given them. This is patently not true. The details of the multiple risk factor intervention trial show that hydrochlorothiazide (the diuretic used long term in the Finnish study) was stopped because of an adverse effect on mortality. In the Finnish study the overall use of antihypertensive drugs in terms of patient exposure was far greater than exposure to hypolipidaemic drugs: what is sauce for the goose is sauce for the gander.

It is important that the correct lessons are learnt from the Finnish study about the prevention of coronary heart disease.[5] We believe that readers have been done a disservice by Oliver's editorial.

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1 Oliver MF. Doubts about preventing coronary heart disease. *BMJ* 1992;**304**:393-4. (15 February.)
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SIR,—I wish to take issue with Michael F Oliver's suggestion that a moratorium on the use of cholesterol lowering drugs goes too far as it ignores the impressive reduction in non-fatal myocardial infarction reported in several trials. He states that the use of these drugs should be confined to high risk middle aged men.[1]

An often overlooked aspect of these trials is exemplified by the Helsinki heart study using the drug gemfibrozil.[2] Although an impressive percentage reduction in non-fatal myocardial infarction was seen in this trial, the absolute numbers who benefited were small compared with the size of the intervention cohort. In other words, even in this high risk group the chances of having a myocardial infarction were small over the five year duration of the study. As a result, large numbers of patients need to be treated without the prospect of benefit yet with all the disadvantages that drug treatment involves.

Until greater benefit can be assured or we can identify more precisely the characteristics of the subgroups in whom myocardial infarction was prevented, a moratorium is appropriate. Furthermore, given the poor results to date, well informed consumers would prefer to take their chances with the risk factors.

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2 Frick MH, Elo O, Haapa K, Heinonen OP, Heinsalmi P, Helo P, *et al.* Helsinki heart study: primary prevention trial with gemfibrozil in middle-aged men with dyslipidemia. *N Engl J Med* 1987;**317**:1237-45.

SIR,—"Too little too late" is the real subtle message in Michael F Oliver's editorial on the success of present efforts to prevent coronary heart disease.[1] Despite adverse reports on total mortality in some reviews[2,3] benefits have been shown in studies in which tight control of diet and drug treatment was maintained[4] and in which there was rigorous intervention with regard to risk factors and diets were stricter than those recommended by most national bodies.[5]

There is sense in exercising caution and discrimination in prescribing lipid lowering drugs. Diet should be the mainstay of managing all lipidaemias. Davey Smith and Pekkanen's paper reviewing the use of lipid lowering drugs, however, is unnecessarily alarmist.[6] The authors have played down the benefits of treatment and produced a review that sounds superficially biased. The media have taken this at face value, and some broadcasts have served to discourage those who least need discouragement. A patient attending one lipid clinic was overheard saying, "On the telly they said the British Medical Magazine writes it's not worth bothering with all this health stuff."

South Tyneside district has a population with high morbidity and mortality from coronary heart disease. We consider that we should be working harder and earlier to reduce risk factors for the disease. In this health district, as in many others, health professionals, including general practitioners, have expended considerable effort on promoting healthy lifestyles and offering the population an assessment of risk factor, including cholesterol testing. Prevention of coronary heart disease is affected by the severity of existing atherosclerosis, and in South Tyneside a multidisciplinary working party has drawn up guidelines advocating a coronary heart disease prevention programme directed not just at middle aged men but at all subjects aged 20-65.[7]

In the first stage of the programme we are assessing groups at highest risk, including those with a family history of coronary heart disease or a family history or signs of lipidaemia, diabetic patients, hypertensive patients needing treatment, and those with symptoms of ischaemic vessel disease. We have estimated that there are at least 36 000 subjects in this high risk group aged 20-65 in South Tyneside, basing our calculations on methods used in the OXCHECK study.[8] In this group the incidence of severe hypercholesterolaemia (cholesterol concentration >8·0 mmol/l) will be higher than the national average. All hypercholesterolaemic subjects are managed by diet, but those at particularly high risk who would benefit in the long term from a reduction in risk are also offered lipid lowering drugs.

We hope that this enterprise will prevent some people in this section of the population from developing coronary heart disease.

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1 Oliver MF. Doubts about preventing coronary heart disease. *BMJ* 1992;**304**:393-4. (15 February.)
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SIR,—It is established that high blood cholesterol concentration, high blood pressure, and cigarette smoking are the main modifiable risk factors for coronary heart disease. Having read George Davey Smith and John Pekkanen's request for a moratorium on cholesterol lowering drugs[1] and Michael F Oliver's accompanying editorial[2] I think it important that patients requiring treatment are not ignored.

Davey Smith and Pekkanen do not provide a sufficient review, choosing to look at only a third of relevant studies.[1] One quoted Finnish study started 18 years ago, achieved a modest reduction in cholesterol concentration of 6·5% in five years, used some drugs that may worsen lipid profiles, and was in reality largely a failure of intervention rather than outcome.[3] To suggest that increased all cause mortality in the 10 years after the study may have been due to small changes in cholesterol concentration during the study but was probably not due to hypertension or its treatment is disingenuous.

The question is raised of total mortality not having been reduced, but consideration of all trials together does show such a trend. No individual trials, however, have been designed to answer this question, and they would have to be much larger (of the order of 25 000 subjects for five years). Trends towards increased deaths from violence are seen as secondary end points in several studies. Though they should not be ignored, they are also not a reason to ignore the treatment needs of people at higher risk of premature coronary heart disease.

Davey Smith and Pekkanen suggest that general use of lipid lowering drugs should not occur and that current use is too high, but their figures show that 0·12% of the population are treated.[1] One of the severe inherited single gene hyperlipidaemias, familial hypercholesterolaemia, occurs in 0·2% of the population, and most patients with this require treatment. Patients with coronary heart disease who have hypercholesterolaemia have shown benefit from active lipid lowering treatment. Patients with multiple risk factors who are at particular risk of premature coronary heart disease also require treatment and intervention for the multiple factors. In a minority at highest risk, if non-pharmacological measures are ineffective or insufficient to lower blood pressure and lipids drug treatment will be appropriate.

Likely benefits have to be weighed against potential disadvantages by economic and other analyses, such as in the Standing Medical Advisory Committee's report on cholesterol testing.[4] A considerable disservice will have been done to prevention of coronary heart disease in the United Kingdom, and to a proportion of patients at highest risk of premature disease, if too extreme a view is taken.

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1 Davey Smith G, Pekkanen J. Should there be a moratorium on the use of cholesterol lowering drugs? *BMJ* 1992;**304**:431-4. (15 February.)
2 Oliver MF. Doubts about preventing coronary heart disease. *BMJ* 1992;**304**:393-4. (15 February.)
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SIR,—The real issue with regard to cholesterol lowering drugs is appropriate use, or targeting. All therapeutic interventions have some trade off zone where disadvantages offset any potential benefit. What is going badly wrong with cholesterol is that many patients with marginal excess concentrations, a low overall risk score, and little potential benefit are being prescribed drugs whereas other patients with high risk scores, including cholesterol concentrations often in genetic excess, are being neither treated nor even identified until some disaster strikes. Secondary prevention has a place, but many die before they can get it.

Overenthusiastic pharmaceutical promotion certainly has a role, but from the data cited by George Davey Smith and Juha Pekkanen around one in a 1000 of the British population are now taking lipid lowering drugs[1]—hardly the therapeutic avalanche proposed and not even remotely