Introduction
The terms ‘repeat abortion’ and ‘repeat aborter’ appear in the scientific literature from the early 1970s onwards. To begin with, the pejorative term ‘abortion recidivism’ was used by some.1 The initial concern appeared to be that women might be using abortion instead of contraception as a means of fertility control, with connotations of irresponsibility.2-7 There were also concerns about risk of morbidity and mortality for the woman from complications, possible psychiatric sequelae and possible cumulative adverse effects on future reproductive outcome.3,4,6 The latter concerns are not dealt with in this paper but are fully addressed elsewhere in an evidence-based guideline.8

Women have been regarded as less deserving when they present for abortion with a history of having had a previous abortion. Doctors have felt “that to agree to a second abortion would only encourage immorality or at least carelessness”.9 In a recent survey, service providers were found to have discriminatory policies in their written approval criteria. One provider stated that “consultants are reluctant to undertake repeated terminations” and another that “if a doctor perceives that the patient regards termination of pregnancy as a form of contraception by virtue of the number of previous procedures had” then abortion will not be offered within the service contract.10 In some countries doctors have threatened women with sterilisation if they attend for subsequent abortions.11,12

In countries that have good access to legal abortion women will use safe abortion as an adjunct to contraception. Some methods of contraception are highly effective; but even when these methods are used, failures during typical use are substantial (eg, for the combined pill).13 It has been estimated that a fecund, sexually active woman relying only on abortion for fertility control would need to have 35 abortions during her lifetime if she wanted no children.14

This review starts by illustrating the phenomenon of so-called repeat abortion with statistics from several countries and proceeds to outline the demographic factors affecting trends over time. The review then summarises evidence of any differences between women having subsequent abortions and those having their first abortion. Finally, evidence is presented of any differences in contraceptive behaviour between the two groups. A literature search was conducted for the years 1966 to 2006 using the term ‘repeat abortion’ as a text word in MEDLINE, POPLINE, CINAHL and PsycINFO. Statistics were obtained from the following government websites: www.stakes.fi; www.dh.gov.uk/publichealthstatistics; www.sos.se; www.stats.govt.nz.

Special category
No strict definition of ‘repeat’ abortion was found. Mostly it seems that the term is used to describe more than one abortion ever. But is a second abortion 20 years after a first abortion really the same as a second abortion in the same year as a first in terms of its antecedents?

It is known that where a history of previous abortion is obtained by asking women, substantial underreporting occurs due to recall bias.15-17 Underreporting at interviews is likely to approach 100% in the early days of legalisation when the only experience is of illegal abortion; women are unlikely to admit to an illegal act. This means that data other than those from record linkage systems are unlikely to be reliable and constitute a considerable underestimate of the true number. It must also be recognised that some statistics report only previous legal abortions. Statistics from England and Wales and from New Zealand report only legal abortions in their own jurisdiction; statistics from the USA and Canada report without qualification.

Possible purposes of assigning women who have had one or more previous abortions a separate category might be as follows:

- Monitoring of secular trends in the proportions by statisticians
- Denial of further abortions by service providers after a certain number
- Targeting by health professionals to use a reliable method (preferably a long-acting method) of contraception in the future.

Worldwide statistics
In Hungary where abortion on request became available in 1956, the number of women with experience of abortion had almost stabilised by the early 1970s; so too had the proportion of these women having had more than one abortion, at around 57%.18 In former Czechoslovakia where the law was liberalised in 1957, 45% of married women undergoing abortion in 1982 had had a previous abortion.19 Canadian abortion statistics reveal the proportion of women having had a previous abortion increasing from 9% in 1975 to 29% in 1993.3 Data from the USA show an increase from 18% in 1975 to 42% in 1987.5 The latest USA data show that 47% of women undergoing abortion have had a previous abortion.20

Some countries are able to report on women having had previous abortions in their abortion statistics. Data for 2004/2005 show proportions of 32% for Finland,21 36% for New Zealand22 and 37% for Sweden.23 Two of these countries break their figures down further. In Finland and New Zealand 10% and 11%, respectively, of women undergoing abortion had had more than one previous abortion. In Finland 3% of women undergoing abortion had had more than two previous abortions. In Canada in 1993, only 2% of abortions were obtained by women who had had more than two previous abortions, suggesting that abortion was not being widely used as a primary method of fertility control at that time.3 A study from Hawaii confirms this finding.4 This is in contrast to former Eastern bloc countries where contraception was not freely available and women had large numbers of abortions: around six in a reproductive career in the former Soviet Union.24

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Epidemiology
Tietze was the first to point out that for those women who have already experienced an abortion, a substantial proportion of those who use highly effective contraception will experience a subsequent unplanned pregnancy within a few years; many of these women will opt for another abortion. It has been shown in several countries where abortion is legal that an increase in the proportion of those having more than one abortion occurs over time. So, increasing age (and parity) correlates with a greater chance of having more than one abortion. The population at risk of having more than one abortion expands. This is probably the main factor responsible for increasing proportions of women having more than one abortion in most countries. A steady state is reached around 30 years after legalisation of abortion. Also, the ultimate proportion of women having subsequent abortions rises with the level of the abortion rate. A woman who has had a previous abortion is more likely to have another abortion in a given year than a woman who has had no previous abortions is to have a first. It is likely that women eligible for subsequent abortions are of higher fecundity than women potentially eligible for first abortions; some of the latter group will be infertile and some will not have so far reached their sexual debut. The proportion of women having more than one abortion expands. This is probably the main factor responsible for increasing proportions of women having more than one abortion in most countries. A steady state is reached around 30 years after legalisation of abortion. Also, the ultimate proportion of women having subsequent abortions rises with the level of the abortion rate. A woman who has had a previous abortion is more likely to have another abortion in a given year than a woman who has had no previous abortions is to have a first. It is likely that women eligible for subsequent abortions are of higher fecundity than women potentially eligible for first abortions; some of the latter group will be infertile and some will not have so far reached their sexual debut.

Statistics for England and Wales
The proportion of English and Welsh women undergoing a subsequent legal abortion has risen from 0.7% in 1969 to 32.3% in 2005 (Figure 1). During this same time period, in England and Wales there was a rise in the age-standardised abortion rate per 1000 women aged 15–44 years from 5.2 in 1969 to 17.8 in 2005; the increase has been quite slight over the last 6 years (Figure 1). The latest annual England and Wales statistics for the first time give a breakdown of the number of previous abortions. Data for 2005 are shown in Table 1. The proportion of women having had one or more previous abortions was 32.3% for all ages, ranging from 8.0% in the under-18 age group to 41.6% in the over-30 age group. The proportion of women having had three or more previous abortions was 2.2%. Figures for England and Wales are similar to those for Finland, with a lower proportion of ‘repeat’ abortions than in New Zealand, Sweden and the USA.

Comparative studies
This is a complex area to study. The methodology used in studies is not always as rigorous as it could be. Also, the studies were performed in widely differing settings in terms of cultural attitudes and service provision. Some studies show no differences between groups of women having first or subsequent abortions. Differences that have been shown in some studies are that compared to women having first abortions, women having subsequent abortions are more likely to:
- Present for abortion with less delay
- Have had an earlier sexual debut
- Have a higher coital frequency
- Have had a larger number of sexual partners
- Have had a sexually transmitted infection in the past
- Have had a higher socioeconomic status
- Have suffered intimate partner (domestic) violence
- Be immigrants rather than natives of the country
- Have no religious affiliation

It should be noted that some of the above differences have been shown in one study only so, without replication, the difference is not proven.

Psychosocial studies have shown a tendency for women who are undergoing subsequent abortions to have been neglected, to have had difficulties at school, conflicts with...
More than one abortion

Table 1 Number (percentage) of previous abortions by selected age group, residents of England and Wales (2005)\textsuperscript{47}

<table>
<thead>
<tr>
<th>Previous abortions</th>
<th>Aged under 18 years</th>
<th>Aged over 30 years</th>
<th>All ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>16 558 (92.0)</td>
<td>28 903 (58.4)</td>
<td>126 228 (67.7)</td>
</tr>
<tr>
<td>1</td>
<td>1 316 (7.3)</td>
<td>14 709 (29.7)</td>
<td>45 423 (24.4)</td>
</tr>
<tr>
<td>2</td>
<td>90 (0.5)</td>
<td>4 148 (8.4)</td>
<td>10 759 (5.8)</td>
</tr>
<tr>
<td>3</td>
<td>*</td>
<td>1 126 (2.3)</td>
<td>2 517 (1.4)</td>
</tr>
<tr>
<td>4</td>
<td>*</td>
<td>482 (1.0)</td>
<td>1 233 (0.7)</td>
</tr>
<tr>
<td>5</td>
<td>*</td>
<td>92 (0.2)</td>
<td>162 (0.09)</td>
</tr>
<tr>
<td>6</td>
<td>*</td>
<td>70 (0.06)</td>
<td>50 (0.03)</td>
</tr>
<tr>
<td>7+</td>
<td>*</td>
<td>24 (0.05)</td>
<td>44 (0.02)</td>
</tr>
<tr>
<td>Total</td>
<td>18 023 (100)</td>
<td>49 515 (100)</td>
<td>186 416 (100)</td>
</tr>
</tbody>
</table>

*Suppressed data.

their current partner, and to be immature, dependent and impulsive individuals.\textsuperscript{41–43} They are more likely to have sexual problems too.\textsuperscript{44}

Use of contraception

Many studies have shown no lesser use of contraception in those undergoing subsequent abortions compared to women having first abortions.\textsuperscript{7,20,31,33,34,45–49} Several studies have shown that those having subsequent abortions had used contraception to a greater extent than women having first abortions.\textsuperscript{7,20,31,33,34,45–49} Two studies showed a greater use of coitus-independent contraceptive methods by women who had had previous abortions compared to women who had not.\textsuperscript{31,46} A single study showed that women who had had previous abortions were more consistent in their use of contraception than women who had not.\textsuperscript{48} Use of emergency contraception has been shown to be equally poor in both groups.\textsuperscript{49}

Women of lower socioeconomic status are less likely to use highly effective contraception after abortion.\textsuperscript{51} A post-abortion contraception intervention reduces subsequent abortions compared to receipt of no contraceptive advice at all.\textsuperscript{52} Specialist contraceptive counselling and enhanced provision compared to standard care has been shown in a randomised controlled trial to improve uptake of long-acting reversible contraception; however, the intervention had no effect on the likelihood of a woman returning for another abortion within a time period of 2 years.\textsuperscript{53}

Complex psychological conflicts may be a potent cause of non-use of contraception.\textsuperscript{54} Psychological factors that affect use of contraception include:\textsuperscript{55}

- Self-esteem
- Personality
- Interpersonal skills (including negotiation)
- Relationship status
- Peer influences
- Attitudes to sex and contraception
- Experience of sex, contraception and pregnancy
- Sex education received
- Gender/power issues
- Substance abuse prior to sex.

There is an association between substance abuse and abortion. One study found that women who are less conventional in their attitudes and behaviour are more likely to engage in risky behaviours, including use of cannabis and hard drugs, that put them at risk of unplanned pregnancy.\textsuperscript{36}

Conclusions

It does not appear that women in the West use abortion alone as a means of fertility control. We now understand better that women have abortions regardless of the legal situation in their country.\textsuperscript{57,58} It is much safer for a woman to have an abortion in proper conditions than it is to be sent away. We never want to go back to clandestine abortions and the resultant morbidity and mortality from sepsis, air/fluid embolism, mechanical trauma and chemical burns.\textsuperscript{59,60}

Every woman requesting abortion should be treated according to her individual circumstances. Categorising women by how many previous abortions they have had is both unscientific and inhumane. It is also judgmental, rather like putting a limit on the number of times emergency hormonal contraception is prescribed.\textsuperscript{61} Despite the fact that no reports were found of women feeling stigmatised, labels such as ‘recidivist’, ‘habitual aborter’ and ‘repeater’ to describe women have no place in modern society.

There is no valid reason why women presenting for abortion who have had a previous abortion should be treated any differently from those who have not. All women requesting abortion should receive information and support; in addition, some will require counselling.\textsuperscript{62} All women requesting abortion should be offered prophylaxis against pelvic infection and ideally screening for sexually transmitted infections.\textsuperscript{8} As all women seeking abortion, regardless of previous abortion history, are at higher risk of intimate partner violence,\textsuperscript{38,63–67} health professionals assessing such women should have an awareness of such an association and liaise with professional colleagues if there are concerns. Sometimes an abusing male is the escort.

All women potentially have contraceptive needs and these should be met around the time of an abortion just as they should be at any other time. Peri-abortion contraceptive counselling is important for all women; this should include offering and being able to provide long-acting reversible contraception.\textsuperscript{68} Service providers in different health sectors should work to jointly agreed care pathways.

Improving access to contraception is an essential first step.\textsuperscript{69} Promotion of sexual health is also required; this is more challenging but can be done.\textsuperscript{70} Making long-acting reversible contraception more widely available is likely to have a general beneficial effect on unintended pregnancy rates. Provision of emergency contraception in advance\textsuperscript{71} may also facilitate use of emergency hormonal contraception. Future research should focus on further psychological factors for a whole population that detract from consistent use of contraception; from these possible effective interventions can be developed.

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Rowlands


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