

The Acheson report contains some novel proposals but acknowledges the current shortage of trained and skilled public health doctors to fill the posts of director of public health or district control of infection officer. But there seems to be a rush to fill these posts in many districts, particularly in North West Thames Region. If these posts are filled with unqualified and inexperienced doctors the consequences will be lingering and far reaching.

As a singlehanded microbiologist I join Professor Casewell in his plea for implementing the Royal College of Pathologists' recommendation for appointing a second consultant microbiologist immediately in some larger district general hospitals. If this proves difficult an interim measure would be to combine the post of district control of infection officer and second microbiologist in some districts. There are several qualified and experienced senior registrars in microbiology who, with a short training in public health, could fill these posts.

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## Trends in sexual behaviour and HIV incidence in homosexual men

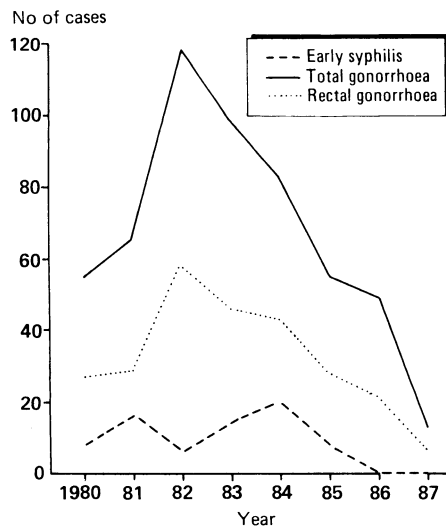
SIR,—Presented here are some figures from Edinburgh which support recent views on trends in homosexual behaviour from London<sup>1</sup> and Amsterdam.<sup>2</sup>

The department of genitourinary medicine at Edinburgh Royal Infirmary serves a population of about 844 000, and since 1980 the number of diagnoses in men attending the clinic has remained relatively constant at about 5000 a year. The number of diagnoses among homosexual men, however, more than doubled between 1980 and 1985, from 331 to 719.

Dr Brian A Evans and others suggest that past infection with hepatitis B virus correlates with relative risk for HIV infection.<sup>1</sup> Markers for infection with hepatitis B are not presented here, but since unprotected anoreceptive intercourse is a main risk factor for HIV infection<sup>2</sup> the occurrence of rectal gonorrhoea in homosexual men provides useful insight into risks currently being taken. Over the past nine years rectal gonorrhoea has constituted about half of the total number of cases of gonorrhoea in homosexual men.

The figure illustrates the incidence of early syphilis, total gonorrhoea, and rectal gonorrhoea in homosexual men since 1980 (figures for 1988 are not yet complete). The incidence of gonorrhoea has fallen steadily since 1982 and that of early syphilis has declined sharply since 1984. The prevalence of HIV infection in patients attending a genitourinary medicine clinic is difficult to assess without a policy of random anonymous testing.

These data suggest that the homosexual population has become increasingly aware of the need for screening and support the view that homosexuals are reducing risks by abstinence or by adopting safer sex practices and have been doing so since before the government funded information campaign. Observations of the heterosexual population suggest similar, although less pronounced, trends in the incidence of early syphilis,



Diagnoses of sexually transmitted diseases in homosexual men in Edinburgh, 1980-7

gonorrhoea, non-gonococcal urethritis, and chlamydial infections, becoming apparent from 1985 onwards.<sup>1</sup>

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- 1 Evans BA, McLean KA, Dawson SG, *et al*. Trends in sexual behaviour and risk factors for HIV infection among homosexual men, 1984-7. *Br Med J* 1989;298:215-8. (28 January.)
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## Calcium supplementation of the diet

SIR,—Drs J A Kanis and R Passmore claim to review the present evidence for calcium supplementation of the diet,<sup>1</sup> but the most recently published articles are omitted from their discussion.

They state that there have been no studies to show whether an increased calcium intake after longitudinal growth has ceased has any effect on skeletal consolidation and the subsequent rate of bone loss or fracture, or both. However, the study by Holbrook *et al* showed that the age adjusted risk of hip fracture was inversely associated with dietary calcium whether considered as mg per day or as nutrient density.<sup>2</sup> This association persisted after adjusting for cigarette smoking, alcohol intake, exercise, and obesity.

Further recent studies not discussed by the authors include those by Dr E Lau and others<sup>3</sup> and Dr C Cooper and others.<sup>4</sup> The first showed that among elderly women in Hong Kong regular weight bearing activity and a higher dietary calcium intake were associated with a reduced risk of hip fractures, while among men, although a similarly strong relation with calcium intake existed, the relation with activity was not significant. The second showed that among men in Southampton a calcium intake above 1 g protected against hip fractures.

The authors point out that in the Matkovik study in the region where calcium intake was lower the energy intake was also lower and go on to assume that physical activity must have been lower in that region.<sup>5</sup> While this may be true, the relation between physical activity and osteoporosis is controversial, and the actual type of physical activity is

important—for example, Cavanaugh and Lann showed that walking did not stop bone loss in postmenopausal women.<sup>6</sup> Further information is therefore required before attributing the difference in fracture rates in this study simply to the differences in physical activity.

The authors imply from their subtitle, “not justified on present evidence,” that there is no role for calcium in managing osteoporosis. The most recent evidence outlined above seems to suggest, however, that there may be various subgroups, such as those with a low calcium intake, who may benefit from increased dietary calcium.

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AUTHOR'S REPLY,—The three epidemiological studies Dr Shah mentions show an association between the dietary intake for calcium and the risk of hip fracture. So too is there an association between grey hair and hip fracture; but this should not necessarily be taken as evidence that dyeing the hair will beneficially affect the natural history of fracture.

The real problem lies in establishing the causality or otherwise of the relation. In this regard the case-control studies reported from Southampton and Hong Kong cannot directly assess this except by accounting for known biases. They cannot adjust for the unknown. In the United Kingdom a small effect of the higher dietary intake of calcium was found in the case of men (but it was not dose dependent), and in women no association was found over a moderately wide range of dietary calcium, despite the identification of other well established risk factors such as smoking, physical activity, low body mass index, female sex, and heavy alcohol consumption. Unfortunately, the study of Holbrook *et al* does not help clarify the issue since the number of hip fractures studied was small (33) and no risk was associated with well established factors, including the female sex.<sup>1</sup> The latter findings suggest that there were ascertainment problems in this study or, if (as suggested by the authors) this was due to hormone replacement treatment, that the population studied was clearly not representative.

The data from Hong Kong provide an interesting contrast because of the low dietary calcium. Here a dose dependent effect of calcium intake was found in both men and women, but a sense of perspective should temper the obvious conclusion. The risk of hip fracture in the Chinese population of Hong Kong is lower than that in the United Kingdom<sup>2</sup> despite the great difference in the dietary intake. As in the United Kingdom, the risk of hip fracture is increasing alarmingly in Hong Kong and now lies at a level intermediate between those reported in 1970 and the current figures for the United Kingdom.<sup>3</sup> To my knowledge the calcium intake of the Chinese has not decreased and is unlikely, therefore, to account for the increase in the secular trend either in Hong Kong or the United Kingdom. The difference in calcium intake between patients with and without hip fracture in the United States or in Hong Kong (40 mg daily) is hardly of biological importance,