Preference is given to letters commenting on contributions published recently in the *JRSM*. They should not exceed 300 words and should be typed double spaced

Coronary heart disease in Africa

The review by Dr Walker and Dr Sareli (January 1997 *JRSM*, pp 23–27) confirms the rarity of coronary heart disease (CHD) in South African blacks despite a high prevalence of diabetes and an increasing prevalence of other accepted risk factors. This paradox applies also to Afro-Caribbeans in Britain, Pima Indians and Sri Lankans, who have a high prevalence of diabetes but are not excessively prone to CHD[1–3].

These four populations have in common a low prevalence of persistence of intestinal lactase activity in adulthood (<40%) and a low or relatively low intake of milk[1,4]—or, in the case of some South African urban blacks, a preference for sour (i.e. low-lactose) milk. In contrast, the north Indian and Pakistani populations, who are prone to CHD as well as to diabetes, have a high prevalence of persistent lactase activity (67–100%) and a high intake of milk[1].

In populations not unduly prone to diabetes, CHD is similarly uncommon in those who have a low prevalence of persistent lactase activity and a low intake of milk, notably the Chinese, Japanese and Greenland Eskimos[1].

In Europe, the Mediterranean prevalence of persistent lactase activity is mainly intermediate (40–70%), and the 'Mediterranean diet' is low in milk and lactose compared to northern Europe, where the average prevalence of persistent lactase activity is about 90%. With regard to the French paradox, the prevalence of persistent lactase activity in France is 60–80% and the intake of milk is much less than in Britain, while the intake of butter and cheese, which have negligible content of lactose, and of dairy fat are much higher[1].

I suggest that Walker and Sareli, and other researchers on interethnic variations in the occurrence of CHD, should include lactase-activity status and intake of dairy products, with an estimate of lactose intake, in their investigations on the occurrence of the condition both within and between ethnic groups.

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REFERENCES

1 Segall JJ. Dietary lactose as a possible risk factor for ischaemic heart disease: review of epidemiology. *Int J Cardiol* 1994;**46**:197–207

2 Mendis S, Ekanayake EMTKB. Prevalence of coronary heart disease and cardiovascular risk factors in middle aged males in a defined population in central Sri Lanka. *Int J Cardiol* 1994;**46**:135–42

3 Balarajan R. Ethnicity and variations in mortality from coronary heart disease. *Health Trends* 1996;**28**:45–51

4 Senewiratne B, Thambipillai S, Perera H. Intestinal lactase deficiency in Ceylon (Sri Lanka). *Gastroenterology* 1977;**72**:1257–9

Table 1 **Changing proportions of heart disease (HD) in Shanghai**

Types	*1948–1958 (%)*	*1959–1971 (%)*	*1972–1979 (%)*
Ischaemic HD	6	13	29
Rheumatic HD	50	40	26
Congenital HD	4	9	15
Myocarditis	1	2	8
Chronic cor pulmonale	8	11	6
Hypertensive HD	16	12	5
Cardiomyopathies	1	1	3
Pericarditis	2	2	1
Syphilitic HD	7	2	1
Thyroid HD	2	1	1
Others	3	2	5

Table 2 **Mean serum cholesterol of free-living Chinese, 1958 and 1981**

	1958		*1981*	
Age group (year)	*No.*	*Mean (mg/dL)*	*No.*	*Mean (mg/dL)*
Men	43	142.7	59	168.41
20–29				
30–39	68	154.9	39	180.80
40–49	97	154.4	50	205.64
50–59	54	168.9	42	205.11
Over 60	23	155.4	21	212.48
Total	285	155.3	211	191.21
Women	56	151.5	199	173.87
20–29				
30–39	52	149.1	109	176.98
40–49	55	160.1	152	197.73
50–59	45	173.3	57	213.40
Over 60	16	168.4	—	—
Total	224	158.64	517	185.9

Dr Walker and Dr Sareli describe several observations that are very reminiscent of what has happened in China. In 1941 Snapper[1] pointed out the rarity of coronary artery disease in China. But this is no longer the case in modern China, where among types of heart disease ischaemic heart disease moved from fifth place in 1948–1958 to number one in 1972–1979 (Table 1)[2]. Although part of the explanation lies in longer lifespan, less malnutrition and fewer infectious diseases, the principal reason is the increasing access to the harmful habits of Western society—i.e. high fat and high cholesterol food, cigarette smoking, lack of physical exercise due to increased mechanization, and stresses of urban living. That diet plays a major part is evidenced by the progressive rise of 'normal' serum cholesterol levels of free-living Chinese from 1958 to 1981 (Table 2)[2].

One shudders at the alarming statistics cited by Peto[3] that one of every three cigarettes manufactured in the world is consumed by the people in China. According to the Minister of Health, People's Republic of China, China ranks as the first in the world in its population and also in output of tobacco products[4]. Although all the cigarettes in China now carry a health hazard warning on their packages[5], smoking is still rampant, especially among the young (as high as 40% among high school students[4]).

Thus, one can either die from a heart attack due to coronary atheroma or succumb to malnutrition through poverty.