long as for inpatient care. Despite this the average cost of day care was about two thirds the cost of the cheaper of the two inpatient regimens. A third investigation looked at two cohorts of patients who had had a first admission for schizophrenia four years earlier.⁷ One cohort was treated in a teaching district general hospital and the other in an area mental hospital. Those treated in the district general hospital had significantly shorter stays and so the total hospital costs were less than those for the area mental hospital despite higher unit costs. According to a recent report, this empirical economic superiority of district general hospitals generalises to everyday service provision.⁸

By contrast, several randomised controlled studies show that care provided around the clock, seven days a week in the community has clinical, social, and economic advantages over hospital care. For example, comprehensive community care for patients presenting for admission was considered significantly more satisfactory by patients and their relatives, did not increase the burden on the community, and cost less than standard hospital care and aftercare.⁹ An assertive, intensive, and supportive programme of community treatment for chronically disabled patients was found to be cheaper than mental hospital treatment and showed additional non-monetary advantages.¹⁰ Treatment at home was less expensive over one year than hospital care for patients destined for admission,¹¹ and, finally, family management at home for patients with schizophrenia was more than twice as cost efficient as clinic based care.¹²

Two trials have shown clinical and economic benefits from nurses treating patients with neurotic disorders in the community.^{13 14} Data from the Salford case register show, however, that community psychiatric nurses are treating patients found in primary care rather than reducing the demands made on traditional services.¹⁵

Taken at face value the evidence suggests that services relying wholly or mainly on treatment in the community tend to be more cost effective and to be preferred by consumers. But most investigations fail to acknowledge the large part played by general practitioners in treating people with psychiatric morbidity who come to medical attention, only about 5% of whom are referred to specialist services.¹⁶ There are two main consequences. Firstly, studies of local mental health services should include data on general practice; statutory, voluntary, and self help agencies¹⁷; and the private sector.¹⁸ Secondly, the most efficient functions for individual mental health service providers must be found—inevitably this raises issues of manpower and remuneration. One question immediately arises: should more than only one in five psychiatrists spend time in general practice?¹⁹

Scope exists for making savings through improved efficiency, but additional expenditure is also needed to start new services. Ironically, data collection for health services research is also threatened by cuts: "The end result could be that there was no information available on which any kind of rational decision could be based. The temptation to draw the cynical conclusion—that this is precisely the situation which many governments would like—ought, presumably, to be resisted.... As resources dwindle information becomes more, not less, important."²⁰

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Reversal of female sterilisation

Every patient who requests sterilisation is told that the effect of the operation is permanent, but most patients know that this is not always true—and requests for reversal are increasing.

Dissatisfaction with temporary methods of contraception and the safety and simplicity of laparoscopic sterilisation have led in the past 15 years to a large increase in women asking for sterilisation. If the 1985 Welsh figures of 6030 sterilisations (Welsh Office, personal communication) are multiplied up they suggest about 100 000 such operations each year in England and Wales. This total has changed little in the past three years, and worldwide over 60 million women have been sterilised.² About 10% of women express some regret after sterilisation, and between 0.1%² and 5%³ ask for reversal. Among those considered suitable for operation the chances of successful pregnancy have increased from 22% in 1975⁴ to over 80%^{2 5-7} in some circumstances today, although the rate of ectopic pregnancy after the operation remains about 3%.⁷

The patients most likely to request reversal are those sterilised below the age of 30, those with an unstable marriage, and those from lower socioeconomic groups. They have often been sterilised immediately after a pregnancy show more neurotic traits, and have had more contraceptive problems than those sterilised at an older age with no regrets.⁸⁻¹¹ Two thirds of the women requesting reversal want children by a new partner—usually one younger than themselves.⁸

The increase in the success rate of reversal operations is caused as much by changes in the technique of sterilisation as

by changes in the technique of reversal. In many of parts of Britain over 85% of sterilisations are now carried out laparoscopically, and many of these operations entail the application of clips to the fallopian tubes rather than the more destructive methods of unipolar or bipolar diathermy, thermal coagulation, or the application of rings.¹² The search for a truly reversible method of sterilisation has continued unsuccessfully ever since Aldridge described his "extra-peritoneal fimbriopexy" over 50 years ago.¹³

To the patient contemplating reversal today one clip at the mid-isthmic portion of each fallopian tube offers the best hope because the success of reversal is related, firstly, to the length of tube remaining and, secondly, to the site of the anastomosis. "Cut and tie" surgical methods and unipolar diathermy often destroy at least 4 cm of the fallopian tube and rings occlude about 2 cm but clips damage no more than 5 mm.¹⁴ Successful repair needs a tube, with intact fimbriae, of at least 4 cm⁵ and preferably 6 cm¹⁵ after reanastomosis. An isthmoisthmic anastomosis is the most likely to be successful as there is little or no luminal disparity and ciliary action is probably not as important as in the ampulla.⁵ Although mucosal flattening, absence of cilia, and polyposis have been found in the tubes of patients sterilised over five years previously,¹⁶ the interval between sterilisation and reversal does not apparently affect the chances of success.⁶ ¹⁵

Microsurgical techniques have been applied to the fallopian tubes since the early 1970s, and the principles of adequate exposure, scrupulous haemostasis, constant irrigation, minimal trauma, and careful placement of fine sutures are well established.¹⁷ Individual microsurgeons do, however, differ in the details of techniques of anastomosis—particularly whether to use splints, which suture material to use, where to site sutures, and whether to use adjuvant treatment to avoid adhesion formation. Most surgeons find that magnification helps them create even the easiest anastomoses,¹⁷ but no difference has been shown between results obtained with operating microscopes and those obtained with loupes.¹⁸ Surgical technique is more important than the type of optical aid used, and the best training is a combination of laboratory and operating theatre experience.¹⁷ "Practice makes perfect," yet most gynaecologists receive few requests for reversal surgery: services should perhaps be centralised.⁶ ¹⁹

Careful counselling of any patient requesting sterilisation is essential, particularly in women under 30. The permanent nature of the operation must be emphasised. The gynaecologist who performs a sterilisation must use an effective technique but one which causes minimal trauma—so that reversal is more likely to be successful should the patient's circumstances change.

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Cannabis: dangers and possible uses

Cannabis is a prime example of a pharmacologically "dirty" drug. It contains many active substances with multiple effects and several (unknown) mechanisms of action. Cannabinoids exert psychotropic, hypnotic, tranquillising, anti-emetic, anticonvulsant, and analgesic effects; they lower intraocular pressure, increase appetite, and affect the cardiovascular, respiratory, reproductive, and immune systems. Is it possible to separate adverse from desirable effects and so to harness this chameleon for therapeutic benefit?

The psychotropic effects of cannabis are largely reproducible by Δ^9 -tetrahydrocannabinol, the most potent psychoactive ingredient.¹ Its hedonic properties are well known and have long been exploited for recreational purposes, but dysphoric reactions are common. Acute exposure even to moderate doses of cannabis and Δ^9 -tetrahydrocannabinol, especially in those not used to taking the drug, can precipitate anxiety and panic reactions, depersonalisation, and schizophreniform, manic, and confusional psychoses.^{2,5} Certain personality characteristics and environmental stress predispose to such reactions, but they can occur in patients without a psychiatric history.⁵⁻⁷ Cannabis can precipitate schizophrenic illness and aggravate schizophrenia in patients controlled on neuroleptics⁸—possibly it antagonises some antipsychotic drug effects.^{8,9} "Flashback" and recurrence of dysphoria during drug abstinence may occur after heavy cannabis exposure.³

Whether chronic cannabis use causes brain damage remains controversial. Persistent neuronal ultrastructural abnormalities and electroencephalographic changes have been observed in rats and primates after chronic cannabis exposure,^{2,10} but a report of cerebral atrophy in human cannabis smokers¹¹ was not confirmed by studies using computed tomography,¹²⁻¹⁴ electroencephalography,¹⁵ and blood flow techniques.³ Nevertheless, most reports agree that heavy chronic cannabis users can develop an amotivational syndrome, with apathy and loss of academic performance in students.¹⁻³ Since cannabis is concentrated in the limbic system,¹⁷ the motivational centre in the brain, and interferes with memory, cognition, and psychomotor performance^{1,2} such an effect is not surprising. The syndrome is probably reversible on stopping smoking cannabis.^{1,3} Withdrawal of cannabis after chronic use gives rise to an abstinence syndrome similar to that seen after withdrawal of benzodiazepines and hypnotics.^{3,18}