

Inquiry into teenage pregnancy

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EXECUTIVE SUMMARY

- 1 The Committee should inquire into Premature Sexual Activity by Children and Young People. Teenage Pregnancy is only a symptom of this and not the underlying problem.
- 2 The Teenage Pregnancy Statistics contain a complacent and inaccurate statement that the 2010 target has been narrowly missed. The basis of the target and the 15 year timescale from 1995 to 2010 require close scrutiny.
- 3 Emergency Hormonal Contraception is an increasingly important part of the picture, but is being overlooked.

The Scottish Government is aware that it has 2 sets of published data which are very different but has not acted to resolve this.

NHS Scotland is unable to provide any data on the provision of Emergency Hormonal contraception to girls under the age of 16. There are probably between 2,000 and 3,000 such treatments annually.

- 4 There is no target for teenagers between the ages of 16 and 19 although they had 7,315 pregnancies, 2,780 abortions and between 20,000 and 25,000 emergency hormonal contraceptive treatments in 2010.
- 5 Although it is a serious criminal offence to have sexual relations with a girl who is under 16, and although it is clear that 10,000 such offences occur each year there appear to be no prosecutions.

There appears to be no restriction on the provision of contraceptives to girls under 16, although such supply is condoning or encouraging a criminal offence.

- 6 Parents are prevented from exercising their responsibilities for their children by the priority accorded to their children's rights of patient confidentiality.

Appendix Emergency Hormonal Contraception may act as a contraceptive if the timing of its administration, of ovulation and of sexual intercourse favour this, but otherwise it acts as an abortifacient.

1 The Topic of the Committee's Inquiry

- 1.1 The first point which should be made is that the Committee should not investigate Teenage Pregnancy *per se*, but turn its attention to the

underlying problem of Premature Sexual Activity by Children and Young People.

- 1.2 Teenage Pregnancy is not the problem: it is a symptom of the problem. If this distinction is not understood, health policy will continue to treat the symptom with ever more readily available contraception but will do nothing about the problem. This will continue to fail as it has for the last 20 years or more.
- 1.3 The recent SPICe Briefing (ref 1) unfortunately makes it absolutely clear that the distinction is understood but that policy is to ignore the problem and treat the symptom. The briefing states:

“The report [of a survey in 2009-10] highlights that there has been an increase in the proportion of 15 year olds reporting that they are sexually active. If the maintenance of consistent rates of pregnancy in under 16s is situated against this backdrop of increased sexual activity among under 16s, this might imply that there has been some progress in preventing teenage pregnancy in this group.”

An increased sexual activity rate is a sign of failure. The logic of the author’s position is that an approach which increased sexual activity still further would count as a successful outcome if the pregnancy rate remained the same.

- 1.4 The rate of Teenage Pregnancy is an indicator, and probably the indicator for which reasonably reliable data can most readily be collected, but it is not a direct measurement of the problem.

2 Teenage Pregnancy Statistics

- 2.1 The statistical report on Teenage Pregnancy in 2010 (ref 2) stated that the national target for teenage pregnancy reduction was to reduce by 20% the pregnancy rate (per 1000 population) in under 16 year olds from 8.5 in 1995 to 6.8 in 2010. It went on to state that the 2010 rate for under 16 year olds was 7.1 per 1000 population so the target had been narrowly missed.
- 2.2 The target reduction was (8.5 – 6.8), which is 1.7 pregnancies per 1,000 population. The reduction achieved was (8.5 – 7.1), which is 1.4, which is only 82% of the target. As a matter of simple arithmetic, the target was missed by a fairly wide margin.

I hope we are not being invited to conclude that 7.1 is only 4.4% greater than 6.8 as that would be an error of interpretation which would shame a weak Standard Grade candidate.

Furthermore, the tables which accompany this document state a rate of 8.4, not 8.5, in 1995, so the target reduction was 1.6 and the actual reduction 1.3, which is only 81% of the target.

- 2.3 The outturn in 2010 is unacceptably poor when compared with the reported rates in table 1 below for the years 1999-2005. The average of these figures is 7.0 (to 1 decimal place) so 7.1 in 2010 is worse than the average for that earlier period. The comment about a target “narrowly missed” is misleading as the reality is that there has been no progress over the previous 10 years.

Table 1

	2005	2004	2003	2002	2001	2000	1999
Rate per 1,000 girls aged 13-15	7.0	7.3	6.9	7.2	6.4	7.3	7.0

- 2.4 The choice of 1995 as a base year raises a number of questions:
- 2.4.1 The setting of a target in 1995 to be achieved in 2010 would be contrary to any normal management practice unless there were a special reason for such an extended timescale. The actions taken to achieve the target might involve, say, the programme of sex education in secondary schools for which it would take 4 or 5 years for a cohort of pupils for whom the programme started in S1 to reach the age of 16 in S4 or S5 depending on when their birthdays occurred. On that basis, I would suggest a target should be set for no more than 5 years ahead.
- 2.4.2 If the target was set in 1995, it was achieved in 2001 when the rate was reported as 6.4. Normal management practice should have led to the setting of a new target at that time but there is no suggestion that this was done.
- 2.4.3 The document does not state where the target came from or when it was set. My attempts to find references to it in other official publications have been unsuccessful. In time series data, it is not unknown for a starting date with a poor score to be selected to enhance the apparent progress made since then.

3 Emergency Hormonal Contraception

3.1 How Teenage Pregnancies are Counted

In assessing the number of teenage pregnancies, the official statistics include NRS registered births and stillbirths & Notifications (to the Chief Medical Officer for Scotland) of abortions performed under the Abortion Act 1967.

No allowance is made for the impact of Emergency Hormonal Contraception (the “Morning After Pill”). I shall argue that their exclusion leads to under-reporting of teenage pregnancies.

3.2 Number of Emergency Hormonal Contraception Prescriptions

According to research published by the Scottish Government, there were 123,000 prescriptions for Emergency Hormonal Contraception in 2010-11 (ref 3 – see fig 5). This figure is confirmed by the statement in paragraph 7.2 of the same document that 81,000 prescriptions represented 66% of the total.

The text of paragraph 7.2 states that the count “Includes all items dispensed using a prescription pad but excludes items given out by sexual health services without a prescription” so this figure understates the use of Emergency Hormonal Contraception.

- 3.3 In response to a Freedom of Information Request, Practitioner Services stated (ref 4) that there had been 87,259 prescriptions in 2010 and 95,208 in 2011. These are clearly much less than the published figure for 2010-11.

A further query about the discrepancy between the two sets of data received a reply dated 6 November 2012 (ref 5) which stated:

“I have investigated this matter further and I have found the following:

- *The figures reported in Scottish Government publication include both Emergency Hormonal Contraception and Azithromycin (a treatment for Chlamydia); however the title suggests that only data for Emergency Hormonal Contraception are presented.*
- *The figures provided to you by Practitioner Services in response to your Freedom of Information request cover all Emergency Hormonal Contraception and not just the one drug (Levonelle 1500) that is available through the Public Health Service.*

I have liaised with the Scottish Government who are going to update their publication with revised data so that only Emergency Hormonal Contraception is shown. I will be providing the Scottish Government with the data for this and will forward you a copy for your records when I do so.”

- 3.4 Regrettably, at the date of writing (4 February 2013) this has not happened and the incorrect data is still published on the Scottish Government website. The web version (ref 6) has had fig 5 removed and replaced by a copy of fig 6 but the explanatory text below this new fig 5 relates to the graph which has been removed, and must be hopelessly confusing to anyone who reads it. There are no changes to the text.

The PDF format downloadable version (ref 3) is unchanged.

- 3.5 Usage of Emergency Hormonal Contraception by Teenagers
In response to a Freedom of Information Request for information about the number of emergency hormonal contraceptives prescribed during 2011 by age of the patient, National Health Service Scotland Information Services Division replied (ref 7).that:

“I am writing to advise you that following a search of our paper and electronic records, I have established that under Section 17 of the Freedom of Information (Scotland) Act 2002, ISD Scotland only holds a very limited amount of this information at patient level (under 20%). Considering how low a proportion of activity this is I would not recommend going ahead with this analysis. Also, we can only identify age in patient level data.”

In response to a similar request in relation to England and Wales, the NHS Business Services Authority responded (ref 8) that:

“I can confirm that the Authority holds information falling within the description specified in your request. I can confirm that the prescription data we hold includes some sexual health clinics set up as prescribing cost centres. School Nurse information would not be included.

Please note that we do not capture the patient details contained on the prescription form (i.e. name, address, date of birth, NHS No.) within our systems.

Your request would involve manually searching and recording information from more than 500 million paper forms or computer images. We estimate this will take 30 seconds per form taking 4.17 M hours in total.”

Although they were unable to provide the information requested, these responses show that both in Scotland and in England and Wales policy on teenage pregnancy is made in ignorance of the number of Emergency Hormonal Contraceptives provided to these patients.

3.6 Estimated Use by Teenagers

In the absence of official information, the best estimate I can make is to assume the age distribution for Emergency Hormonal Contraception will be broadly similar to the age distribution for abortions.

Table 2: Abortions performed in Scotland Year ending 31 December 2010

		% of Total	Rate per 1,000 women aged 15-44
Total Performed in Scotland	12,932	100.0%	12.44
Age of Woman			Rate per 1,000 women
Under 16	312	2.4%	3.58
16 - 19	2,780	21.5%	21.59
20 - 24	3,983	30.8%	22.45
25 - 29	2,610	20.2%	15.13
30 - 34	1,659	12.8%	10.71
35 - 39	1,147	8.9%	6.60
40+	441	3.4%	2.17

Table 2 uses data from the 2011 abortion statistics (ref 9). Although this contains data for the years up to and including 2011, I have used the 2010 data as the latest teenage pregnancy data relates to 2010.

Table 3: Emergency Hormonal Contraception "Morning After Pill"

	2010-11	2010
	Published	FoI Response
All Ages	123,000	87,259
Under 16 percentage	2.4%	2.4%
Under 16 number	2,968	2,105

As under 16s accounted for 2.4% of abortions, I conclude that they account for between 2,000 and 3,000 uses of Emergency Hormonal Contraceptives, depending on which of the two incompatible official figures is used. Table 3 shows the derivation of these figures.

As Emergency Hormonal Contraceptives are used before it is possible to establish whether or not conception has taken place, it is not possible to say how many of these treatments actually result in an early abortion. I shall make the argument in the Appendix that the Emergency Hormonal Contraceptive is more likely to cause a very early abortion than prevent conception. Policy makers should at least include an estimate of the number of pregnancies terminated in this way, notwithstanding the fact that an accurate count cannot be made.

4 Teenagers Aged 16-19

- 4.1 No target is quoted for teenagers aged 16-19.
- 4.2 This age group differs from the under 16s in that the young women have attained the age of consent and the minimum age for marriage. Targets should be set and data interpreted on the basis that some pregnancies will be within marriage and intended, but these will be a small proportion of the total.
- 4.3 In 2010, in this age group there were
7,315 pregnancies (ref 10)
2,780 abortions (ref 9)
4,535 births
20,000 to 25,000 Emergency Hormonal Contraceptive treatments
(estimated as in 3.6)

There is 1 abortion for every 1.6 births, so there is clearly a problem which the committee should investigate. Whilst the setting of a target does not guarantee that effective action will be taken, the lack of a target provides a strong inference that the matter is not receiving attention.

5 Age of Consent

- 5.1 The Mail on Sunday (ref 11) recently reported that
"The age of consent in Scotland has been 'effectively lowered to 13' as prosecutors turn a blind eye to underage sex.... Teenagers under 16 have consensual sex with each other. Not all, but many.

The law says it's wrong. In Scotland, sex between young people aged 13 to 15 is an offence, even if it's consensual. Technically, it could result in a prison sentence. Yet, out of 43 charges brought against 33 separate individuals since the clarified law came into effect in 2010, there have been no prosecutions. In short, though the laws against adults having sex with minors remain, the age of consent in Scotland has effectively been lowered to 13."

As there were 616 pre-16 pregnancies in 2010 (ref 10), the 43 complaints to which the article refers is only the tip of the iceberg.

- 5.2 Emergency Hormonal Contraception is only used when sex has taken place, so (see table 3 above) there must have been between 2,000 and 3,000 known offences in 2010 to give rise to those treatments.
- 5.3 In an official report published in 2003 (ref 12), it was reported that a survey conducted in 1999/2000 found that the median age of first intercourse was 16 for females and males: this was lower than the earlier 1990/91 NATSAL results of 18 for females and 17 for males. By definition, 50% of females must be below the median, but as many respondents would have reported the age of 16, this does not mean that 50% reported an age below 16.
- 5.4 The recently published SPICe Briefing (ref 1) quotes a recent survey:

"Figures on rates of sexual activity among young people aged 15 from an international comparative survey (Currie et al, 2012) show that in 2009/10 girls in Scotland were more likely to report having had sex (35%) than boys (27%)."

This means around 10,000 girls each year (and 10,000 offences).

- 5.5 The Sexual Offences (Scotland) Act 2009 was introduced on 1 December 2010 and is not being enforced. If there was no intention to enforce it, why did the Scottish Parliament enact it? It will bring the Parliament into disrepute if it passes laws which can be disregarded with impunity.

6 Parental Involvement

6.1 Consent for Medical Treatment and Patient Confidentiality

The Children (Scotland) Act provided that if a child was old enough to understand the medical treatment proposed, then the child and not the parents was to give consent. There was a presumption that a child had sufficient understanding at the age of 12 unless there were grounds to believe otherwise. A consequence was that doctors and nurses could not provide information to parents without the child's permission.

6.2 Provision of Contraceptives

Although the provision of contraceptives to a girl under 16 would appear to be aiding and abetting a criminal offence, doctors and nurses do this and invoke patient confidentiality to keep this from the girl's parents.

6.3 Arrangement of Abortions

A young girl can therefore become pregnant and have an abortion without her parents' knowledge, even though they will have to cope with her reaction to the abortion which they do not know she has had.

6.4 Irresponsible Parents?

From time to time there are complaints that, when young people get into trouble of one kind or another, parents are failing in their responsibility towards them. In this area, however, it is claimed that the law ensures that parents remain uninformed and are therefore unable to act in the manner of an informed, responsible parent.

When children's "rights" prevent caring parents from exercising their responsibilities, the law has got the balance wrong.

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Appendix

Emergency Hormonal Contraception and Early Abortion

Introduction

The Emergency Hormonal Contraceptive is commonly known as the "Morning After Pill", which exposes the euphemistic nature of the official term. Contraception is a prophylactic measure which needs to be taken in advance, a "night before" rather than a "morning after" intervention.

Definitions

To sustain this position, "conception", "pregnancy" and related terms are redefined to relate to implantation of a fertilised ovum in the uterus rather than the fertilisation of an ovum by a sperm.

The scientific medical understanding of conception and the start of pregnancy is quite clear. The first quotation is from a book aimed at expectant mothers.

"The process during which the sperm enters the egg, fuses with it, and the egg starts dividing takes around 24 hours to complete and usually takes place while the egg is still travelling down the Fallopian tube...only one sperm penetrates the oocyte, the innermost part of the egg, and fertilization occurs. The sperm tail, which has been so vital in propelling it to this point, is left outside and eventually disintegrates. **The newly formed single cell that results is called a zygote and it now forms a thick wall around itself to prevent**

penetration by any other sperm. Your pregnancy has begun!" *Your Pregnancy Week by Week* London: Dorling Kindersley, 2010 (p.20, emphasis added).

The following three quotations are taken from medical textbooks.

Keith L. Moore, T.V.N. Persaud, and Mark G. Torchia, *The Developing Human: Clinically Oriented Embryology*, 9th edition. Philadelphia, PA: Saunders, 2013: "Human development begins at fertilization, when a sperm fuses with an oocyte to form a single cell, a zygote. This highly specialized, totipotent cell marks the beginning of each of us as a unique individual" (p.13); "Developmental anatomy refers to the structural changes of a person from fertilization to adulthood" (p.5).

T.W. Sadler, *Langman's Medical Embryology*, 11th edition. Philadelphia, PA: Lippincott Williams & Wilkins, 2009: "Development begins with fertilization, the process by which the male gamete, the **sperm**, and the female gamete, the **oocyte**, unite to give rise to a zygote." (p.13)

Keith L. Moore, T.V.N. Persaud, Mark G. Torchia, *Before We Are Born Essentials of Embryology*, 8th edition. Philadelphia, PA Saunders, 2013: "There are different opinions of when an embryo becomes a human being because opinions are often affected by religious and personal views. The scientific answer is that **the embryo is a human being from the time of fertilization because of its human chromosomal constitution. The zygote is the beginning of a developing human.**" (p.327, emphasis added)

How does the Emergency Hormonal "Contraceptive" Work?

The data sheet (ref 13) for one commonly used emergency contraceptive states:

"Levonorgestrel is a hormone which is similar to the hormone progesterone that is produced by the body. It is used as emergency contraception to prevent a pregnancy after unprotected sex or after failure of a contraceptive method. It is thought to work by preventing the release of eggs from the ovary and preventing the sperm from penetrating an egg. It may also change the lining of the uterus which makes it difficult for an egg to develop.

Levonorgestrel should be taken as soon as possible. It should be taken within 12 hours but no later than 72 hours after unprotected sex.

You must immediately seek medical advice if you vomit within three hours of taking Levonorgestrel. This is because Levonorgestrel may not have been absorbed and you will need to take another tablet."

The data sheet (ref 14) for another commonly used emergency contraceptive states:

“For both drugs, a possible contraceptive effect, namely the prevention of ovulation, is described but both “may also change the lining Ulipristal acetate is a hormone which is used as emergency contraception to prevent a pregnancy after unprotected sex or after failure of a contraceptive method. It is thought to work by preventing the release of eggs from the ovary and by changing the lining of the uterus which makes it difficult for an egg to develop.

Ulipristal acetate should be taken as soon as possible after unprotected sex has occurred. It should be taken no later than 120 hours (five days) after unprotected sex

You must immediately seek medical advice if you vomit within three hours of taking Ulipristal acetate. This is because Ulipristal acetate may not have been absorbed and you will need to take another tablet.”of the uterus which makes it difficult for an egg to develop” which is an abortifacient action.

Which Effect is More Likely?

Consider the following:

- 1 After ovulation, an ovum can only be fertilised for about a day (ref 15).
- 2 After intercourse, sperm have a lifespan of about 4 days (ref 15).
- 3 A pill which is taken literally on “the morning after”, may follow intercourse by $\frac{1}{2}$ or $\frac{3}{4}$ day depending on how soon one can be prescribed, dispensed and taken. An interval from Friday night or Saturday night to Monday morning would lead to a delay of $2\frac{1}{2}$ or $1\frac{1}{2}$ days.
- 4 A period of 3 hours must elapse after the pill is taken before it is absorbed (see above). Whether there is a further period before it takes effect is not stated, but it is reasonable to suppose it cannot instantly stop the ovulation process.

We may conclude that:

- (a) If ovulation takes place more than about a day before intercourse, the ovum will have ceased to be viable before fertilisation could occur.
- (b) If ovulation takes place more than about 4 days before intercourse, the sperm will have ceased to be viable before fertilisation could occur.
- (c) If ovulation takes place no earlier than a day before intercourse and no later than the time at which the emergency contraceptive has been taken and had time to be absorbed and take effect, the ovum is able to be fertilised. The medication can then cause an early abortion by preventing implantation.
- (d) A contraceptive effect can only occur if emergency contraceptive is taken and has time to be absorbed and take effect before ovulation would otherwise have occurred. The time window for this is clearly constrained.

References

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- 2 National Health Service Scotland Information Services Division Publication Report, Teenage Pregnancy Year ending 31st December 2010, Publication date – 26th June 2012, A National Statistics Publication for Scotland
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