

The *BMJ* has not signed the ICMJE's latest statement because we still disagree with the committee's policy on one issue that prevented us from signing the previous version. According to the statement, both public ownership and not for profit status are essential for a suitable trial registry. Our view is that, although public ownership is valuable and use of publicly owned registries is to be encouraged, this stipulation is unnecessarily restrictive and should not be an essential criterion. The emphasis, we argue, should remain on registered information being publicly and freely accessible. In addition, to be suitable a registry should identify trials with a unique identifier, the information should be searchable and include all 20 fields, registration should be free or minimal cost so as not to exclude researchers from poorer countries, and the information in the registry should be validated.

We are encouraged that the World Health Organization is bringing stakeholders together to agree on the next steps in this process, and that it plans an initiative to certify registries that meet these agreed standards, in particular to ensure that the information in those registries is reliable and that individual trials can be identified via an international numbering system.⁸ Within a year WHO intends to provide a web based portal to all these certified registries. As the ICMJE statement rightly implies, it will be at least two

years before we know whether this move by journal editors is a success or failure.

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Competing interests: FG attended the meeting of the ICMJE where the statement on trial registration was discussed. She was formerly editorial director of Current Controlled Trials and helped create its clinical trials registry.

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Excess coronary heart disease in South Asians in the United Kingdom

The problem has been highlighted, but much more needs to be done

Health inequality between ethnic groups in the United Kingdom is widening.¹ Death rates from coronary heart disease in South Asians (immigrants from India, Pakistan, Bangladesh, and Sri Lanka) have declined at a slower rate than in the indigenous population.² Accumulating evidence shows that second and third generation South Asians seem to be displaying many of the same risk characteristics that make them prone to coronary heart disease as their parents and grandparents.³ The first published evidence of elevated risk of coronary heart disease in South Asians appeared as early as 1959—from a study based on expatriate Indians in Singapore.^{w1} Numerous subsequent studies corroborated the findings. However, the topic of ethnicity and disparities in outcomes from coronary heart disease in the United Kingdom has only recently been given the importance it deserves.^{w2}

We still do not have an explanation for excess deaths from coronary heart disease in South Asians, but several plausible hypotheses have been generated (box).^{w3-w4} The increased prevalence of the metabolic syndrome (comprising insulin resistance, hypertension, central obesity, and hyperlipidaemia) and diabetes mellitus in this population is the most convincing and consistent explanation to date.^{w3} None of the

Factors contributing to excess risk of coronary heart disease in South Asians

- Migration
- Disadvantaged socioeconomic status
- "Proatherogenic" diet
- Lack of exercise
- High levels of homocysteine and LP(a) lipoprotein
- Endothelial dysfunction
- Enhanced plaque and systemic inflammation

hypotheses has been studied systematically, and current understanding is based on case-control studies and cross sectional studies. Moreover, information related to cerebrovascular disease is particularly lacking.

The recently published INTERHEART study shows that more than 80% of the global burden of coronary heart disease, irrespective of the ethnic origin, can be attributed to five main conventional cardiac risk factors—abnormal lipids, diabetes mellitus,

cigarette smoking, hypertension, and lack of exercise.⁴ So why is the risk of coronary heart disease in South Asians particularly increased? A plausible hypothesis is that certain risk factors may cause more adverse effects and therefore have increased “potency” in South Asians, and interactions between risk factors may differ too. Nevertheless the INTERHEART study emphasised that interventions aimed at reducing the incidence of coronary heart disease in individuals at high risk should focus at minimising the five main risk factors.

Current government policies for primary prevention propose a strategy of targeted risk assessment with early interventions directed at lifestyle and also the use of drugs.^{w1} At the core of any prevention lies accurate estimation of risk. Methods of estimating risk such as Framingham, FINRISK, and SCORE grossly underestimate risk in South Asians.⁵ Similarly the normal ranges for independent risk factors for coronary heart disease (such as blood pressure, body mass index, and lipid profile) derived from studies on Western populations may be set too high for South Asians. It follows that interventions driven by these ranges may result in under-treatment. Perhaps we need to set the threshold for intervention and goals for treatment lower for South Asians than for white people, but what this threshold should be remains unknown.

South Asians are not all the same. With respect to risk of coronary heart disease and mortality, Bangladeshis fare the worst, followed by Pakistanis, and then Indians.⁶ The prevalence of cigarette and “bidi” smoking is increased among Bangladeshi men, and Bangladeshi women (of whom up to 25% chew tobacco) have the highest death rates from coronary heart disease in the United Kingdom.² Lack of physical activity, lower consumption of fruits and vegetables, and a greater tendency to ill health in general is more prevalent in this subgroup than in Pakistanis or Indians.² Disadvantaged socioeconomic status is another factor to explain the heterogeneity in mortality from coronary heart disease among the subgroups of South Asians.^{w5}

Is there inequality in health care? Evidence shows that South Asians are less likely to be prescribed lipid lowering medication (for reasons that are as yet unclear) and more likely to decline and drop out from cardiac rehabilitation programmes.^{7,8} In addition they are more likely to present with atypical symptoms after myocardial infarction, which may delay diagnosis and optimal intervention.⁹ Although earlier studies identified disparity in the access to invasive cardiac procedures and treatments (such as coronary angiography, angioplasty, and bypass surgery) between South Asians and white people, recent studies have shown no difference.^{10,w6} The observed inequality may partially be a result of the “attitude of not taking advantage of the health service,” “lack of awareness of coronary heart disease,” and the “linguistic and cultural barriers” seen in this population.^{10,11}

The Department of Health and the British Heart Foundation have played a part in attempting to tackle coronary heart disease among South Asians. Commendable examples include the publication of the national service framework on coronary heart disease; school fruit and exercise schemes; production of written and visual information on coronary heart

disease in South Asian languages; and funding of community and research projects (such as project Dil in Leicester, the CADISAP study in east London, and the BRUM study in Birmingham).^{12,w7,w8} Several institutions (including the South Asian Heart Foundation and the British Heart Foundation) have ensured that heart disease in South Asians remains on top of the political agenda and is debated regularly.

More needs to be done. Firstly, South Asians need to be educated about the excess risk of coronary heart disease and its symptoms. Secondly, we need a high index of suspicion of coronary heart disease in South Asians and also to institute aggressive secondary prevention. Thirdly, the concept of “well Asian” clinics may merit investigation. Any health services offered need to be appropriate for the culture, religion, and languages of South Asians. Fourthly, a large epidemiological study is mandatory as is research on awareness, behaviour, compliance, and delivery of health care in relation to heart disease. Finally, an intensive programme of primary prevention in high risk South Asians needs to be prioritised.

These strategies have become more relevant, considering that the future generation of South Asians in the United Kingdom already displays many similar risk characteristics of coronary heart disease and that the next wave of statistics is likely to mirror the last.³

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