The abortion rates and the ratios of abortions to live births and stillbirths were found to be strongly influenced by women's age, the cohort to which they belonged, and the year in question. As might be expected, fertility rates were greatest at ages 20-29, when pregnancies least often resulted in abortion.

Three clear period effects were identified in the rates. The first, lasting for several years after the 1967 Abortion Act, corresponded to a period of increasing uptake of newly available legal operations. The second period effect concerned fertility rates, which fell for all age groups from 1970 to 1976 and coincided with the increasing availability of contraceptive services. The third period effect was an increase in the fertility rates from 1976 to 1979, an increase which seemed to have been reflected in increases in the abortion rates.

Perhaps the most interesting finding concerned the cohort patterns, with the earliest cohorts having high values for abortion rates in association with high fertility rates. These were the women who became sexually active at a time when the only contraceptives available to them were the barrier methods and withdrawal—and they may well have continued with these methods after the introduction of oral contraceptives and the intrauterine device.

Later cohorts had lower fertility rates, but the most recent cohorts have shown a rise in abortion ratios: they are becoming pregnant less often, but when they do become pregnant they are more likely to have an abortion than their older sisters were at the same age—and the result has been an increase in abortion rates among young women.

Four factors have been suggested as causing increases in the abortion rates and ratios: disenchantment with the "safe" methods of contraception—in particular, oral contraception and the intrauterine device—after the publication of research findings about their side effects; the pressure on health authorities to reduce regional variations in the availability of abortion services; the reluctance of people to cope with an unplanned child because of the economic recession and the impact of a child on their disposable income; and the reduction in family planning clinics and sessions as a result of financial constraints in the Health Service.

An increase in the abortion rate is understandable as an early sequel to the adoption of birth control methods, since once people have decided to avoid pregnancy they might be expected to reject it when it occurs. Such an effect might be expected to last only until the whole population had acquired skill in the use of birth control methods, and this is borne out by the lower abortion ratios which occur with age, except with the very oldest fertile women. Furthermore, knowledgeable women may prefer to take a calculated risk of using less reliable but safer methods of contraception in the knowledge that very early abortion is itself very safe. It would be misleading, however, to allow this latter speculation to give a false emphasis.

By the age of 20 over half of young people are sexually active, and the age group 16-24 accounts for 54% of all induced abortions in England and Wales. The decline in the number of conceptions (as defined by births and abortions) suggests that young people today seem to be making much greater use of contraception than was previously the case—though, despite the recommendation in the DHSS memorandum on family planning services which proposed "separate, less formal arrangements for young people," such arrangements remain unusual. The indications are that young people are willing to take advantage of appropriate services if they are provided.

Looking at from a rational, demographic point of view we should be doing much more in the way of providing such services. The current cohort of 19 year olds is the midyear of the 1960s bulge and contains some 800 000 young people. We know the facts about their sexuality and their needs, but so far we do not seem to have done much to respond. It is, perhaps, the adults who are failing youth at present, and not young people who are in some way letting their parents down. In the 1950s faced with a bulge of school age children the nation found the wherewithal to provide additional school buildings and teachers; in 1983 where are the youth advisory clinics, counsellors, and doctors?

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Incontinence

Urinary incontinence remains a taboo subject to the public and to the medical and nursing professions; yet there is increasing interest in its investigation, treatment, and management. The prevalence of incontinence between the ages of 15 and 64 has recently been estimated as 8.5% of women and 1.6% of men. For those over the age of 65 the figures rise to 11.6%, of women and 6.9% of men. The risk of incontinence in women is substantially increased with multiparity. One recent study showed that even in severe cases fewer than one third of incontinent patients were receiving help from the medical or social services. In homes for the elderly run by the social services 17% of residents are incontinent, a major source of intolerance by staff. Incontinence is the reason that many elderly patients require institutional care; in one large geriatric hospital up to one third of patients are admitted because urinary incontinence makes management at home or in a home for the elderly impracticable (R Smith, personal communication, 1982).

The first assessment of an elderly patient with urinary incontinence may be done by a nurse specially trained to manage incontinence, who visits the patient at home. The nurse can reassure patients and advise about fluid intake and simple bladder training, and if appropriate she will encourage the recording of frequency and volume charts. Mobility in the home and easy access to toilet facilities are important factors. Simple aids or advice may be all that is required.

The Association of Incontinence Advisors has been founded to encourage greater interest and to further education and training in all aspects of the management of incontinence. (Further information may be obtained from the association, c/o Disabled Living Foundation, 346 Kensington High Street, London W14.)
In many cases, however, specialist referral is necessary. An incontinence referral service has been established in several regions to meet this need. Such a service requires enthusiasm and interest from the urologist, gynaecologist, neurologist, geriatrician, and paediatrician as well as from nurses and bioengineers. 

The first step is a further assessment of the structure and function of the lower urinary tract by intravenous urography, cystourethroscopy, and urodynamic studies—which may include flow studies, urethral pressure profile, filling cystometry, and a voiding study (which may be done in conjunction with radiographic visualisation of the urinary tract and electromyography of the pelvic floor). The standardisation of urodynamic terminology by the International Continence Society has helped clarify the data obtained by these studies. Once specific anatomical and functional abnormalities have been identified treatment may be planned.

The value of a specialist incontinence referral service is most clearly shown in women with symptoms suggestive of stress incontinence. Urodynamic studies will define whether the incontinence is secondary to a deficient urethra or is due to an unstable bladder. If genuine stress incontinence is diagnosed then good results will be obtained from sling or colposuspension operations. When repair operations fail the explanation in most cases is failure to diagnose the type of incontinence. A strong case can be made for arranging a urodynamic assessment on all women with incontinence for whom surgical treatment is proposed.

Pelvic floor electromyography is a more recent development. This technique promises to be of particular help in patients with incontinence associated with neurological disease. For example, the diagnosis of a spastic pelvic floor in an elderly man with Parkinson's disease may save the patient from being submitted to an inappropriate prostatectomy.

The most difficult form of incontinence to treat is that secondary to bladder instability. There are many treatments but none is universally successful. In children alarm systems are the best first line management, and up to 70% improve. Instability tends to resolve with age until only 5% of patients with this disorder are still wet at 15 years of age—but this remainder usually have profound detrusor instability and may be very difficult to treat. In adults those with mild symptoms may need no more than a time and volume chart with instructions to increase the interval between voiding. In severe cases improvement may occur with intensive bladder training closely supervised in hospital, and the effect may be enhanced by the use of biofeedback techniques.

Drug treatment includes imipramine 10-25 mg at night for enuresis or 10 mg twice or three times a day for daytime frequency. Anticholinergics, such as propantheline or the newer agent oxybutynin chloride, are also often helpful. If these measures fail other treatments include prolonged distension of the bladder, cystolysis, and transsection of the bladder. All of these damage the innervation of the bladder and have a beneficial effect, but this may not be sustained and some patients' symptoms return after a few months.

Overflow incontinence demands relief of overflow obstruction, usually by transurethral prostatectomy, incision of the bladder neck, or occasionally external sphincterotomy. Women with urethral stenosis should be treated by urethral dilatation. Patients with hypotonic bladders may respond to cholinergic or myotonic drugs, but these may have to be combined with a second agent (such as phenoxybenzamine or diazepam) to decrease the outflow resistance. If overflow incontinence does not respond to measures to relieve overflow obstruction or improve detrusor tone then other steps must be taken to ensure emptying of the bladder—if necessary at the expense of continence, for such patients are at risk of developing infection and progressive renal damage. Intermittent self-catheterisation is now widely used. Women can be helped by the use of a special stainless steel catheter with an attached mirror. Men may need treatment by sphincterotomy, which will require the patient to wear a condom collecting device. Some of these patients require long term catheter drainage, but this is perhaps the least satisfactory management.

Some frail elderly patients are best managed with specifically designed male or female incontinence pads of highly absorbent treated cellulose pulp. These are efficient, comfortable to wear, and not bulky. We should aim at keeping all our continent patients comfortable, dry, and dignified. The concluding sentence of an article in the Prescribers' Journal is worthy of repetition: "The greatest tragedy is to issue repeat prescriptions for an ineffective drug to a miserable patient whose incontinence could be diagnosed by a finger in the rectum and cured by a resectoscope in the urethra."

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