

## Contemplating a one child world

### Fundamental rethinking is needed

EDITOR,—A one child world<sup>1</sup> may just be possible in China, a country of coercion, abortion, and neglect of orphans; it may also be achievable soon in Catholic Italy and Ireland. For most countries, though, the switch from demographic transition (average families of 2.1 children) to ecological transition (a one child world) is at least a generation away, and in countries threatened by or already experiencing demographic entrapment this will take much longer. The resurgence of nationalism also complicates this objective, as many ethnic groups will insist that a one child family should not apply to them.

If human survival on a global level is possible, families urgently need to adopt not only a one child world but one in which the destructive ecological effect of each person is as small as possible.<sup>2,3</sup> The issues of demographic and ecological entrapment must become central to the debate over scientific and public health policy; the taboos that hamper this must be dropped. Fundamental rethinking is needed. This is especially true in the industrialised countries in the North, where the ecological effect of one person easily outweighs that of 50 in the non-industrialised South.

Improved surveillance of, and response to, the catastrophic public health threats that the North now faces is not an adequate solution.<sup>4</sup> The explosion of the consumption bomb threatens populations in both the North and the South.<sup>5</sup> To defuse it, fundamental rethinking is needed; along with the nuclear and population bombs this is the greatest threat to public health that we currently face.

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- 1 McMichael AJ. Contemplating a one child world. *BMJ* 1995; 311:1651-2. (23-30 December.)
- 2 Smith R. Overpopulation and overconsumption. *BMJ* 1993;306: 1285-6.
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### Medical profession should give more decisive leadership

EDITOR,—A J McMichael's editorial in the Christmas issue of the *BMJ*<sup>1</sup> and my commentary in the corresponding issue of the *Lancet*<sup>2</sup> say essentially the same things about the present human situation and the philosophical, moral, cultural, and political problems confronting the world at the end of the 20th century. A great deal more needs to be said and done.

I believe that thoughtful women and men everywhere must clear their minds of cant, denial, and obfuscation and engage in dialogue about possible solutions to the unprecedented situation we face. One child families are common in many Western industrial nations as a consequence of recent changes in attitudes towards families and child-bearing. One child families were encouraged at

least for a time in Singapore by taxation policies (with higher taxes on the income of people with several children) and are achieved in China by coercion. Abundant empirical evidence shows that education of girls and adult female literacy are powerful determinants of fertility. In rural agrarian and patriarchal societies values must change before girls are allowed to become educated.

Only changes in attitudes or values seem likely to help us. In my commentary<sup>2</sup> and elsewhere I have spelt out what I believe are the essential steps in resolving any public health problem: awareness that the problem exists, understanding of what causes it, a capability to deal with it, a sense that it matters, and political will to deal with it. In this instance we lack, for the most part, the final two elements, but there are difficulties with the first three as well.

Many religious leaders, industrial and commercial interest groups, and governments continue to deny that the problem exists. There is a sense of helplessness, in the face of what seem to many people to be insurmountable obstacles, that leads some people who perceive that a problem exists to believe that we are incapable of doing anything about it. More than values come into play. The urge to reproduce is surely at least partly instinctive in humans, with much overlay of religious beliefs and human values.

The United Nations conferences on the environment, population, and women did not adequately come to grips with reality. Their deliberations did not recognise that the irresistible force of population growth will soon run headlong into the immovable object of the earth's carrying capacity. Can members of the medical profession give more decisive leadership in discussing this and searching for solutions?

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### Medical students should be taught to appraise evidence on global health issues

EDITOR,—Three recent papers highlight the potential impact of global threats to health.<sup>1-3</sup> Over the past two years clinical students at two medical schools in London have been given a questionnaire, before seminars in primary care or public health, seeking their views about the greatest threats to the health of humans in the next 30 years. They were asked to write five threats in order of priority, on a freeform page. The results were then analysed: the number of times a topic was mentioned was determined and an average score calculated on the basis of 1 point for first place and 5 points for fifth place. Thus a high number of mentions and a low average score indicate that students consider the issue to be important. A total of 192 questionnaires was received (response rate 100%). Analysis did not show any significant difference between the two medical schools. HIV/AIDS and war were seen as the most important threats. Table 1 shows the results when other, overlapping topics were combined—such as "hunger," "starvation," and "malnutrition" as one and "environment,"

### Advice to authors

We receive more letters than we can publish: we can currently accept only about one third. We prefer short letters that relate to articles published within the past four weeks. Letters received after this deadline stand less chance of acceptance. We also publish some "out of the blue" letters, which usually relate to matters of public policy.

When deciding which letters to publish we favour originality, assertions supported by data or by citation, and a clear prose style. Wit, passion, and personal experience also have their place.

Letters should have fewer than 400 words and no more than five references (including one to the *BMJ* article to which they relate); references should be in the Vancouver style. We welcome pictures.

Letters should be typed and signed by each author, and each author's current appointment and address should be stated. We encourage you to declare any conflict of interest.

Please enclose a stamped addressed envelope if you would like to know whether your letter has been accepted or rejected.

Letters will be edited and may be shortened.

"ozone depletion," and "global warming" as another.

The results suggest that students are aware of the potential impact of conflict, environmental change, and HIV/AIDS, but some responses showed considerable misunderstanding about the relative importance of some issues. For example, a number of students cited drug misuse or ozone depletion as the greatest threat. Most students will encounter consequences of the threats raised in our questionnaire when working in Britain, and many will work in developing countries at some point in their careers. We would argue that teaching that allows medical students to appraise critically the evidence on global health issues is appropriate in medical curricula for the 21st century. This is in line with the General Medical Council's current recommendations.

We are developing core and optional curricula to cover these issues; further information can be obtained from the office of MEDACT,

**Table 1—Most important threats to health of humans as perceived by 192 medical students, who each listed five threats\***

	No of mentions	Average score
War	155	3.09
Environment	140	3.25
HIV/AIDS	138	2.64
Starvation and malnutrition	129	2.27
Poverty	93	2.45
Overpopulation	72	2.65
Communicable diseases (except HIV/AIDS)	48	2.96
Other diseases	41	3.20
Moral standards and lifestyle	41	3.39
Political regimes or ideologies	22	3.50

\*Altogether 81 options were not used.

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- 1 McMichael AJ. Contemplating a one child world. *BMJ* 1995; 311:1651-2. (23-30 December.)
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## Abortion without the woman's consent is unlikely to improve her depression

EDITOR.—As a general practitioner and trained counsellor, I was horrified to learn that a consultant gynaecologist could legally remove a woman's 11 week old fetus without her consent.<sup>1</sup> Anyone who has studied the psychological origins of depression will be aware that loss is a major factor.<sup>2,3</sup> For Reginald Dixon to justify ending his patient's pregnancy on the grounds that it would benefit her mental state suggests great ignorance of the aetiology of mental health problems. Creating further loss cannot improve depression, only exacerbate it.

My research into the psychological effects of obstetric and gynaecological procedures showed that risk factors for the development of post-traumatic stress disorder include lack of consent for the procedures, lack of information, the women's lack of control over their bodies, and an unsympathetic attitude on the part of the doctor.<sup>4</sup> In my view, removing a woman's fetus without her knowledge or consent fulfils all of these criteria.

The public places its trust in the medical profession to act in the best interests of the patient. Aborting a fetus without obtaining the woman's consent in my view betrays that trust. If the law fails to protect that trust women will, rightly, stop having confidence in their carers.

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- 1 Dyer C. Gynaecologist acquitted in hysterectomy case. *BMJ* 1996;312:11-2. (6 January.)
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## Cost effectiveness of antenatal screening for cystic fibrosis

### Realistic cost must be established for genetic counselling in two step screening

EDITOR.—The paper by H S Cuckle and colleagues reaches an extraordinary conclusion—namely, that couple screening is more expensive than two step (sequential) screening per affected pregnancy

detected.<sup>1</sup> This is contrary to the conclusion of the recent detailed analysis by Morris and Oppenheimer<sup>2</sup> and to the conclusions that colleagues and I reached after substantial field trials of both types of screening.<sup>3,4</sup>

The problem seems to lie primarily in establishing a realistic cost for the genetic counselling component of two step screening. In Cuckle and colleagues' paper this element seems to have been ignored. In our two step trial a trained genetic nurse managed to cope with 200 carriers a year, generated from the 5000 women accepting the offer of screening. At a salary of £20 000 this added £10 000 per affected pregnancy detected, making two step screening considerably more expensive than couple screening. I concede that it is theoretically possible for a genetic nurse to cope with up to 400 carriers a year, provided that they are being counselled in the antenatal clinics of the same hospital. I do not believe that it is practical to dispense with skilled genetic counselling in two step screening.

Herein lies a crucial issue for any form of screening for cystic fibrosis. If the objective of screening is to "give information to families who want it," as Angus Clarke suggests in his commentary on Cuckle and colleagues' paper,<sup>1</sup> then the counselling element will make it a prohibitively expensive programme. It is no surprise that all screening programmes in the non-pregnant population have ended after research funds were exhausted. If, on the other hand, the purpose of screening is to allow parents to reduce the risk of having affected children then the minimal counselling of the couple screening programmes will probably suffice. The ultimate test of any screening initiative is whether it can move from the protected environment of a research trial to the hurlyburly of the NHS internal market. Couple screening for cystic fibrosis has managed to do just that.<sup>5</sup>

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- 1 Cuckle HS, Richardson GA, Sheldon TA, Quirke P. Cost effectiveness of antenatal screening for cystic fibrosis. *BMJ* 1995;311:1460-4. [With commentary by A Clarke.] (2 December.)
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### Counsellors do not have to be genetic nurse specialists

EDITOR.—It is interesting that authors of papers on screening for cystic fibrosis and other genetic disorders take it for granted that carriers should be counselled by genetic nurse specialists.<sup>1</sup> The implication is that only a genetic nurse specialist will, or even could, have the required understanding and knowledge. It also seems to be unquestioningly accepted that all genetic nurse specialists are trained counsellors. I wonder if I am alone in questioning this received wisdom.

About 280 children are born with cystic fibrosis each year.<sup>2</sup> In 1995 my staff at the Cystic Fibrosis Trust received telephone calls from 277 parents of newly diagnosed children and 78 other relatives. Not all required counselling, but a number did—as do members of the public who are concerned, and sometimes anxious, about their carrier status. None of my staff is a genetic nurse, but all of them have received recognised training in counselling and all are knowledgeable about cystic fibrosis.

When, rarely, a person is particularly anxious or is having exceptional difficulty in understanding and making personal sense of the situation then he or she is referred to an appropriate specialist, which may include a genetic nurse specialist.

While it is understandable that people working in clinical settings automatically consider clinical colleagues when establishing a multidisciplinary service, it does not follow that this is the most effective method of delivering a service or the optimum use of resources. The cost of £25 per couple quoted by H S Cuckle and colleagues is much higher than the cost of our service, for example.<sup>1</sup>

The consensus is that counselling skills are an essential component of a screening programme. People with such skills and recognised training can, however, obtain the knowledge and understanding of a genetic disorder required to counsel carriers successfully without training to be genetic nurse specialists.

The National Vocational Qualifications currently being established in advice, guidance, counselling, and psychotherapy will allow many more health professionals to obtain nationally recognised qualifications. It is surely time, therefore, for more questions to be asked and fewer assumptions made about who is best equipped to deliver the counselling component of a screening programme. If a genetic nurse specialist is the best person then let that be shown empirically; surely our goal should be to find the most effective way of meeting the needs of clients.

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- 1 Cuckle HS, Richardson GA, Sheldon TA, Quirke P. Cost effectiveness of antenatal screening for cystic fibrosis. *BMJ* 1995;311:1460-4. [With commentary by A Clarke.] (2 December.)
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### Couple screening should be preferred for medical reasons

EDITOR.—Oppenheimer and I recently concluded that the cost per detected fetus with cystic fibrosis was about £143 000 for couple screening and £147 000 for sequential (two step) screening,<sup>1</sup> whereas H S Cuckle and colleagues conclude that the cost is about £46 000-104 000 for couple screening and £40 000-90 000 for sequential screening.<sup>2</sup> Our costs are higher as we assumed that each person or couple would be retested for each pregnancy. Cuckle and colleagues assume that results would be reliably retained from previous pregnancies, and, if this was so, retesting would be unnecessary. Nevertheless, we still disagree with Cuckle and colleagues' conclusion that sequential screening is less expensive than couple screening.

Firstly, the cost of counselling mothers who are found to be carriers in sequential screening is not included. Such counselling would involve ensuring that the mothers are aware of the next steps in screening and the consequences if their partner's result is negative (an increased (though in absolute terms low) risk of having an affected fetus). Each woman would also have to be advised that any new partner would need to be tested. If the cost of such counselling was about £10 a session the cost of sequential screening would be about £1000 higher per fetus detected. In couple screening, individuals are not identified as being positive so this initial counselling is not required.

Secondly, the conclusion that sequential screening is cheaper than couple screening depends on the assumption about the proportion of women who will change partners. Cuckle and colleagues assume that 10-30% of women change partners between pregnancies, but the Office of Population