particular issue with emergency contraception may be recent evidence suggesting its effectiveness is lower than previously thought (Stanford, 2008).

Economists such as Levine (2003) suggest that greater access to family planning (or abortion) reduces the perceived risks associated with early sexual activity and, as a result, leads some young people to increase risk-taking behaviour. Combined with relatively high failure rates for many methods of family planning among teenagers (Kost et al, 2008), fewer pregnancies from greater use of birth control are counterbalanced by more pregnancies arising from more sexual activity.

The question of whether access to family planning increases risky sexual behaviour is by no means resolved. A meta-analysis (DiCenso et al, 2002) found no evidence that contraceptive access affects sexual behaviour, whereas Raymond and Weaver (2008) reported that access to emergency contraception is associated with a significant increase in risky behaviour.

Use of diagnoses of STIs as a proxy for sexual risk taking (Klick and Stratmann, 2007; Paton, 2006) may be a fruitful approach to understanding why access to family planning in general and emergency contraception in particular seems to have little effect on teenage pregnancy rates.

CONFIDENTIALITY

The Teenage Pregnancy Unit has consistently emphasised that confidentiality is crucial when providing family planning and abortion services to young people, especially those below the age of consent, which can be a particularly sensitive issue for school nurses.

A common rationale for such a policy is that by assuring young people that parents do not have to be informed, uptake of services will increase and this will in turn contribute to lower underage conception rates. However, if access to services does not reduce conception rates, the case for guaranteeing confidentiality is considerably weakened.

Very few studies have examined the impact of removing (or enforcing) confidentiality for contraception on pregnancy rates. Those that have (for example, Paton, 2002) have failed to find a significant impact on underage conception rates, although there is some evidence of an impact on births relative to abortions. Because of the Fraser ruling, family planning could not be provided to underage girls without parental involvement in England and Wales for most of 1985 (Fig 2).

Take-up at family planning clinics among this age group dropped by about 30% in 1985, yet the underage conception rate in England decreased slightly relative to the rate among older teenagers. Similarly, the rate did not increase relative to the underage conception rate in Scotland where the Fraser ruling did not apply (Paton, 2002).

Several researchers have examined the impact of laws in the US mandating parental involvement (including consent in some cases) before abortions are performed on minors. Difficulties of doing such studies mean that the issue is by no means settled, but the majority to date found that parental involvement laws lead to significant decreases in underage abortion rates (Joyce et al, 2006; Levine, 2003); in overall conception rates (Levine, 2003); and to decreases in teenage STIs (Klick and Stratmann, 2007).

There is some evidence that parental involvement laws are most beneficial for younger teenagers. US research (Colman et al, 2008) found that such a law decreased both abortions and births among women aged 17 at the time of the birth or abortion. However, in a slightly older cohort (women aged 17 at the time of conception), abortions decreased by a lower amount while births increased slightly.

There is also the question of whether such laws lead to delays in obtaining abortions and, as a result, increase the number of late ones. There is certainly some evidence that the proportion of late abortions increases after the introduction of parental consent laws but the reduction in the overall abortion rate seems to be such that the actual rate of late abortions does not increase significantly (for example, Joyce and Kaestner, 2001). The evidence is not strong and this issue merits further research.

SCHOOL-BASED SEX EDUCATION

Studies that have examined the impact of particular school-based sex and relationships education (SRE) interventions on teenage pregnancy rates are not generally encouraging.

A review of RCTs that tested for an impact of SRE schemes concluded that none was effective in reducing teenage pregnancy rates (DiCenso et al, 2002). Wilkinson et al (2006) also found no association across local authorities in England between the quality of SRE provision and reductions in the under-18 conception rate.

Recent RCTs (Stephenson et al, 2008; Henderson et al, 2007) have reported a similar lack of impact on unwanted pregnancy rates.

One exception is Cabezon et al (2005), who found evidence that an abstinence-based programme had a statistically significant impact in reducing both early sexual activity and pregnancy rates. The majority of studies on this topic examine a particular SRE programme relative to existing SRE models – they are not testing the impact of school sex education relative to no school sex education.