

## Caesarean section: a treatment for mental disorder?

### Tameside & Glossop Acute Services Unit *v* CH (a patient) [1996] 1 FLR 762

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#### Case report

CH was a 41 year old woman who suffered from paranoid schizophrenia. She was detained under section 3 of the Mental Health Act 1983 and was subsequently found to be pregnant. She had previously shown pathological reactions to major tranquillisers, and it was feared that their use would be injurious to the fetus; thus, during pregnancy she was given only minor tranquillisers. Her psychiatrists stated that were she not pregnant she would be given strong antipsychotic drugs.

At 31 weeks into the pregnancy it was established that intrauterine growth was retarded because of a poorly functioning placenta. By 37 weeks, there were concerns that if the pregnancy continued the fetus would die in utero. The obstetrician considered that it was necessary to deliver the baby as soon as possible and planned to induce labour, but there was a possibility that fetal distress could occur during labour and, if so, an immediate caesarean section would be required.

It was agreed that the death of the baby in utero would not cause any physical harm to the mother, but the psychiatrist thought that delivering a stillborn child would have "profound deleterious effect" on her mental health in the short and long term. He believed that if the child were stillborn CH would become increasingly paranoid and blame staff for its death. This would undermine the trust she had in psychiatric services, and without that degree of trust the prognosis for treating her schizophrenia was deemed to be poor.

The obstetrician (who wished to induce within two days) was concerned that, although CH consented to the induction, she might change her mind and, if so, might need to be restrained. CH had told her psychiatrist that she considered a caesarean section unnecessary at that stage. Accordingly, the NHS trust sought a declaration that the caesarean section could be performed without CH's consent and physical restraint used if necessary.

A fetus has no legal personality thus no operation could be imposed on the mother in the interests of the fetus.<sup>1</sup> Given that all parties accepted that CH lacked capacity to give or refuse her consent to the proposed caesarean section, it was not necessary to consider the

#### Mental Health Act (1983)

Section 63: "The consent of a patient shall not be required for any medical treatment given to him for the mental disorder from which he is suffering"

- Specifically authorises treatment for mental disorder
- Such treatment can be given without consent
- There is no power to impose treatments for physical disorders without consent unless it is a physical disorder that gives rise to a mental disorder and it is necessary to treat the physical disorder in order to treat the mental disorder

guidelines laid down by the Royal College of Obstetricians and Gynaecologists after an earlier case,<sup>2</sup> which state that the refusal of a woman of "sound mind" must be respected.

That the treatment was necessary to prevent deterioration of CH's mental state and was in her best interests was not disputed by the official solicitor appointed to represent her interests. On this basis it would have been lawful for the caesarean section to be performed without CH's consent. However, although previous cases had authorised treatment without consent in such circumstances, they had not involved the use of restraint. Accordingly, the court was asked to consider whether the treatment (and by implication the use of restraint and reasonable force) could be authorised under the relevant provision of the Mental Health Act (1983) (section 63).

In considering whether the proposed treatment fell within the remit of section 63, the judge examined the earlier case of *B v Croydon Health Authority*.<sup>3</sup> The Court of Appeal had decided that B, a woman with borderline personality disorder who was refusing food, could be force fed because tube feeding could be considered "ancillary" to treatment for the mental disorder. Following this "ancillary" treatment argument, the judge concluded that, because a successful outcome of CH's pregnancy was a necessary part of the overall treatment of her mental disorder, the treatment of her pregnancy (including the use of restraint) fell within section 63. The judge gave three reasons for his decision. Firstly, an ancillary reason for the induction and, if necessary, the caesarean section was to prevent a deterioration in CH's mental state. Secondly, for the

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treatment of CH's schizophrenia to be effective it was necessary for her to give birth to a live baby. Thirdly, the administration of antipsychotic drugs had been necessarily interrupted by pregnancy and could not be resumed until her child was born.

## Commentary

To hold that a caesarean section can be given as medical treatment for mental disorder without consent under section 63 is contrary to the purpose of the Mental Health Act and presents a serious threat to the rights of detained patients. If this decision is correct, invasive treatment may be imposed for physical disorders even if the patient is competent, refuses the treatment, and it is not in the patient's best interests to receive that treatment.

Section 63 was never intended to authorise such treatment. Indeed, when express authority for compulsory treatment was first introduced such provisions were declared, by the Secretary of State for Social Services, to be limited to "strictly defined circumstances... with the safeguards graduated according to the particular category of treatment."<sup>4</sup> Treatments under section 63, described in the parliamentary debates as "perfectly routine, sensible treatment... and general nursing and other care," were not considered serious enough to need safeguards. Yet a caesarean section goes far beyond the "perfectly routine" treatments intended to fall within section 63 and it is clearly not treatment "for mental disorder" as required by the Mental Health Act.

Although it allowed "ancillary treatment" to be imposed in the case of *B v Croydon Health Authority*, the Court of Appeal had made it clear that there are limits to the type of treatment that can be authorised under section 63. For example, a detained patient with schizophrenia was entitled to refuse surgical treatment for gangrene because his gangrene was "entirely unconnected with the mental disorder."<sup>5</sup> Thus, there must be a direct link between the mental disorder and the physical condition for the treatment of the physical condition to fall within section 63 (such as tube feeding a patient with anorexia nervosa). However CH's pregnancy was neither a symptom nor a consequence of her paranoid schizophrenia, and the fact that the treatment for the physical condition is necessary for

the treatment of the mental disorder to take place would not be sufficient to make it ancillary to the core treatment.<sup>6</sup> There is no greater connection between a woman's pregnancy and her mental disorder than between a man's gangrenous leg and his mental disorder. To argue that a caesarean section is therefore treatment of her mental illness is akin to stating that any "life-saving" treatment falls within section 63 because if a patient dies then treatment for his or her mental disorder cannot be given.

This decision highlights the urgent need to clarify the extent of the power to treat under section 63. The wide interpretation of the powers for compulsory treatment allows a range of invasive treatments for physical disorder to be forcibly administered without any independent scrutiny of the decisions or any safeguards for the patient. The confusion arising from the courts' failure to maintain a clear distinction between treatment for mental disorder and treatment for physical disorder may lead to misuse of the Mental Health Act. Indeed, in a recent case a woman with no previous history of mental disorder was detained under the act and forced to undergo a caesarean section after she had refused to accept her general practitioner's advice about treatment of her pregnancy.<sup>6, 7</sup>

The Mental Health Act was intended to provide a balance between the desire of clinicians to provide treatment and the right of patients to make decisions about their treatment. It certainly was not intended to override the rights of women to decide on their obstetric care. Difficult cases such as that of CH will arise, but the courts should not manipulate the act to authorise the compulsory treatment for physical disorder under the guise of treatment for mental disorder as a matter of convenience and against the wishes of the patient. If the law creates a lacuna then this should be addressed by legislation after careful public debate.<sup>8</sup> Failure to do so is likely to result in the continued encroachment on the rights of patients.

1 Re F (in utero) [1988] 2 All ER 193.

2 Re S (adult refusal of treatment) (1992) 9 BMLR 69.

3 B v Croydon Health Authority (1994) 22 BMLR 13.

4 House of Commons official report (Hansard) 1982 March 22; 82: col 693.

5 Re C (adult refusal of treatment) (1993) 15 BMLR 77.

6 Dyer C. Mother challenges forced caesarean operation. *Guardian* 1996 December 18.

7 Re S (1997) (unreported).

8 Gunn M. Treatment without consent. *J Forensic Psychiatry* 1995;6:411-5.

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## Commentary: Bad medicine and bad law

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Pregnancy and mental illness frighten doctors, and, for different reasons, both sets of patients are at risk of losing basic human rights. Law exists to protect patients from well intentioned but overenthusiastic doctors. We override long established law on consent, the legal status of fetuses, and the enforced treatment for mental conditions at our peril. The recent spate of cases of caesarean sections poses a serious threat to the therapeutic relationship and takes place against a background already coloured by accusations of unnecessary intervention by a male dominated profession.

There is no trusting relationship if an obstetrician says: "I recommend a particular course of action (but I can force it on you if you do not agree)."

Obstetricians are passionate advocates of fetal health and wellbeing, and we have worked well for a long time with heavy duty persuasion as our most powerful weapon. Standing back is terribly painful, and the inability to perform caesarean sections without consent means that we will occasionally care for a woman while listening to a disappearing fetal heart and needlessly dying baby. No wonder the emotional

temperature of this debate is so high. If pregnant women are competent adults they take responsibility for the outcome of rejecting expert advice. Even if they are incompetent, recent updated advice from the Royal College of Obstetricians and Gynaecologists includes taking the wishes and feelings of such patients into account.<sup>1</sup> Our unique dilemma of treating one patient inside another cannot be solved satisfactorily by massaging the rules.

CH, with her combination of pregnancy and mental illness, has suffered a double insult. The psychiatrist stated that, were she not pregnant, "she would be given strong antipsychotic drugs." It is appropriate for doctors to be worried about drugs in pregnancy, but few are contraindicated, and all too often this medical caution leads to inadequate and inferior treatment. Major tranquillisers, such as chlorpromazine and haloperidol, are not contraindicated, and many are used throughout pregnancy for schizophrenia and even in the first trimester for hyperemesis. So called minor tranquillisers can cause neonatal sedation and withdrawal. It is a general obstetric principle that some fetal risk can be taken, especially if the maternal benefit is large and proved. Even if the psychiatrist were considering new drugs with unknown effects it seems unkind and neglectful not to have treated, especially if the drug could have been given for only a few weeks in the late third trimester. To use CH's untreated illness as the basis for this application adds a bizarre twist.

The intrauterine growth retardation cannot have been severe if it had been noted for over six weeks, but it is true that fetal distress or heart rate abnormalities may have occurred during labour. Only a minority of these lead to intrapartum stillbirth, and there is great controversy about the causal relation between long term handicap and asphyxia during labour: much handicap is probably related to antenatal insults. Thus, the justification for performing caesarean sections against maternal wishes in the fetal interest is often fallible.

Although the claim here was that the caesarean section was in the mother's interest rather than the

fetus's, the argument is unconvincing. It is absurd to think that CH's trust in the psychiatric services would be undermined by an obstetric complication whereas misusing the Mental Health Act to have her physically restrained, given a general anaesthetic, and cut open would not. Stillbirth is related to depression, but so is removal of a child, which might happen in this case. There is also a question about the supposed inability to consent. The doctors were clearly able to talk to CH about the intrauterine growth retardation and a possible caesarean section and were happy to accept her consent for the tests of fetal wellbeing that must have been performed over the weeks. It was only the possibility of her changing her mind about induction or a future refusal to a caesarean that led to the NHS trust seeking a declaration.

This suggests that the judgment about capacity was based on her agreement with the doctors rather than her capacity to disagree. If CH had refused examinations and scans and said that the baby was moving well, would intrauterine growth retardation have been suspected or a declaration obtained to physically restrain her weekly to examine her? I doubt it. The danger now is that women may avoid getting diagnoses, monitoring, or treatment if the results will add weight to medical arguments used against them in courts. To treat CH inadequately, and then use the illness from which she was suffering as the excuse to get permission to force a potentially unnecessary operation was adding insult to injury.

On the facts presented this was bad medicine and bad law. The obstetrician was in an awful position but should not have colluded with it. It will not benefit babies in the long run to make their mothers second class citizens or alienate them from care.

1 RCOG guidelines. *Ethics. A consideration of the law and ethics in relation to court-authorized obstetric intervention*. No 1. London: Royal College of Obstetricians and Gynaecologists, 1994. (Supplement to No 1 published in December 1996.)

## Commentary: A decision that stretches the law too far

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The decision of *Tameside and Glossop Acute Services Trust v CH*,<sup>1</sup> heavily criticised by academic writing,<sup>2</sup> represents a further development of the law relating to "enforced" caesarean sections. It is important to distinguish this case, which was decided under section 63 of the Mental Health Act (1983), from cases decided under the common law. Now the basic principles of the common law are reasonably clear:

- In common law an unborn child has no legal status and no rights,<sup>3-5</sup> and, indeed, whatever the ethical position, the courts have no jurisdiction in law to take the interests of a fetus into account and balance them against those of the mother;<sup>6</sup>
- An adult is deemed to be "competent" to consent to or refuse treatment unless the contrary is proved;<sup>6, 7</sup>
- A person, whether or not a patient under the Mental Health Act, is considered "competent" to make a deci-

sion about his or her medical treatment if he or she can comprehend, retain, and use information relevant to that decision and weigh it in the balance to arrive at a true choice;<sup>6</sup>

- A person who is not "competent" to make the relevant decision can, under the common law, be treated in his or her "best interests,"<sup>8</sup> and reasonable force may be used for the purpose.<sup>6, 9</sup> Such "incompetence" need not be permanent: it may, for example, be the temporary result of panic induced by needle phobia or fear of anaesthesia;<sup>6</sup>
- While the courts have the power to declare that proposed treatment is lawful, such a declaration does not bind anyone who is not a party to the legal case, and in any event: "will not alter the legal status of the proposed conduct."<sup>10</sup> It provides only a discouragement, and no legal obstacle, to further proceedings.

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Other decisions about the legality of performing a caesarean section against the apparent wishes of the mother have all been under the common law.<sup>6 9 11 12</sup> In *Re S* no finding was made that the mother lacked competence,<sup>11</sup> and in my view it was therefore not correct to say that an operation without her consent was lawful. In other cases the judges decided, firstly, that the mothers were not capable of weighing up the considerations involved in refusing caesarean sections and that they were therefore not competent and, secondly, that the caesarean sections were in their best interests and thus lawful.

The case of *CH* breaks new ground because it was not decided under these principles of common law. It turns on section 63 of the Mental Health Act, which is contained in part IV and thus applies only to a patient liable to be detained under the act. It was based on a reading of the section that "treatment for mental disorder" does not mean only treatment for the mental disorder itself but includes "a range of acts ancillary to the core treatment."<sup>13</sup>



Caesarean section: treatment for mental disorders?

In the earlier case of *B v Croydon Health Authority* the court had for that reason declared lawful the force feeding of a patient with borderline personality disorder whose compulsion to self harm had made her refuse food.<sup>13</sup> Basing his decision on that authority, Mr Justice Wall concluded that the proposed caesarean section was not "entirely unconnected" with *CH*'s mental disorder because "it is not ... stretching language unduly to say that achievement of a successful outcome of her pregnancy is a necessary part of the overall treatment for her mental disorder."<sup>1</sup> He went on to conclude: "Since the defendant's consent to it is not required *Dr G* is entitled, should he deem it clinically necessary, to use restraint to the extent to which it may

be reasonably required in order to achieve the delivery by the defendant of a healthy baby."

What should we make of all this? Others have commented, and will continue to comment, on the ethical dilemma: the Court of Appeal has expressly declined to do so, saying: "This is not a court of morals." To a lawyer, these cases raise serious problems, both procedural and substantive.

Procedurally, there has been a sense of unease because decisions are being taken about invasive surgery on a mother at a time of stress when she has had no legal representation, with the official solicitor not invariably present in court, at short notice, and on principles being developed on a case by case basis. However, the Court of Appeal has now laid down guidelines stating that, if possible, problem cases should be identified and brought before the court early; that the mother should be represented; that the official solicitor should take part as *amicus curiae* unless he or she represents the mother; and that, if possible, there should be evidence of the mother's background and circumstances and (preferably from a psychiatrist) her competence.<sup>6</sup> This protocol should calm fears about procedural injustice.

However, the substantive law is not satisfactory. Firstly, it is not even clear if part IV of the Mental Health Act and the common law are mutually exclusive or not.<sup>14</sup> Secondly, the degree of permissible force that can be used in a mother's "best interests" despite her continuing objections is difficult to identify. Thirdly, as to the new statutory approach, I can only say that the extension of the phrase "treatment for mental disorder" to include caesarean section would surely have surprised those who framed the Mental Health Act. Insofar as it is treatment for any disorder of the mother, it is surely treatment for physical disorder.

As one judge said about a decade ago: "If the law is to be extended in this manner, so as to impose control of the mother of an unborn child where such control may be necessary for the benefit of that child, then under our system of parliamentary democracy it is for parliament to decide whether such controls can be imposed and, if so, subject to what limits and conditions."<sup>5</sup> Until then, judges, confined by principles of the common law and a statutory phrase that evolved in context quite different from those under discussion, will have to do their best with imprecise and inappropriate legal tools and will indeed find it difficult not to let their hearts rule their heads: doctors will have to obey a law that may conflict with their ethical obligations to a viable fetus in need of rescue.

- 1 *Tameside and Glossop Acute Services Trust v CH* [1996] 1 FLR 762.
- 2 *A Grubb* (1996) 4 Med L Rev 193.
- 3 *Paton v British Pregnancy Advisory Service Trustees* [1979] QB 276.
- 4 *C v S* [1988] QB 135.
- 5 *Re F (in utero) (wardship)* [1988] Fam 122.
- 6 *Re MB (unreported)* Court of Appeal 1997 March 26.
- 7 *Re T (adult: refusal of medical treatment)* [1992] 4 All ER 649.
- 8 *Re F (mental patient: sterilisation)* [1990] 2 AC 1.
- 9 *Norfolk & Norwich Healthcare (NHS) Trust v W* [1996] 2 FLR 613.
- 10 *Airedale NHS Trust v Bland* [1993] AC 789.
- 11 *Re S (adult: refusal of treatment)* [1993] Fam 123.
- 12 *Rochdale Healthcare (NHS) Trust v C*, [1997] 1 FLR 274.
- 13 *B v Croydon HA* [1995] 1 All ER 683.
- 14 *A Grubb* (1995) 3 Med L Rev 191.

## Commentary: Is caesarean section a treatment for medical paranoia?

Hilda Bastian, Cathy Conroy

The argument that a caesarean section, imposed with physical force on an unwilling woman, could actually be good for her mental wellbeing came as a complete shock to us. Distress and depression after caesarean section are common, even when a woman has consented to, or even welcomed, the surgery.<sup>1-4</sup> It is painful to contemplate what an enforced caesarean section would be like, particularly for a woman with paranoid schizophrenia.

Going under anaesthetic is something that scares many women. For most of us, those fears will be about whether we will wake up and how our bodies and babies will cope. Maybe we might later wonder: "Is that baby really mine?" The aftermath and scar may be a source of pain and grief. But no one will have strapped us down, and left us prey to agonised imaginings about what was done to us during the time we were unconscious.

CH's doctors were worried what she might think if her baby died, but did they fully take into account what she might think of the treatment forced upon her? She could well awaken in a far more dubious state discovering that she had been robbed of any opportunity to make decisions about her own body. Even with the immediate application of antipsychotic drugs, extremely strong repercussions of fear and anger might arise. And rightfully so: after all, mentally ill people do have rights. On one thing we do agree with the doctors in this case: without a degree of trust in health-care workers, CH's ongoing psychiatric treatment for her schizophrenia could be severely compromised. After what happened to her on this occasion, when she had been willing to cooperate but was still denied all rights, will CH ever trust any doctor again?

CH's baby could have died even with the caesarean section. At least, if she had been conscious she could have seen for herself what was done. In the end she was also denied any informed and independent advocacy

on her behalf. Neither the judge nor the official solicitor provided much of a safeguard when the NHS trust sought to override CH's rights. The trust had the benefit of two specialists to argue its case: CH should have had the benefit of an independent mental health advocate or guardian at the least.

While this report focused on CH's paranoia, most of the fears described in the article actually came from the doctors: that CH might blame them, that she might change her mind, that she might be out of control in the labour ward, and that the baby might become distressed or might die. In fact, there was no emergency: the obstetrician had recommended induction within two days, not immediately, and CH had agreed. Agreeing to induction but refusing caesarean section is a choice many of us would make. CH simply was not given a chance to show that the medical paranoia may well have been unfounded.

The interpretation of the Mental Health Act in CH's case represents a serious erosion of patients' rights. Denying people the right to refuse major surgery of dubious value is to assault not just their bodies but their dignity and spirits as well. That cannot constitute good care. When a health service so blatantly starts to protect its own interests instead of patients' rights, and is prepared to use force to do so, then it betrays the trust not just of an individual patient but of the whole community.

- 1 Gitlin MJ, Pasnau RO. Psychiatric syndromes linked to reproductive function in women: a review of current knowledge. *Am J Psychiatry* 1989;146:1413-22.
- 2 Fisher JRW, Stanley RO, Burrows GD. Psychological adjustment to caesarean delivery: a review of the evidence. *J Psychosom Obstet Gynaecol* 1990;11:91-106.
- 3 Hillan EM. Short-term morbidity associated with cesarean delivery. *Birth* 1992;19:190-4.
- 4 Miovech SM, Knapp H, Borucki L, Roncoli M, Arnold L, Brooten D. Major concerns of women after cesarean delivery. *J Obstet Gynecol Neonatal Nurs* 1994;23:53-9.

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## Equity, poverty and health for all

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Health for All is not just a slogan but a way of thinking about improving health for the whole population. At its heart is equity, which is about fairness and justice. It should be distinguished from the related concept of equality. The principles of distributive justice may be incompatible and conflicting; which one is used depends on the values selected. Variations in health and health care exist; to tackle this effectively requires further research. A most important issue, however, is reaching a consensus of the values to be used. Tackling poverty is an essential component of improving the population's health.

"If put in sufficiently general terms, the essence of the good society can be easily stated. It is that every member, regardless of gender, race or ethnic origin, should have access to a rewarding life."

J K Galbraith, *The Good Society*

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### What is health for all?

The concept of "health for all" provides a vision of what might be achieved if the potential for improving health is realised. It is about having a life with meaning—one that is particularly relevant when poverty is discussed.

Many of the issues that really matter in improving the public's health come under this heading. They include the emphasis on health, the importance of equity, the relevance of partnerships, and the need to involve patients and the public in health.

The WHO was not the first to use the slogan Health For All. In 1941, Julian Huxley, in *Picture Post*, a weekly British magazine, wrote a prophetic article entitled "Health For All." In it he called for "a healthy diet for all, everyone to have a chance to reach known health standards, public health as a positive service, health put on a family basis, a real family and population policy, and child welfare centres started everywhere." The National Health Service in the United Kingdom, set up in 1948, embodied many of these principles.

The WHO Health for All initiative began in Almaty, Kazakhstan, in 1978 with a declaration that emphasised the importance of equity, economic and social development, and of participation by the people in the process of improving health—and the crucial role of primary care. It encouraged each country to formulate national policies and strategies for health. To those who were around at the time it was a period of great vision and aspirations. The regions of the WHO took up the challenge, and in 1984 the European region launched the 38 targets for the region as a whole. The WHO is in the process of revitalising the strategy—a revised version will be completed by 1998. Around the world new ideas are being considered which will take Health for All into the next millennium.

### Quality of life for all

Several issues which relate to the concept of Health for All need to be considered. The first is whether Health for All, as a statement, is too passive. Health *by* All might be more appropriate. If this is accepted then the mechanisms by which health is improved can be effective only through partnerships between all the agencies involved. This includes government, employers, employees, communities, local authorities, educational and religious leaders, and the voluntary sector, as well as individuals and families. The second issue is the importance of defining health, and being clear about the purpose of health. The WHO definition of health as "a state of complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity" has been criticised for being too idealistic. It does, however, emphasise the holistic nature of health, and its positive aspects.

The purpose of health is equally difficult to define. Health can be a means or an end, though it is suggested that health is one component, albeit an important one, of quality of life. The concept of quality of life can be even more difficult to define. For the purposes of this paper it is the recognition of the gap between an individual's hopes and aspirations and reality. It is therefore also about potential and how it can be achieved. "Health for all" could equally well be expressed as "quality of life for all."<sup>1</sup>

### Equity, equality, and health for all

One of the central features of Health for All is its emphasis on equity and equality. Yet in spite of increasing interest in variations in health and health care and

the inequities and inequalities which can occur, equity remains an important issue. Over the past few years several reports have highlighted these variations, which are well recognised.<sup>2</sup>

Health is determined by a number of factors including biological and genetic factors, lifestyle and behaviour, the environment (including communicable diseases), social and economic factors, and health services. In all of these, the concepts of equity and equality are important and the variations in health and health care which exist may be related to any of them. Equity is about fairness and justice, and implies that everyone should have an opportunity to attain their full potential for health. Equality, on the other hand, is about comparisons between the level of health, or ability to obtain access to health care, of individuals and communities. Some inequalities may be unavoidable, and therefore generally not considered unfair, while others might be avoided and so considered inequitable. Natural, biological and genetic variations may have unavoidable (though very important) health inequalities related to them. Lifestyle and behaviour patterns chosen by individuals can also result in inequalities in health—for example, cigarette smoking. However, lifestyle and behaviour that is not freely chosen, and that results in poorer health, might be considered as avoidable and thus inequitable. Health inequalities arising from the level of resources, housing conditions, dangerous working conditions, or exposure to environmental hazards, and which lead to health inequalities, would be examples of these. Inadequate access to health care through lack of transport, or inaccessibility of information due to language difficulties, might also be inequitable. There are also inequalities in the range of facilities available, and there are considerable variations in quality of care and outcomes of treatment across Britain.

In considering the actions needed to reduce inequities, a group was set up in England in 1995 to review the evidence of effectiveness of interventions within the Health of the Nation key areas (coronary heart disease and stroke, accidents, mental health, cancers, and HIV and sexual health).<sup>3</sup> One of the report's key conclusions was that little has been published on this subject and that there are few pointers to effective action. In the meantime, targeting of resources to meet particular needs, together with action at a social and economic level and information provision, provide some ways forwards.

### Distributive justice

Defining equity and equality is relatively easy. The difficulty comes in deciding what is fair or just, whether

#### Box 1

#### Problems in deciding what is fair and just

- Most problems are complex, and there is no right answer
- Choices need to be made within fixed resources
- The knowledge base is only one component of decision making
- Logical argument is only one part of the process
- The public view needs to be considered
- There is always room for differences of opinion

## Box 2

**Rules of distributive justice**

- To each person an equal share
- To each person according to individual needs
- To each person according to individual efforts
- To each person according to societal contributions
- To each person according to merit

there are any principles that can be used, and how they can be put into practice. Such questions relate not only to equity but to priority setting and rationing. The central principle is the value base from which decisions are made. It is this which determines what is fair or just. Decisions are made even more difficult because of the uncertainty of outcome. Some other issues are also relevant (see box 1).

**Some ideas on fairness, justice, and equity**

Such issues have been discussed since the time of Plato and there are no commonly agreed views as to the basis of decision making. Jurisprudence, the study of the philosophical and ethical basis of the law, provides a range of theories (Hart's concept of law,<sup>1</sup> Rawls's theory of justice,<sup>5</sup> etc). There is a general agreement that each person should have an equal right to basic liberties such as freedom of speech and thought and that each person has a right to equal opportunities, especially through education. Thereafter there is less consensus. Most of the health issues related to equity come under the category of "distributive justice"—that is, how benefits, resources, and burdens of society are distributed to each individual. The rules define how society cooperates and these relate directly to the values in society (see box 2).

Very different choices would be made, depending on the option selected. Such principles are mutually incompatible. They are, however, closely related to some basic ethical principles<sup>6</sup> (see Box 3) which can also be mutually incompatible.

## Box 3

**Ethical principles for distributive justice**

- Autonomy: rights of the individual
- Beneficence: doing good
- Non-malevolence: not doing harm
- Utility: the greatest good, the greatest number
- Equity: justice and fairness

**Putting equity into practice**

How can such principles be put into practice, and is it possible to define an operating framework? In reviewing such issues from a national or public health perspective, consider how similar issues are dealt with by the practising doctor.

The problem faced by the doctor in deciding, with the involvement of the patient, the appropriate choice of treatment and how best to use resources is analogous to that faced by the public health professional or the politician, who has to deal with problems of a different order (see box 4). This model, like others, is a simplification of complex situations, but

## Box 4

**The patient's questions and the task for policy makers**

- *The patient's question:* What is the problem? (The diagnosis)

*The policy maker's task:* To identify the problem (diagnosis) and marshal the evidence; to carry out a critical and knowledge based review of those health problems that are of particular concern

- *The patient's question:* What does it mean? (The prognosis)

*The policy maker's task:* On the basis of the diagnosis, to identify the health needs of the population. The public's participation is needed to define priorities

- *The patient's question:* What might be done? (The range and choice of interventions and treatments available)

*The policy maker's task:* To review all the possible choices for intervention, such as prevention, treatment and rehabilitation, with their advantages and disadvantages

- *The patient's question:* What should be done? (Decision on the appropriate action based on the possible benefits)

*The policy maker's task:* To make appropriate choices based on the available information, that need to take into account the uncertainties with the evidence and the need for judgment. Public involvement is essential. The decision is made and resources allocated

- *The patient's question:* How will you know if it is worthwhile? (The measurement of the outcome)

*The policy maker's task:* To define the outcome and regularly assess the intervention. The evaluation stage is built in

- *The patient's question:* Will you keep things under review? (Redefining the problem)

*The policy maker's task:* To regularly re-define the problems

it at least provides a framework with which to test the mechanism by which equity is put into practice.

**Poverty and health**

Of all the determinants of health, why should poverty be picked out for particular attention? The answer lies in the fact that poverty, worldwide, is clearly associated with poor health. It is a major determinant of health, and has a profound effect on wellbeing. The concept of poverty is often mixed up with other terms such as deprivation, inequality, disadvantage, alienation, and marginalisation. These are important social and economic factors that, along with other determinants of health, contribute to overall wellbeing. Poverty must therefore be seen in this context as one factor in determining health.

Poverty and health, both absolute and relative, have been known to be related for many years. As Adam Smith pointed out in *The Wealth of Nations*, But poverty, though it does not prevent the generation, is extremely unfavourable to the rearing of children.... It is not uncommon, I have been frequently told, in the Highlands of Scotland for a mother who has borne 20 children not to have two alive.... This great mortality, however, will everywhere be found chiefly among the children of the common people, who cannot afford to tend them with the same care as those of a better station.

## Box 5

**Definition of poverty**

- Poverty is a term which describes the state of an individual or a group, where there is a lack of resources which significantly affects health and wellbeing
- The lack of resources is generally taken to include money and material possessions
- If the concept is developed further it might also include emotional and psychological support, environmental protection, education, opportunities, shelter, housing, information, etc
- Poverty can be absolute or relative, and both levels adversely influence health. Absolute poverty (Rowntree called this primary poverty<sup>8</sup>) exists where the lack of resources may result in an inability to provide adequate food, shelter, and essentials of life, which may result in a life threatening state
- Relative poverty is measured by comparing individuals or groups and relating them to some norm, defined locally, nationally, or internationally. Whichever way it is defined, it identifies a gap between what is and what might be, and thus the potential for improvement
- Poverty for any individual is not necessarily a static state, and can change with age, employment status, disability and other factors. It is potentially reversible.
- Poverty, as defined above, may have several consequences, and a variety of interrelated terms are used for this purpose. They include deprivation, alienation, inequalities, social exclusion, disadvantage, and marginalisation. These alone or in combination can lead to loss of wellbeing, a poorer quality of life, and a life without meaning
- Poverty is associated with other related concepts such as social class, culture, education, employment, and the nature of the environment. Each of these can compound the problem

**Defining poverty**

One of the most difficult issues has been to define poverty. The following definition (box 5), set out in a series of statements, brings together much of the writing on the subject.

**The income time line**

An income time line was first elegantly described by Rowntree.<sup>7</sup> It considers the economic status of an individual (or perhaps even a community) as a movable point whose position reflects the level of income. The position is likely to vary over time and depend on age, social circumstances, income, educational opportunities, employment status, illness, disability, etc. From the previous discussion, the higher the point the more likely it is that health and quality of life will be better (figs 1, 2<sup>2</sup>).

Substantial shifts may occur up or down, and relate to major life events such as the death of a relative, marital breakdown, change in employment status, birth of a child, or illness. Statistics on poverty bear out the fact that there is significant income mobility. Poverty is thus reversible, and not inevitable. The mechanisms to effect the change relate to the causes and may include improvements in social structure, employment and educational opportunities, and level of health. Multiple mechanisms may be required to deal with the problem.

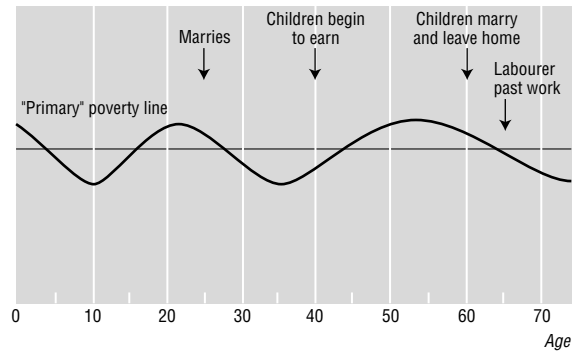


Fig 1 The line of poverty<sup>7</sup>

One consequence of this is that individuals must take an active part in helping to create the opportunities—and be willing to take them. Individuals or groups may move up or down, but relative differences in income and social status may remain. What is key is that everyone has the opportunity to achieve their full potential and have the highest possible level of health and quality of life. The possibility of an “economically compromised” person analogous to an “immunologically compromised” one is an interesting concept.

**How much is poverty related to the individual?**

Is poverty, and ill health as a consequence of it, related to the individual, or to the environment or culture in which the person lives, or both? The answer (see box 6) will give clues as to the mechanisms for improving

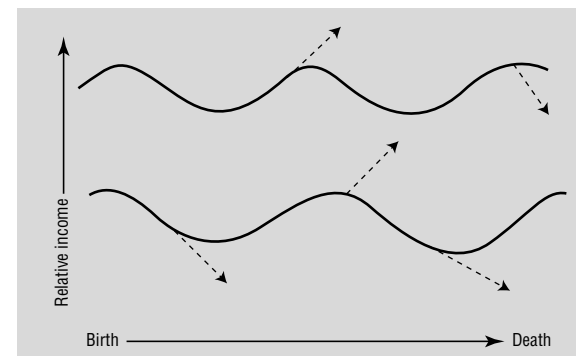


Fig 2 The income time line: position on the line reflects current income; the higher the point the better the quality of life. Arrows show that significant income changes may occur

## Box 6

**Questions that need answers**

- What is the mechanism by which poverty or deprivation cause illness and disease?
- Are there molecular mechanisms which can explain the effects?
- What are the ethical issues which surround poverty and deprivation in a developed country?
- How does society resolve its own conscience in this matter?
- What further research needs to be carried out?
- Do we know enough from an epidemiological point of view, but less about effective methods for the implementation of policies?



health. Though more evidence is needed, most studies suggest that it is the environment which is predominant, though personal factors are also relevant. The problem of alienation, of developing an underclass, should not be underestimated. A J Toynbee in his book *A Study of History* makes an important point about the "proletariat" which can be translated into alienation:

For [proletarianism] is a state of feeling rather than a matter of outward circumstance ... we defined it for our purpose, as a social element or group which in some way is "in" but not "of" any given society at any given stage in that society's history.... The true hallmark of the [proletarian] is neither poverty nor humble birth but a consciousness—and a resentment which this consciousness inspires—of being disinherited from his ancestral place in society and being unwanted in a community which is his rightful home; and this subjective [proletarianism] is not incompatible with the possession of material assets.

### Tackling poverty

If the objective is to narrow the gap between what is and what might be and to improve quality of life and the sense of wellbeing, how can this be done? As poverty is in most instances a relative concept it is unlikely that the gap will be eliminated and, as Galbraith argues, there may even be a need to have such differences in society.<sup>8</sup> It should be obvious that there are no simple solutions to the problem. As has been described, the income of individuals may vary from time to time. For this reason different interventions may be required at different times, for example in childhood and old age. This is complex and many different agencies and groups are involved. To effect change it is necessary to consider material issues, psychological implications, and environmental and cultural factors. To tackle these will require a range of initiatives (there is not likely to be a single solution), and it is necessary to consider both the individual and the community. Community development projects that involve people in improving the local environment can provide a useful vehicle within which a wide variety of approaches can be used

(box 7). These measures are essentially external, providing both a better environment and opportunities for all. They all attempt to improve quality of life, and self esteem.

#### Box 7

#### Approaches used by community development projects

- Putting the subject of poverty on the agenda of groups and organisations
- Targeting resources and expertise appropriately
- Developing educational opportunities
- Appropriate tax and benefit measures
- Ensuring employment opportunities
- Changing the environment
- Providing adequate housing

There is, however, another side of the coin, and that is the ability of the individual or a community to profit from these opportunities. If the "soul" is to be put back into the community and individuals are to regain a sense of worth then they too have a responsibility. Initiatives such as the Health of the Nation provide the vehicle for both personal and community development. It not an NHS initiative, or even a government one; it is for all to be involved. Those who are at particular disadvantage need special care and consideration. Poverty no matter how it is defined is an issue that needs special attention.

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## Are placebo run ins justified?

Stephen Senn

*Every medical man commits that act of treachery, Mr Blake, in the course of his practice.... Every doctor in large practice finds himself, every now and then, obliged to deceive his patients.*

Wilkie Collins, *The Moonstone*

The placebo, it is agreed, is an excellent aid in determining the specific pharmacological effects of pharmaceutical agents. Any criticisms of placebos have usually been directed at the morality of giving an inert substance to patients hoping for effective treatment.<sup>1 2</sup> Indeed, it might be argued that the object of drug development is to make the use of placebos unethical: to find a treatment that is so effective that it will be unacceptable to withhold it in the future. The debate has focused on acute conditions (especially if serious), where the ethical stakes are highest. For chronic conditions (especially if they are less severe) the situation is

different. Here the patient may have to live with the condition for many years and, in his or her own interest, be prepared to try a number of treatments—including, from time to time, no treatment at all. With informed consent, the use of placebos in randomised clinical trials may then be uncontroversial.

### Ethical objections

It is often overlooked, however, that fully informed consent and a placebo can go together only if the clinical trial is randomised.<sup>3</sup> Where this happens, the

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patient's doctor may say: "If you come on this trial you will be given at random either a new treatment or a dummy pill which looks like it. Neither you nor I will know until the end of the trial which you have been given." The doctor may even offer the patient the opportunity to read the protocol and, in any case, the trial can certainly be conducted as if the patient had read it. This is the standard of open protocol, hidden allocation<sup>4</sup> used by R A Fisher in his famous description of the tea tasting experiment: "The subject has been told in advance of what the test will consist, namely that she will be asked to taste eight cups, that these shall be four of each kind, and that they shall be presented to her in a random order."<sup>5</sup> As Freedman has pointed out, concealment, rather than deception, is involved in such experiments.<sup>6</sup>

Many trials, however, are preceded by a "placebo run in," in which all patients are given placebo. The practice is common within the pharmaceutical industry and recommended by standard texts as a means of weeding out non-compliers before randomisation,<sup>7,8</sup> eliminating placebo responders,<sup>8</sup> ensuring that patients are stable,<sup>9</sup> washing out previous treatment, or simply to provide a period for baseline measurement. This is incompatible with informed consent, since a doctor is hardly likely to say: "Take this ineffective substance for the next month and record your symptoms daily in this diary." The allocation may be hidden but the protocol will not be open. The doctor will be two thirds honest at the most: the patient may be given the truth and nothing but the truth, but the whole truth will be deliberately withheld. A clear example is provided by the physician's health study,<sup>10-12</sup> in which 33 000 doctors themselves were the subjects. All were given placebo to  $\beta$ -carotene in the run in, and a description of the study admits, "To the participants, it appeared that the trial had begun," adding later, "a run-in might still be implemented if a plausible scenario were developed to describe to subjects the reasons for switching their medication after they entered trial."<sup>11</sup>

Quite apart from the ethical objections, there is also the logical difficulty involved with double guessing. The use of the placebo run in appeals to the argument from the stupidity of others since, if placebo run ins are regarded by trialists as being excellent, trialists must assume that patients do not know about placebos: if patients do, they will suspect what is happening and undo the value of concealment. There is a further logical and ethical difficulty: if trialists are dishonest with their patients, what right have they to expect honesty in return?

### The statistical case

What is also not generally appreciated is that the statistical case for a placebo run in is weak. If the object is to screen patients for entry, then not only is there disagreement as to whether this is efficient,<sup>13-15</sup> but in any case it can be done just as well using an active treatment.<sup>3</sup> (Indeed, in the physician's health study, which had a factorial treatment plan, and in which the prophylactic effects of aspirin on cardiovascular mortality and  $\beta$ -carotene on cancer were studied, aspirin was given in the run in. The reasons given for giving placebo to  $\beta$ -carotene in the run in are unconvincing.<sup>11</sup>) If the placebo run in is thought to



provide level baseline conditions, then again this can be done just as well using the active treatment, or another treatment, or, indeed, no treatment at all: none of these devices need involve deception.

The purpose of a randomised clinical trial is not to measure the natural course of a treatment; it is to measure the causal effects of a treatment. The relevant question is not "How has the state of the patient changed over time?" but rather "Is the state of the patient different, having been treated, than it would have been otherwise?" Not only is this question the one the trial is designed to answer but it is the only one that has relevance to the doctor's actions: to his or her behaviour as healing agent. If the answer to this question depends on what has been given in the run in, how can we apply the results of clinical trials at all? It is true that if two active treatments seem equal it is difficult to interpret the result. It might be argued that comparison to a placebo run in would help. But if this is to be the placebo's job of work, then to do it properly it should be added as a third randomly allocated treatment.<sup>16,17</sup>

### Outright deception

In the course of their practice, doctors may indeed find themselves "every now and then, obliged to deceive ... patients" but, when this is done, it can at least be justified with the argument that it is in the patient's interest. No such justification can be given for the placebo run in, which, furthermore, involves an outright deception. Such deception should be eliminated from randomised

clinical trials before it succeeds in bringing into disrepute that other use of placebos, as a control in the randomised section of the trial, which only requires concealment and is compatible with fully informed consent. If not, not only may the trial itself be jeopardised but trialists may eventually find, as in other cases involving consent, that the matter will be tested in the courts.<sup>18</sup>

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## Commentary: placebo run ins have some value

Lawrence E Ramsay

Professor Senn is right to question placebo run ins, which have tended to become a ritual in clinical trial protocols. I agree with many of his points, but not all of them, and suggest that placebo run ins should not be abandoned entirely.

### Statistics

Senn contends that the statistical or scientific case for placebo run ins is weak. I agree that they should not be used generally to weed out non-compliers, responders to placebo, or patients with above average variability. Their use in this way limits the extent to which the study results can be generalised to ordinary practice. I agree entirely that active treatments should not be compared back to baseline values. If the true efficacy of an active treatment is to be measured then a parallel group of patients treated by placebo must be included. There is value, however, in having baseline measurements in the untreated or placebo treated state, particularly when the condition under study is defined by a continuous variable—for example, hypertension defined by measurement of blood pressure. This confirms that all the patients entered actually have the condition under study—for example, hypertension of a predetermined degree. It can be determined whether randomisation has yielded treatment groups that are similar. The statistical power of the study is enhanced by comparing changes from baseline between the treatments, as this removes in part variability between patients. Finally, if baseline values do differ between treatment groups to an important extent despite proper randomisation, the situation can be retrieved by statistical analysis using baseline values as a covariate.

Can active treatment during the run in period serve the same purpose? Sometimes we will have to make do with this, for ethical reasons. However, this introduces an additional source of variation into the comparison of treatments within the study: the variation between patients in the effect of withdrawing

the active treatment. Furthermore there is in theory a difference between the ability of a drug to induce a response de novo or to maintain a response induced by active treatment in the run in period.

Should the run in treatment be single blind? Any blinding in the run in phase is so fragile as not to be blind at all, and I would not argue strongly between no treatment, non-matching treatment, or matching placebo. The main value of placebo treatment is perhaps to familiarise all concerned (patients, investigators, pharmacists, etc) with the procedures that are to be used throughout the study.

### Ethics

Senn is concerned with the ethics of placebo run ins. He accepts, as I do, that use of placebos in randomised controlled trials may be uncontroversial in some circumstances. I would define these as a negligible risk to the patient; discomfort that is acceptable to a fully informed patient; and agreement by an independent ethics committee that these conditions hold. Senn is particularly troubled by the element of deception in the single blind placebo run in, because the "open protocol, hidden allocation" condition is not met. I disagree with this, with the important proviso that the informed consent must be appropriate. One form of words might be: "During this study there will be one or more periods during which you will have inactive (placebo) treatment. It is important for the success of the study that you are unaware which study periods these are."

Placebo run in periods should not be included in protocols as a ritual. Each study should be considered individually, using the following criteria:

- Does the use of placebo have a negligible risk and acceptable discomfort?
- Will a placebo run in period enhance the science or interpretation of the study?
- Is the "deception" covered adequately in the information provided to patients?

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Lawrence E Ramsay, professor

*Socioeconomic determinants of health***Health and the life course: why safety nets matter**

Mel Bartley, David Blane, Scott Montgomery

**This is the fourth in a series of eight articles edited by Richard Wilkinson**

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**Summary**

This article argues that a life course approach is necessary to understand social variations in health. This is needed in order to take into account the complex ways in which biological risk interacts with economic, social, and psychological factors in the development of chronic disease. Such an approach reveals biological and social “critical periods” during which social policies that will defend individuals against an accumulation of risk are particularly important. In many ways, the authors of modern welfare states were implicitly addressing these issues, and the contribution of these policies to present day high standards of health in developed countries should not be ignored.

**Health, inequality, and the life course**

In the pioneering days of public health the inhabitants of urban slums were subject to malnutrition, diarrhoeal diseases, and endemic tuberculosis, and infectious diseases were the major causes of early death. Today the main causes of death are different, yet their social distribution has changed surprisingly little.<sup>1</sup> Whereas the early public health physicians had to struggle to increase the spatial coverage of reforms such as clean water and safe disposal of sewerage, today’s challenge is to persuade policy makers that health in middle and old age depends as much on past circumstances as on present ones.<sup>2</sup> Living conditions cannot simply be left to fluctuate as people pass through childhood and their reproductive and working years and into old age, because health and quality of life at any one stage is affected by prior circumstances and events.<sup>15</sup>

Among researchers there is growing acceptance that health and its social distribution need to be studied over the whole of the life course.<sup>3-4</sup> This is partly because most adult diseases have long courses of development and complex aetiologies, which in some cases may begin in utero.<sup>5</sup> Most of the prevalent environmental hazards, such as tobacco smoke and atmospheric pollution, cause their damage slowly and usually require decades of exposure to produce disability and premature death. Also, the social distribution of mortality is too finely graded to be produced solely by short term factors, whether biological or socioeconomic. The step by step increase in risk of early death shown by the registrar general’s social classes, a relatively crude measure of social circumstances, is well known. More recent reports have shown finer differences in risk, for example, between civil service grades,<sup>6</sup> managers in small and large firms,<sup>7</sup> and members of households with two cars rather than one.<sup>8</sup> Similar stepwise gradations are seen in geographical areas classified according to the average income of inhabitants in the United States<sup>9</sup> or the income levels of mortgage holders in the United Kingdom.<sup>10</sup> These patterns do not indicate a sharp

“health divide” between rich and poor but point to differences in risk between people with average incomes, those who are moderately well off, and very affluent groups. Whereas short term differences in material and social conditions are important—and obviously decisive in relation to certain causes of death such as accidents—other differences do seem to require an understanding of patterns of exposure to both physical and psychosocial hazards over the longer term. The nature of these processes has already begun to be illustrated by work on the oldest of the British cohort studies.<sup>11</sup>

Long serving clinicians will have often observed the ways in which health and social circumstances interact in the lives of their patients and the processes by which advantages or disadvantages accumulate over time. Systematic study of these processes has become possible only recently. Several excellent longitudinal studies have collected a range of information about health and socioeconomic conditions. These include a 1% sample of the population of England and Wales followed over more than 20 years; representative samples of all British births in the years 1946, 1958, and 1970 followed up at regular intervals between birth and the present time; and a number of smaller longitudinal studies.<sup>12-14</sup> Advances in computing and in statistical methods make it possible to store, access, and analyse continuities and change in health and social circumstances in these large and complex longitudinal datasets.

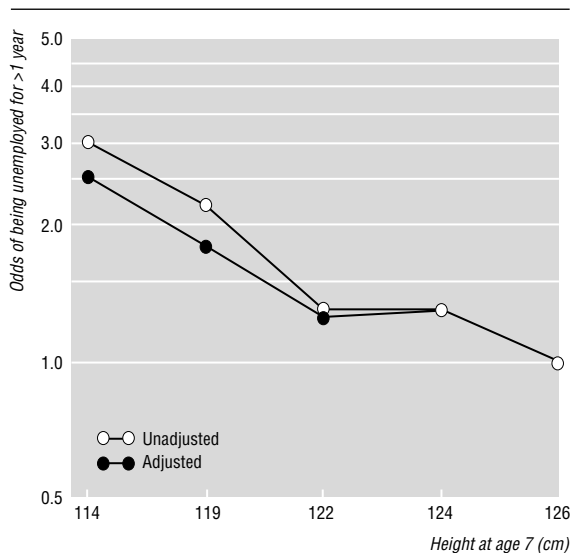
**Social structure and the life course**

The life course may be regarded as combining biological and social elements which interact with each other. Individuals’ biological development takes place within a social context which structures their life chances, so that advantages and disadvantages tend to cluster cross sectionally and accumulate longitudinally. For example, children of less affluent families are more likely to experience failure at school,<sup>15</sup> to find work in the more disadvantaged sectors of the labour market,<sup>16</sup> and to experience unemployment early in their working lives.<sup>17</sup> In addition, less affluent families are more likely to produce babies of lower birth weight.<sup>18</sup> Even compared with others in the same social class, low birthweight children have been found to have an increased risk, which is socially structured, of socioeconomic disadvantage during childhood and adolescence<sup>19</sup> and an increased risk of chronic disease in middle age, which may be biologically programmed.<sup>5</sup>

There may be “critical periods” both for the development of organ systems and for psychological and social development, though their existence and nature are still controversial. The development of the neural tube in very early pregnancy is an accepted example. Although this is a biological process, the difficulty in a low income household of maintaining an intake of vitamins adequate not just for daily life but also for this critical period during pregnancy produces sharp social



**Fig 1** Manual labourers are more likely to experience job insecurity and hazards at work



**Fig 2** Height at age 7 and unemployment at age 22-32. Adjusted for social class at birth, crowding, qualifications, region, Bristol social adjustment guide score, and parental height

gradients in neural tube defects.<sup>20</sup> The transition from school to work may be regarded as having similar importance for social development.<sup>21-22</sup> People who enter less well paid employment are also more likely to encounter work insecurity and physical and chemical hazards at work (table 1),<sup>27</sup> to live in less well constructed housing in more polluted neighbourhoods, and to retire on no more than the basic state pension.<sup>28</sup> At each stage, social and economic disadvantage can push the individual another step down an aetiological pathway towards established chronic illness.

Another closely related process is that by which social and economic disadvantage increase the impact of illness, regardless of how the illness is acquired. For example, Dutch children with poor health were found to do less well educationally only if they came from less privileged social groups.<sup>29</sup> At a time of low unemployment (1973) nearly 90% of British professionals and managers with limiting chronic illness were nevertheless in paid employment, as were 70% of people with chronic illness in less skilled manual work; in the economic recession of 1993, the employment rate among professionals and managers with chronic illness fell to 78%, but in semiskilled and unskilled manual workers it plummeted to 42%.<sup>30</sup>

Cohort data allow different "life trajectories" to be distinguished and related to disease risk.<sup>31</sup> This is beginning to show concretely the ways in which the accumulation of disadvantage over the life course is linked to health in adulthood.<sup>11-32</sup> Risk factors for cardiovascular disease in adult life have been found to be linked in varying strengths to both childhood and adulthood socioeconomic position.<sup>33</sup> The risk of mortality from all major causes has been shown to increase in a stepwise fashion with the amount of time spent in manual (as opposed to non-manual) occupations<sup>34</sup> and in residential conditions of a low standard.<sup>35</sup> Poor growth during early childhood, which itself may be more likely where there is material or psychosocial adversity,<sup>36</sup> has been linked to poorer health in adult life.<sup>37</sup> Slow growth to the age of 7 years

**Table 1** Cross sectional accumulation of labour market disadvantage: men's occupations 1979-87. Values are percentages

Occupational group	Increase in real earnings 1979-86 <sup>23</sup>	Increase in serious injury rate 1981-5 <sup>24</sup>	Men's jobs "casual" 1987 <sup>25</sup>	Unemployment rate for men in group 1986 <sup>26</sup>
Banking and finance	27.8	-28	3.3	3.6
Agricultural workers	6.4	35	3.4	6.0
Hotel and catering workers	8.7	41	5.2	9.0
Construction workers	3.0	45	5.7	12.5

has been associated with an increased risk of unemployment in young men regardless of their adult stature,<sup>38</sup> thus producing a complex pattern of continuity between biological and psychosocial disadvantage (fig 2).

## Policy implications

Policy makers have not been entirely immune to warnings of rising health inequality. In May 1994 the British government established an interdepartmental working group chaired by the deputy chief medical officer for England. Its brief was to investigate the ways in which biological, social, environmental, cultural and behavioural factors interrelate to produce social variation in health and to explore the possibilities for effective intervention.<sup>39</sup> The working group's report set a research agenda which lays emphasis on identifying and accurately measuring those factors which combine over the life course to produce the observed variations.<sup>4</sup>

How does a life course approach help in understanding the health implications of social and economic policies, and how does it relate to recent findings regarding the relation of income distribution to population life expectancy?<sup>40-41</sup> A plausible mechanism involves the ways in which social and economic policies affect the transition through "socially critical periods" (box). During such periods as the entry into parenthood and the transitions from the parental home to the outside world, from school to work, from one job to another, and into retirement, levels of income support and availability of publicly funded services influence the degree of insecurity and uncertainty experienced by individuals and families.<sup>42</sup> This can have effects of both material and psychosocial kinds: by preventing dramatic falls in living standards and by a wider effect on the degree to which citizens experience a sense of control over their lives.

The Swedish policy analyst Gosta Esping-Anderson has examined national variations in the approach to these critical periods. He classifies policies according to their "degrees of commodification"—that is, the extent to which policies protect individuals at times when they are unable to earn an adequate wage in the open labour market. One measure he uses is the extent to which supplementary income such as unem-

### Critical periods in human development

- Transition from primary to secondary school
- School examinations
- Entry to labour market
- Leaving parental home
- Establishing own residence
- Transition to parenthood
- Job insecurity, change, or loss
- Onset of chronic illness
- Exit from labour market

ployment, sickness, or disability benefits available during various periods of non-earning approximates the average wage for those in work.<sup>43</sup> The obvious effect of more generous benefit levels on the overall distribution of income would be to even it out; the effect on individuals is to make it less likely that periods of inability to earn are accompanied by high risks of serious material shortfall in terms of diet, heating, and housing quality. Even for those enjoying periods of employment and material sufficiency, redistributive policies create a more stable psychosocial environment. Research indicates that it is not only adverse life events themselves which affect health,<sup>44</sup> but the anticipation of adversity,<sup>45-48</sup> and that this effect is mitigated where life changes do not have adverse financial implications.<sup>49</sup> More equitable social and economic policies may therefore be effective in preventing an accumulation of disadvantage, the situation where having had one lot of bad luck increases both the risk and the fear of other types of misfortune.

Keeping public health on the political agenda is made more difficult by the fact that chronic illness is not epidemic and does not seem to spread out from poor people to rich people. The research reviewed here implies that this is a misapprehension exemplifying a form of biological "short termism." The redistributive policies implemented as part of the Beveridge reforms in postwar Britain were not explicitly designed with public health in mind. Yet during this period there have been major improvements in life expectancy.<sup>1</sup> These improvements have, however, been far greater among non-manual and skilled manual groups than less skilled groups. Social and health policy analysts from Richard Titmuss onwards have repeatedly shown the ways in which, paradoxically, the welfare state was of most benefit to the middle class and "labour aristocracy." It provided stable jobs with good pensions in the new welfare bureaucracies, as well as free services such as education and health care which these groups were best able to use during their own critical life transitions.<sup>50</sup> Life course research is showing us the extent to which health at older ages has been affected by the impact of policy measures on different sections of the population, as cohorts move through time and encounter the life transitions which, at some stage, affect them all.

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