

REVIEW ARTICLE

# A study of the changing frequency of abortion in The Netherlands after 1967

P. E. TREFFERS\*

*Department of Obstetrics and Gynecology, Diaconessenhuis, Emmen, The Netherlands*

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TREFFERS, P. E. (1973): A study of the changing frequency of abortion in The Netherlands after 1967. *Europ. J. Obstet. Gynec. reprod. Biol.*, 3/5, 173-180.

The number of abortions induced by physicians in The Netherlands has increased greatly since 1967, especially in 1970 and the following years. The number of legal abortions is now considerably over 40,000 per year. Substitution for criminal abortion is probably not of great importance in this respect. The correlations are discussed with the unexpected fall in the number of births in 1970, 1971 and 1972, and with the decrease of the number of illegitimate births in the same years. Reference is made to the relationships between abortion and contraception in The Netherlands. It would appear that abortion is increasingly becoming a part of the normal pattern of birth control.

induced abortion; contraception; birthrate; illegitimate birth

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## The frequency of abortion before 1967

In an earlier publication (Treffers, 1967) special attention was given to the frequency of abortion in Amsterdam during the early 1960s. This frequency was calculated to be approximately 2000 (illegal) induced abortions per year. If the frequency of abortion in the whole of The Netherlands had been as high as that of Amsterdam, the total number of induced abortions at that time would have been 25,000-30,000. It is certain, however, that the abortion frequency outside the large cities was quite low and therefore the total number of abortions must have been much lower than 20,000 per year. Ligtenberg (1966) in a national inquiry into abortion in The Netherlands in 1960, found, according to

Dutch family doctors, an abortion frequency of 13 per 100 pregnancies. This, too, would indicate a low frequency of induced abortion in the entire country.

Strong indications were found in the study first mentioned (Treffers, 1967) that the abortion frequency in The Netherlands had gradually decreased since 1945. This decrease was probably even more pronounced after the introduction of oral contraceptives in 1964 and 1965, and can be noted for example in the decline in the number of patients treated for complications resulting from abortion in the hospital and out-patient service of the Wilhelmina Gasthuis in Amsterdam since 1964. From these findings it can therefore be postulated that the abortion frequency in The Netherlands was low before 1967, that it showed a declining trend and that abortion was gradually being replaced by contraception. The number of abortions induced by physicians was very low; almost no abortions were performed in hospitals.

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\* *Present address*: Department of Obstetrics and Gynecology, Wilhelmina Gasthuis, State University of Amsterdam, Amsterdam, The Netherlands.

## Deaths due to abortion

Table I consists of figures showing the deaths due to abortion and the total number of maternal deaths. The sharp decrease until 1966, the increase during the transitional years (1967 and 1968) and again the following decline are noteworthy. In a study of the causes of maternal deaths in The Netherlands in 1966 and 1967, Bout (1971) attributed the deaths in 5 of the 9 cases recorded to complications of abortion. In three of these cases death was due to sepsis, in the fourth due to embolism and in the fifth case due to blood loss.

TABLE I Death due to abortion and total maternal deaths reported by the CBS\*

| Year | Death due to abortion | Maternal deaths<br>(including those due to<br>abortion) |
|------|-----------------------|---|
| 1950 | 31                    | 242   |
| 1960 | 6                     | 94  |
| 1961 | 6                     | 95  |
| 1962 | 6                     | 82  |
| 1963 | 6                     | 82  |
| 1964 | 4                     | 83  |
| 1965 | 3                     | 66  |
| 1966 | 1                     | 49  |
| 1967 | 8                     | 62  |
| 1968 | 8                     | 51  |
| 1969 | 4                     | 48  |
| 1970 | 4                     | 32  |
| 1971 | 1                     | 30  |
| 1972 | 0                     | 23  |

\* Centraal Bureau voor de Statistiek (Central Bureau of Statistics)

## Abortion frequency after 1967

Since 1967 the attitude toward abortion in The Netherlands has greatly changed. In 1967 the first university abortion committees were established in Amsterdam and Leiden for the consideration of requests for termination of pregnancy. In the years thereafter, committees were formed in other hospitals both university and nonuniversity. Although abortion was still illegal, even when done by a physician, those physicians performing abortions were no longer prosecuted. The number of abortion requests increased quickly and as early as 1969,

but particularly in 1970, 1971 and 1972, there was a rapid rise in the number of abortions performed by physicians. Besides the abortions performed in hospitals there were, especially in 1969 and 1970, an impressive number of abortions performed in private clinics. In 1971, 7 abortion clinics were opened in which ambulant abortions were performed; in 1972, 3 more clinics were added.

In estimating the recent number of induced abortions we have at our disposal the results of an inquiry held by the chief inspector of public health in August 1971. The directors of hospitals in The Netherlands were asked to report the number of pregnancies which had been terminated in these hospitals in the first half of 1971. Answers were received from 86% of the hospitals and in these, 2676 cases of abortion were reported. Based on this inquiry, the total number of abortions induced in Dutch hospitals in 1971 can be estimated as approximately 6200. There are no figures available concerning 1972.

In Table II the number of abortions performed per week in 10 abortion clinics in the last months of 1972 is shown. There were approximately 690

TABLE II Average number of abortions performed per week in abortion clinics in the last months of 1972

|                                  |     |
|----------------------------------|-----|
| NVSH, The Hague                  | 154 |
| BEA-huis, Beverwijk              | 73  |
| Mildredhuis, Arnhem              | 61  |
| W. F. Stormkliniek, Rotterdam    | 65  |
| Vrelinghuis, Utrecht             | 60  |
| St. Oosterparkkliniek, Amsterdam | 150 |
| MR '70, Amsterdam                | 33  |
| Stimezo, Groningen               | 25  |
| NVSH, Zwolle                     | 39  |
| Stimezo, Eindhoven               | 30  |
| Total                            | 690 |

abortions per week. Calculating this on a yearly basis, one arrives at a frequency of around 36.000 per year. This estimated total was not reached in 1972, however, due to the fact that in January 1972 only 420 abortions per week were performed in the abortion clinics. Accordingly, in 1972 there was an appreciable abortion increase. The rising trend would still seem to be in effect considering that various abortion clinics have expanded in 1973.

In 1970 and 1971, 2000 women seeking abortion were referred to English clinics by the 'Nederlandse Vereniging voor Sexuele Hervorming' (Dutch Association for Sexual Reform). The number of women going to England on their own initiative is not known. Undoubtedly, at present, fewer women feel the need to seek abortion in England.

Aside from abortion clinics, a number of private physicians are still active in performing ambulant abortions. The total number of abortions induced by these physicians cannot be estimated.

From these findings it can be inferred that the number of abortions induced by physicians in The Netherlands at this time is in all probability far above 40,000 per year, that this amount has been reached due to a sharp rise during only a few years (especially in 1970, 1971 and 1972), and that this rising trend is still in effect. It should be noted that an appreciable number of the women treated in the abortion clinics came from foreign countries, especially Germany, Belgium and France. According to data from the abortion clinics, the number of foreign women treated per year was estimated to be approximately 16,000. This would indicate that roughly somewhat less than 30,000 abortions per year are performed on Dutch women. In an inquiry by Sondermeyer and Veenhoven (1973), a total of 33,000 abortions per year was found in abortion clinics and in private practice. Their inquiry, however, was based on the number of abortions in the entire year of 1972, while our reported frequency was estimated from the last months of 1972.

### **Criminal abortion and abortion induced by physicians**

There are no recent data concerning the number of criminal abortions performed by nonphysicians. It is possible that a number of women who in the past would have submitted to an illegal abortion, now find their way to a medical doctor. The sharp rise in abortions induced by physicians cannot, however, be accepted simply as evidence of a shift from illegal to medical abortions. This statement is based on the following considerations:

1. The number of criminal abortions in The Netherlands before 1967 was low and showed

a declining trend. Abortions induced by physicians at the present far outnumber the criminal abortions performed before 1967.

2. There are indications that the group of women who before 1967 submitted to a criminal abortion was different from those women who are going to a physician for an abortion today. It appears that of the women admitted to the Wilhelmina Gasthuis in Amsterdam in the years 1962 to 1964 due to complications of (suspected) induced abortion, 19% were unmarried (Treffers, 1967). Today, of the women seeking and receiving abortions in the same hospital, more than 40% are unmarried. In an inquiry into the marital status of women who had abortions in November 1971 (for the most part in abortion clinics), 40.5% were unmarried and 52.9% were married, the remaining women were divorced or widowed (Fabry de Jonge, 1971).
3. Family doctors and gynecologists from the rural areas of The Netherlands can no doubt observe most clearly the fact that, at present, abortion requests originate from regions and villages where, a few years ago, this seldom occurred and from families who in the past would have never considered an abortion.

### **Abortion and birthrate**

Since the increasing frequency of medical abortion cannot simply be attributed to a changeover from criminal abortion, two other possibilities must be considered: a reduction of the birthrate and respectively a rise in the total number of pregnancies. Both of these factors may be partly responsible. There are many indications that rapidly changing attitudes toward abortion are of influence on the birthrate. Most statistics which would illustrate the influence of changing attitudes have come from Japan and Eastern Europe, particularly Rumania, where in 1966 abortion was suddenly almost entirely prohibited (Teitelbaum, 1972). There is also evidence that the abortion frequency has influenced the birthrate in Sweden (Huldt, 1968), while the declining birthrate in England after 1967 and in New York State since 1971 may be connected to changes in the abortion laws. It would therefore

seem interesting to analyse the birthrate in The Netherlands in a period in which the abortion rate rose sharply.

In The Netherlands, according to data from the 'Centraal Bureau voor de Statistiek, CBS' (Central Bureau of Statistics), an unexpected decline in the birthrate has occurred twice in the last 10 years. The first occurred in 1965 and the following years. The lower birthrate was exclusively the result of a decrease in second- and later-born children and therefore can be seen as a consequence of effective family planning. As proposed in a former publication (Treffers, 1968), the lower birthrate was found to coincide precisely with the influence of the explosive increase in the use of oral contraceptives in 1964 and 1965.

The second unexpected drop in the birthrate in The Netherlands occurred in 1970 and the years thereafter. In 1967 the CBS published a population prognosis which took into consideration the earlier decreases in the birthrate. In Table III the projected number of live births can be seen together with the actual figures for 1966-1970. It is striking that until and including 1969, the actual figures are consistently higher than those of the 1967 prognosis. The reason for this disparity was a drop in the marriage age and consequently a greater number of marriages in those years than had been expected, this in turn caused a rise in the number of first- and second-born children.

TABLE III Number of live births according to the prognosis of the CBS\* in 1967 in comparison with the actual figures.

| Year | According to prognosis | Actual figures |
|------|------------------------|----------------|
| 1966 |                        | 239,600        |
| 1967 | 234,300                | 238,700        |
| 1968 | 235,100                | 237,100        |
| 1969 | 237,700                | 247,600        |
| 1970 | 241,800                | 239,000        |

\* Centraal Bureau voor de Statistiek (Central Bureau of Statistics)

As can be seen in Table III, 1970 saw a reversal in the trend. The relative rise in the actual number of live births in respect to the prognosis ceased and the actual number of live births in fact fell below

the original prognosis, even though the marriage age also dropped again somewhat. There must have been, therefore, another factor of new influence. According to the CBS, the decline in the birthrate can be attributed to a progressive decrease in the average family size, in addition to a decrease in the number of first- and second-born children; another factor is the longer time period between marriage and the birth of the first child.

The new trend is even more evident when based on the newest population prognosis (CBS, 1971). In this prognosis statistics were used from 1969 plus what was available at that time from 1970. Table IV shows the prognosis and the actual statistics from 1970-1972. The actual figures for 1970 closely

TABLE IV Number of live births according to the prognosis of the CBS\* in 1970 in comparison with the actual figures

| Year | According to prognosis | Actual figures |
|------|------------------------|----------------|
| 1970 | 239,000                | 238,900        |
| 1971 | 248,000                | 227,200        |
| 1972 | 254,000                | 214,300        |

\* Centraal Bureau voor de Statistiek (Central Bureau of Statistics)

agree with the prognosis because at the time of the prognostication, a part of the actual statistics for 1970 was already known. The statistics from 1971 and 1972 show an increasing tendency to drop behind the prognosis, even in its revised form.

TABLE V Some demographic data in The Netherlands (CBS\*)

| Year                 | 1967    | 1968    | 1969    | 1970    | 1971    | 1972          |
|----------------------|---------|---------|---------|---------|---------|---------------|
| Live borns           | 238,678 | 237,112 | 247,588 | 238,912 | 227,180 | 214,286       |
| First borns          | 93,373  | 94,222  | 96,717  | 93,167  | 91,766  | 90,352        |
| Later borns          | 145,005 | 142,890 | 150,871 | 145,745 | 135,414 | 123,934       |
| Marriage fertility** | 145.6   | 141.7   | 144.6   | 136.3   | 126.4   | not yet known |
| Birth-rate***        | 18.9    | 18.6    | 19.2    | 18.3    | 17.2    | 16.1          |

\* Centraal Bureau voor de Statistiek (Central Bureau of Statistics)

\*\* Live borns per 1000 married women < 45 years

\*\*\* Live borns per 1000 inhabitants

Finally, Table V shows a sudden decline in the number of first- and later-born children, in the marriage fertility, and in the birthrate per 1000 of the population in 1970 (an even more pronounced decline was evident in 1971 and 1972).

In conclusion it can be stated that in 1970 and the years following, a second unexpected drop in the birthrate was evident, occurring again at a time precisely coinciding with a new revolutionary change in the birth control pattern, specifically the sharp rise in the number of abortions induced by physicians. Of course it is impossible to be certain if, or to what degree other methods of birth control were of influence. There are, however, no indications of sudden radical changes in the contraceptive pattern during the years under study. In addition to oral contraceptives, which had become very widespread since 1964-1965, the IUD had progressively come into use since 1966 with somewhat later the injectable depo-gestagens. Sterilization of the woman or the man has certainly become more common in recent years. It is improbable, however, that sterilization would be the reason for a sudden and appreciable drop in the birthrate since, for the most part, this is chosen by people already strongly motivated to birth control and who, even without this kind of intervention, would have had a low birthrate. Additionally, the factors involved in the unexpected birth decline in 1970 and the years following (for example a longer interval between marriage and the birth of the first child) would indicate that sterilization had no important role in the decline.

Tietze (1973) states that the increase in the number of legal abortions registered in New York City since the liberalization of the law in 1970 can only partly account for the decrease in the birthrate from 1970 to 1972. Other changes in reproductive behavior should account for the remainder. Since official abortion registration is lacking in The Netherlands, comparable calculations are impossible in this country. Any computation of this kind can only be based on the assumption that the abortion registration covers the real events almost completely. It seems difficult to obtain convincing evidence about this assumption, considering that from abortion registration in various countries only minimum figures can be obtained.

## Abortion and illegitimate births

If it can be assumed that there is a causal connection between the increasing abortion frequency and the unexpected decrease in the birthrate in 1970 and following years, it would seem probable that the illegitimate birthrate would have also been influenced. It has already been seen that a large number of the women receiving abortions were unmarried. In Table VI, the number of illegitimate births is shown in absolute figures and per 1000 births. It

TABLE VI Number of illegitimate births (data of the CBS\*)

| Year | Total number | Number per 1000 births |
|------|--------------|------------------------|
| 1960 | 3296         | 13.6                   |
| 1961 | 3605         | 14.4                   |
| 1962 | 3790         | 15.2                   |
| 1963 | 4058         | 16.0                   |
| 1964 | 4421         | 17.4                   |
| 1965 | 4587         | 18.5                   |
| 1966 | 4775         | 19.7                   |
| 1967 | 5044         | 20.9                   |
| 1968 | 4899         | 20.4                   |
| 1969 | 5466         | 21.8                   |
| 1970 | 5040         | 20.8                   |
| 1971 | 4538         | 19.8                   |
| 1972 | 4118         | 19.0                   |

\* Centraal Bureau voor de Statistiek (Central Bureau of Statistics)

would seem that the line in Table VI which had been steadily rising from 1960 to and including 1969 suddenly reversed in 1970 and went into a decline, in absolute figures and in relation to the birth total. Admittedly, statistics from only three years must still be interpreted with care; even so, there is a striking agreement with the data concerning abortion frequency and the decline in the birthrate as discussed in this article.

## Abortion and the number of pregnancies

Aside from the decline in the birthrate, the increased abortion frequency could also be connected with a possible rise in the total number of pregnancies. The pregnancy increase, on the other hand, could be the result of less efficient birth control or of more exposure of women to the chance of pregnancy, or

both. In a study of abortion in Eastern Europe, particularly Hungary, it was found plausible that the sharp rise in abortion must be partly attributed to a less efficient use of contraception (Treffers, 1965, 1968; Frederiksen and Brackett, 1968).

The degree to which inefficient birth control plays a role in the abortion frequency in The Netherlands cannot be determined at this time due, in part, to the lack of abortion records. In the future, the possible appearance of abortion recidivism could give an indication of the extent to which abortion will replace contraception. Aside from Eastern Europe and Japan, relapse has also become a problem in New York (Rovinsky, 1972).

Attention must also be given to the increasing exposure of women to the chance of pregnancy as a possible cause of the rise of the pregnancy rate. In all probability, the age of the first coitus has become lower in general, and the frequency of coitus in young girls higher, whereby, naturally, the chance of pregnancy would be increased. Indications have been found that premarital coitus suddenly became much more widespread during the 1960s (Kooy, 1969).

### **Causes of the increase in the abortion requests**

In reviewing the data concerning abortion before 1967, it can be concluded that the increased abortion demand at this time is not primarily the result of a critical situation in respect to criminal abortion in those earlier years, and certainly is not due to an increasingly critical situation. If a change can be said to have taken place in the period before 1967, it should be seen as an improvement rather than a worsening of the situation. The abortion frequency had been decreasing, there were less deaths, and abortion was being partly replaced by contraception. The cause of the increased abortion demand cannot, therefore, be ascribed to the critical situation itself; other factors must also be involved.

In attempting to analyze the factors involved in abortion requests, undoubtedly a wide range can be found: international contacts, changes in standards concerning sex, influence of the mass media, etc. It must also be noted that a hypothetical factor in the increase of abortion requests could be the availability of new and more efficient methods of

contraception. Although this would seem to be paradoxical, in various studies throughout the world it has been found that abortion and contraception are not as diametrically opposed as had once been asserted. In a study conducted in Israel, for example, a comparison between various population groups showed a definite correlation between the practice of contraception and the incidence of induced abortion (Bachi, 1970). Similar correlations have been established elsewhere. A stronger motivation to practice birth control would seem to lead to an increase in both contraception and abortion. Concerning The Netherlands, where undoubtedly the population as a whole is strongly motivated to practice birth control, it can be surmised that the availability of effective and easy to use methods of contraception (in particular the pill and the IUD) has suddenly brought the planning of pregnancy into the reach of a large part of the population. In the past, birth control was not possible to such a great extent and was often unreliable. The availability of contraceptives also has defined more sharply the concept of unwanted pregnancy. Earlier an unwanted pregnancy was considered inescapable, a sort of fate which must be accepted. As soon as pregnancy can be efficiently prevented, an undesired pregnancy becomes an unbearable situation and abortion is requested. In this sense, the correlation can be seen between the availability of good and efficient methods of contraception in 1964 and the years following, and the increased abortion demand since 1967.

### **Induced abortion and contraception**

The relationship between abortion and contraception is very complex. With the preceding arguments in mind, at least three aspects must be considered:

1. The availability of new methods of contraception may have a stimulating effect on the abortion demand.
2. The easy availability of abortion may result in a lax use of contraceptives and may hinder attempts to introduce new methods of contraception.
3. Good contraception can function as a preventative in relation to abortion.

4. In addition Tietze's statement should be mentioned that in New York City a greater utilization of legal abortion could possibly be accompanied by a more general or more effective practice of contraception.

Amidst these somewhat conflicting aspects, a certain equilibrium will be reached in every society. Where the equilibrium occurs will be partly dependent on the strength of motivation for birth control, the ease of obtaining abortion, the knowledge of contraception, the efficiency of the contraceptive methods, the acceptability of these methods, and the ease of obtaining and using them.

In the Dutch society of today there is as yet no equilibrium, or perhaps it no longer exists, in any case, as has been seen, the abortion rate is quickly rising. Based, for example, on the trends in number of births, we have seen that there has been a real increase in abortion and it would seem probable that this increase will continue. The pattern of birth control in The Netherlands is, for the second time in 10 years, subject to disrupting changes. According to a study conducted in 1962-1964, abortion in Amsterdam, at that time difficult to obtain, was carried out 'underground', had a relatively low frequency, and the women who obtained abortions seemed as a group to suffer a number of socio-pathological disturbances. The abortion manifested itself in these women as a symptom of deep-seated disturbances, particularly concerning the family and other relationships (Treffers, 1967).

It would seem very probable that the group of women who request and receive abortions today would show progressively fewer socio-pathological disturbances. This has also been the experience of those who have been regularly confronted with abortion requests in the last 10 years. The women seeking abortion as well as their circumstances are becoming more normal and it follows that abortion itself will progressively become more normal. It can be stated that abortion as a method is now becoming a part of the normal pattern of birth control in The Netherlands.

How and to what extent abortion will continue to be included in the birth control pattern must be established in future studies. It would seem improbable that abortion would be used to any great extent as the only method. That abortion will be used in combination with and as a supplement to

other methods is a more reasonable assumption. It must be taken into consideration that the risks involved in (lege artis) induced abortion before the 12th week are very small (Tietze and Lewit, 1972).

From the foregoing considerations it can be concluded that the role of abortion in the birth control pattern of The Netherlands has quickly grown in recent years. The extent to which this will continue, or if it will continue, is at this time uncertain. Comparison with other countries where abortion has become readily available would lead to the assumption that a reversal in the abortion trend to a lower level due to improved contraception is not probable in the near future.

### Acknowledgement

Thanks are due to Miss Sharon Janney, who took care of the translation into English.

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