authoritative workers in the field, a sound study methodology, and a sensitive presentation of the findings in future bulletins.

Furthermore, it is not in the best interest of either patients or the profession to have a service which has no impact on patients’ health, and we recognise the responsibility of the medical profession to undertake detailed assessment of any emerging technologies. The service in South Tees Health Authority must therefore be subjected to audit to determine outcome for patients and to develop guidelines for the users.

The purchasing authorities want value for money, but obtaining outcomes data has resource requirements. Now the issue has been raised there is an onus on the Department of Health to complete the investigation into the use of bone densitometry.

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2 Johnston CC, Melton LJ, Lindsay R, Eddy AM. Clinical indications for bone densitometry measurements. A report from the Scientific Advisory Board of the National Osteoporosis Foundation. J Bone Miner Res 1989;4 suppl 1
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AUTHORS’ REPLY – Each Effective Health Care bulletin focuses on a key purchasing question about which there is a perceived need for rational information and aims at providing that information in an accurate, concise, and accessible form for clinicians and non-clinical decision makers. Of necessity, the bulletins are very focused, presenting only a distillation of the material that the research team reviews. Inevitably, some people who work in the field will feel that the subject has not been comprehensively covered. For example, we did not consider antiresorptive therapy because the bulletin was about population screening to identify women at high risk. The bisphosphonates have been shown to be effective only in reducing the rate of vertebral fracture in women with established osteoporosis.1,2 There is as yet no evidence that they reduce fractures in healthy patients thought to be at risk of osteoporosis, and they are not licensed for this purpose.

The bulletin concentrated on hip fractures because they are associated with a high mortality, considerable morbidity, and considerable cost to the NHS. Vertebral fractures, although common, are less well understood and are often asymptomatic. We should have included more information on wrist fractures, though our conclusions would not have been significantly affected. Though it would have been interesting to discuss the effectiveness of bone scanning and treatment for women with risk factors such as early menopause, this is not part of our population bone screening. We made this clear in the bulletin, and we did not review the evidence for this practice.

Drs Fordham and Madhok are no doubt aware that case-control studies have major biases which can overestimate the effectiveness of treatments. For example, screening for breast cancer, which has been shown by randomised controlled trials to reduce risk of death by around 30%, is estimated by case-control studies to reduce risk by 50-70%. This problem, combined with the evidence we referred to indicating that benefits may diminish after therapy has ceased but before the period of highest fracture incidence, makes the evidence of long term effectiveness of hormone replacement therapy in preventing fractures less than compelling.

It is also crucial that a screening programme is based on a test that is good at identifying those women most able to benefit from the treatment. The fact that bone density measurement is the only predictor we have at present is irrelevant. On the other hand, compliance is crucial: “The success of any primary screening programme is ultimately dependent on the at-risk population complying with a regimen.”

The claim by Drs Fordham and Madhok that population bone screening is not an issue is incorrect. Understandably, there is considerable interest in such programmes, fuelled by advice in women’s magazines and from some clinicians and pressure from drug companies. For example, a statement from the director of the Guy’s Hospital osteoporosis screening unit (and a member of the National Osteoporosis Society’s council of management) says: “It therefore seems reasonable to suggest that all women be scanned for bone mass measurement, ideally at the time of the menopause... Those 30% who have the lowest bone mass in the population should be advised to consider HRT.”

Professor Nordin, a former director of the MRC Mineral Metabolism Unit, in a statement to the Yorkshire Post on 21 May, called for mass bone screening, and some health authorities have started pilot population bone screening programmes.

Screening often seems an attractive option for preventing disease; only rarely, however, have initial hopes been justified, most are relatively ineffective and cause unnecessary anxiety. Therefore it is essential that population bone screening (which would result in over a quarter of well women, and 50 being recommended long term treatment) is thoroughly evaluated before it is introduced. Audit is no refuge from these questions which can only be answered by scientifically conducted trials of the programme or at least its constituent parts. Cohorts in the Hull and Aberdeen studies have only recently been recruited, and it will be several years before the effectiveness of the bone screening programmes can be reliably estimated.

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Assessing short term outcome

We were pleased to read the considered evaluation of the Nottingham health profile (NHP) by Bardsley et al3 and impressed with the methodological care which alerted them to the possibility of raised NHP scores resulting from completion of the questionnaire in hospital. The potential for such confounding effects exists in the many research designs which include a comparison of assessments of hospital inpatients and outpatients. We conducted our own longitudinal study of 100 patients with rheumatoid arthritis, which includes 36% who were first interviewed while hospital inpatients, supports the conclusion of Bardsley et al that the NHP does not seem to be subject to this contamination by a hospital setting. However, we emphasise that this was not the case in our study with another widely used generic questionnaire, the functional limitations profile (FLP).5

Factors such as the adoption of a sick role, anxiety about the operation, or the unsettling nature of the environment were cited as potential elevators of NHP scores. Classic psychological literature also indicates that there may be many ways in which setting may influence responses. Without recourse to sophisticated analysis, we suggest that the impact of hospitalisation on the following selection of items from the FLP is clear: respondents are requested to affirm those statements which apply to them “today” and which are due to their health.

I go out to enjoy myself less often
I lie down to rest more often during the day

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