controlled (it is, of course, convincing—is "proof" ever possible?), but this is still acceptable.

It has, however, been obvious for years that this vast field needed expansion. I selected eczema as an example of a case where unscientific scepticism was depriving patients of effective treatment. I, and many parents, knew that some children with eczema got better when they avoided certain foods, but most British paediatricians and dermatologists did not believe it. These sceptics included my colleagues Dr D J Atherton and Dr R S Wells but they had the intellectual integrity to test their view, by doing the first double-blind controlled trial of food antigen avoidance in any disease.² My purpose was education of my colleagues, immediate and nationwide, of what was obvious to me; and I hoped that people would then extrapolate in planning more positive approaches to other syndromes suspected to be due to food intolerance. Since your leading article gives it as an example of "uncontrolled enthusiasm" clearly it has been less educationally effective than I had hoped. Your article recommends maintaining the present scepticism, which I think is based on ignorance, arrogance, and lack of scientific criticism. Clearly some of the wilder claims are wrong; but many may be right, and the ostrich posture of the profession is driving more and more intelligent and observant parents into the hands of quacks and cranks—and so depriving them of critical dietary treatment, properly dietetically controlled to avoid the dietary deprivation which may occur, as you stress. The overall negative attitude of your article, however, will not reduce this risk but increase it, as the patients are forced into the hands of cranks.

There is now impressive preliminary evidence of food allergy symptoms, very commonly, in nearly every organ; and much more work is needed. But allergy is only a part of the subject covered by your title. Food intolerance includes idiosyncrasy (systemic—for example, phenylketonuria—as well as gastrointestinal—for example, alactasia) as well as allergy, though some of the soft literature uses the word allergy for diseases which are probably idiosyncrasy. The medical profession has done far better in these diseases, whose treatment falls under your title; but neither you nor the cranks give us the credit, and your article may reduce the availability of the necessary services for managing them as well as the allergies. May I urge the *BMJ* to try to help us to supply these treatments, which may be dangerous as well as very effective, and so need expert hands, in these difficult times when resources are liable to be cut, and not just to add to our difficulties?

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¹ Syme J. In: Pepys J, Edwards MJ, eds. *The mast cell*. Tunbridge Wells: Pitman Medical, 1979.

² Atherton DJ, Sewell M, Soothill JF, Wells RS. *Lancet* 1978;i:401-3.

Unsolved problems for the '80s

SIR,—Your leading article (5 January, p 3) rightly points out that the global problems of greatest concern for the next decade will be those pertaining to the availability of resources in relation to an increasing world population.

And since most of this population lives in poverty which is often desperate, it is reasonable to assume that such people will as they develop need a larger share of resources.

To suggest, however, that the developed countries should be primarily concerned with reducing the increasing Third World's population is poor advice, unlikely to be heeded or result in successful projects. May I quote from Barbara Ward's recent book:¹ "For the poorest peasant the chief resource of energy is human labour. It is perfectly rational, in such a context, to try to ensure that there is enough of such labour. Children perform a multitude of farm duties, they take care of little brothers and sisters, and the farmer expects at least some of them to survive and care for him in his old age. . . . In the Third World falling birth rates everywhere coincide with the diversification and increasing sophistication of resources, including energy, in the rural scene."

Further, such a child consumes in his lifetime only a fraction (some 1/36th) of the non-renewable resources a European child disposes of. When industrial societies use energy less wastefully (as your leading article says, deploying energy from the sun, conserving, wasting less in processing and packaging, deriving more protein from cereal) more will become available to the less industrialised. Exhortations on populations may then have greater effect.

As you point out, one fears that politicians in responding to short-term problems will fail to come to grips with those of greatest significance. We will need strategies such as those outlined by Barbara Ward, strategies which include a frugal use of non-renewable resources, a sharing of technology and skills, and the direction of research to appropriate problems. Articulate and intelligent members of the electorate, one hopes, will persuade their government of the urgency of the task to preserve and improve the wellbeing of our global village.

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¹ Ward B. *Progress for a small planet*. Harmondsworth, Penguin, 1979.

SIR,—In your leading article "Unsolved problems for the '80s" (5 January, p 3) you note that "In both Northern and Western Europe the annual rate of population increase is now 0.1% or lower." You go on to report that "if the population became stabilised at an average of two children per family in the year 2000 total numbers would continue to grow to a plateau of 8000 million."

In Britain we have over 50 million people. Why do we suppose that this figure should be stabilised? It is obvious that it should be reduced. In the long term (say 200-300 years) we must obtain a population size which will be able to live safely without fossil fuels. This is certainly well below 10 million people. In the nineteenth century the population expanded from 10 to 30 million. The situation of populations struggling at about subsistence level has been terrible. What will occur when huge populations face relatively sudden collapse of resources? Even in the short term the prospects of unemployment among our children surely point to the need for a prompt reduction of population.

The only possible general recommendation

must be that the ethical size for a family is one child only. Our voice would be better heard in the rest of the world if we accepted our own responsibility in this matter. With such a policy population may fall, say, 10% every 20 years. This would be well within tolerable limits. Resources released from child care and unemployment benefit would abundantly provide for the elderly.

Must humanity continue its tragic course; struggling from tragedy to tragedy? Can we not take warning from the hideous record of human conflict? Must our leaders always opt for disastrous policies? Governments are looking for cannon fodder and churches are trapped by the muddled moral philosophy of a brutal past.

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Incidence of gallstones and ischaemic heart disease in the West of Scotland

SIR,—Since several factors—for example, obesity and high cholesterol diet—are classically considered of aetiological importance in both cholelithiasis and ischaemic heart disease, we were surprised to read of the negative correlation between the two conditions recently reported by Dr D J P Barker and others (1 December, p 1389). Accordingly, we have tried to review the relationship between gall stones and ischaemic heart disease in the West of Scotland, which appears to have a high incidence of coronary artery disease.

In a previously reported review of the prevalence of gall stones in 10 748 necropsies in two Glasgow hospitals, it was found that the prevalence in males under 60 years was 3.4%.¹ The WHO statistics for 1977 reported the death rate from ischaemic heart disease in male Scots aged 45-54 as 364.9/100 000.² In females, corresponding figures were a gall-stone prevalence of 10% and an ischaemic heart disease death rate of 84.1/100 000. The prevalence of gall stones at necropsy in the nine English cities reported by Dr Barker and his colleagues was strikingly similar to our experience in the West of Scotland. In contrast, the figures for ischaemic heart disease were considerably lower. This latter finding is reflected in the WHO statistics which report the death rate from ischaemic heart disease in England (age 45-54 years) as 289.5/100 000 for males and 51.3/100 000 for females.²

Like Dr Barker, we found the prevalence of gall stones at necropsy greater in females but we feel this is unlikely to be associated with exogenous oestrogen administration. Oral contraceptive and postmenopausal oestrogen therapy has become widespread in Britain only over the past 15 years; accordingly, we would not expect to see this reflected in necropsy studies until the present generation dies—that is, around the turn of the century. We would also question whether economic differences—while of significance globally—are sufficiently marked between various parts of the United Kingdom to be major factors in the incidence of these two multifactorial diseases. Regional variations in other factors—for example, hardness of water, diet, and amount of salt ingestion, would appear just as likely reasons for the differences in the incidence of gall stones and ischaemic heart disease noted by Dr Barker.

In conclusion, the West of Scotland, with

intermediate social and economic conditions, has a similar prevalence of gall stones at necropsy to that found in several English towns. However, the death rate from ischaemic heart disease in Scotland was 26% greater for males under 60 and 60% greater for females in the same age group. We do not have sufficient information to analyse statistically the relationship between gall stones and ischaemic heart disease, but these figures suggest that the negative correlation described by Dr Barker does not apply to this region.

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¹ Donaldson LA, Busuttill A. *Br J Surg* 1975;62:26-32.
² World Health Organisation. *World health statistical Annual 1977*. Geneva: WHO, 1977:vol 1.

Incidence of malignant melanoma of the skin

SIR,—I would like to support the views expressed by Dr Peter Clough (12 January, p 112) in his recent letter concerning the association between malignant melanoma and arsenic in the soil. In a recent report¹ it was shown that, of 144 patients who had received medicinal arsenic in South-west Lancashire, 64 (44%) had premalignant keratoses and 17 (12%) had skin cancers. Chromosome studies performed on these patients showed significantly more chromosome abnormalities than in the controls, suggesting that arsenic is mutagenic as well as carcinogenic.

In an extended similar study of 481 subjects, 150 have died, 40 with malignant tumours of the skin or internal organs, including one malignant melanoma.

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¹ Evans S. *Br J Derm* 1977;97, suppl 15:13-4.

ECT: balancing risks and benefits

SIR,—The Royal College of Psychiatrists several years ago published a memorandum on the use of electric convulsive therapy (ECT), in which it is implicit that the treatment is given under intravenous anaesthetic and muscle-relaxant drugs. It may not be generally realised that the anaesthetic is given solely to protect the patient from the unpleasant sensation of suffocation from paralysis of the respiratory muscles due to the effect of the muscle-relaxant drugs that are routinely used in general surgery. These are given, of course, to prevent the occasional fractures (mainly of the vertebrae) that used to occur when the ECT was given unmodified. The passage of the current required to start the convulsion does itself produce instantaneous loss of consciousness and a retrograde amnesia, usually only of a few seconds' duration, but sufficient to prevent the patient from knowing anything about the actual treatment.

The Royal College's memorandum on ECT made no mention of unmodified ECT, as it was rightly assumed that under all normal circumstances the treatment would always be given with anaesthetic and muscle relaxants. As strongly urged by the Faculty of Anaesthetists, the injections are supervised by an anaesthetist, though inevitably in some

hospitals or clinics a second psychiatric specialist experienced in anaesthetic techniques may actually give the injection. It is conceivable that there could be medical contraindications to the use of anaesthetics or muscular relaxants, or both, and yet the ECT be urgently needed to control the patient's behaviour. In these circumstances it would, of course, need the clinical judgment of the psychiatrist in charge of the case to decide whether to proceed after due consultation. There might also be situations in which anaesthetists are not available at short notice, or even a second psychiatrist experienced in anaesthetic techniques. Another possibility is that the patient has no usable veins, so that it might be more humane to proceed with unmodified treatment, the nursing staff itself receiving instruction on how to hold the patient. Again it would be a matter for the clinical judgment of the consultant whether in those circumstances he would be justified in going ahead without the modifications.

The current practice of ECT in this country is at the moment being investigated by the Royal College of Psychiatrists with a grant from the Department of Health and Social Security. It is hoped that this will show among other matters how many ECT treatments are usually given in a course, the usual clinical indications for its use, the incidence of complications and side effects, etc. As in the rest of clinical practice, the hazards of treatment have always to be balanced against the risks of continuing illness. It can be argued that withholding ECT from some patients—for example, the suicidally depressed—could amount to negligence.

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Services for the mentally handicapped

SIR,—Now that the benefits of different types of services for the mentally handicapped are being considered (12 January, p 123), it seems justifiable to again ask if improvements should be based on the specialty of "mental handicap." It continues to be difficult to attract people to work in this field and the need becomes no less urgent. The objectives are clear: giving a high priority to prevention, treating mental handicap when feasible, and enabling the mentally handicapped to lead as normal a life as possible. Many of the problems are social and educational rather than medical, and an increasing contribution is being made from all these services.

Perhaps a change of attitude towards the medical component is needed. Will it ever be possible to provide sufficient consultants in mental handicap? It is recognised that age presents special medical problems, but is it also necessary to divide medical care according to the intelligence quotient? Cannot the medically handicapped be regarded as individuals who require special social and educational help, but have the same medical needs as anyone else? In paediatrics the problems are likely to be more varied than among children in general, and many will require help from those working in the paediatric subspecialties. In particular, the child who is mentally handicapped will be more than usually liable to emotional and behaviour disorders. So child psychiatrists will be particularly involved in the

care of such children, which will only be possible if extra resources are provided.

The problems are more difficult among adults who are mentally handicapped as fewer can be cared for at home. This may mean that the organisation of the services required will be the responsibility of the social services rather than of doctors spending a lot of time in administration. Otherwise, however, cannot the same principles apply—medical aid being given as required, with some specialisation within the rubric of psychiatry?

If it can be accepted that all doctors, some more than others, have a duty towards the mentally retarded this may be more successful than trying to expand the specialty of mental handicap. This has particular implications for training, which usually receives scant attention in any plans for the future. Much could be achieved by the use of rotational posts—in paediatrics, for example, in the departments of psychiatry and neurology, which are already involved in the care of these children, as well as in long-stay hospitals.

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Disinfection with glutaraldehyde

SIR,—The views expressed in Dr R M G Boucher's letter (1 December, p 1440) seem to be based on erroneous or incomplete data.

Firstly, Dr Boucher qualifies the statement made in his first letter (18 August, p 444) that "under normal hospital use the alkaline compositions have a short life (maximum 14 days)" by saying that "normal hospital use" means the use of Arbrook Cidematic machines. He claims that this accounts "for at least 60% of the Cidex market in US hospitals." In fact, Arbrook's data show that less than 10% of Cidex products are used in machines, while in the UK the figure is virtually nil. Thus the introduction of machine use into the argument appears to be something of a red herring and irrelevant to the central argument that alkaline glutaraldehydes can be as active as acid formulations over 28 days.

In this context, it is important to differentiate between Cidex Solution, a product with a proved 14-day use life¹ and Cidex Long-Life Solution (known as Cidex Formula 7 Solution in the USA), which has a proved 28-day use life.² While many users of Cidex in the UK only want a product to last 14 days, there are situations where under "normal" manual decontamination procedures Cidex Long-Life Solution is preferred because of its longer use life of 28 days. Such situations usually occur where use of Cidex is spasmodic and cost effectiveness is a prime consideration.

Dr Boucher further confuses the situation regarding shelf-storage life and stability of ready-to-use solutions. The shelf-storage life of the Cidex solutions before activation is essentially the same as that for Sonacide. After activation the Cidex products do lose glutaraldehyde slowly but they retain sufficient active ingredient to meet their label claims throughout their recommended use life under "normal use" conditions. "Normal use," as I have pointed out, is essentially manual decontamination using buckets and containers.

It is true, however, that there are conditions of high-dilution use where greater than 50% dilution can happen in less than 28 days, and this occurs mainly with the use of machines. Accordingly, we recommend a limitation on the use of Cidex Long-Life in machines to two weeks or 40 cycles. This has nothing to do with chemical stability, as indicated by Dr Boucher, but is purely a function of the physical dilution inherent in the use of machines. This limitation applies equally to acid glutaraldehyde solutions such as Sonacide.

Dr Boucher also omits to discuss the re-