Bhatnagar D, Anand JS, Durrington PN, et al. Coronary risk factors in people from the Indian subcontinent living in West London and their siblings in India. *Lancet* 1995; **345**: 405-409.

Dr Ellison et al. reply: We understand the angst that Walker *et al.* express at the loss of 'racial' categories in health research. How else are we to describe the distribution and changing pattern of disease in such a diverse community as South Africa? Can we really understand the complexities of aetiology without examining differences in health between different 'racial' groups?

We do not deny that 'racial' categories represent proxy measures of biological and social criteria, but we have argued that these categories are rarely useful, and often damaging.¹ From a purely epidemiological point of view, studies that use 'racial' categories simply to describe the distribution of different diseases, provide little insight into the underlying cause(s) of each disease. Instead, they reinforce the discredited idea that inherent 'racial' differences are somehow responsible. In many societies, 'racial' categories provide a proxy of relative disadvantage, because social and political forces used 'racial' categories to influence access to resources (such as education, employment, wealth and health care) and thereby created 'racial' differences in socio-economic status. Only when researchers can demonstrate that 'racial' differences in disease are independent of differences in relative disadvantage, can they speculate that inherent 'racial' factors are potentially responsible. Even then, residual 'racial' differences do not provide unequivocal proof that inherent biological or behavioural factors are to blame, because 'racial' discrimination continues to create differential access to health and health care irrespective of socio-economic status.²

For this reason Walker *et al.*'s³ use of 'racial' categories, to describe the changes in ischaemic heart disease (IHD) within South Africa, creates a confused view of why 'interethnic' differences exist, because they were unable to control for differences in socio-economic risk factors between the different 'racial' groups. Although their discussion concentrated on differences in lifestyle (such as fat consumption and smoking), they cited numerous studies that observed similar 'racial' distributions in IHD and thereby allude to the existence of fundamental 'racial' differences in risk. It therefore seems futile to examine how these 'racial' differences in IHD mortality change over time if additional information is unavailable to identify which 'racial' correlates are responsible. Although they might argue that identifying

and tracking the extent of 'racial' inequalities in health is sufficient justification for their research, such analyses often do more harm than good by creating or reinforcing 'racial' stereotypes.^{1,4}

In our original article we argued that 'few people would disagree that redressing the consequences of apartheid is both desirable and urgent',¹ but it is not clear that 'racial' categorisation would assist this process. It is certainly important to monitor the equitable distribution of health services⁵ to ensure that 'race' or 'population group' does not influence access to appropriate care, be it Pap smears, to use Walker *et al.*'s example above, or caesarean sections.⁶ However, current discriminatory practices are not the only cause of inequalities in health between different 'population groups'. The socio-economic hierarchy of 'population groups' created during apartheid is also responsible for creating and maintaining differences in health between different groups. This hierarchy cannot be destroyed simply by removing discrimination, and equity in health cannot be established simply by providing equitable access to health care. For this reason it is far more important that health statistics contain information on appropriate socio-economic indices which would identify those groups historically disadvantaged by 'racial' discrimination without reinforcing racist explanations of causality.

The study by Gornick *et al.*,⁷ which Walker *et al.* cite to illustrate the importance of 'racial' categorisation in health research, provides a useful example of how 'racial' differences in health are routinely ascribed to innate, biological and behavioural characteristics, rather than extrinsic social factors. By controlling for differences in income between 'black' and 'white' Medicare beneficiaries, Gornick *et al.*⁷ were able to demonstrate that 'racial' differences in mortality and health service utilisation were not simply the result of 'racial' disparities in socio-economic status. However, they attributed these differences to 'educational, cultural, and behavioural variables' as well as 'individual preferences', and did not mention the possibility that 'racial' discrimination might have been responsible for unequal access to health. Clearly, the authors interpreted 'race' as a proxy for attitude, behaviour and culture, rather than recognising that 'racial' categories are created and defined by social processes, and are therefore more likely to measure the potential impact of 'racial' discrimination.⁸ Under these circumstances their study provided clear evidence that 'racial' discrimination might influence access to health, yet their interpretation simply reiterated the view that 'racial' differences in health are somehow innate. For this reason we would argue that the use of 'racial' categories by Gornick *et al.*⁷ was probably unjustified.

A similar argument could be levelled at the editorial by Urbina and Berenson⁹ which Walker *et al.* cite extensively as evidence that researchers consider 'racial' categories to be important for identifying which 'racially linked' 'biological differences' might be the 'mechanisms' responsible for disease. By concentrating on biological rather than behavioural characteristics Urbina and Berenson⁹ present a more compelling argument that 'racial' differences in aetiological mechanisms are heritable, because these biochemical and physiological characteristics are ostensibly innate. However, we know that poor nutrition and social disadvantage can lead to a variety of ontogenetic and

developmental defects, some of which persist from generation to generation even when conditions improve.¹⁰ It is hardly surprising, then, that these defects are thought to be innate, and that individuals with a heritage of disadvantage are more likely to display physical characteristics which influence their 'reactivity' and subsequent risk of disease.¹¹ It is therefore irrelevant whether researchers present biological⁹ or behavioural⁷ correlates of 'racial' categories as potential mechanisms that explain 'racial' disparities in health. Both approaches ignore the social factors responsible for 'racial' differences in aetiological mechanisms, and both rely on the discredited theory that genetically distinct human 'races' exist.

The widespread use of 'racial' categorisation certainly suggests that 'Such data are . . . regarded as being very valuable', but it is facile to argue that the widespread use of such categories is sufficient justification for continuing to collect health statistics disaggregated by 'race'. In view of the disproportionate number of contemporary publications that continue to use 'racial' categories without acknowledging their social context (G T H Ellison, T de Wet — unpublished data), we feel entirely justified in recommending that health authorities stop collecting data disaggregated by 'race', ethnicity or 'population group'.¹ These data are often published in statistical reports or scientific articles that fail to articulate the social processes which lead to the 'racial' differences they describe. Even when the authors themselves do not argue that innate characteristics are responsible for these 'racial' differences, segregating their data by 'race' provides support for existing 'racial' stereotypes and suggests that they accept the reality of genetically distinct human 'races'.

No one would deny that changing the way we collect and analyse health data will disrupt the apparent continuity of existing data sets, but the assertion that removing 'ethnic sub-divisions' from health statistics makes the data 'no longer meaningfully citable' is patently untrue. Health researchers need to escape from the confines of research that relies on invalid categories, such as 'race', and leads them to focus on biological rather than social causes of 'racial' differences in disease. Unlike health researchers, sociologists 'routinely spell out their assumptions and mechanisms in their studies of the determinants of poverty', and Muntaner *et al.*¹² suggest that adopting 'similar standards would . . . help the theoretical development of the use of race and social class in epidemiological research'. Far from 'stultifying research on disease occurrence and its combating', desegregating health statistics and embracing research methodologies that examine how the experience of racism influences health represent a far more rigorous and imaginative approach, with a much greater chance of confronting the causes of 'racial' inequalities in health.

1. Ellison GTH, De Wet T, Ijsselmuiden CB, Richter LM. Desegregating health statistics and health research in South Africa. *S Afr Med J* 1996; **86**: 1257-1262.
2. Krieger N. Analyzing socioeconomic and racial/ethnic patterns in health and health care. *Am J Public Health* 1993; **83**: 1086-1087.
3. Walker ARP, Adam A, Kunster HGV. Changes in total death rate and in ischaemic heart disease death rate in interethnic South African populations, 1978-1989. *S Afr Med J* 1993; **83**: 602-605.
4. Szabo CP. Race as a research parameter (Letter). *S Afr Med J* 1996; **86**: 1559.
5. Van Rensburg AJ. Racist attitudes in country GP practices (Letter). *S Afr Med J* 1997; **87**: 74.
6. Ellison GTH, Matshidze KP, Richter LM, Levin J, MacIntyre J. Medical aid and racial bias in caesarean section rates (Letter). *S Afr Med J* 1996; **86**: 696-698.
7. Gornick ME, Eggers PW, Reilly TW, *et al.* Effects of race and income on mortality and use of services among Medicare beneficiaries. *N Engl J Med* 1996; **335**: 791-799.

8. Jones CP. 'Race' and racism: a course at a school of public health. Paper presented at the 124th Annual Meeting of the American Public Health Association, New York, November 1996.
9. Urbina EM, Berenson GS. Importance of determining racial differences in cardiovascular risk factors in childhood. *J Pediatr* 1996; **129**: 191-192.
10. Sanderson M, Emanuel I, Holt VL. The intergenerational relationship between mother's birthweight, infant birthweight and infant mortality in black and white mothers. *Paediatr Perinatal Epidemiol* 1995; **9**: 391-405.
11. Barker DJP. *Mothers, Babies and Diseases in Later Life*. London: British Medical Journal Publishing Group, 1992.
12. Muntaner C, Nieto FJ, O'Campo P. The bell curve: on race, social class, and epidemiological research. *Am J Epidemiol* 1996; **144**: 531-536.

Quality medical care in South Africa

To the Editor: I have had no personal experience of the quality of the services rendered by the Cuban doctors who have been sent out to South Africa. I am, however, becoming more and more concerned, since it would appear, from reports by colleagues and in the newspapers, that their training does not equip them to function in the South African environment.

The latest report at the time of writing was in the *Eastern Province Herald* of 7 December 1996. Traffic authorities in a town in the area were unable to obtain convictions for drunken driving due to 'communication difficulties with the town's two Cuban doctors'. If this is indeed the case the situation is intolerable, since all a conviction for drunken driving requires is a blood sample (taken under defined conditions, I admit). If the doctors are unable to do this simple task, how on earth will they manage when a reasonable history is required? Dr Zuma has publicly said that these doctors would all be competent in English. If the above report is true, they can't be!

I would request that the MASA look seriously into the question of whether the Cuban solution is appropriate or not, and if it is not should have the courage to stand up and say so.

J H Jackson

PO Box 12896
Centrahil
6006

A polite suggestion

To the Editor: The letter from Cara Jeppe¹ pointing out some perceived deficiencies in hospital management lies in cosy juxtaposition to Dr Van Rensburg's² comments on racism in Komatipoort.

I wish to congratulate the Editor on livening up our journal with these lighter contributions.

May I suggest that the author of the distal effluvium from the Department of Gastro-enterology move from Johannesburg to Komatipoort, from where she could write a monthly column for the *SAMJ*?

Roderick Inglis

330 Burger Street
Pietermaritzburg

1. Jeppe C. Public hospital management — is apartheid alive and well? (Letter). *S Afr Med J* 1997; **87**: 73-74.
2. Van Rensburg AJ. Racist attitudes in country GP practices (Letter). *S Afr Med J* 1997; **87**: 74.