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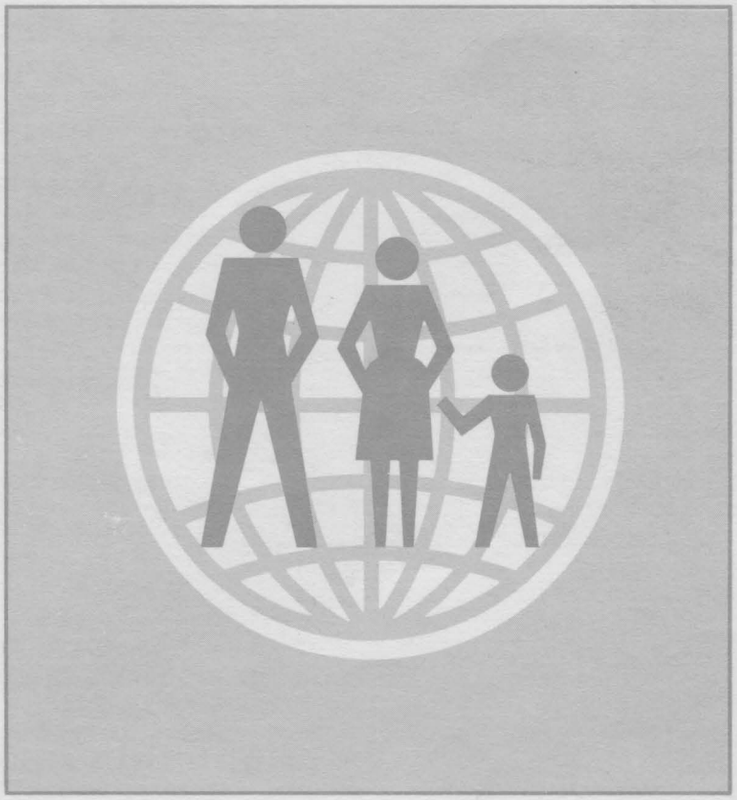
ANNUAL SUMMARY 1978
Issued November 1980

CENTERS FOR DISEASE CONTROL

ABORTION

SURVEILLANCE



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES • Public Health Service

PREFACE

Over the past 25 years, "surveillance"--including collection, analysis and dissemination of epidemiologic information--has become applicable not only to infectious disease but also to such diverse public health concerns as air pollution, cancer, birth defects, Rh hemolytic disease, and abortion. Recognizing both the emerging importance of abortion as a public health issue and the absence of national abortion statistics, the Family Planning Evaluation Division (FPED) in 1969 initiated continuous epidemiologic surveillance of abortion in the United States. The objectives of this surveillance are twofold: 1) to document the number and characteristics of women obtaining abortions, and 2) to eliminate preventable mortality and morbidity related to abortion. The present report documents the most current data available to CDC for the years 1969-1978 and updates previous Abortion Surveillance Reports. This issue provides: 1) demographic and epidemiologic data on legal abortions in 1978, 2) trends in the practice of legal abortion from 1972-1978, 3) data on abortion-related mortality for the 7-year period 1972-1978, 4) an analysis of behavioral risk factors related to abortion deaths, 5) conclusions from the Abortion Monitoring in Sentinel Hospitals project designed to measure the health impact of restricting public funds for legal abortion, 6) a comparison of oxytocin augmentation in saline and PGF2a instillation procedures derived from CDC's 4-year multicenter study of abortion complications, the Joint Program for the Study of Abortion/CDC, 7) international comparisons of legal abortion, and 8) a reference list of FPED publications relating to abortion.

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Summary Table
Characteristics of Women Receiving Abortions
United States, 1972-1978

Characteristics	Percentage Distribution[1]						
	1972	1973	1974	1975	1976	1977	1978
Residence							
Abortion in-state	56.2	74.8	86.6	89.2	90.0	90.0	89.3
Abortion out-of-state	43.8	25.2	13.4	10.8	10.0	10.0	10.7
Age							
≤ 19	32.6	32.7	32.7	33.1	32.1	30.8	30.0
20-24	32.5	32.0	31.8	31.9	33.3	34.5	35.0
≥ 25	34.9	35.3	35.6	35.0	34.6	34.7	34.9
Race							
White	77.0	72.5	69.7	67.8	66.6	66.4	67.0
Black and other	23.0	27.5	30.3	32.2	33.4	33.6	33.0
Marital Status							
Married	29.7	27.4	27.4	26.1	24.6	24.3	26.4
Unmarried	70.3	72.6	72.6	73.9	75.4	75.7	73.6
Number of Live Births[2]							
0	49.4	48.6	47.8	47.1	47.7	53.4	56.6
1	18.2	18.8	19.6	20.2	20.7	19.1	19.2
2	13.3	14.2	14.8	15.5	15.4	14.4	14.1
3	8.7	8.7	8.7	8.7	8.3	7.0	5.9
≥ 4	10.4	9.7	9.0	8.6	7.9	6.2	4.2
Type of Procedure							
Curettage	88.6	88.4	89.7	90.9	92.8	93.8	94.6
Intrauterine instillation	10.4	10.4	7.8	6.2	6.0	5.4	3.9
Hysterotomy/Hysterectomy	0.6	0.7	0.6	0.4	0.2	0.2	0.1
Other	0.5	0.6	1.9	2.4	0.9	0.7	1.4
Weeks of Gestation							
≤ 8	34.0	36.1	42.6	44.6	47.0	51.2	52.2
9-10	30.7	29.4	28.7	28.4	28.0	27.2	26.9
11-12	17.5	17.9	15.4	14.9	14.4	13.1	12.3
13-15	8.4	6.9	5.5	5.0	4.5	3.4	4.0
16-20	8.2	8.0	6.5	6.1	5.1	4.3	3.7
≥ 21	1.3	1.7	1.2	1.0	0.9	0.9	0.9
Previous Induced Abortions							
0	--	--	86.8	81.9	79.8	76.8	70.7
1	--	--	11.3	14.9	16.6	18.3	22.1
2	--	--	1.5	2.5	2.7	3.4	5.3
≥ 3	--	--	0.4	0.7	0.9	1.5	1.8

[1]Excludes unknowns
[2]For years 1972-1977 data indicate number of living children
--Not reported

I. SUMMARY

In 1978 the 50 states and the District of Columbia reported 1,157,776 legally induced abortions to the Center for Disease Control, a 7% increase over 1977. The national abortion rate rose from 22 per 1,000 females aged 15-44 in 1977 to 23 in 1978. The national abortion ratio increased by 7%, from 325 to 347 per 1,000 live births, or more than 1 abortion for every 3 live births.

As in previous years, women who obtained abortions in 1978 were most often young, white, unmarried, and of low parity. Sixty-five percent were less than 25 years of age; 67% were white, and 33% were of black and other races. Seventy-four percent of all women obtaining abortions were unmarried at the time of the procedure, and 57% had had no live births. Curettage continued to be the most widely used procedure for reported legal abortions, accounting for 95% of abortions performed in 1978. Compared with 1977, the percentage of saline instillation procedures used after 15 weeks' gestation decreased, dilatation and evacuation procedures increased, and instillation of prostaglandin and other agents remained the same.

Women continued to seek abortions at earlier gestational ages; over half (52%) of all abortions were performed at less than 9 menstrual weeks' gestation, and 91% of abortions were induced within the first 12 weeks. Younger women obtained abortions at later gestations than older women. Nearly half (46%) of the abortions performed after 15 weeks of gestation were to women 19 years of age or younger. A woman's race had relatively little impact on the gestational age when she obtained an abortion.

In 1978, 27 women died from abortion, 8 fewer than the 35 who died in 1977. Compared with 1977 there was a decline in the annual number of legally induced abortion deaths; 11 women died after legally induced abortion in 1978, compared with 17 in 1977, 11 in 1976, and 31 in 1975. Four of the 11 deaths in 1978 were due to ectopic pregnancy after attempted legally induced abortion. In 1978 there were 7 deaths after illegally induced abortion and 9 deaths after spontaneous abortion. The death-to-case rate for legally induced abortions decreased from 1.4 in 1977 to 0.6 per 100,000 abortions in 1978.

The role of oxytocin in augmenting the uterine activity of second-trimester instillation abortions is controversial. To evaluate the efficacy and safety of oxytocin augmentation, we analyzed data on 10,013 women who underwent hypertonic saline instillation procedures and 1,241 women who underwent prostaglandin F2a (PGF2a) instillation procedures in the United States between 1971 and 1975. Data were obtained through the Joint Program for the Study of Abortion under the auspices of the Center for Disease Control, a multi-center, prospective, cohort study. We found that concurrent administration of oxytocin was associated with a significantly shorter instillation-to-abortion time for hypertonic saline but with a significantly longer time for PGF2a. For hypertonic saline, use of concurrent oxytocin did not affect either the success rate or the major complication rate; however, it did affect the specific type of complication that occurred. For PGF2a, use of concurrent oxytocin was associated with a lower success rate and a higher major complication rate than when PGF2a was used alone; however, the relatively small number of observations and limitations in our study design may have affected our results.

In August 1977 federal funds for financing abortions of Medicaid-eligible women were restricted. In order to study the health impact of public fund restriction, we reviewed the medical records of women with abortion complications in 3 cities for 1 year before and 1 year during the restriction. A similar analysis was done for 3 cities where public funding for legal abortions had not been restricted. Assuming that the number of complications reflects the number of abortions, we found that the restriction of public funding for legal abortions had not increased the number of illegal abortions, but that it had reduced the number of legal abortions obtained by poor women.

An estimated 30 to 55 million abortions are performed worldwide each year, making abortion one of the most prevalent means of fertility control. The majority of the world's population (60%) live in countries where abortion is permitted either on request or for social reasons. The United States was sixth of the 18 countries reporting abortion rates and eighth of the 16 countries reporting abortion ratios. In 1978 the United States reported one of the lowest percentages of abortions to women over 40 years of age (< 3%) and to women with 4 or more children (4%) and one of the highest percentages to never-married or previously married women (74%) and to women with no living children (61%).

II. NUMBER AND CHARACTERISTICS OF WOMEN RECEIVING ABORTIONS

A. Surveillance Methods

CDC receives abortion statistics by state of occurrence from 3 types of sources: 1) central health agencies, 2) hospitals and/or facilities, and 3) the Cooperative Health Statistics System (CHSS) of the National Center for Health Statistics. Table 1 summarizes the development of CDC's abortion reporting sources since the initiation of epidemiologic surveillance of abortion in 1969. The areas (including the District of Columbia) which report abortion data to CDC or CHSS have increased from 8 states in 1969 to 48 reporting areas in 1978. Central health agencies receive information either from direct reporting systems or from surveys of hospitals or abortion facilities within the state. For 1978, 40 agencies provided data directly to CDC, and 8 agencies provided data to the CHSS, which is projected to become the national data-gathering mechanism. To obtain information for this report from the 4 states which did not collect statewide abortion data, CDC directed inquiries to the hospitals and facilities in those states. Figure 1 reflects the sources of reported abortion data by state for 1978.

B. Tabulation Methods

In the past CDC has published univariate tabulations, where provided by the state, on the following variables: number of abortions, residence status, age, race, marital status, number of live births, method of abortion, weeks of gestation, and number of previously induced abortions. We also have published bivariate tabulations of abortions by weeks of gestation and type of procedure. Beginning in 1978, we are publishing the following additional bivariate tabulations, where provided by the state either directly or through the CHSS system: weeks of gestation by age, weeks of gestation by race, age by race, and marital status by race.

Percentages shown in the Summary Table may differ slightly from those in the corresponding tables, since in the former the percentages were based on known distributions. Similarly, percentages in the bivariate tables were calculated after the unknowns were excluded. Because California collected data by the variables listed above for 1976 but not for 1977 or 1978, the percentage of all abortions for which CDC has variable-specific data is lower in 1977 and 1978 than in 1976.

Live-birth data used in calculating abortion ratios were obtained from the Vital Statistics Division, National Center for Health Statistics.

C. Number of Abortions by State of Occurrence

In 1978 the 50 states and the District of Columbia reported 1,157,776 legal abortions, an increase of 7% over the 1,079,430 legal abortions reported in 1977. New York and California reported the largest number of abortions (Table 2), as they have consistently done since 1970. In 1978 these 2 states provided 28% of the national total, approximately the same percentage as in 1977 and 1976. Alaska, Idaho, New Hampshire, North Dakota, South Dakota, and Wyoming each reported fewer than 2,500 abortions in 1978. The majority of states reported an increased number of abortions performed in 1978, with only 5 states reporting a decline (Table 3). The largest percentage increases were reported from Idaho (98.8%) and Arkansas (83.9%), while the largest decreases were reported from Alaska (37.7%) and Ohio (13.1%) (Table 3).

The national abortion ratio rose in 1978 to 347 abortions per 1,000 live births, a 7% increase over 1977 (Table 1). The abortion ratios ranged from a low of 74 in Mississippi to a high of over 1,000 in the District of Columbia (Table 2). Only 7 of the 50 reporting states recorded a decrease in the abortion ratio from 1977.

The national abortion rate rose in 1978 to 23 abortions per 1,000 females aged 15 to 44, a 5% increase over 1977 (Table 1). The abortion rate ranged from a low of 6 in Alaska and Mississippi to a high of 38 in the State of New York and 171 in the District of Columbia (Table 2). The majority of the states (78%) reported an increase in the abortion rate in 1978. Only 6 states and the District of Columbia reported a decrease in the abortion rate from 1977.

D. Residence Status

In 1978, 11% of abortions were performed for out-of-state residents (Table 4), a percentage similar to that reported for 1975, 1976, and 1977 (Summary Table). In 1978 the residence status was known for 64% of women who had reported abortions. The largest proportion of abortions for out-of-state women in 1978 was again reported by the District of Columbia (54%) (Table 4). South Dakota and Kansas were next highest, both reporting nearly 40%. Declines in the percentages for out-of-state women occurred in 18 of the 39 states reporting residence status in 1978. The greatest proportion of women obtaining abortions outside their state of residence resided in the East South Central Division (24%) and the smallest in the Pacific Division (1%) (Table 5). This is consistent with information reported in 1975, 1976, and 1977. Approximately half of resident abortions were obtained out of state in South Dakota, West Virginia, and Mississippi, while less than 1% of resident abortions were obtained out of state by women in New York, Minnesota, Colorado, Oregon, and Hawaii.

E. Age

Thirty-seven states and the District of Columbia reported abortions by age in 1978, comprising 66% of all reported abortions (Table 6). In 1978, 30% of women obtaining abortions were aged 19 or younger, 35% were 20 to 24 years old, and 35% were age 25 or older (Summary Table). This represents a continuation of the trend present since 1975 of a gradual shift from the group less than 20 years old to the 20- to 24-year age group (Summary Table and Figure 2).

In 1978 Arkansas, Kansas, Minnesota, Nebraska, New Hampshire, and South Dakota had the largest percentage of women younger than age 20 (approximately 40%); Hawaii, New Jersey, New York, and the District of Columbia had the largest percentage of women aged 25 and older (slightly more than 40%). This is a similar pattern to that reported in 1977.

A total of 32 states reported abortions by single year of age for women 15 to 19 years old (Table 7). Approximately 58% of the 189,125 abortions to women less than age 20 were obtained by women 18 years or older and 10% by women 15 or younger. This represents a slight shift to the older teenage group since 1977.

Women younger than 15 years old had the highest ratio of legal abortions to live births (1,149) followed by women 40 years old and older (788) (Table 6). The lowest abortion ratio was reported for the 25- to 29-year-old age group, 218 abortions per 1,000 live births. All age groups except the <15-year age group had a reported increase in the abortion ratio from 1977 (Figure 3).

F. Race

Although the majority (67%) of abortions in 1978 were performed on white women, the percentage of women of black and other races having abortions showed a slight decline for the first time since 1972 (Summary Table). Thirty-two states and the District of Columbia reported race in 1978, comprising 53% of all reported abortions (Table 8). Both Hawaii and the District of Columbia reported a majority of abortions for women of black and other races, and New York City and Louisiana reported more than 40% of abortions to women of black and other races.

Women of black and other races continued to have a higher abortion ratio than whites (Figure 4). Compared with 1977, the abortion ratio for blacks and other races increased from 490 per 1,000 live births to 497, and for whites it increased from 268 to 297 (Table 8).

G. Marital Status

In 1978 the majority of women (74%) obtaining abortions were unmarried at the time of abortion; this is a slightly lower proportion than the 76% reported in 1977, and it reverses the trend of increasing proportions of unmarried women observed since 1972 (Summary Table). Thirty-one states and the District of Columbia reported marital status in 1978, comprising 53% of all reported abortions (Table 9).

In 1978 unmarried women continued to have higher abortion ratios than their married counterparts (Table 9, Figure 5). The aggregate abortion ratio for unmarried women (1,471) was 13 times higher than for married women (112) (Table 9). The large difference in abortion ratios between married and unmarried women does not take into account those women who conceived premaritally and who subsequently gave birth while married. This situation would tend to shift live births from the unmarried to the married category and thereby increase the abortion ratio for unmarried women and decrease the ratio for married women.

H. Number of Live Births

An inverse relationship existed between the woman's number of live births and the percentage of abortions obtained in 1978 (Table 10). Fifty-seven percent of abortions were obtained by women who had had no live births and 4% by women who had had 4 or more births (Summary Table). This represents a slight shift toward a lower parity--compared with 1977. Twenty-nine states in 1978 included the number of live births in their reports; these comprised 44% of all reported abortions.

Women with 1 live birth had the lowest abortion ratio (201) in 1978 and those with no births had the highest (446) (Table 10). Compared with 1977,there was an increase in the abortion ratio for women with 2 or fewer live births and a decrease for those with 3 or more (Figure 6).

I. Type of Procedure

In 1978 curettage (suction, sharp, and dilatation and evacuation) was the type of procedure used in 95% of abortions compared with 94% in 1977 (Summary Table). This represents a continuation of the shift toward curettage from other methods present since 1972. Thirty-seven states and the District of Columbia reported information on type of procedure in 1978, comprising 66% of all reported abortions (Table 11). Saline and prostaglandin instillation procedures made up 3% and 1%, respectively, a slight decline from 1977. Hysterotomy and hysterectomy accounted for 0.1% of all procedures in 1978, again a slight decline from 1977.

In states where instillation procedures were used, there was often a clear preference for 1 type of procedure over the other. For example, Kansas, Nebraska, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, Virginia, and Washington used mainly saline, whereas Arkansas, Colorado, Hawaii, Montana, and Oregon used mainly prostaglandin.

J. Weeks of Gestation

In 1978 more than half (52%) of reported legal abortions were performed in the first 8 weeks of gestation (Summary Table). The majority (91%) of abortions were performed at less than 13 weeks' gestation. Approximately 4% of women obtained abortions in the 13- to 15-week interval and in the 16- to 20-week interval and only 1% at greater than 20 weeks. These proportions continue the trend noted since 1972 of an increase in the percentage of reported legal abortions performed at less than 9 weeks' gestation with a corresponding decrease in the percentage of abortions performed at later gestational ages (Summary Table). Although the proportion of abortions performed in the first and second trimesters remained the same in 1978 as in 1977, abortions were performed earlier in both trimesters (less than or equal to 8 weeks and 13-15 weeks, respectively). Thirty-seven states and the District of Columbia reported information on gestation at the time of abortion, comprising 66% of all reported abortions (Table 12).

K. Previous Induced Abortions

In 1978, 29% of abortions reported in 30 states and the District of Columbia were obtained by women who reported having had at least 1 previous induced abortion (Summary Table). Information on previous abortions was provided for 49% of all reported abortions in 1978 (Table 13). This continued the increasing trend toward repeated induced abortions reported for 1975 (18%), 1976 (20%), and 1977 (23%). Of the women who had abortions in 1978, 21% had had 1 previous abortion; 5% 2 abortions; and almost 2%, 3 or more. New York and the District of Columbia reported the highest level (34%) of women having had previous induced abortions; Nebraska had the lowest level (12%).

L. Weeks of Gestation by Type of Procedure

In 1978 curettage (suction and sharp) continued to be nearly the only method used (99%) for pregnancy termination in the first 12 weeks' gestation (Table 14). Thirty-two states reported information on weeks of gestation by type of procedure, accounting for 50% of all reported abortions in 1978. In the 13- to 15-week interval, 82% of all procedures were by curettage (dilatation and evacuation (D&E)), followed by saline instillation (10%) and prostaglandin instillation (4%). Saline instillation was the most commonly used method for both at 16-20 weeks' gestation (46%) and greater than or equal to 21 weeks (53%), with instillation of prostaglandin or other agents (e.g., urea) and D&E accounting for about 30% and 22%, respectively, in 1978. Compared with 1977, the percentage of saline instillation procedures used after 15 weeks' gestation decreased, D&E procedures increased, and instillation of prostaglandin and other agents remained the same. Since 1974, saline instillation after 15 weeks' gestation has decreased (from 72%), whereas D&E procedures and instillation of prostaglandin and other agents have increased.

M. Weeks of Gestation by Age Group

Younger women obtained abortions at later gestations than older women (Table 15). In 1978, 31 states reported data on weeks of gestation by age, accounting for 49% of all reported abortions. Over half the women in all age groups 20 or older obtained abortions in the first 8 weeks of gestation (Table 15). The tendency to obtain abortions at earlier gestational ages generally increased with the age of the woman, peaking in the 30- to 34-year-old age group. Almost 14% of abortions to women 19 years of age or younger occur after the first 12 weeks, compared with 7.4% of those to women 20 years or older. Women 19 years of age or younger appear twice as likely to obtain abortions after 16 weeks' gestation (7.3% compared with 3.7% for women 20 years of age or older) and account for almost half (46%) of the abortions performed after 16 weeks' gestation.

N. Weeks of Gestation by Race

A woman's race had relatively little impact on the gestational age when she obtained an abortion (Table 16). In 1978, 26 states reported information on weeks of gestation by race, accounting for 40% of all abortions. Women of black and other races were slightly less likely to obtain abortions in the first trimester and slightly more likely to obtain them after 16 weeks' gestation; however, these differences were less than 1.5% (Table 16).

O. Age Group by Race

Except for very young women, white women generally obtain abortions at younger ages than women of black and other races (Table 17). In 1978, 29 states reported information on age by race, accounting for 45% of all reported abortions. At all ages over 14 years, more than 68% of abortions were obtained by white women. Of the females 14 and younger who had abortions, over half (52%) were of black and other races, whereas of those 15-19 years old almost three-fourths (73%) were white. More women of black and other races (38%) were between 25 and 39 years of age when they obtained abortions than were white women (32%) in the same age group. In both racial groups--white and black and other--almost 2% of the women who had abortions obtained them after age 40.

P. Marital Status by Race

A woman's race was apparently unrelated to her marital status at the time she obtained an abortion (Table 18). In 1978, 29 states reported information on marital status by race, accounting for 41% of all reported abortions. The majority (73%) of women in both race categories were unmarried when they obtained abortions (Table 18).

Q. Interpretation

Since CDC began collecting information on legal abortion in 1969, the number of women who have had legal abortions has increased each year. In 1978 the total number of legal abortions reported to CDC rose 7% over the number reported in 1977. This was a lower percentage increase than in 1977. The abortion rate increased nearly 5%, approximately the same increase as reported for 1977; this was accompanied by a 2% decline in the United States fertility rate for 1978 (1). The abortion ratio increased nearly 7% in 1978, to 347 per 1,000 live births, a higher percentage increase than the 4% reported in 1977.

The number of abortions reported to CDC was probably less than the number actually performed in 1978. In public health surveillance, the number of reported cases is generally lower than the number obtained through surveys. In 1978, as in previous years, CDC's total was approximately 18% lower than the projected total obtained through the Alan Guttmacher Institute's nationwide survey of abortion facilities (2). The underreporting could produce some biases in the CDC data. Abortions performed in physician's offices are probably underreported more often than those performed in hospitals or other facilities (2). Since physicians probably perform abortions in their offices at earlier gestational ages of pregnancy than other facilities do, the underreporting of these data may bias the gestational age distributions toward the later stages of pregnancy.

The general availability of abortion services since 1973 has progressively allowed more women to obtain abortions within their state of residence. Since 1975 approximately 90% of women obtaining abortions have been able to have the procedures in their state of residence. The slight decrease in the proportion of in-state abortions in 1978 may reflect restrictions in public funding for abortion; restrictions would be expected to affect in-state abortions more than out-of-state procedures, since the latter do not qualify for public funding.

The age distribution of women obtaining abortions has shown a gradual shift from the group younger than 19 years of age to the 20- to 24-year age group, resulting largely from a similar shift in age distribution for women less than age 25 (3). In 1978 women at each end of the reproductive-age distribution had the highest abortion-to-live-birth ratio.

The proportion of abortions obtained by women of black and other races declined slightly for the first time since 1972. Although women of minority racial groups were still more likely to terminate pregnancy by abortion than were white women, their abortion ratio increased by a markedly smaller percentage.

Women of black and other races accounted for over half of the abortions obtained by the 14 and under age group. In part this higher percentage distribution may be because very young black teenagers are more likely to have sexual experience at an earlier age than their white counterparts (4). This is supported by an age-specific fertility rate 7 times higher for black and other teenagers in the 10- to 14-year age group than for white teenagers (1). In the 15- to 19-year age group, almost three-fourths of abortions are obtained by white teenagers. According to a recent survey, black teenagers are more likely to carry a pregnancy to term and less likely to put a child born out of wedlock up for adoption (5). A larger

proportion of black and other women in the 25- to 39-year age group obtain abortions than do white women.

In 1978 the proportion of abortions obtained by unmarried women declined for the first time since 1972. Several possible explanations exist: 1) funding restrictions may affect unmarried women to a greater extent than married women, 2) single women may have an increasing tendency to plan pregnancies which they wish to continue to term, and 3) reporting artifact. Although the fertility rate for unmarried black women was almost 6 times that of unmarried white women in 1978 (1), the proportion of unmarried women obtaining abortions was the same for both races. This may be partially due to an increased tendency for teenage black women to carry premarital pregnancies to term (5).

Women who have had no live births continued to account for an increasing proportion of abortions. Women with 3 or more births had a decline in the abortion ratio. Increasing use of the more effective contraceptive methods, primarily sterilization, may result in fewer unwanted pregnancies at these higher birth orders (6, 7).

Because the number of abortions has increased each year, the population at risk of having more than 1 abortion has increased. One would expect therefore that an increased percentage of abortions performed would be obtained by women who had undergone 1 or more previous procedures. This trend continued in 1978; 29% of abortions were obtained by women who had had at least 1 previous abortion, compared with 23% in 1977, 20% in 1976, and 18% in 1975.

In 1978, there was a continuation of the trend toward abortions at earlier gestational ages, which should have a favorable health impact by decreasing the morbidity and mortality associated with legally induced abortion procedures. Although the proportion of abortions obtained after 12 weeks' gestation remained the same as in 1977, a larger proportion was performed in the earliest interval (13-15 weeks) of the second trimester. This also would be expected to influence health parameters and may have contributed to the decreasing number of deaths from legal abortion.

III. ABORTION-RELATED MORTALITY

A. Surveillance Methods

In 1972 CDC began the epidemiologic surveillance of abortion-related mortality. The ultimate goal of the surveillance is to decrease the number of deaths from abortion by identifying factors which are amenable to change and which contribute to these deaths. In addition to reviewing such traditional factors as technical deficiencies in the provision of medical care, we also consider such nontraditional factors as community obstacles to health care and patient ignorance about sexuality, i.e., sociologic factors which may be amenable to public health intervention.

To find suspected or possible abortion-related deaths, we use several complementary methods, primarily vital statistics reports from state health departments. Of the subsequently confirmed abortion-related deaths from 1972-1978, 68% were reported through this vital statistics system. We also obtain reports from such sources as medical or hospital associations, maternal mortality committees, the National Center for Health Statistics, the Commission on Professional and Hospital Activities, published case histories, and incidental CDC investigations.

Our method of investigation consists first of confirming that a death occurred, then interviewing the attending physicians and reviewing all pertinent medical records. Where necessary, we also interview co-workers, relatives, and friends of the woman to ascertain nonmedical information such as the availability of medical services in the community, the means to pay for those services, and attitudes which may have interfered with appropriate use of medical services.

We continually update our abortion mortality statistics as we receive reports of deaths. The delay in reporting deaths to CDC has ranged from 1 hour to 6 years, with a median of 7 months. This report reflects the most current information available to CDC, and it updates previous Abortion Surveillance Reports and other CDC publications. As we learn of other abortion-related deaths, these will be included in subsequent publications. For the most current information on abortion-related deaths, interested persons should contact CDC directly rather than rely solely on published data.

B. Definitions

The Abortion Surveillance Reports of 1975-1977 described the process by which we established the definitions we used for abortion mortality surveillance. In the 1978 Abortion

Surveillance Report we have expanded these definitions to clarify their use in complex cases. A group of experts assisted in the process.*

1) Induced Abortion: A procedure (as contrasted with a complication) intended to terminate a suspected or known intrauterine pregnancy and to produce a nonviable fetus at any gestational age. For this definition, the deciding factor is the intent of the procedure rather than its result. Thus, if the procedure failed to have any effect on the pregnancy, we would nevertheless consider it an induced abortion. Also, if the person performing the procedure were under the mistaken impression the woman had an intrauterine pregnancy with a living embryo or fetus, then we would consider the procedure an induced abortion, regardless of whether the woman in fact had an ectopic or molar pregnancy, or no pregnancy at all. However, if a molar pregnancy, ectopic pregnancy, or death of the fetus had already been diagnosed before any intervention, then we would not regard the procedure as an induced abortion.

We subcategorize induced abortions as "legal" or "illegal" as follows:

a) Legal abortion: A procedure performed by a licensed physician or someone acting under the supervision of a licensed physician.

b) Illegal abortion: A procedure performed by the woman herself, or by someone who was neither a licensed physician nor acting under the supervision of a licensed physician.

2) Spontaneous abortion: Either of the following types of complications of pregnancy, occurring before completion of the 20th menstrual week of gestation and not caused by an induced abortion:

a) Complete or incomplete expulsion of the products of conception from the uterus;

b) Failure of embryonic development or death of the fetus in utero, without any of the above complications.

We assume that these complications occurred spontaneously unless:

a) The woman admitted to someone that she had undergone an induced abortion; or

b) Physical or pathological examination of the woman revealed trauma to the reproductive tract suggestive of an induced abortion.

3) Unknown category of abortion: If we cannot obtain sufficient information to categorize an abortion using the above criteria, then we place it in the "unknown" category.

4) Abortion-related death: A death which resulted from a direct complication of an abortion, an indirect complication caused by the chain of events initiated by the abortion, or aggravation of a preexisting condition by the physiologic or psychologic effects of the abortion. To minimize the possibility of our failing to recognize an abortion-related death, we regard as abortion-related any death occurring within 42 days of an abortion, and any death resulting from an illness which began within 42 days after an abortion. Unlike traditional definitions of maternal death, which exclude deaths occurring beyond 42 days after the termination of pregnancy, we include as abortion-related any death which is attributable to abortion, regardless of how long it occurred after the abortion.

5) Ectopic pregnancy: Our review of abortion-related deaths since 1972 has identified 10 deaths from ectopic pregnancy occurring soon after an attempted legally induced abortion. In the 1978 Abortion Surveillance Report, we consider these deaths as abortion-related and include them as a separate subcategory of legally induced abortion (Figure 7). However, for analytic purposes, in our calculation of legally induced abortion death-to-case rates (Tables 19 to 23), these 10 deaths from ectopic pregnancy will not be aggregated with the other causes of death from legally induced abortion. The review panel felt that the pathophysiologic process leading to death from ectopic pregnancy was not causally related to either the woman's choice of induced abortion or the physician's choice of the abortion procedure. Thus, a woman who died from an ectopic pregnancy after an attempted curettage at 7 menstrual weeks' gestation would not be included in our aggregate analyses in either the "curettage" or the " 8 weeks' gestation" categories.

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C. Behavioral Risk Factors

In instances of abortion-related deaths we believe that the causal risk factors most likely to be preventable are those which involve voluntary behavior. We divide these behavioral risk factors into the following categories:

1) Patient factors: Inadequate use of contraception, delay in obtaining a legal abortion, and delay in obtaining medical care for an obvious complication.

2) Community factors: Unavailability of contraceptive services, legal abortion, or medical care of complications, and deterrents to the use of services, such as consent requirements which breach confidentiality.

3) Physician factors: Delay in diagnosis, delay in treatment, and use of relatively ineffective or hazardous methods of treatment.

4) Health-care facility factors: Deficient resources (drugs, equipment), inadequately skilled personnel, or policies which contribute to delayed or inadequate treatment (pertaining either to the facility that provides abortion services or to the facility that provides care for complications).

Unlike the "factors of responsibility" of traditional maternal mortality studies (described in the Abortion Surveillance Reports of 1975, 1976, and 1977), the behavioral risk factors described above do not necessarily involve any errors for which someone is to blame. On the contrary, the individuals or institutions concerned may behave as they do for reasons beyond their control. For example, a patient should not be blamed for her delay in obtaining medical services if this delay is caused by inability to pay for such services provided in her community. Neither should a physician be blamed for using an inferior method of treatment if the hospital in which he or she works lacks the equipment necessary to provide better treatment.

We have reviewed 106 abortion-related deaths that occurred in 1975-1977. From this review we have determined, for each category of abortion, the proportion of the deaths to which each behavioral risk factor contributed. In Table 24, we have presented the risk factors which contributed to at least 10% of the legal, illegal, and spontaneous abortion-related deaths.

The proportion of abortion-related deaths to which each behavioral risk factor contributed provides some measure of the effect of the risk factor on abortion mortality. It can thus help in identifying the particular factors which deserve priority in prevention. As can be seen in Table 24, the behavioral risk factors which contributed to the greatest proportion of legal and spontaneous abortion-related deaths involved the woman's delay in seeking medical care, either to obtain a legal abortion or for treatment of an obvious complication.

Patient factors, rather than physician factors, appear to be the behavioral factors which deserve priority in prevention. Many of the patient factors may be secondary to community factors, although we were unable to identify the latter in most of the deaths.

D. Total Abortion Mortality

Twenty-seven women died from abortion in 1978, 8 fewer than in 1977 (Figure 8). The fluctuation in the number of total abortion deaths in the last 3 years reflects variations within each of the 3 abortion categories--legally induced, illegally induced, and spontaneous. In 1978 the number of deaths after both legally induced and spontaneous abortions decreased, while the number after illegally induced abortions increased (Figure 7).

The inclusion of the 10 deaths between 1972 and 1978 from ectopic pregnancy after attempted legally induced abortion has increased both the total number of abortion-related deaths and those after legally induced procedures (see below). This accounts for most of the discrepancy between the total number of deaths reported in the current Abortion Surveillance Report and previous editions.

E. Legal Abortion Mortality

Eleven women died after legal abortions in 1978, compared with 17 in 1977, 11 in 1976, and 31 in 1975 (Figure 7). Of the 11 deaths in 1978, 4 were from ectopic pregnancy, compared with 2 of 17 in 1977, 0 of 11 in 1976, and 2 of 31 in 1975. Thus, the number of deaths from legally induced abortion excluding ectopic pregnancy contained in our aggregate analyses are 7 in 1978, 15 in 1977, 11 in 1976, 29 in 1975, 25 in 1974, 25 in 1973, and 24 in 1972. In 1978 a total of 1,157,776 legal abortions were reported to CDC. With this figure used as the denominator, the overall death-to-case rate for legal abortion (excluding ectopic pregnancy) was 0.6 per 100,000 abortions in 1978 (Table 19). This is not significantly different from the rate of 1.4 in 1977, and 1.1 in 1976 ($p > .05$, chi-square test). The death-to-case rates for legal abortion in 1976-1978 were significantly lower ($p < .01$) than those in earlier

years (3.4 in 1975, 3.2 in 1974, and 4.1 in both 1973 and 1972) (Table 19). Possible reasons for the decline after 1975 are: 1) the increasing percentage of abortions performed during the earlier, safer gestational ages, 2) increasing experience with abortion by practicing physicians, 3) the increasing percentage of abortions performed by safer methods, such as dilatation and evacuation (D&E), and 4) underreporting of legal abortion related deaths after 1975.

The aggregated data for the years 1972-1978 show that the risk of death from legal abortion was lowest for women whose abortions were performed at less than 9 menstrual weeks' gestation, with a death-to-case rate of 0.5 per 100,000 procedures (Table 20). The death-to-case rate increased by approximately 75%-100% for each week of delay after the eighth week through the 20th week. Abortions performed at 9-10 weeks were 2.8-fold more dangerous in terms of mortality than those performed earlier. Abortions performed at more than 20 weeks carried the greatest risk, with a death-to-case rate 35 times that of abortions performed at less than 9 weeks.

For purposes of categorizing deaths associated with particular abortion methods, we aggregated all procedures of suction curettage, sharp curettage, and D&E as instrumental evacuation procedures. These are subcategorized by gestational age at the time of abortion: procedures performed at less than 13 completed menstrual weeks of gestation are referred to as curettage procedures (including suction and sharp curettage), and those performed at 13 or more weeks' gestation are referred to as evacuation procedures (or D&E). Procedures which consist primarily of either hysterotomy or hysterectomy are referred to as hysterotomy/hysterectomy procedures.

For the years 1972-1978, mortality rates were highest for hysterotomy/hysterectomy abortions, and lowest for instrumental evacuation (including D&E), with instillation procedures intermediate (Table 21). Instrumental evacuation had a death-to-case rate of 1.3 per 100,000 abortions, compared with 12.5 for instillation, and 41.3 for hysterotomy/hysterectomy. Fifty-three women died from curettage procedures, 18 from D&E, 38 from saline instillation, 9 from prostaglandin instillation, 3 from use of other chemical abortifacients (e.g., urea, oxytocin), 9 from hysterotomy/hysterectomy, and 6 from other or unknown methods (Table 22).

Applying the type of procedure by weeks' gestation distributions from the reporting states (Table 14) to the total number of abortions reported from 1972-1978, we obtained denominators on which to calculate death-per-case rates specific for both procedure and gestation (Table 23). Because many states categorize prostaglandin instillation under the "other" category, for the purpose of this table we have had to group prostaglandin instillation with "other" methods in the denominator of the death-to-case rate for prostaglandin instillation. Deaths that occurred from other methods such as intrauterine insertion of rubber catheters were not included in the numerators of calculations for specific methods in the body of Table 23, but were included in the row labeled "total."

From 1972 through 1978, the risk of death due to instrumental evacuation procedures increased with gestational age. Curettage procedures had a death-to-case rate of 0.4 per 100,000 abortions at less than 9 weeks, 1.3 at 9-10 weeks, and 2.3 at 11-12 weeks; D&E procedures had a death-to-case rate of 5.6 per 100,000 abortions at 13-15 weeks, 14.1 at 16-20 weeks, and 13.5 at more than 20 weeks. Our data do not permit us to compare the risk of death from instrumental evacuation at 4-6 weeks with that at 7-8 weeks.

Although a woman's overall risk of dying is greater from D&E than it is from curettage procedures, it is significantly less ($p < .05$) than the risk from either of the 2 instillation procedures (last column, Table 23). From 1972-1978, D&E had an overall death-to-case rate of 7.7 per 100,000 abortions, compared with 13.9 for saline instillation and 9.0 for prostaglandin instillation (including other agents). The marked variation between prostaglandin and saline instillation within specific gestational age intervals is probably statistical artifact because of the relatively small number of deaths and cases involved. Moreover, denominators for calculating procedure-specific death-to-case rates among the instillation methods are distorted by categorization discrepancies among the different states reporting to CDC. Evaluated with the chi-square test, the death-to-case rates for various instillation methods at each gestational age are not significantly different ($p > .05$).

The following case history provides examples of behavioral factors contributing to the risk of death from legal abortion:

> Case History--A 26-year-old, divorced, white woman had had 1 previous pregnancy terminated by a legal abortion in 1972. She used oral contraceptives intermittently between 1972 and 1977, but because of side effects finally stopped using them entirely. She then tried an intrauterine contraceptive

device, but it was expelled. She subsequently used no method of contraception.

On December 20, 1977, she visited a medical clinic because of nausea, myalgia, and constipation. Physical examination revealed epigastric and right lower quadrant abdominal tenderness. Her last menstrual period began on November 10, 1977, almost 6 weeks previously, and a Gravindex pregnancy test was positive. On learning that she was pregnant, the woman immediately arranged for an abortion, which was performed on December 28. The woman underwent a suction curettage procedure with local anesthesia in an abortion clinic in a nearby metropolitan area. At this clinic the physicians did not routinely examine the products of conception except through the wall of the transparent suction tubing as tissue was aspirated from the uterus. The tissue was neither weighed nor examined in a watch glass with a dissecting scope. The aspirated material from all patients was collected together in a single bottle; therefore, it was unsuitable for patient-specific histopathologic examination. The procedure was uneventful, and the woman was told to expect lower abdominal cramps for a few days.

Two days later the woman began complaining of abdominal cramps, chills, and fever which persisted through the next day. Her roommate urged her to seek medical advice, but she refused. By the morning of January 2, 1978, she was extremely weak and was suffering from generalized pain, most marked in the abdomen and knees. Despite extreme pain and the proximity of a hospital across the road, she refused to seek medical care. She was in bed when her roommate left for work; when her roommate returned in the evening, she was dead.

Autopsy revealed 4,000 ml of blood in the peritoneal cavity and a ruptured ectopic pregnancy at the isthmus of the right fallopian tube. The fetal size was consistent with a 10 weeks' gestation.

The following behavioral factors contributed to the risk of death in the above case: 1) the woman was not using contraception when she conceived an unwanted pregnancy, 2) the woman's inadequate use of contraception was partly attributable to the community's failure to develop a reliable, acceptable contraceptive which was free from side effects, 3) routine procedures of the abortion clinic did not include an examination of the uterine aspirate to confirm products of conception in the appropriate quantity, 4) the abortion clinic staff told the woman to expect lower abdominal cramps, thus possibly contributing to her delay in seeking medical advice, and 5) the woman failed to seek medical advice despite obvious symptoms of illness or complication.

In this instance, the abortion increased the woman's risk of dying from a ruptured ectopic pregnancy because she was expecting symptoms, and thus failed to seek medical care appropriately. In similar cases, abortion procedures have contributed to death by leading physicians to misinterpret postabortal signs and symptoms as pelvic infection instead of ruptured ectopic pregnancy. Still other examples of deaths from ectopic pregnancy involve missed opportunities to diagnose an ectopic pregnancy, but are not abortion-related deaths because the abortion procedure itself does not increase the risk of death. This case emphasizes the importance of examining tissue removed from the uterus to confirm that it comprises the products of conception. This should be done before the woman leaves the abortion facility, because she may be impossible to contact afterwards, or the ectopic pregnancy may rupture before the pathology report is available. If products of conception are not found on initial or repeated curettage, the woman should be warned that she may have an ectopic pregnancy, and her condition should be further evaluated.

F. Illegal Abortion Mortality

Seven deaths were due to illegally induced abortion in 1978, an increase of 3 above the 4 reported in 1977 (Figure 7). We regard the number of deaths from illegal abortions as a reflection of the number of illegal abortions performed. The decline in the annual number of these deaths before 1977 probably reflected the increased availability of safer, legal procedures throughout the country, many of which were publicly funded.

In 1977 the Supreme Court ruled that states had the right to restrict the use of public funds for legal abortion services, and in August 1977 funds for abortion (mainly Medicaid funds) were restricted on the federal level. Over the next several months, 34 states similarly restricted state funds for abortion for Medicaid-eligible women. We have not detected a large increase in the number of deaths from illegal abortions resulting from these public policy decisions. The increase in 1977 and 1978 might be due to random fluctuation in the

occurrence of a rare event. However, the illegal abortions from which at least 4 women died during these two years may have been related to restricted public funds for legal abortions. One of these case histories was presented in the 1977 Abortion Surveillance Report. The case history of another woman, who died in 1978, is presented here:

Case History--A 21-year-old unemployed, single, black woman with a 5-year-old child resided with her father in a city of 350,000, in a state which had restricted public funds for legal abortions. There was only 1 publicly funded family planning clinic in the city, and a waiting period of several weeks was necessary for an appointment. The woman had only $10 in savings. Her contraceptive history is unknown.

In early May 1978 the woman recognized that she was pregnant. There were 3 abortion clinics in her city, but she could not afford the minimum charge of $150. In the second week of May, she inserted cotton-tipped swabs into her uterus to induce an abortion.

Over the next 2 weeks she had fever, chills, nausea, and diarrhea, which became increasingly severe. She was unable to eat or drink and became so weak that she was unable to walk. Finally, on June 5, 1978, her father took her to the family physician, who advised immediate hospitalization.

The woman had not yet told anyone that she might be pregnant. She told the admitting gynecology resident that she had fallen down 8 steps 2 weeks earlier and had passed blood and tissue from the vagina for 7 days. To a nurse, however, she confessed that she had attempted to induce an abortion because of financial hardship.

When she was admitted to the hospital, physical examination revealed a temperature of 105.6 F, pulse 108/min, respirations 34/min, blood pressure 150/70, and diffuse tenderness and guarding in the lower abdomen. The uterus was enlarged, but its size could not be accurately measured because of guarding. The cervix was soft, dilated, and tender to motion. There was no active bleeding. All other physical findings were normal. Laboratory results revealed anemia, with a hemoglobin of 8.3 gm/dl, hematocrit 24.2%, and white blood cell count of 7,100, with the differential count shifted to the immature side. Serum sodium was only 134 mEq/l, but blood urea nitrogen was elevated to 25 mg/dl. Results of chest x-ray were normal. The admission diagnosis was septic abortion with anemia and dehydration.

Bacteriologic cultures of blood and endometrium were obtained, and the patient was treated with massive doses of penicillin, gentamicin, and chloramphenicol intravenously. She received a transfusion of 2 units of blood. The following day she underwent a curettage of the uterus, and necrotic fragments of placenta were removed. She remained febrile, with temperature rising as high as 106.7 F. For a presumptive diagnosis of septic pelvic thrombophlebitis, she was given heparin and corticosteroids intravenously.

Despite treatment, the patient's vital signs remained highly elevated (temperature 102-106 F, pulse 120-140/min, respirations 40-60/min). Chest x-ray findings suggested pulmonary embolism. Because a pelvic abscess was suspected, on June 8, 1978, the patient underwent exploratory laparotomy. No intra-abdominal abscess was found, but ligation of the inferior vena cava and left ovarian vein was performed to try to prevent further pulmonary embolism.

Over the next 2 weeks the patient remained febrile. Multiple lung abscesses developed, and pulmonary function deteriorated. Medical consultants recommended a repeat laparotomy to search for a pelvic abscess. This was done on June 15, 1978, and again no pelvic abscess was found. A supracervical hysterectomy was performed to remove any possible nidus of infection in the uterus. The patient had a cardiac arrest during the procedure and could not be resuscitated.

Autopsy revealed multiple lung abscesses and empyema on the right side. Culture of the pus grew Bacteroides species. The examination of the uterus showed endometritis.

This case illustrates several characteristic behavioral factors which contribute to the risk of death from an illegal abortion: 1) the community in which the woman resided did not provide adequate family planning services, 2) the community did not subsidize legal abortion services for poor women, and this reduced the alternatives available to her, leading the woman to attempt self-induced illegal abortion, 3) the woman delayed seeking medical care for an obvious illness (possibly because she lacked money or feared criminal prosecution for the abortion), 4) the woman initially hid the fact that she had induced abortion from the admitting physician, thereby leading to a further delay in treatment, and 5) the physician delayed emptying the uterus (for a day) after diagnosing a septic abortion.

G. Spontaneous Abortion Mortality

Nine women died from spontaneous abortions in the United States in 1978 (Figure 7). Two had spontaneous fetal death in utero as the primary diagnosis. The following case history illustrates how behavioral factors may contribute to the risk of death from spontaneous abortion:

> Case History--A 36-year-old, married, black woman with 6 children, the youngest 3 years old, resided in a state which continued to provide Medicaid funding for legal abortions. Her husband worked for a company that provided insurance for her hospitalization. She did not intend to become pregnant, but was using no contraception when her seventh pregnancy began. Her last menstrual period started on January 18, 1978. When she first visited her obstetrician on March 23, he found that both her uterine size and her menstrual dates were consistent with a gestation of 9 menstrual weeks. Although she had decided to continue the pregnancy to term, she requested a postpartum tubal ligation.
>
> Two days after her first prenatal examination, she began to have a bloody vaginal discharge which persisted intermittently over the next month. On April 26 the uterus was still only about 9 weeks' gestational size despite dates indicating 14 weeks' gestation. A negative pregnancy test confirmed the suspicion of fetal death in utero.
>
> Although her physician had planned to perform a curettage on May 1, the woman began bleeding heavily on April 29 and was hospitalized for an emergency dilatation and curettage. Her past medical history was unremarkable, and physical examination revealed no abnormalities except for the uterus, which was extremely retroverted and retroflexed and about 9 weeks' gestational size. The cervical os was not dilated. Hemoglobin was 13.4 gm/dl; hematocrit 40%.
>
> The obstetrician dilated the cervix. He found the internal os stenotic and difficult to dilate. During suction curettage of the uterus, the suction cannula went farther into the uterus than expected. Sounding revealed a 1- to 2-cm defect in the uterine wall. The curettage was interrupted, and a laparotomy was immediately performed. A 1-cm uterine perforation found in the midline anterior fundus was bleeding. Inspection revealed no intestinal perforation. The ovaries and tubes were normal. A total abdominal hysterectomy and incidental appendectomy were performed without intra-operative complication. Estimated blood loss was 600 ml.
>
> The patient was ambulated on the following morning with little difficulty, except for the "usual posthysterectomy weakness." She was out of bed for only a few minutes. Around 2:00 p.m. the same day, when an attempt was made to ambulate her again, she had a grand mal seizure, and then became deeply comatose. She had no response to painful stimuli and no spontaneous respiration. Endotracheal intubation was performed, and ventilation was maintained by a positive pressure respirator.
>
> Neurological consultation was obtained, and evaluation included a spinal tap and serial electroencephalograms, all of which were consistent with a diagnosis of cerebral vein thrombosis. Coagulation profiles were within normal limits. By May 4, the electroencephalogram showed brain death. The respirator was turned off, and the patient was pronounced dead.
>
> Autopsy revealed a cerebral sagital sinus thrombosis, with marked cerebral edema and venous congestion.

The above case involved the following behavioral risk factors: 1) the patient failed to use contraception adequately to prevent an unintended pregnancy, and 2) the physician perforated the uterus. We do not imply that these behavioral factors were necessarily avoidable or reprehensible, but only that they increased the patient's risk of dying from an abortion.

IV. ABORTION-RELATED MORBIDITY

A. General

CDC conducts surveillance of abortion-related morbidity using a variety of approaches: 1) case investigations of suspected clusters of abortion complications involving legal, illegal, or spontaneous abortion; 2) a large, multicenter, cohort study of early and delayed complications after legally induced abortion to determine the safest procedures; 3) critical review of available scientific literature on the effects of induced abortion or subsequent childbearing; 4) prospective investigations of the health impact of public policy decisions on abortion, and 5) other studies as necessary. In this section, we describe results gathered from the second and fourth approaches.

B. The Joint Program for the Study of Abortion/CDC: Oxytocin Augmentation of Second-Trimester Abortion

Use of oxytocin to augment the uterine activity of second-trimester instillation abortions is controversial. To compare the efficacy and safety of oxytocin augmentation in second-trimester abortions, we studied 10,013 women who underwent hypertonic saline instillation procedures and 1,241 women who underwent prostaglandin F2a (PGF2a) instillation procedures in the United States between 1971 and 1975.

Data were obtained through the Joint Program for the Study of Abortion under the auspices of the Centers for Disease Control (JPSA/CDC), a multicenter, prospective, cohort study of early medical complications of legally induced abortion. In the present analysis, concurrent oxytocin augmentation was defined as the administration of intravenous oxytocin after the intra-amniotic instillation of the abortifacient and before the expulsion of the fetus. We did not consider oxytocin as having been concurrently administered when it was given after the delivery of the fetus but before the expulsion of the placenta. While our data collection form allowed resolution of whether oxytocin had been administered before the delivery of the fetus, it did not permit determination of the interval between the initial instillation of the abortifacient and the subsequent administration of oxytocin. Moreover, the form did not describe either the rate or total dose of oxytocin administered.

The instillation-to-abortion (I-A) interval was defined as the time between the initial instillation of the abortifacient and the delivery of the fetus; the time between fetal delivery and the expulsion of the placenta was not included in the I-A interval. We identified 14 complications as major, ranging from unintended major surgery to pulmonary embolism. The term major complication rate refers to the percentage of women sustaining 1 or more of these 14 complications, although the large majority fell within the 3 categories of fever for 3 or more days, hemorrhage necessitating blood transfusion, or unintended major surgery.

Of 10,013 women for whom hypertonic saline was the primary abortifacient, concurrent oxytocin was administered to 6,314 (63%), while oxytocin was either not given or administered after the delivery of the fetus to 2,964 (30%). Of 1,241 women for whom PGF2a was the primary abortifacient, concurrent oxytocin was administered to 211 (17%), while oxytocin was either not given or administered after the delivery of the fetus to 972 (78%). In 735 saline abortions (7%) and 58 PGF2a abortions (5%), the time of oxytocin use was not specified, and we excluded these women from our analyses.

The success rate for saline abortions was uniformly high, 97% and 98%, respectively, for the groups receiving concurrent and no concurrent oxytocin. However, saline abortions augmented by concurrent oxytocin were significantly faster than those which were not. The oxytocin group had a mean I-A time of 27 hours, compared with 32 hours in the no concurrent oxytocin group ($p < .001$). For saline abortions augmented by oxytocin, the major complication rate was similar to that for those without augmentation. However, the specific type of complication associated with saline abortions was affected by the use of concurrent oxytocin. Retained products of conception and fever occurred significantly less frequently with concurrent oxytocin ($p < .001$), but disseminated intravascular coagulation and hyponatremia occurred significantly more frequently ($p < .001$).

For prostaglandin abortions, use of concurrent oxytocin was associated with both a significantly lower success rate ($p < .001$), 82% versus 96%, and a significantly slower I-A time than PGF2a used alone ($p < .001$), 37 hours versus 22 hours. Moreover, for prostaglandin

abortions augmented by oxytocin, the major complication rate was nearly 2-fold higher than those without augmentation. Although this difference approached statistical significance ($p = .07$), it did not reach the .05 level. Likewise, for specific types of complications, use of concurrent oxytocin usually had higher rates of morbidity, but because of the relatively small numbers involved, chance could have accounted for nearly all of the differences we observed. Also, because we were unable to ascertain when concurrent oxytocin was administered during the I-A interval, it may have been given only after a definite period of time (such as 24 hours) when use of PGF2a alone had produced no adequate uterine response; this would artifactually prolong the I-A time for the concurrent oxytocin group. Because of these possibly confounding factors, the results should be interpreted with caution to avoid overemphasis of the hazards involved in concurrent use of oxytocin and PGF2a.

C. The Effect of Restricting Public Funds for Legal Abortion

In our previously reported study on the health impact of restricting public funds for abortions*, we found no evidence of a statistically significant increase in the number of complications from illegal abortions. However, that study had several methodologic limitations which we attempted to correct in a subsequent investigation. We reviewed the medical records of women with abortion complications at several hospitals in each of 3 cities where public funding of legal abortions had been restricted (Cleveland, Ohio; Columbus, Ohio; and Dallas, Texas). We compared the number of complications in 1 year before funding restriction with the number in 1 year during restriction. We performed the same analysis in hospitals in 3 cities where public funding for legal abortions had not been restricted (Denver, Colorado; Lansing, Michigan; and Pittsburgh, Pennsylvania), as a geographic control group. We found no significant change in the number and proportion of publicly funded hospitalizations for complications of illegal or spontaneous abortions, but we did find a marked decrease in publicly funded hospitalizations for complications of legal abortions, from 19 (38%) to 2 (6%) ($p < .01$, chi-square test). If we assume that the number of complications reflects the number of abortions, then these findings confirm the implications of our previous study, i.e., that restriction of public funding for legal abortions has not increased the number of illegal abortions.

V. INTERNATIONAL COMPARISONS

An estimated 30 to 55 million abortions are performed worldwide each year (8), making abortion one of the most prevalent means of fertility control in use today. The legal status of abortion varies greatly from country to country. Approximately 21% of the world's population lives in countries where abortion is illegal without exception, or is permitted only to save the life of the woman; 19% live in countries that permit abortion on broad medical grounds, on juridical (rape and incest) grounds, and for eugenic (fetal abnormalities) indications. The rest, 60%, live in countries where abortion is permitted either on request or for social reasons. Table 25 lists countries that keep abortion statistics, according to the specified grounds for which abortion is permitted.

In the countries for which we have available data, Bulgaria, Cuba, and Hungary reported the highest abortion rates and ratios (Table 26). The United States was sixth of the 18 countries reporting abortion rates, and eighth of the 16 countries reporting abortion ratios.

In 1978 the United States and Canada reported providing over 30% of abortions to women 19 years old or younger (Table 27). In Tunisia less than 3% of abortions were obtained by teenagers. Canada and the United States reported the lowest percentage of abortions performed on women over 40 years of age (below 3%), Iceland and Tunisia had the highest (greater than 10%).

The United States reported the highest percentage of abortions to never-married/previously married women (74%), followed by Canada (72%), Finland (65%), and England and Wales (62%) (Table 28). Czechoslovakia and Singapore reported the lowest percentage of abortions performed on this group, 20% and 23%, respectively.

*Cates W Jr, Kimball AM, Gold J, et al. The health impact of restricting public funds for abortion: October 10, 1977 - June 10, 1978. Am J Public Health 1979;69:945-7.

Canada, the United States, and England and Wales had the highest percentage of abortions performed to women with no living children, 61%, 57%, and 52%, respectively (Table 29); Tunisia reported the lowest (7.1%). Conversely, Tunisia reported 53% of abortions obtained by women with 4 or more living children, while Sweden (4%), the United States (4%), and Canada (3%) reported the lowest percentages.

Of the 10 countries reporting the percentage of abortions by gestational age, Czechoslovakia and Hungary reported the highest percentage of abortions performed at 12 weeks or less (99%) (Table 30). Women 19 years old or younger tended to obtain abortions at a later gestational age for all countries reporting age-specific gestational ages (9).

Accurate statistics are unavailable on the number of illegal abortions performed throughout the world. Because of the clandestine nature of abortions, public health workers are unable to directly measure their incidence (10). Epidemiologic studies of illegal abortions, therefore, rely on indirect methods of ascertainment. These methods include: 1) use of vital statistics to compare vital events before and after liberalization of abortion laws, 2) use of hospital-based abortion morbidity and mortality data, 3) use of reproductive mathematical models to determine pregnancy outcomes, and 4) use of reproductive behavior survey data.

International abortion mortality data vary greatly from country to country (Table 31). Romania, where elective abortions are permitted only to women over 40 or with 4 or more children, reported as abortion-related 74% of all pregnancy-related causes of death. In contrast, in Yugoslavia and Czechoslovakia, where abortion laws are more liberal, this percentage was much lower, 27% and 4%, respectively.

In countries where abortion is illegal there was a vast range in the percentage of pregnancy-related deaths attributed to abortion (Table 31). Among the lowest were Egypt (4%), Peru (5%), and Kenya, Philippines, and Ecuador (8%). Among the highest were Argentina (51%) and Chile (42%). The United States reported only 4% of pregnancy-related deaths to be abortion related.

The variability of international abortion mortality data may be due to: 1) surveillance techniques, 2) abortion case definitions, or 3) legal and health care systems.

VI. CURRENT FAMILY PLANNING EVALUATION DIVISION ABORTION-RELATED PUBLICATIONS, 1967-1980

The Family Planning Evaluation Division (FPED) at CDC maintains a library of reprints of publications written by our staff. The following list includes all FPED abortion-related articles published through 1980. Reprints may be requested by writing the Family Planning Evaluation Division, CDC, Atlanta, Georgia 30333.

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VII. FOREIGN TRANSLATIONS OF SUMMARY

A. Sumario (Spanish)

En 1978 los 50 estados y el Distrito de Columbia reportaron al Centro para Control de Enfermedades 1,157,776 abortos legalmente inducidos, un incremento del 7% sobre 1977. La tasa nacional de aborto se elevó de 22 por 1000 mujeres de 15 a 44 años de edad en 1977 a 23 en 1978. La razón nacional de aborto se incrementó en 7%, de 325 a 347 por 1000 nacidos vivos, lo que es igual a más de un aborto por cada 3 nacidos vivos.

Como en años anteriores, las mujeres quienes obtuvieron aborto en 1978 fueron mas frecuentemente jóvenes, blancas, solteras y de baja paridad. Sesenta y cinco por ciento eran menores de 25 años; 67% eran blancas y 33% negras y de otras razas. Setenta y cuatro por ciento de todas las mujeres que obtuvieron aborto eran solteras al momento del procedimiento y el 57% no tenían hijos vivos. El curetaje continuó siendo el procedimiento mas comunmente usado para los abortos legales reportados, con una proporción del 95% sobre los abortos realizados en 1978. Comparado con 1977, el porcentaje de procedimientos de instilación salina después de la decimoquinta semana de gestación declinó, al tiempo que los procedimientos de dilatación seguida de evacuación aumentaron, y la instilacion de prostaglandinas y otros agentes permaneció igual.

Las mujeres continuaron obteniendo el aborto en una edad temprana de la gestación; mas de la mitad (52%) de todos los abortos fueron practicados dentro de las primeras 9 semanas de gestación y el 91% de abortos fueron realizados dentro de las primeras 12 semanas. Las mujeres mas jóvenes obtuvieron el aborto mas tardiamente que las de mayor edad. Aproximadamente la mitad (46%) de los abortos practicados después de 15 semanas de gestación fueron en mujeres de 19 años de edad o menos. La raza de la mujer tuvo relativamente poco impacto sobre la edad gestacional al momento de obtener el aborto.

En 1978 murieron 27 mujeres debido a todas las categorias de aborto, 8 menos con relación a las 35 que murieron en 1977. Comparado con 1977 hubo una disminución en el número anual de muertes por aborto inducido legalmente, 11 muertes en 1978 y 17 en 1977; en 1976 murieron 11 y 31 en 1975. Cuatro de las muertes en 1978 fueron debido a embarazo ectópico después de intentar inducir el aborto legalmente. En 1978 hubieron 7 muertes a consecuencia de abortos inducidos ilegalmente y 9 muertes después de aborto expontáneo. La tasa de mortalidad por aborto legalmente inducido se redujo de 1.4 por 100,000 abortos en 1977 a 0.6 en 1978.

El papel de la oxitocina en aumentar la actividad uterina durante instilación para abortos del segundo trimestre es controversial. Para evaluar la eficacia y seguridad de la oxitocina en ese sentido, se llevó a cabo un análisis en 10013 mujeres quienes estubieron bajo el procedimiento de instilación de solución salina hipertónica y 1241 mujeres en quienes se usó prostaglandina F2a (PGF2a) para instilación, en los Estados Unidos entre 1971 y 1975. Los datos fueron obtenidos a travez del programa cooperativo para el estudio del aborto bajo los auspicios del Centro para Control de Enfermedades, un estudio cohorte, prospectivo y multi-institucional. Nosotros encontramos que la administración simultánea de oxitocina estaba asociada con un acortamiento significativo del tiempo instilación/aborto para solución salina hipertónica, pero con una prolongación significativa del tiempo para PGF2a. Para solución salina hipertónica el uso simultáneo de oxitocina no afectó la tasa de éxito ni la tasa de complicaciones mayores, sin embargo afectó el tipo de complicaciones que ocurrieron. Para PGF2a, el uso de oxitocina simultaneamente estuvo asociado con una menor tasa de éxito y una mayor tasa de complicaciones mayores que cuando PGF2a se usó sola; sin embargo, el número relativamente pequeño de observaciones y limitaciones en el diseño de nuestro estudio pueden haber afectado los resultados.

En Agosto de 1977 fueron restringidos los fondos federales para el financiamiento del aborto para mujeres de escasos recursos (medicaid-eligible). Con el objeto de estudiar el impacto sobre la salud de la restrición de fondos públicos, fueron revisados los expedientes médicos de mujeres con complicaciones por aborto en 3 ciudades, durante 1 año antes y 1 año después de la restrición. Un análisis similar se hizo en 3 ciudades donde los fondos públicos para aborto legal no se restringieron. Asumiendo que el número de complicaciones refleja el número de abortos, estos estudios mostraron que la restricción de los fondos públicos para el aborto legal no ha incrementado el número de abortos ilegales, pero ha reducido el número de abortos en mujeres de escasos recursos.

Un estimado de 30 a 55 millones de abortos son realizados en todo el mundo cada año, lo cual hace al aborto uno de los medios de control de la fertilidad mas prevalentes. La mayoría de la problación del mundo (60%) vive en paices donde el aborto es permitido ya sea por indicación médico/legal o por razones de tipo social. Los Estados Unidos fue el sexto de los 18 paices que reportan tasas de aborto y el octavo de los 16 paices que reportan razones de aborto. En 1978, los Estados Unidos reportaron uno de los mas bajos porcentajes de aborto en mujeres mayores de 40 años (<3%) y en mujeres con 4 o mas hijos (4%), asi como uno de los mas altos porcentajes en mujeres solteras o divorciadas (74%) y en mujeres sin hijos vivos (61%).

B. Résumé (French)

En 1978, les 50 états et le District de Colombie signalaient au Centre pour le Contrôle des Maladies (CDC) 1.157.776 avortements légaux provoqués, soit une augmentation de 7% par rapport à 1977. Le taux d'avortements sur le plan national s'élevait de 22 pour 1000 femmes de 15 à 44 ans en 1977 à 23 en 1978. La proportion d'avortements sur le plan national a donc augmenté de 7%, de 325 à 347 pour 1000 naissances vivantes, soit plus d'un avortement pour 3 naissances vivantes.

Comme lors des années précédentes, les femmes qui se sont fait avorter 1978 étaient pour la plupart jeunes, de race blanche, célibataires et de basse parité. 65% étaient âgées de moins de 25 ans, 67% étaient de race blanche et 33% étaient noires ou d'autres races. 74% de toutes les femmes avortées n'étaient pas mariées au moment de l'avortement et 57% n'avaient encore jamais donné naissance. Le curettage continue à être la méthode la plus employée pour les avortements légaux signalés, soit 95% de avortements pratiqués en 1978. Si l'on compare avec 1977, le pourcentage d'avortements par instillations salines au bout de 15 semaines de gestation, a diminué, le pourcentage par évacuation et dilatation a augmenté et le pourcentage d'avortements par instillations de prostaglandine et autres agents est demeuré le même.

Les femmes ont continué à se faire avorter au début de leur grossesse, plus de la moitié (52%) de tous les avortements ont été pratiqués à moins de 9 semaines de gestation et 91% des avortements ont été provoqués dans les 12 premières semaines. Les femmes plus jeunes se font avorter à un stade plus avancé que les femmes plus âgées. Près de la moitié (46%) des avortements pratiqués au bout de 15 semaines de gestation l'étaient sur des femmes de 19 ans ou plus jeunes. La race de la femme a relativement peu d'impact sur la période de gestation à laquelle elle se fait avorter.

En 1978, 27 femmes sont mortes des suites d'un avortement quel qu'il soit, soit 8 de moins qu'en 1977 où elles étaient au nombre de 35. Si l'on compare avec 1977, on constate une baisse du nombre annuel de décès dûs aux avortements légaux provoqués; 11 femmes sont mortes des suites d'un avortement légal provoqué en 1978, elles étaient au nombre de 17 en 1977, 11 en 1976 et 31 en 1975. 4 des 11 décès de 1977 étaient dûs à une grossesse extra utérine à la suite d'une tentative d'avortement légal provoqué. En 1978, le nombre de décès était de 7 à la suite d'avortements illégaux et de 9 à la suite de fausses couches non provoquées. Le taux de décès par cas pour les avortements provoqués légaux a diminué de 1,4 en 1977 à 0,6 pour 100.000 avortements en 1978.

Le rôle de l'oxytocine pour activer le travail de l'utérus dans le cas d'avortement par instillation aprés le troisième mois est sujet à des controverses. Afin d'évaluer l'efficacité et la sûreté de l'augmentation d'oxytocine, on a procedé à l'analyse de 10.013 femmes ayant eu des instillations salines hypertoniques et de 1.241 femmes ayant eu des instillations de prostaglandine F2a (PGF2a) aux Etats-Unis entre 1971 et 1975. Les données ont été obtenues à partir du programme commun pour l'étude de l'avortement sous les auspices du Centre pour le Contrôle des Maladies (CDC), étude des multi-centres, des cohortes et dirigée vers l'avenir. Nous avons trouvé que l'administration d'oxytocine correspondait à un temps instillation-avortement plus court avec l'hypertonique salin alors qu'avec la PGF2a le temps instillation-avortement est considérablement plus long. Dans le cas d'hypertonique salin, l'emploi concourant de l'oxytocine n'a affecté en rien le taux de succès ou le taux de complications majeures; toutefois, il a affecté le type spécifique de complications survenues. Dans le cas de PGF2a, l'emploi concourant de l'oxytocine a donné un taux de succès inférieur et un taux de complications majeures plus élevé que lorsque la PGF2a est utilisée seule; toutefois, nos résultats ont pu être affectés par le nombre d'observations qui est relativement petit et les limites imposées à notre étude.

En Août 1977, on a limité les fonds fédéraux pour le financement des avortements des femmes en mesure de bénéficier de MEDICAID. Afin d'étudier les conséquences de la restriction des fonds publics au point de vue sanitaire, on a passé en revue les dossiers médicaux des femmes ayant eu des complications à la suite d'un avortement, dans 3 villes, pendant une période d'un an avant la restriction et après. Une analyse semblable a été faite dans 3 villes ou les fonds publics pour l'avortement légal n'avaient pas été restreints. En supposant que le nombre de complications reflète le nombre d'avortements, les études faites prouvent que la restriction des fonds publics pour l'avortement légal, n'a pas fait augmenter le nombre d'avortements clandestins mais a fait diminuer le nombre d'avortements légaux chez les femmes pauvres.

On estime entre 30 et 40 millions le nombre d'avortements pratiqués dans le monde entier chaque année. L'avortement devient ainsi le moyen de limitation de la fécondite le plus prévalent. La majorité de la population mondiale (60%) vit dans des pays où l'avortement est permis soit sur demande, soit pour des raisons sociales. Les Etats-Unis occupent la 6ème place parmi les 18 pays signalant les taux d'avortements et, la 8éme place parmi les 16 pays signalant les proportions d'avortement. En 1978, les Etats-Unis signalaient l'un des pourcentages d'avortements les plus bas pour les femmes de 40 ans (inférieur a 3%) et pour les meres de 4 enfants ou plus (4%). L'un des pourcentages les plus élevés concernait les femmes n'ayant jamais été mariées/ayant été mariées (74%) et les femmes sans enfant vivant (61%).

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Table 1
Source of Abortion Reporting, Number of Reported Abortions, and Abortion Ratio and Rate, by Year, United States, 1969-1978

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Number of reporting areas[1] from which data are reported by the central health agency	8	18	19	21	26	37	39	41	46	48
(Number of reporting areas which report data through the CHSS[2])									(5)	(8)
Number of reporting areas from which data are reported from individual hospitals and facilities	2	7	7	8	26	15	13	11	6	4
Total number of abortions reported to CDC	22,670	193,491	485,816	586,760	615,831	763,476	854,853	988,267	1,079,430	1,157,776
Abortion ratio (abortions per 1,000 live births)	6.3	51.9	136.6	180.1	196.3	241.6	271.9	312.0	324.5	347.3
Abortion rate (abortions per 1,000 females aged 15-44)		5	11	13	14	17	18	21	22	23

[1]Reporting areas include 49 states, Upstate New York, New York City, and the District of Columbia (52 total reporting areas).
[2]Cooperative Health Statistics System, National Center for Health Statistics

Table 2
Reported Number of Legal Abortions, by State of Occurrence,
Abortion Ratios, and Abortion Rates, 1978

State	Abortions[1]	Ratios[2]	Rates[3]
Alabama	13,260[4]	220	15
Alaska	669	75	6
Arizona	6,833	158	13
Arkansas	5,014	144	11
California	171,982	483	33
Colorado	15,397	349	23
Connecticut	13,784	370	19
Delaware	3,410	393	24
Dist. of Columbia	29,786	*	171
Florida	43,884	387	25
Georgia	34,657	412	29
Hawaii	6,014	359	29
Idaho	2,107	109	11
Illinois	69,829[5]	400	27
Indiana	12,003	144	10
Iowa	5,512[4]	124	9
Kansas	9,229[5]	251	18
Kentucky	10,930	191	14
Louisiana	11,236	150	14
Maine	4,766	301	31
Maryland	24,681	446	38
Massachusetts	40,200	586	30
Michigan	43,602[4]	313	20
Minnesota	17,262	278	20
Mississippi	3,280	74	6
Missouri	15,519	213	14
Montana	3,044	225	17
Nebraska	4,8375	193	12
Nevada	4,734	431	31
New Hampshire	2,300	185	12
New Jersey	28,431	304	20
New Mexico	4,752	199	14
New York	153,703	657	38
(City)	(105,837)[6]	(*)	
(Upstate)	(47,866)[5]	(365)	
North Carolina	27,266	331	17
North Dakota	2,150[7]	190	14
Ohio	41,447	258	17
Oklahoma	10,072	219	15
Oregon	13,605[5]	349	21
Pennsylvania	60,639	398	24
Rhode Island	4,497	390	23
South Carolina	9,969[5]	201	22
South Dakota	1,396	114	16
Tennessee	18,889[5]	284	24
Texas	63,953	270	17
Utah	3,130	81	7
Vermont	2,588[5]	363	34
Virginia	30,442	414	24
Washington	29,848	508	34
West Virginia	2,758[4]	94	7
Wisconsin	17,764	259	17
Wyoming	716	83	7
Total	1,157,776	347	23

[1]Abortion data from central health agency unless otherwise noted
[2]Abortions per 1,000 live births (live-birth data from Vital Statisti
Division, National Center for Health Statistics)
[3]Abortions per 1,000 females aged 15-44 (number of females aged 15-44
by Family Planning Evaluation Division, CDC)
[4]Reported from hospitals and/or facilities in state
[5]Data from Vital Statistics Division, National Center for Health Stat
[6]Reported from New York City Health Department
[7]Estimate

*Greater than 1,000 abortions per 1,000 live births

Table 3
Number of Abortions and Percent Change*
for Each Full Year of Reporting, Selected States,† 1972-1978

State	1972 No. Abortions	1973 No. Abortions	1973 % Change	1974[1] No. Abortions	1974[1] % Change	1975[2] No. Abortions	1975[2] % Change	1976[3] No. Abortions	1976[3] % Change	1977[4] No. Abortions	1977[4] % Change	1978 No. Abortions	1978 % Change
Alaska	1,172	1,165	*-0.6*	1,025	*-12.0*	1,248	*21.8*	1,213	*-2.8*	1,074	*-11.5*	669	*-37.7*
Arizona	. .	. .	. .	. .	. .	. .	. .	5,202	. .	6,130	*17.8*	6,833	*11.5*
Arkansas	793	1,138	*43.5*	1,694	*48.9*	1,925	*13.6*	3,286	*70.7*	2,726	*-17.0*	5,014	*83.9*
California	138,584	131,870	*-4.8*	135,762	*3.0*	142,067	*4.6*	142,593	*0.4*	164,729	*15.5*	171,982	*4.4*
Colorado	5,260	7,451	*41.7*	9,027	*21.2*	9,744	*7.9*	11,539	*18.4*	12,913	*11.9*	15,397	*19.2*
Connecticut	. .	. .	. .	. .	. .	10,820	. .	13,447	*24.3*	14,997	*11.5*	13,784	*-8.1*
Delaware	. .	. .	. .	. .	. .	2,322	. .	2,519	*8.5*	2,299	*-8.7*	3,410	*48.3*
Dist. of Columbia	38,868	40,812	*5.0*	22,688	*-44.4*	31,519	*38.9*	31,407	*-0.4*	29,545	*-5.9*	29,786	*0.8*
Florida	. .	16,156	. .	15,212	*-5.8*	16,745	*10.1*	37,340	*123.0*	41,571	*11.3*	43,884	*5.6*
Georgia	2,509	12,301	*390.3*	22,009	*78.9*	23,733	*7.8*	25,586	*7.8*	29,905	*16.9*	34,657	*15.9*
Hawaii	4,547	4,534	*-0.3*	4,158	*-8.3*	4,545	*9.3*	5,163	*13.6*	5,249	*1.7*	6,014	*14.6*
Idaho	. .	. .	. .	. .	. .	. .	. .	. .	. .	1,060	. .	2,107	*98.8*
Illinois	. .	. .	. .	50,718	. .	58,743	*15.8*	66,356	*13.0*	71,326	*7.5*	69,829	*-2.1*
Indiana	. .	. .	. .	6,029	. .	7,859	*30.4*	8,610	*9.6*	9,508	*10.4*	12,003	*26.2*
Kansas	12,248	12,612	*3.0*	10,171	*-19.4*	9,160	*-9.9*	9,154	*-0.1*	7,413	*-19.0*	9,229	*24.5*
Louisiana	. .	. .	. .	. .	. .	4,180	. .	6,350	*51.9*	8,644	*36.1*	11,236	*30.0*
Maryland	9,093	9,871	*8.6*	15,975	*61.8*	18,865	*18.1*	20,641	*9.4*	22,241	*7.8*	24,681	*11.0*
Massachusetts	. .	. .	. .	27,800	. .	29,940	*7.7*	32,801	*9.6*	34,382	*4.8*	40,200	*16.9*
Minnesota	. .	. .	. .	8,732	. .	10,565	*21.0*	14,124	*33.7*	15,532	*10.0*	17,262	*11.1*
Mississippi	61	96	*57.4*	140	*45.8*	315	*125.0*	1,510	*379.4*	2,446	*62.0*	3,280	*34.1*
Missouri	. .	. .	. .	. .	. .	10,244	. .	12,881	*25.7*	13,532	*5.1*	15,519	*14.7*
Montana	. .	. .	. .	. .	. .	1,535	. .	1,803	*17.5*	2,539	*40.8*	3,044	*19.9*
Nebraska	. .	. .	. .	3,094	. .	3,406	*10.1*	3,977	*16.8*	4,534	*14.0*	4,837	*6.7*
Nevada	. .	. .	. .	1,614	. .	1,807	*12.0*	2,382	*31.8*	4,297	*80.4*	4,734	*10.2*
New Hampshire	. .	. .	. .	668	. .	1,396	*109.0*	1,958	*40.3*	1,735	*-11.4*	2,300	*32.6*
New Jersey	. .	. .	. .	. .	. .	26,291[5]	. .	29,572[5]	*12.5*	30,702	*3.8*	28,431	*-7.4*
New Mexico	. .	. .	. .	. .	. .	. .	. .	. .	. .	4,568	. .	4,752	*4.0*
New York	299,891	203,358	*-32.2*	161,521	*-20.6*	147,229	*-8.8*	147,860	*0.4*	147,647	*-0.1*	153,703	*4.1*
North Carolina	8,365	11,935	*42.7*	16,463	*37.9*	19,960	*21.2*	23,561	*18.0*	25,020	*6.2*	27,266	*9.0*
North Dakota	. .	. .	. .	137	. .	812	*492.7*	1,752	*115.8*	2,005	*14.4*	2,150	*7.2*
Ohio	. .	. .	. .	. .	. .	. .	. .	37,192	. .	47,715	*28.3*	41,447	*-13.1*
Oklahoma	. .	. .	. .	. .	. .	. .	. .	. .	. .	8,220	. .	10,072	*22.5*
Oregon	7,143	7,447	*4.3*	8,794	*18.1*	10,641	*21.0*	12,590	*18.3*	13,163	*4.6*	13,605	*3.4*
Pennsylvania	. .	. .	. .	38,110	. .	43,319	*13.7*	53,425	*23.3*	57,880	*8.3*	60,639	*4.8*
Rhode Island	. .	. .	. .	2,867	. .	3,253	*13.5*	3,863	*18.8*	4,106	*6.3*	4,497	*9.5*
South Carolina	854	2,102	*146.1*	3,760	*78.9*	4,511	*20.0*	5,702	*26.4*	8,799	*54.3*	9,969	*13.3*
South Dakota	. .	. .	. .	1,601	. .	1,475	*-7.9*	1,561	*5.8*	1,384	*-11.3*	1,396	*0.9*
Tennessee	. .	. .	. .	7,406	. .	11,081	*49.6*	16,967	*53.1*	16,463	*-3.0*	18,889	*14.7*
Texas	. .	. .	. .	. .	. .	. .	. .	. .	. .	54,517	. .	63,953	*17.3*
Utah	. .	. .	. .	. .	. .	2,146	. .	2,542	*18.5*	3,033	*19.3*	3,130	*3.2*
Vermont	231	1,402	*506.9*	1,930	*37.7*	2,100	*8.8*	2,322	*10.6*	1,945	*-16.2*	2,588	*33.1*
Virginia	4,496	7,318	*62.8*	14,372	*96.4*	18,010	*25.3*	22,635	*25.7*	26,829	*18.5*	30,442	*13.5*
Washington	17,767	17,319	*-2.5*	18,185	*5.0*	20,963	*15.3*	22,790	*8.7*	26,939	*18.2*	29,848	*10.8*
Wisconsin	. .	. .	. .	10,920	. .	12,319	*12.8*	14,243	*15.6*	16,133	*13.3*	17,764	*10.1*
Wyoming	. .	. .	. .	. .	. .	. .	. .	. .	. .	500	. .	716	*43.2*

[1]Includes 17,348 abortions for 1974 reported to the CDC after publication of the 1974 Abortion Surveillance Report
[2]Includes 9,828 abortions for 1975 reported to the CDC after publication of the 1975 Abortion Surveillance Report
[3]Includes 3,284 abortions for 1976 reported to the CDC after publication of the 1976 Abortion Surveillance Report
[4]Includes 547 abortions for 1977 reported to the CDC after publication of the 1977 Abortion Surveillance Report
[5]Reported from state health department and hospitals and/or facilities in state

*Percent change over previous year
†States with data reported by central health agency (45)
..Not applicable

Table 4
Reported Legal Abortions Performed on Out-of-State Residents, by State, 1978

State	Total Abortions Performed	No. of Abortions with Residence Known[1]	No. of Abortions on Out-of-State Residents	Percentage of Abortions (with Residence Known) Performed on Out-of-State Residents
Alabama[2]	13,260	9,595	853	8.9
Alaska	669	668	5	0.7
Arizona	6,833	6,768	149	2.2
Arkansas	5,014	--	--	--
California	171,982	--	--	--
Colorado	15,397	15,317	1,377	9.0
Connecticut	13,784	13,520	108	0.8
Delaware	3,410	--	--	--
Dist. of Columbia	29,786	28,823	15,473	53.7
Florida	43,884	--	--	--
Georgia	34,657	34,463	4,311	12.5
Hawaii	6,014	6,010	202	3.4
Idaho	2,107	2,107	116	5.5
Illinois	69,829	69,829	5,055	7.2
Indiana	12,003	12,003	240	2.0
Iowa[2]	5,512	4,455	774	17.4
Kansas	9,229	9,229	3,676	39.8
Kentucky	10,930	7,923	2,403	30.3
Louisiana	11,236	10,672	811	7.6
Maine	4,766	--	--	--
Maryland	24,681	24,681	950	3.8
Massachusetts	40,200	--	--	--
Michigan[2]	43,602	36,482	2,495	6.8
Minnesota	17,262	17,219	2,698	15.7
Mississippi	3,280	3,280	247	7.5
Missouri	15,519	15,509	2,372	15.3
Montana	3,044	3,044	117	3.8
Nebraska	4,837	4,837	1,454	30.1
Nevada	4,734	4,734	667	14.1
New Hampshire	2,300	2,263	188	8.3
New Jersey	28,431	--	--	--
New Mexico	4,752	4,752	259	5.5
New York	153,703	150,629	11,454	7.6
(City)	(105,837)	(102,763)	(7,861)	(7.6)
(Upstate)	(47,866)	(47,866)	(3,593)	(7.5)
North Carolina	27,266	26,641	1,364	5.1
North Dakota	2,150	--	--	--
Ohio	41,447	39,766	2,079	5.2
Oklahoma	10,072	--	--	--
Oregon	13,605	13,605	562	4.1
Pennsylvania	60,639	60,639	6,045	10.0
Rhode Island	4,497	4,497	362	8.0
South Carolina	9,969	9,969	269	2.7
South Dakota	1,396	1,382	537	38.9
Tennessee	18,889	18,889	3,822	20.2
Texas	63,953	--	--	--
Utah	3,130	3,113	181	5.8
Vermont	2,588	2,588	571	22.1
Virginia	30,442	30,442	2,053	6.7
Washington	29,848	29,535	3,087	10.5
West Virginia[2]	2,758	2,758	425	15.4
Wisconsin	17,764	--	--	--
Wyoming	716	--	--	--
Total	1,157,776	742,636	79,811	10.7

[1]Refers to in-state and out-of-state residence status
[2]Abortions for 1978 are reported from hospitals and/or facilities in state. Residence data are based on percentages and actual numbers as reported by hospitals and/or facilities in the state.

--Not available

Table 5
Reported Legal Abortions with State of Residence Known,*
by Census Division and State, 1978

State of Residence by Census Division	Abortions Performed in State of Residence No.	%	Abortions Performed Outside State of Residence No.	%	Total
NEW ENGLAND	(66,605)	(96.1)	(2,721)	(3.9)	(69,326)
Maine	4,766[1]	97.3	132	2.7	4,898
New Hampshire	2,075	95.9	88	4.1	2,163
Vermont	2,017	94.3	122	5.7	2,139
Massachusetts	40,200[1]	98.2	731	1.8	40,931
Rhode Island	4,135	97.3	116	2.7	4,251
Connecticut	13,412	89.7	1,532	10.3	14,944
MIDDLE ATLANTIC	(222,200)	(95.0)	(11,718)	(5.0)	(233,918)
New York	139,175	99.4	849	0.6	140,024
New Jersey	28,431[1]	76.9	8,536	23.1	36,967
Pennsylvania	54,594	95.9	2,333	4.1	56,927
EAST NORTH CENTRAL	(165,975)	(95.2)	(8,355)	(4.8)	(174,330)
Ohio	37,687	96.8	1,252	3.2	38,939
Indiana	11,763	82.1	2,572	17.9	14,335
Illinois	64,774	95.8	2,860	4.2	67,634
Michigan	33,987[2]	98.6	466	1.4	34,453
Wisconsin	17,764[1]	93.6	1,205	6.4	18,969
WEST NORTH CENTRAL	(43,270)	(85.5)	(7,358)	(14.5)	(50,628)
Minnesota	14,521	99.8	36	0.2	14,557
Iowa	3,681[2]	71.3	1,480	28.7	5,161
Missouri	13,137	77.2	3,883	22.8	17,020
North Dakota	2,150[1]	82.5	457	17.5	2,607
South Dakota	845	52.7	757	47.3	1,602
Nebraska	3,383	92.7	268	7.3	3,651
Kansas	5,553	92.1	477	7.9	6,030
SOUTH ATLANTIC	(180,226)	(88.5)	(23,443)	(11.5)	(203,669)
Delaware	3,410[1]	79.9	858	20.1	4,268
Maryland	23,731	69.2	10,545	30.8	34,276
Dist. of Columbia	13,350	97.4	351	2.6	13,701
Virginia	28,389	85.3	4,899	14.7	33,288
West Virginia	2,333[2]	54.0	1,990	46.0	4,323
North Carolina	25,277	93.7	1,704	6.3	26,981
South Carolina	9,700	81.1	2,264	18.9	11,964
Georgia	30,152	98.3	508	1.7	30,660
Florida	43,884[1]	99.3	324	0.7	44,208
EAST SOUTH CENTRAL	(32,362)	(76.3)	(10,079)	(23.7)	(42,441)
Kentucky	5,520	52.2	5,056	47.8	10,576
Tennessee	15,067	94.6	866	5.4	15,933
Alabama	8,742[2]	84.2	1,644	15.8	10,386
Mississippi	3,033	54.7	2,513	45.3	5,546
WEST SOUTH CENTRAL	(88,900)	(98.0)	(1,838)	(2.0)	(90,738)
Arkansas	5,014[1]	85.7	840	14.3	5,854
Louisiana	9,861	95.9	422	4.1	10,283
Oklahoma	10,072[1]	97.5	261	2.5	10,333
Texas	63,953[1]	99.5	315	0.5	64,268

Table 5 (Continued)
Reported Legal Abortions with State of Residence Known,*
by Census Division and State, 1978

State of Residence by Census Division	Abortions Performed in State of Residence No.	%	Abortions Performed Outside State of Residence No.	%	Total
MOUNTAIN	(37,685)	*(93.2)*	(2,748)	*(6.8)*	(40,433)
Montana	2,927	*91.4*	275	*8.6*	3,202
Idaho	1,991	*91.1*	195	*8.9*	2,186
Wyoming	716[1]	*49.5*	731	*50.5*	1,447
Colorado	13,940	*99.1*	129	*0.9*	14,069
New Mexico	4,493	*96.7*	152	*3.3*	4,645
Arizona	6,619	*97.9*	144	*2.1*	6,763
Utah	2,932	*97.3*	81	*2.7*	3,013
Nevada	4,067	*79.6*	1,041	*20.4*	5,108
PACIFIC	(217,944)	*(99.4)*	(1,401)	*(0.6)*	(219,345)
Washington	26,448	*98.3*	451	*1.7*	26,899
Oregon	13,043	*99.7*	42	*0.3*	13,085
California	171,982	*99.5*	865	*0.5*	172,847
Alaska	663	*96.2*	26	*3.8*	689
Hawaii	5,808	*99.7*	17	*0.3*	5,825
TOTAL	1,055,167[3]	*93.8*	69,661	*6.2*	1,124,828[4]

[1]Residence information not available; all abortions reported are assumed to have been performed on residents of the state

[2]Abortions reported from hospitals and/or facilities in state. Residence data based on percentages and actual number as reported by hospitals and/or facilities in the state

[3]Total number of abortions performed in state of residence is greater than total number of abortions with residence known shown on Table 4 because the 12 states with unknown residence data (see Table 4) are included in Table 5, with all abortions assumed to have been performed on residents of the state (see footnote 1).

[4]Does not agree with Table 1 because abortions with state of residence unknown are excluded

*Excludes 32,948 abortions with state of residence unknown (2,014 out-of-country residents were classified as state of residence unknown). Data problems related to abortions performed in Illinois on out-of-state women may have contributed to a change in the number of out-of-state abortions between 1977 and 1978 for some states, especially Indiana, Kentucky, and Nevada.

Table 6
Reported Legal Abortions, by Woman's Age and State of Occurrence,
Selected States,* 1978

State	Years of Age: < 15 No.	%	15-19 No.	%	20-24 No.	%	25-29 No.	%	30-34 No.	%	35-39 No.	%	≥ 40 No.	%	Unknown No.	%	Total No.	%
Alaska	6	*0.9*	176	*26.3*	242	*36.2*	146	*21.8*	65	*9.7*	15	*2.2*	9	*1.3*	10	*1.5*	669	*100.0*
Arizona	58	*0.8*	2,093	*30.6*	2,541	*37.2*	1,148	*16.8*	496	*7.3*	223	*3.3*	60	*0.9*	214	*3.1*	6,833	*100.0*
Arkansas	66	*1.3*	1,823	*36.4*	1,668	*33.3*	768	*15.3*	389	*7.8*	216	*4.3*	82	*1.6*	2	*0.0*	5,014	*100.0*
Colorado	131	*0.9*	4,795	*31.1*	5,459	*35.5*	2,936	*19.1*	1,283	*8.3*	501	*3.3*	151	*1.0*	141	*0.9*	15,397	*100.0*
Connecticut	96	*0.7*	4,066	*29.5*	4,790	*34.8*	2,385	*17.3*	1,344	*9.8*	663	*4.8*	214	*1.6*	226	*1.6*	13,784	*100.0*
Dist. of Col.	350	*1.2*	6,559	*22.0*	10,616	*35.6*	6,736	*22.6*	3,295	*11.1*	2,109[1]	*7.1*	-- [1]	--	121	*0.4*	29,786	*100.0*
Georgia	600	*1.7*	10,370	*29.9*	11,785	*34.0*	6,679	*19.3*	3,290	*9.5*	1,354	*3.9*	483	*1.4*	96	*0.3*	34,657	*100.0*
Hawaii	32	*0.5*	1,241	*20.6*	2,138	*35.6*	1,414	*23.5*	752	*12.5*	275	*4.6*	154	*2.6*	8	*0.1*	6,014	*100.0*
Idaho	17	*0.8*	710	*33.7*	734	*34.8*	350	*16.6*	179	*8.5*	70	*3.3*	29	*1.4*	18	*0.9*	2,107	*100.0*
Illinois	703	*1.0*	18,759	*26.9*	23,419	*33.5*	13,006	*18.6*	6,685	*9.6*	3,415	*4.9*	1,354	*1.9*	2,488	*3.6*	69,829	*100.0*
Indiana	117	*1.0*	3,903	*32.5*	4,273	*35.6*	1,991	*16.6*	999	*8.3*	488	*4.1*	181	*1.5*	51	*0.4*	12,003	*100.0*
Kansas	111	*1.2*	3,464	*37.5*	2,998	*32.5*	1,417	*15.4*	676	*7.3*	349	*3.8*	150	*1.6*	64	*0.7*	9,229	*100.0*
Louisiana	164	*1.5*	3,150	*28.0*	3,855	*34.3*	2,262	*20.1*	1,061	*9.4*	530	*4.7*	153	*1.4*	61	*0.5*	11,236	*100.0*
Maryland	425	*1.7*	8,335	*33.8*	8,710	*35.3*	4,170	*16.9*	1,920	*7.8*	859	*3.5*	262	*1.1*	0	*0.0*	24,681	*100.0*
Massachusetts	193	*0.5*	11,483	*28.6*	14,693	*36.5*	7,635	*19.0*	3,719	*9.3*	1,749	*4.4*	588	*1.5*	140	*0.3*	40,200	*100.0*
Minnesota	94	*0.5*	6,295	*36.5*	6,030	*34.9*	2,631	*15.2*	1,116	*6.5*	559	*3.2*	192	*1.1*	345	*2.0*	17,262	*100.0*
Mississippi	63	*1.9*	1,085	*33.1*	1,138	*34.7*	561	*17.1*	247	*7.5*	132	*4.0*	53	*1.6*	1	*0.0*	3,280	*100.0*
Missouri	215	*1.4*	4,667	*30.1*	5,411	*34.9*	2,813	*18.1*	1,433	*9.2*	736	*4.7*	234	*1.5*	10	*0.1*	15,519	*100.0*
Montana	23	*0.8*	985	*32.4*	1,137	*37.4*	571	*18.8*	200	*6.6*	95	*3.1*	33	*1.1*	0	*0.0*	3,044	*100.0*
Nebraska	50	*1.0*	1,988	*41.1*	1,623	*33.6*	623	*12.9*	288	*6.0*	169	*3.5*	94	*1.9*	2	*0.0*	4,837	*100.0*
Nevada	49	*1.0*	1,301	*27.5*	1,712	*36.2*	938	*19.8*	455	*9.6*	208	*4.4*	71	*1.5*	0	*0.0*	4,734	*100.0*
New Hampshire	22	*1.0*	857	*37.3*	814	*35.4*	334	*14.5*	158	*6.9*	69	*3.0*	27	*1.2*	19	*0.8*	2,300	*100.0*
New Jersey	249	*0.9*	7,262	*25.5*	9,344	*32.9*	5,500	*19.3*	3,457	*12.2*	1,883	*6.6*	690	*2.4*	46	*0.2*	28,431	*100.0*
New Mexico	36	*0.8*	1,452	*30.6*	1,621	*34.1*	957	*20.1*	416	*8.8*	184	*3.9*	76	*1.6*	10	*0.2*	4,752	*100.0*
New York	1,267	*0.8*	36,157	*23.5*	51,084	*33.2*	32,345	*21.0*	18 798	*12.2*	9,532	*6.2*	3,144	*2.0*	1,376	*0.9*	153,703	*100.0*
(City)	(886)	*(0.8)*	(21,805)	*(20.6)*	(34,942)	*(33.0)*	(24,402)	*(23.1)*	(14,198)	*(13.4)*	(6,879)	*(6.5)*	(2,109)	*(2.0)*	(616)	*(0.6)*	(105,837)	*(100.0)*
(Upstate)	(381)	*(0.8)*	(14,352)	*(30.0)*	(16,142)	*(33.7)*	(7,943)	*(16.6)*	(4,600)	*(9.6)*	(2,653)	*(5.5)*	(1,035)	*(2.2)*	(760)	*(1.6)*	(47,866)	*(100.0)*
N. Carolina	465	*1.7*	8,921	*32.7*	9,397	*34.5*	4,519	*16.6*	2,163	*7.9*	1,068	*3.9*	379	*1.4*	354	*1.3*	27,266	*100.0*
Ohio	248	*0.6*	10,913	*26.3*	15,291	*36.9*	7,537	*18.2*	3,483	*8.4*	1,787	*4.3*	754	*1.8*	1,434	*3.5*	41,447	*100.0*
Oregon	106	*0.8*	4,443	*32.7*	4,743	*34.9*	2,528	*18.6*	1,153	*8.5*	460	*3.4*	139	*1.0*	33	*0.2*	13,605	*100.0*
Pennsylvania	642	*1.1*	18,931	*31.2*	22,098	*36.4*	10,558	*17.4*	5,078	*8.4*	2,386	*3.9*	892	*1.5*	54	*0.1*	60,639	*100.0*
Rhode Island	24	*0.5*	1,186	*26.4*	1,720	*38.2*	829	*18.4*	423	*9.4*	197	*4.4*	74	*1.6*	44	*1.0*	4,497	*100.0*
S. Carolina	155	*1.6*	3,405	*34.2*	3,423	*34.3*	1,694	*17.0*	806	*8.1*	371	*3.7*	111	*1.1*	4	*0.0*	9,969	*100.0*
South Dakota	5	*0.4*	524	*37.5*	499	*35.7*	177	*12.7*	78	*5.6*	48	*3.4*	22	*1.6*	43	*3.1*	1,396	*100.0*
Tennessee	251	*1.3*	6,196	*32.8*	6,500	*34.4*	3,276	*17.3*	1,547	*8.2*	746	*3.9*	250	*1.3*	123	*0.7*	18,889	*100.0*
Utah	12	*0.4*	687	*21.9*	1,172	*37.4*	698	*22.3*	276	*8.8*	139	*4.4*	47	*1.5*	99	*3.2*	3,130	*100.0*
Vermont	14	*0.5*	794	*30.7*	1,023	*39.5*	424	*16.4*	207	*8.0*	100	*3.9*	26	*1.0*	0	*0.0*	2,588	*100.0*
Virginia	404	*1.3*	9,957	*32.7*	10,524	*34.6*	5,142	*16.9*	2,707	*8.9*	1,281	*4.2*	386	*1.3*	41	*0.1*	30,442	*100.0*
Washington	284	*1.0*	10,090	*33.8*	10,303	*34.5*	5,341	*17.9*	2,421	*8.1*	1,028	*3.4*	372	*1.2*	9	*0.0*	29 848	*100.0*
Wyoming	8	*1.1*	245	*34.2*	265	*37.0*	113	*15.8*	49	*6.8*	18	*2.5*	13	*1.8*	5	*0.7*	716	*100.0*
Total	7,755	*1.0*	219,268	*28.7*	264,793	*34.7*	143,152	*18.7*	73,112	*9.6*	36,012	*4.7*	11,949	*1.6*	7,692	*1.0*	763,733	*100.0*
Abortion ratio[2]	1,149		650		370		218		235		435		788				356	

[1]Reported as ≥ 35

[2]Calculated as the number of legal abortions for women of a given age group per 1,000 live births to women in the same age group. "Unknown" age for each state is distributed according to known age distribution of that state.

*All states with data available (38)

Table 7
Reported Legal Abortions Obtained by Teenagers,
Selected States,* 1978

State	Years of Age						
	< 15	15	16	17	18	19	Total
Arizona	58	144	304	404	604	637	2,151
Arkansas	66	148	294	375	544	462	1,889
Colorado	131	296	751	1,000	1,442	1,306	4,926
Georgia	600	867	1,565	1,911	3,194	2,833	10,970
Hawaii	32	84	143	200	389	425	1,273
Idaho	17	34	118	144	230	184	727
Illinois	703	1,215	2,415	3,551	5,921	5,657	19,462
Indiana	117	277	550	793	1,180	1,103	4,020
Kansas	111	291	594	783	951	845	3,575
Louisiana	164	250	402	554	1,019	925	3,314
Massachusetts	193	576	1,379	2,384	3,396	3,748	11,676
Minnesota	94	368	918	1,299	1,914	1,796	6,389
Mississippi	63	95	160	236	304	290	1,148
Missouri	215	349	775	1,021	1,245	1,277	4,882
Montana	23	62	129	167	340	287	1,008
Nebraska	50	140	320	427	528	573	2,038
Nevada	49	91	182	241	412	375	1,350
New Hampshire	22	42	143	203	231	238	879
New Mexico	36	92	187	313	446	414	1,488
New York	1,267	2,499	4,421	6,965	11,153	11,119	37,424
(City)	(886)	(1,616)	(2,700)	(4,219)	(6,484)	(6,786)	(22,691)
(Upstate)	(381)	(883)	(1,721)	(2,746)	(4,669)	(4,333)	(14,733)
North Carolina	465	763	1,417	1,737	2,630	2,374	9,386
Ohio	248	545	1,208	2,164	3,206	3,790	11,161
Oregon	106	364	720	1,003	1,209	1,147	4,549
Pennsylvania	642	1,325	2,569	3,973	5,555	5,509	19,573
Rhode Island	24	72	127	168	410	409	1,210
South Carolina	155	257	564	774	928	882	3,560
South Dakota	5	45	66	117	144	152	529
Tennessee	251	447	794	1,141	2,022	1,792	6,447
Utah	12	25	71	123	211	257	699
Vermont	14	29	91	136	259	279	808
Virginia	404	782	1,469	2,042	2,947	2,717	10,361
Wyoming	8	25	37	48	55	80	253
Total	6,345	12,599	24,883	36,397	55,019	53,882	189,125
% Distribution	*3.4*	*6.7*	*13.2*	*19.2*	*29.1*	*28.5*	*100.0*
Abortion ratio[1]	1,058	788	691	602	651	515	615

[1]Calculated as the number of legal abortions for women of a given age per 1,000 live births to women of the same age. "Unknown" age for each state is distributed according to known age distribution of that state.

*All states with data available (32)

Table 8
Reported Legal Abortions by Race and State of Occurrence,
Selected States,* 1978

State	White		Black & Other		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%
Alaska	459	*68.6*	208	*31.1*	2	*0.3*	669	*100.0*
Arizona	5,587	*81.8*	937	*13.7*	309	*4.5*	6,833	*100.0*
Arkansas	3,854	*76.9*	1,101	*22.0*	59	*1.2*	5,014	*100.0*
Colorado	10,955	*71.2*	1,164	*7.6*	3,278	*21.3*	15,397	*100.0*
Dist. of Columbia	10,705	*35.9*	18,555	*62.3*	526	*1.8*	29,786	*100.0*
Georgia	22,399	*64.6*	11,971	*34.5*	287	*0.8*	34,657	*100.0*
Hawaii	2,027	*33.7*	3,328	*55.3*	659	*11.0*	6,014	*100.0*
Idaho	2,026	*96.2*	62	*2.9*	19	*0.9*	2,107	*100.0*
Illinois	40,977	*58.7*	27,161	*38.9*	1,691	*2.4*	69,829	*100.0*
Indiana	9,652	*80.4*	2,187	*18.2*	164	*1.4*	12,003	*100.0*
Kansas	6,136	*66.5*	1,048	*11.4*	2,045	*22.2*	9,229	*100.0*
Louisiana	5,395	*48.0*	4,968	*44.2*	873	*7.8*	11,236	*100.0*
Maryland	14,944	*60.5*	9,406	*38.1*	331	*1.3*	24,681	*100.0*
Minnesota	14,594	*84.5*	648	*3.8*	2,020	*11.7*	17,262	*100.0*
Mississippi	1,998	*60.9*	1,270	*38.7*	12	*0.4*	3,280	*100.0*
Missouri	10,683	*68.8*	4,791	*30.9*	45	*0.3*	15,519	*100.0*
Montana	2,258	*74.2*	154	*5.1*	632	*20.8*	3,044	*100.0*
Nebraska	4,470	*92.4*	359	*7.4*	8	*0.2*	4,837	*100.0*
Nevada	4,185	*88.4*	529	*11.2*	20	*0.4*	4,734	*100.0*
New Hampshire	1,859	*80.8*	14	*0.6*	427	*18.6*	2,300	*100.0*
New Jersey	17,258	*60.7*	10,522	*37.0*	651	*2.3*	28,431	*100.0*
New Mexico	4,147	*87.3*	605	*12.7*	0	*0.0*	4,752	*100.0*
New York	94,274	*61.3*	58,363	*38.0*	1,066	*0.7*	153,703	*100.0*
(City)	(54,729)	*(51.7)*	(51,108)	*(48.3)*	(0)	*(0.0)*	(105,837)	*(100.0)*
(Upstate)	(39,545)	*(82.6)*	(7,255)	*(15.2)*	(1,066)	*(2.2)*	(47,866)	*(100.0)*
North Carolina	17,062	*62.6*	9,433	*34.6*	771	*2.8*	27,266	*100.0*
Ohio	26,389	*63.7*	9,026	*21.8*	6,032	*14.6*	41,447	*100.0*
Oregon	12,563	*92.3*	634	*4.7*	408	*3.0*	13,605	*100.0*
Rhode Island	3,607	*80.2*	355	*7.9*	535	*11.9*	4,497	*100.0*
South Carolina	5,992	*60.1*	3,971	*39.8*	6	*0.1*	9,969	*100.0*
South Dakota	1,170	*83.8*	205	*14.7*	21	*1.5*	1,396	*100.0*
Tennessee	14,732	*78.0*	4,070	*21.5*	87	*0.5*	18,889	*100.0*
Utah	2,839	*90.7*	168	*5.4*	123	*3.9*	3,130	*100.0*
Vermont	2,524	*97.5*	32	*1.2*	32	*1.2*	2,588	*100.0*
Virginia	20,997	*69.0*	9,445	*31.0*	0	*0.0*	30,442	*100.0*
Total	398,717	*64.5*	196,690	*31.8*	23,139	*3.7*	618,546	*100.0*
Abortion ratio[1]	297		497				344	

[1]Calculated as the number of legal abortions for women of a given race per 1,000 live births to women of the same race. "Unknown" race for each state is distributed according to known race distribution of that state. Excludes states reporting more than 15% of abortions as race "unknown"

*All states with data available (33)

Table 9
Reported Legal Abortions, by Marital Status
and State of Occurrence, Selected States,* 1978

State	Married		Unmarried[1]		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%
Alaska	207	*30.9*	453	*67.7*	9	*1.3*	669	*100.0*
Arizona	1,575	*23.0*	4,875	*71.3*	383	*5.6*	6,833	*100.0*
Arkansas	1,327	*26.5*	3,622	*72.2*	65	*1.3*	5,014	*100.0*
Colorado	3,838	*24.9*	10,880	*70.7*	679	*4.4*	15,397	*100.0*
Dist. of Columbia	7,984	*26.8*	20,825	*69.9*	977	*3.3*	29,786	*100.0*
Georgia[2]	8,930	*25.8*	25,171	*72.6*	556	*1.6*	34,657	*100.0*
Hawaii	1,853	*30.8*	4,043	*67.2*	118	*2.0*	6,014	*100.0*
Illinois	18,644	*26.7*	49,689	*71.2*	1,496	*2.1*	69,829	*100.0*
Indiana	2,859	*23.8*	8,953	*74.6*	191	*1.6*	12,003	*100.0*
Kansas	2,278	*24.7*	6,921	*75.0*	30	*0.3*	9,229	*100.0*
Louisiana	3,170	*28.2*	7,085	*63.1*	981	*8.7*	11,236	*100.0*
Maryland[2]	6,362	*25.8*	18,081	*73.3*	238	*1.0*	24,681	*100.0*
Minnesota	2,971	*17.2*	13,683	*79.3*	608	*3.5*	17,262	*100.0*
Mississippi	855	*26.1*	2,416	*73.7*	9	*0.3*	3,280	*100.0*
Missouri	3,873	*25.0*	11,577	*74.6*	69	*0.4*	15,519	*100.0*
Montana	587	*19.3*	1,840	*60.4*	617	*20.3*	3,044	*100.0*
Nebraska	946	*19.6*	3,887	*80.4*	4	*0.1*	4,837	*100.0*
Nevada[2]	1,217	*25.7*	3,481	*73.5*	36	*0.8*	4,734	*100.0*
New Hampshire	460	*20.0*	1,755	*76.3*	85	*3.7*	2,300	*100.0*
New Mexico[2]	1,120	*23.6*	3,623	*76.2*	9	*0.2*	4,752	*100.0*
New York[2]	42,833	*27.9*	109,731	*71.4*	1,139	*0.7*	153,703	*100.0*
(City)	(31,010)	*(29.3)*	(73,688)	*(69.6)*	(1,139)	*(1.1)*	(105,837)	*(100.0)*
(Upstate)	(11,823)	*(24.7)*	(36,043)	*(75.3)*	(0)	*(0.0)*	(47,866)	*(100.0)*
North Carolina	8,514	*31.2*	17,711	*65.0*	1,041	*3.8*	27,266	*100.0*
Ohio[2]	9,588	*23.1*	30,363	*73.3*	1,496	*3.6*	41,447	*100.0*
Oregon	3,531	*26.0*	9,956	*73.2*	118	*0.9*	13,605	*100.0*
Rhode Island	1,188	*26.4*	3,200	*71.2*	109	*2.4*	4,497	*100.0*
South Carolina	2,688	*27.0*	7,275	*73.0*	6	*0.1*	9,969	*100.0*
South Dakota	309	*22.1*	1,064	*76.2*	23	*1.6*	1,396	*100.0*
Tennessee	5,145	*27.2*	13,586	*71.9*	158	*0.8*	18,889	*100.0*
Utah	630	*20.1*	2,479	*79.2*	21	*0.7*	3,130	*100.0*
Vermont	561	*21.7*	2,015	*77.9*	12	*0.5*	2,588	*100.0*
Virginia	6,885	*22.6*	23,557	*77.4*	0	*0.0*	30,442	*100.0*
Washington	7,114	*23.8*	22,434	*75.2*	300	*1.0*	29,848	*100.0*
Total	160,042	*25.9*	446,231	*72.2*	11,583	*1.9*	617,856	*100.0*
Abortion ratio[3]	112		1,471				351	

[1]Includes never married, widowed, and divorced
[2]Distribution of live births by legitimacy status for calculation of abortion ratios from central health agency
[3]Calculated as the number of legal abortions for women of a given marital status per 1,000 live births of the corresponding legitimacy status. "Unknown" marital status for each state is distributed according to known marital status distribution of that state. Excludes states reporting more than 15% of abortions as marital status "unknown"

*All states with data available (32)

Table 10
Reported Legal Abortions, by Number of Live Births
and State of Occurrence, Selected States,* 1978

State	0		1		2		3		≥ 4		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Alaska	401	*59.9*	127	*19.0*	81	*12.1*	40	*6.0*	19	*2.8*	1	*0.1*	669	*100.0*
Arizona	4,321	*63.2*	1,171	*17.1*	794	*11.6*	326	*4.8*	221	*3.2*	0	*0.0*	6,833	*100.0*
Colorado	8,568	*55.6*	2,364	*15.4*	1,644	*10.7*	539	*3.5*	317	*2.1*	1,965	*12.8*	15,397	*100.0*
Georgia	20,164	*58.2*	6,910	*19.9*	4,696	*13.5*	1,805	*5.2*	1,082	*3.1*	0	*0.0*	34,657	*100.0*
Hawaii	4,119	*68.5*	814	*13.5*	651	*10.8*	267	*4.4*	163	*2.7*	0	*0.0*	6,014	*100.0*
Idaho[1]	1,259	*59.8*	386	*18.3*	248	*11.8*	90	*4.3*	66	*3.1*	58	*2.8*	2,107	*100.0*
Illinois	36,027	*51.6*	13,559	*19.4*	10,455	*15.0*	5,031	*7.2*	4,750	*6.8*	7	*0.0*	69,829	*100.0*
Indiana	6,202	*51.7*	2,240	*18.7*	1,665	*13.9*	653	*5.4*	453	*3.8*	790	*6.6*	12,003	*100.0*
Kansas	5,848	*63.4*	1,495	*16.2*	1,094	*11.9*	439	*4.8*	286	*3.1*	67	*0.7*	9,229	*100.0*
Maryland	14,917	*60.4*	5,127	*20.8*	2,990	*12.1*	1,034	*4.2*	547	*2.2*	66	*0.3*	24,681	*100.0*
Minnesota	12,667	*73.4*	2,278	*13.2*	1,407	*8.2*	545	*3.2*	365	*2.1*	0	*0.0*	17,262	*100.0*
Mississippi	1,889	*57.6*	627	*19.1*	423	*12.9*	181	*5.5*	159	*4.8*	1	*0.0*	3,280	*100.0*
Missouri	8,550	*55.1*	3,090	*19.9*	2,219	*14.3*	950	*6.1*	704	*4.5*	6	*0.0*	15,519	*100.0*
Montana[1]	2,109	*69.3*	430	*14.1*	320	*10.5*	107	*3.5*	63	*2.1*	15	*0.5*	3,044	*100.0*
Nebraska	3,421	*70.7*	570	*11.8*	452	*9.3*	229	*4.7*	164	*3.4*	1	*0.0*	4,837	*100.0*
Nevada	2,892	*61.1*	882	*18.6*	589	*12.4*	230	*4.9*	125	*2.6*	16	*0.3*	4,734	*100.0*
New Hampshire	684	*29.7*	292	*12.7*	155	*6.7*	86	*3.7*	33	*1.4*	1,050	*45.7*	2,300	*100.0*
New Mexico	2,632	*55.4*	882	*18.6*	521	*11.0*	217	*4.6*	194	*4.1*	306	*6.4*	4,752	*100.0*
New York	73,367	*47.7*	29,938	*19.5*	23,929	*15.6*	10,786	*7.0*	7,319	*4.8*	8,364	*5.4*	153,703	*100.0*
(City)	(50,098)	*(47.3)*	(23,720)	*(22.4)*	(18,326)	*(17.3)*	(8,179)	*(7.7)*	(5,514)	*(5.2)*	(0)	*(0.0)*	(105,837)	*(100.0)*
(Upstate)	(23,269)	*(48.6)*	(6,218)	*(13.0)*	(5,603)	*(11.7)*	(2,607)	*(5.4)*	(1,805)	*(3.8)*	(8,364)	*(17.5)*	(47,866)	*(100.0)*
N. Carolina	14,812	*54.3*	5,175	*19.0*	3,717	*13.6*	1,299	*4.8*	913	*3.3*	1,350	*5.0*	27,266	*100.0*
Ohio[1]	24,779	*59.8*	7,869	*19.0*	5,389	*13.0*	2,117	*5.1*	1,278	*3.1*	15	*0.0*	41,447	*100.0*
Oregon	8,568	*63.0*	2,352	*17.3*	1,453	*10.7*	506	*3.7*	281	*2.1*	445	*3.3*	13,605	*100.0*
Rhode Island[1]	2,707	*60.2*	800	*17.8*	564	*12.5*	225	*5.0*	149	*3.3*	52	*1.2*	4,497	*100.0*
S. Carolina	5,735	*57.5*	1,943	*19.5*	1,312	*13.2*	554	*5.6*	417	*4.2*	8	*0.1*	9,969	*100.0*
South Dakota[1]	803	*57.5*	197	*14.1*	157	*11.2*	69	*4.9*	61	*4.4*	109	*7.8*	1,396	*100.0*
Tennessee	11,147	*59.0*	3,662	*19.4*	2,531	*13.4*	882	*4.7*	541	*2.9*	126	*0.7*	18,889	*100.0*
Utah	1,815	*58.0*	565	*18.1*	411	*13.1*	183	*5.8*	127	*4.1*	29	*0.9*	3,130	*100.0*
Vermont	1,934	*74.7*	265	*10.2*	229	*8.8*	93	*3.6*	61	*2.4*	6	*0.2*	2,588	*100.0*
Wyoming	464	*64.8*	111	*15.5*	84	*11.7*	31	*4.3*	19	*2.7*	7	*1.0*	716	*100.0*
Total	282,801	*55.0*	96,121	*18.7*	70,180	*13.6*	29,514	*5.7*	20,877	*4.1*	14,860	*2.9*	514,353	*100.0*
Abortion ratio[2]	446		201		307		327		291				332	

[1]Number of living children
[2]Calculated as the number of legal abortions to women with n live births per 1,000 live births to women with n live births. "Unknown" live births for each state are distributed according to distribution of known. Excludes states reporting more than 15% of abortions as number of live births "unknown."

*All states with data available (29)

Table 11
Reported Legal Abortions, by Type of Procedure and State of Occurrence,
Selected States,* 1978

State	Curettage		Intrauterine Saline Instillation		Intrauterine Prostaglandin Instillation[1]		Hysterotomy/ Hysterectomy		Other[2]		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Alaska	658	98.4	--	--	--	--	--	--	3	0.4	8	1.2	669	100.0
Arizona	6,615	96.8	72	1.1	47	0.7	1	0.0	1	0.0	97	1.4	6,833	100.0
Arkansas	4,632	92.4	5	0.1	295	5.9	28	0.6	48	1.0	6	0.1	5,014	100.0
Colorado	13,911	90.3	71	0.5	1,049	6.8	39	0.3	313	2.0	14	0.1	15,397	100.0
Connecticut	12,819	93.0	218[3]	1.6	--[3]	--	6	0.0	557[4]	4.0	184	1.3	13,784	100.0
Dist. of Col.	29,074	97.6	483	1.6	--	--	1	0.0	115	0.4	113	0.4	29,786	100.0
Georgia	32,026	92.4	202	0.6	401	1.2	100	0.3	1,922	5.5	6	0.0	34,657	100.0
Hawaii	5,308	88.3	7	0.1	291	4.8	5	0.1	389	6.5	14	0.2	6,014	100.0
Idaho	2,075	98.5	1	0.0	1	0.0	4	0.2	2	0.1	24	1.1	2,107	100.0
Illinois	66,289	94.9	172	0.2	564	0.8	19	0.0	137	0.2	2,648	3.8	69,829	100.0
Indiana	11,025	91.9	--	--	--	--	6	0.0	921	7.7	51	0.4	12,003	100.0
Kansas	8,364	90.6	326	3.5	84	0.9	9	0.1	315	3.4	131	1.4	9,229	100.0
Louisiana	10,819	96.3	2	0.0	--	--	4	0.0	241	2.1	170	1.5	11,236	100.0
Maryland	23,406	94.8	518	2.1	14	0.1	33	0.1	707	2.9	3	0.0	24,681	100.0
Massachusetts	38,881	96.7	644[5]	1.6	615[5]	1.5	18	0.0	42	0.1	0	0.0	40,200	100.0
Minnesota	16,309	94.5	0	0.0	132	0.8	0	0.0	821[4]	4.8	0	0.0	17,262	100.0
Mississippi	3,237	98.7	1	0.0	15	0.5	23	0.7	3	0.1	1	0.0	3,280	100.0
Missouri	15,223	98.1	0	0.0	268	1.7	7	0.0	2	0.0	19	0.1	15,519	100.0
Montana	2,910	95.6	6	0.2	116	3.8	3	0.1	9	0.3	0	0.0	3,044	100.0
Nebraska	4,676	96.7	159	3.3	0	0.0	1	0.0	0	0.0	1	0.0	4,837	100.0
Nevada	4,656	98.4	20	0.4	1	0.0	6	0.1	11	0.2	40	0.8	4,734	100.0
New Hampshire	1,957	85.1	8	0.3	0	0.0	1	0.0	211	9.2	123	5.3	2,300	100.0
New Jersey	27,165	95.5	803	2.8	141	0.5	16	0.1	83	0.3	223	0.8	28,431	100.0
New Mexico	4,525	95.2	49	1.0	55	1.2	2	0.0	117	2.5	4	0.1	4,752	100.0
New York	138,183	89.9	11,663	7.6	1,506	1.0	110	0.1	948	0.6	1,293	0.8	153,703	100.0
(City)	(95,891)	(90.6)	(8,440)	(8.0)	(883)	(0.8)	(38)	(0.0)	(427)	(0.4)	(158)	(0.1)	(105,837)	(100.0)
(Upstate)	(42,292)	(88.4)	(3,223)	(6.7)	(623)	(1.3)	(72)	(0.2)	(521)	(1.1)	(1,135)	(2.4)	(47,866)	(100.0)
North Carolina	24,691	90.6	1,299	4.8	689	2.5	107	0.4	233	0.9	247	0.9	27,266	100.0
Ohio[6]	41,318	94.8	946	2.2	--	--	23	0.1	177	0.4	1,135	2.6	43,599	100.0
Oregon	12,868	94.6	48	0.4	494	3.6	27	0.2	139	1.0	29	0.2	13,605	100.0
Pennsylvania	57,310	94.5	1,785	2.9	598	1.0	46	0.1	893	1.5	7	0.0	60,639	100.0
Rhode Island	4,244	94.4	191	4.2	0	0.0	2	0.0	1	0.0	59	1.3	4,497	100.0
South Carolina	9,817	98.5	15	0.2	53	0.5	14	0.1	67	0.7	3	0.0	9,969	100.0
South Dakota	1,318	94.4	33	2.4	--	--	4	0.3	8	0.6	33	2.4	1,396	100.0
Tennessee	18,387	97.3	41	0.2	235	1.2	35	0.2	16	0.1	175	0.9	18,889	100.0
Utah	3,100	99.0	--	--	1	0.0	--	--	1	0.0	28	0.9	3,130	100.0
Vermont	1,698	65.6	0	0.0	4	0.2	0	0.0	885	34.2	1	0.0	2,588	100.0
Virginia	29,191	95.9	923	3.0	178	0.6	52	0.2	33	0.1	65	0.2	30,442	100.0
Washington	28,627	95.9	1,094	3.7	62	0.2	17	0.1	16	0.1	32	0.1	29,848	100.0
Wyoming	700	97.8	--	--	7	1.0	5	0.7	--	--	4	0.6	716	100.0
Total	718,012	93.7	21,805	2.8	7,916	1.0	774	0.1	10,387	1.4	6,991	0.9	765,885	100.0

[1]Includes only intrauterine prostaglandin instillation reported as a specific category (see footnote 2)
[2]Includes intrauterine prostaglandins which are not reported as a specific category (see footnote 1) or with other instillation procedures (see footnote 3)
[3]Intrauterine prostaglandin instillation included with intrauterine saline instillation
[4]Includes combination procedures
[5]Included in intrauterine saline instillation category are 622 intrauterine prostasaline instillation procedures
[6]Does not add to total abortions because of some reported combination procedures

--Not reported
*All states with data available (38)

Table 12
Reported Legal Abortions, by Weeks of Gestation*
and State of Occurrence, Selected States,† 1978

State	≤ 8		9-10		11-12		13-15		16-20		≥ 21		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Alaska	81	12.1	252	37.7	212	31.7	47	7.0	5	0.7	2	0.3	70	10.5	669	100.0
Arizona	2,938	43.0	2,150	31.5	1,073	15.7	356	5.2	130	1.9	5	0.1	181	2.6	6,833	100.0
Arkansas	3,240	64.6	948	18.9	458	9.1	106	2.1	220	4.4	28	0.6	14	0.3	5,014	100.0
Colorado	5,332	34.6	4,407	28.6	2,358	15.3	1,350	8.8	980	6.4	377	2.4	593	3.9	15,397	100.0
Connecticut[1]	6,149	44.6	4,873	35.4	2,069	15.0	106	0.8	211	1.5	16	0.1	360	2.6	13,784	100.0
Dist. of Col.	19,550	65.6	5,896	19.8	1,922	6.5	789	2.6	599[2]	2.0	151[2]	0.5	879	3.0	29,786	100.0
Georgia	15,467	44.6	10,251	29.6	4,878	14.1	1,327	3.8	1,708	4.9	1,026	3.0	0	0.0	34,657	100.0
Hawaii	3,522	58.6	1,343	22.3	575	9.6	215	3.6	310	5.2	38	0.6	11	0.2	6,014	100.0
Idaho	981	46.6	648	30.8	351	16.7	53	2.5	6	0.3	2	0.1	66	3.1	2,107	100.0
Illinois	36,681	52.5	19,056	27.3	9,445	13.5	3,137	4.5	970	1.4	182	0.3	358	0.5	69,829	100.0
Indiana[1]	8,022	66.8	2,742	22.8	899	7.5	83	0.7	16	0.1	1	0.0	240	2.0	12,003	100.0
Kansas	3,584	38.8	2,556	27.7	1,447	15.7	723	7.8	656	7.1	230	2.5	33	0.4	9,229	100.0
Louisiana	5,157	45.9	3,338	29.7	2,225	19.8	303	2.7	150	1.3	7	0.1	56	0.5	11,236	100.0
Maryland	13,311	53.9	6,398	25.9	3,046	12.3	713	2.9	1,079	4.4	134	0.5	0	0.0	24,681	100.0
Massachusetts	22,976	57.2	10,648	26.5	3,912	9.7	966	2.4	1,432	3.6	266	0.7	0	0.0	40,200	100.0
Minnesota	5,792	33.6	5,599	32.4	3,168	18.4	1,495	8.7	1,143	6.6	65	0.4	0	0.0	17,262	100.0
Mississippi	1,330	40.5	1,101	33.6	562	17.1	140	4.3	27	0.8	8	0.2	112	3.4	3,280	100.0
Missouri	5,449	35.1	5,516	35.5	3,009	19.4	875	5.6	351	2.3	79	0.5	240	1.5	15,519	100.0
Montana	1,198	39.4	1,009	33.1	462	15.2	114	3.7	41	1.3	--	--	220	7.2	3,044	100.0
Nebraska	1,377	28.5	1,654	34.2	1,159	24.0	436	9.0	181	3.7	19	0.4	11	0.2	4,837	100.0
Nevada	3,749	79.2	734	15.5	150	3.2	16	0.3	51	1.1	3	0.1	31	0.7	4,734	100.0
New Hampshire	646	28.1	888	38.6	497	21.6	63	2.7	80	3.5	4	0.2	122	5.3	2,300	100.0
New Jersey	17,208	60.5	6,179	21.7	2,897	10.2	853	3.0	898	3.2	104	0.4	292	1.0	28,431	100.0
New Mexico	2,231	46.9	1,265	26.6	556	11.7	400	8.4	171	3.6	3	0.1	126	2.7	4,752	100.0
New York	77,359	50.3	39,354	25.6	17,489	11.4	7,706	5.0	8,628	5.6	2,698	1.8	469	0.3	153,703	100.0
(City)	(55,763)	(52.7)	(25,664)	(24.2)	(11,130)	(10.5)	(5,241)	(5.0)	(5,695)	(5.4)	(2,126)	(2.0)	(218)	(0.2)	(105,837)	(100.0)
(Upstate)	(21,596)	(45.1)	(13,690)	(28.6)	(6,359)	(13.3)	(2,465)	(5.1)	(2,933)	(6.1)	(572)	(1.2)	(251)	(0.5)	(47,866)	(100.0)
North Carolina	10,366	38.0	8,170	30.0	4,122	15.1	1,539	5.6	1,285	4.7	192	0.7	1,592	5.8	27,266	100.0
Ohio	23,093	55.7	4,229	10.2	1,054	2.5	606	1.5	861	2.1	--	--	11,604	28.0	41,447	100.0
Oregon	4,917	36.1	4,685	34.4	2,556	18.8	781	5.7	562	4.1	77	0.6	27	0.2	13,605	100.0
Pennsylvania	35,403	58.4	14,991	24.7	5,976	9.9	1,674	2.8	2,147	3.5	327	0.5	121	0.2	60,639	100.0
Rhode Island[1]	2,441	54.3	1,340	29.8	494	11.0	29	0.6	186	4.1	0	0.0	7	0.2	4,497	100.0
South Carolina	4,833	48.5	2,898	29.1	1,635	16.4	477	4.8	104	1.0	20	0.2	2	0.0	9,969	100.0
South Dakota	622	44.6	265	19.0	181	13.0	154	11.0	150	10.7	21	1.5	3	0.2	1,396	100.0
Tennessee	8,619	45.6	6,031	31.9	3,231	17.1	682	3.6	215	1.1	41	0.2	70	0.4	18,889	100.0
Utah	1,409	45.0	1,056	33.7	383	12.2	242	7.7	2	0.1	0	0.0	38	1.2	3,130	100.0
Vermont	1,527	59.0	688	26.6	269	10.4	86	3.3	12	0.5	3	0.1	3	0.1	2,588	100.0
Virginia	16,315	53.6	8,628	28.3	3,157	10.4	656	2.2	1,257	4.1	156	0.5	273	0.9	30,442	100.0
Washington	15,588	52.2	8,809	29.5	3,730	12.5	491	1.6	1,036	3.5	116	0.4	78	0.3	29,848	100.0
Wyoming	366	51.1	236	33.0	73	10.2	18	2.5	13	1.8	--	--	10	1.4	716	100.0
Total	388,829	50.9	200,831	26.3	91,680	12.0	29,807	3.9	27,873	3.6	6,401	0.8	18,312	2.4	763,733	100.0

[1]Weeks of gestation based on physician's estimate
[2]Reallocation of reported abortions into comparable categories based on percentage distribution of abortions by single weeks of gestation reported from 32 states

*Weeks from last menstrual period
†All states with data available (38)

Table 13
Reported Legal Abortions, by Number of
Previous Induced Abortions, Selected States,* 1978

State	0 No.	0 %	1 No.	1 %	2 No.	2 %	≥ 3 No.	≥ 3 %	Unknown No.	Unknown %	Total No.	Total %
Alaska	496	*74.1*	126	*18.8*	28	*4.2*	18	*2.7*	1	*0.1*	669	*100.0*
Arizona	5,221	*76.4*	1,344	*19.7*	218	*3.2*	50	*0.7*	0	*0.0*	6,833	*100.0*
Colorado	9,334	*60.6*	2,918	*19.0*	563	*3.7*	144	*0.9*	2,438	*15.8*	15,397	*100.0*
Dist. of Columbia	17,351	*58.3*	7,417	*24.9*	2,125	*7.1*	648	*2.2*	2,245	*7.5*	29,786	*100.0*
Georgia	22,206	*64.1*	6,904	*19.9*	1,315	*3.8*	317	*0.9*	3,915	*11.3*	34,657	*100.0*
Hawaii	2,995	*49.8*	672	*11.2*	244	*4.1*	98	*1.6*	2,005	*33.3*	6,014	*100.0*
Idaho	1,634	*77.6*	316	*15.0*	47	*2.2*	8	*0.4*	102	*4.8*	2,107	*100.0*
Illinois	49,827	*71.4*	15,692	*22.5*	3,300	*4.7*	1,010	*1.4*	0	*0.0*	69,829	*100.0*
Indiana	8,242	*68.7*	1,845	*15.4*	289	*2.4*	70	*0.6*	1,557	*13.0*	12,003	*100.0*
Kansas	7,461	*80.8*	1,441	*15.6*	204	*2.2*	48	*0.5*	75	*0.8*	9,229	*100.0*
Maryland	17,286	*70.0*	5,693	*23.1*	1,288	*5.2*	335	*1.4*	79	*0.3*	24,681	*100.0*
Massachusetts	27,577	*68.6*	8,456	*21.0*	1,728	*4.3*	448	*1.1*	1,991	*5.0*	40,200	*100.0*
Minnesota	14,044	*81.4*	2,741	*15.9*	380	*2.2*	97	*0.6*	0	*0.0*	17,262	*100.0*
Mississippi	2,845	*86.7*	382	*11.6*	42	*1.3*	8	*0.2*	3	*0.1*	3,280	*100.0*
Missouri	12,017	*77.4*	2,806	*18.1*	544	*3.5*	138	*0.9*	14	*0.1*	15,519	*100.0*
Montana	2,512	*82.5*	445	*14.6*	50	*1.6*	14	*0.5*	23	*0.8*	3,044	*100.0*
Nebraska	4,238	*87.6*	487	*10.1*	96	*2.0*	13	*0.3*	3	*0.1*	4,837	*100.0*
Nevada	3,094	*65.4*	1,209	*25.5*	293	*6.2*	91	*1.9*	47	*1.0*	4,734	*100.0*
New Hampshire	806	*35.0*	305	*13.3*	46	*2.0*	14	*0.6*	1,129	*49.1*	2,300	*100.0*
New Jersey	15,735	*55.3*	7,031	*24.7*	1,702	*6.0*	567	*2.0*	3,396	*11.9*	28,431	*100.0*
New Mexico	3,303	*69.5*	842	*17.7*	148	*3.1*	51	*1.1*	408	*8.6*	4,752	*100.0*
New York	91,907	*59.8*	36,174	*23.5*	11,607	*7.6*	4,909	*3.2*	9,106	*5.9*	153,703	*100.0*
(City)	(62,666)	*(59.2)*	(28,759)	*(27.2)*	(10,012)	*(9.5)*	(4,400)	*(4.2)*	(0)	*(0.0)*	(105,837)	*(100.0)*
(Upstate)	(29,241)	*(61.1)*	(7,415)	*(15.5)*	(1,595)	*(3.3)*	(509)	*(1.1)*	(9,106)	*(19.0)*	(47,866)	*(100.0)*
North Carolina	20,205	*74.1*	4,326	*15.9*	606	*2.2*	113	*0.4*	2,016	*7.4*	27,266	*100.0*
Oregon	9,577	*70.4*	2,973	*21.9*	690	*5.1*	178	*1.3*	187	*1.4*	13,605	*100.0*
Rhode Island	3,265	*72.6*	886	*19.7*	170	*3.8*	36	*0.8*	140	*3.1*	4,497	*100.0*
South Carolina	8,027	*80.5*	1,614	*16.2*	256	*2.6*	59	*0.6*	13	*0.1*	9,969	*100.0*
South Dakota	1,035	*74.1*	244	*17.5*	47	*3.4*	12	*0.9*	58	*4.2*	1,396	*100.0*
Tennessee	14,846	*78.6*	3,181	*16.8*	483	*2.6*	142	*0.8*	237	*1.3*	18,889	*100.0*
Utah	2,437	*77.9*	535	*17.1*	96	*3.1*	25	*0.8*	37	*1.2*	3,130	*100.0*
Vermont	2,000	*77.3*	435	*16.8*	80	*3.1*	20	*0.8*	53	*2.0*	2,588	*100.0*
Wyoming	547	*76.4*	147	*20.5*	8	*1.1*	9	*1.3*	5	*0.7*	716	*100.0*
Total	382,070	*66.9*	119,587	*20.9*	28,693	*5.0*	9,690	*1.7*	31,283	*5.5*	571,323	*100.0*

*All states with data available (31)

Table 14
Percentage of Reported Legal Abortions, by Weeks of
Gestation and Type of Procedure,* 1978

Weeks of Gestation	Type of Procedure: Intrauterine Saline Instillation	Intrauterine Prostaglandin Instillation	Hysterotomy/ Hysterectomy	Other	Total
≤ 8	*1.6*	*1.3*	*31.4*	*30.0*	*49.2*
	(0.1)	*(0.0)*	*(0.1)*	*(0.9)*	*(100.0)*
9–10	*2.1*	*1.6*	*17.2*	*10.2*	*28.1*
	(0.2)	*(0.1)*	*(0.1)*	*(0.6)*	*(100.0)*
11–12	*4.3*	*3.8*	*14.2*	*12.4*	*13.4*
	(0.9)	*(0.3)*	*(0.1)*	*(1.4)*	*(100.0)*
13–15	*15.0*	*16.9*	*13.1*	*9.3*	*4.4*
	(10.0)	*(4.3)*	*(0.3)*	*(3.3)*	*(100.0)*
16–20	*59.6*	*63.2*	*20.3*	*26.4*	*3.9*
	(45.6)	*(18.7)*	*(0.5)*	*(10.6)*	*(100.0)*
≥ 21	*17.4*	*13.2*	*3.8*	*11.7*	*1.0*
	(52.8)	*(15.4)*	*(0.4)*	*(18.6)*	*(100.0)*
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
	(2.9)	*(1.1)*	*(0.1)*	*(1.5)*	*(100.0)*

*Based on data from 32 states

Table 15
Percentage of Reported Legal Abortions, by Weeks of Gestation and Age Group,* 1978

Weeks of Gestation	Age Group							Total
	<15	15-19	20-24	25-29	30-34	35-39	≥ 40	
≤ 8	32.7	40.8	50.6	56.7	59.7	59.3	57.5	50.2
	(0.7)	(23.5)	(35.0)	(21.5)	(11.7)	(5.7)	(1.9)	(100.0)
9-10	26.0	29.7	27.8	26.0	25.1	24.5	23.8	27.5
	(1.0)	(31.2)	(35.1)	(18.0)	(9.0)	(4.3)	(1.5)	(100.0)
11-12	18.3	16.4	13.1	10.7	9.8	10.0	11.0	13.1
	(1.4)	(36.2)	(34.4)	(15.6)	(7.3)	(3.6)	(1.4)	(100.0)
13-15	8.7	6.1	4.2	3.4	2.8	3.1	3.6	4.4
	(2.0)	(39.6)	(32.9)	(14.6)	(6.3)	(3.3)	(1.4)	(100.0)
16-20	11.2	5.7	3.4	2.6	2.1	2.5	3.4	3.8
	(3.1)	(42.9)	(31.2)	(12.8)	(5.4)	(3.1)	(1.5)	(100.0)
≥ 21	3.2	1.4	0.9	0.6	0.5	0.7	0.8	1.0
	(3.5)	(42.8)	(32.0)	(12.0)	(5.1)	(3.4)	(1.4)	(100.0)
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(1.0)	(28.9)	(34.7)	(19.0)	(9.8)	(4.8)	(1.7)	(100.0)

*Based on data from 31 states

Table 16
Percentage of Reported Legal Abortions, by Weeks of Gestation and Race,* 1978

Weeks of Gestation	Race		Total
	White	Black & Other	
≤ 8	48.4	47.2	48.0
	(68.6)	(31.4)	(100.0)
9-10	28.4	27.4	28.1
	(68.8)	(31.2)	(100.0)
11-12	13.5	14.3	13.8
	(66.8)	(33.2)	(100.0)
13-15	4.7	5.2	4.9
	(65.9)	(34.1)	(100.0)
16-20	3.7	4.6	4.0
	(63.2)	(36.8)	(100.0)
≥ 21	1.1	1.2	1.1
	(66.8)	(33.2)	(100.0)
Total	100.0	100.0	100.0
	(68.0)	(32.0)	(100.0)

*Based on data from 26 states

Table 17
Percentage of Reported Legal Abortions,
by Age Group and Race,* 1978

Age Group	Race		Total
	White	Black & Other	
< 15	*0.7*	*1.7*	*1.0*
	(47.6)	*(52.4)*	*(100.0)*
15-19	*30.8*	*24.1*	*28.7*
	(73.3)	*(26.7)*	*(100.0)*
20-24	*34.8*	*34.3*	*34.6*
	(68.6)	*(31.4)*	*(100.0)*
25-29	*17.9*	*21.7*	*19.1*
	(64.0)	*(36.0)*	*(100.0)*
30-34	*9.3*	*11.1*	*9.9*
	(64.3)	*(35.7)*	*(100.0)*
35-39	*4.7*	*5.3*	*4.9*
	(65.4)	*(34.6)*	*(100.0)*
≥ 40	*1.7*	*1.7*	*1.7*
	(68.4)	*(31.6)*	*(100.0)*
Total	*100.0*	*100.0*	*100.0*
	(68.3)	*(31.7)*	*(100.0)*

*Based on data from 29 states

Table 18
Percentage of Reported Legal Abortions,
by Marital Status and Race,* 1978

Marital Status	Race		Total
	White	Black & Other	
Married	*26.7*	*26.6*	*26.6*
	(67.2)	*(32.8)*	*(100.0)*
Unmarried	*73.3*	*73.4*	*73.4*
	(67.1)	*(32.9)*	*(100.0)*
Total	*100.0*	*100.0*	*100.0*
	(67.1)	*(32.9)*	*(100.0)*

*Based on data from 29 states

Table 19
Death-to-Case Rate for Legal Abortions, by Year,
United States, 1972-1978

Year	Deaths[1]	Abortions	Rate[2]
1972	24	586,760	4.1
1973	25	615,831	4.1
1974	25	763,476	3.3
1975	29	854,853	3.4
1976	11	988,267	1.1
1977	15	1,079,430	1.4
1978	7	1,157,776	0.6

[1]Excludes deaths from ectopic pregnancy

[2]Deaths per 100,000 abortions

Table 20
Death-to-Case Rate for Legal Abortions,
by Weeks of Gestation, United States, 1972-1978

Weeks of Gestation	Deaths[1]	Abortions[2]	Rate[3]	Relative Risk[4]
≤ 8	13	2,749,725	0.5	1.0
9-10	24	1,705,478	1.4	2.8
11-12	20	883,932	2.3	4.6
13-15	20	300,186	6.7	13.4
16-20	47	338,488	13.9	27.8
≥ 21	12	68,584	17.5	35.0
Total	136	6,046,393	2.2	

[1]Excludes deaths from ectopic pregnancy
[2]Based on distribution of 4,292,615 abortions (71.0%) with weeks of gestation known
[3]Deaths per 100,000 abortions
[4]Based on index rate for ≤8 menstrual weeks' gestation of 0.5 per 100,000 abortions

Table 21
Death-to-Case Rate for Legal Abortions,
by Type of Procedure, United States, 1972-1978

Type of Procedure	Deaths[1]	Abortions[2]	Rate[3]	Relative Risk[4]
Instrumental evacuation	71	5,550,874	1.3	1.0
Intrauterine instillation	50	400,315	12.5	9.6
Hysterotomy/ Hysterectomy	9	21,810	41.3	31.8
Other[5]	6	73,394	8.2	6.3
Total	136	6,046,393	2.2	

[1]Excludes deaths from ectopic pregnancy
[2]Based on 4,334,991 abortions (71.7%) with type of procedure known
[3]Deaths per 100,000 abortions
[4]Based on index rate for instrumental evacuation of 1.3 per 100,000 abortions
[5]Includes 2 deaths with type of procedure unknown

Table 22
Legal Abortion Deaths* by Type of Procedure
and Weeks of Gestation, United States, 1972-1978

Type of Procedure	Weeks of Gestation ≤ 8	9-10	11-12	13-15	16-20	≥ 21	Total
Curettage	12	22	19				53
Dilatation and evacuation				10	7	1	18
Instillation				5	36	9	50
(Saline)				(1)	(31)	(6)	(38)
(Prostaglandin)				(3)	(5)	(1)	(9)
(Other agents)				(1)	(0)	(2)	(3)
Hysterotomy/ Hysterectomy	0	2	1	3	2	1	9
Other[1]	1	0	0	2	2	1	6
Total	13	24	20	20	47	12	136

[1]Includes 2 deaths with unknown type of procedure, 1 at 13-15 weeks and 1 at 16-20 weeks of gestation

*Excludes deaths from ectopic pregnancy

Table 23
Death-to-Case Rate* for Legal Abortions,
by Type of Procedure and Weeks of Gestation
United States, 1972-1978

Type of Procedure	Weeks of Gestation ≤ 8	9-10	11-12	13-15	16-20	≥ 21	Total
Curettage	0.4	1.3	2.3				1.0
Dilatation and evacuation				5.6	14.1	13.5	7.7
Instillation	0.0	0.0	0.0	8.2	14.2	19.5	12.3
(Saline)	(0.0)	(0.0)	(0.0)	(2.2)	(17.6)	(17.1)	(13.9)
(Prostaglandin and other agents[1])	(0.0)	(0.0)	(0.0)	(24.8)	6.4)	(26.7)	(9.0)
Hysterotomy/ Hysterectomy	0.0	55.5	37.2	68.3	45.2	147.3	42.8
Total[2]	0.4	1.4	2.4	8.2	15.2	22.1	2.2

[1]Denominators for rates include abortions reported as type of procedure "other" (1% of all abortions with procedure known)
[2]Includes deaths with type of procedure "other" (4) and unknown (2)

*Deaths per 100,000 abortions; based on distributions of abortions with type of procedure and weeks of gestation known

Table 24
Proportion of Abortion Deaths to Which Selected Behavioral Risk Factors Contributed, by Abortion Category and Factor, United States, 1975-1977

Abortion Category	Behavioral Risk Factor	Number of Deaths	Proportion[1]	
			%	95 % Confidence Interval
Legal (n=55)				
	Delay in obtaining legal abortion until ≥13 weeks' gestation	26	47	33.6-61.2
	Incomplete emptying of uterus by physician	9	16	7.8-28.8
	Perforation of uterus	9	16	7.8-28.8
	Failure to refer patient to another physician when appropriate	6	11	4.1-22.2
	Use of instillation procedure instead of dilatation and extraction for abortions requested at ≤ 16 weeks' gestation	6	11	4.1-22.2
Illegal (n=10)				
	Inappropriate choice of antibiotics for septic abortion	5	50	18.7-81.3
	Patient delay in consulting a physician for obvious complication or illness	4	40	12.2-73.8
	Delay in emptying uterus after diagnosis of septic abortion	4	40	12.2-73.8
	Community failure to adequately subsidize legal abortions for poor women	2	20	2.5-55.6
	Patient refusal to admit to physician that she had illegal abortion	2	20	2.5-55.6
Spontaneous (n=41)				
	Patient delay in consulting a physician for obvious complication or illness	9	22	10.6-37.6
	Inappropriate choice of antibiotics for septic abortion	8	20	8.8-34.8
	Physician delay in diagnosing possible septic abortion	6	15	5.6-29.2
	Delay in emptying uterus after diagnosis of incomplete abortion	4	10	2.7-23.1
	Perforation of uterus	4	10	2.7-23.1
	Patient obesity	4	10	2.7-23.1

[1]The total in each category is greater than 100% because most deaths involved more than 1 factor.

Table 25
Grounds for Legal Abortion*, by Nation, 1978

Nation	Specified Grounds				
	Medical (Broad)	Eugenic (Fetal)	Juridical (Rape, Incest, etc.)	Social and Social-Medical	On Request
Bulgaria	X	X	X	X	-
Canada	X	-	-	-	-
Cuba	-	-	-	-	X
Czechoslovakia	X	X	X	X	-
Denmark	-	-	-	-	X
England and Wales	X	X	-	X	-
Finland	X	X	X	X	-
German Democratic Republic	-	-	-	-	X
Hong Kong	X	-	-	-	-
Hungary	X	X	X	X	-
Iceland	X	X	X	X	-
Netherlands	X	-	-	-	-
Norway	-	-	-	-	X
Scotland	X	X	-	X	-
Singapore	-	-	-	-	X
Sweden	-	-	-	-	X
Tunisia	-	-	-	-	X
United States	-	-	-	-	X

*For nations where abortion is legal
Source: Data prepared by Christopher Tietze for publication in the Population Council Fact Book, Induced Abortion: 1981.

Table 26
Number of Legal Abortions, Abortion Rates[1], and Abortion Ratios[2], by Selected Nations and Years

Nation	Year	Number of Abortions	Abortion Rate	Abortion Ratio
Bulgaria	1977	122,900	65.6	884
	1978	127,800	68.3	-
Cuba	1977	114,800	55.9	724
	1978	110,400	52.1	-
Hungary	1977	89,100	39.2	516
	1978	83,500	37.0	512
Singapore	1977	16,400	28.3	428
	1978	17,200	28.9	428
Czechoslovakia	1977	89,000	27.9	318
	1978	92,500	28.9	-
United States	1977	1,079,430	22.2	324
	1978	1,157,776	23.1	347
Denmark	1977	25,700	24.4	413
	1978	23,700	22.3	-
German Democratic Republic	1976	81,900	23.3	392
	1977	78,000	22.0	-
Sweden	1977	31,500	19.3	333
	1978	31,900	19.4	363
Norway	1977	15,500	19.6	305
	1978	14,800	18.4	284
Tunisia	1977	21,200	17.2	103
	1978	21,000	16.5	-
Finland	1977	17,800	16.7	277
	1978	16,900	15.8	261
England and Wales	1977	102,700	10.6	179
	1978	111,900	11.4	179
Canada	1977	57,600	10.6	160
	1978	62,300	11.3	-
Iceland	1976-78 (3 Yr. Interval)	420	8.6	-
Scotland	1976	7,200	6.9	116
	1977	7,300	6.9	-
Netherlands	1977	16,100	5.4	92
	1978	15,000	4.9	-
Hong Kong	1976	2,200	2.3	27

[1]Abortion rate = number of abortions per 1,000 women aged 15-44
[2]Abortion ratio = number of abortions per 1,000 live births

Source: For the United States, CDC Abortion Surveillance 1978; for all other statistics, data prepared by Christopher Tietze for publication in the Population Council Fact Book, Induced Abortion: 1981.

Table 27
Percentage Distribution of Legal Abortions, by Woman's Age, Selected Nations and Years

Nation	Year	Age of Woman ≤19	20-24	25-29	30-34	35-39	≥40
Canada	1977	30.8	30.3	19.4	11.2	5.8	2.5
	1978	30.4	31.0	19.2	11.3	5.7	2.4
Czechoslovakia	1977	5.7	22.2	29.6	23.7	13.7	5.1
	1978	5.6	22.4	29.2	24.6	13.6	4.6
Denmark	1977	18.0	21.6	20.6	20.9	13.0	5.9
	1978	18.9	22.2	19.6	20.1	13.0	6.2
England and Wales	1977	27.9	23.8	18.1	15.0	10.1	5.1
	1978	27.0	24.2	18.0	15.7	10.2	4.9
Finland	1977	20.8	24.7	19.2	14.8	11.3	9.2
	1978	22.0	24.6	18.7	15.1	10.2	9.2
German Democratic Republic	1976	13.5	20.5	19.2	19.4	19.9	7.5
Hungary	1977	10.7	23.3	22.2	19.3	16.5	8.0
	1978	10.8	21.9	22.9	20.0	16.6	7.8
Iceland	1976-78	20.1	23.7	16.8	16.6	12.1	10.7
Norway	1977	24.6	24.1	18.1	16.1	10.8	6.3
	1978	25.7	23.8	17.9	16.2	10.2	6.2
Scotland	1976	29.6	23.3	16.8	12.8	11.3	6.2
	1977	29.1	24.7	16.9	13.3	10.0	6.0
Singapore	1977	8.1	27.6	27.5	17.9	11.9	7.0
	1978	8.3	28.4	28.0	17.9	11.0	6.4
Sweden	1977	21.6	22.5	20.8	18.0	11.1	6.0
	1978	19.6	21.9	19.8	19.6	12.8	6.3
Tunisia	1977	1.8	16.6	25.0	25.1	21.0	10.5
	1978	2.5	16.5	25.2	25.3	20.0	10.5
United States	1977	30.8	34.5	18.7	9.5	4.7	1.8
	1978	30.0	35.0	18.7	9.6	4.7	1.6

Source: For the United States, CDC Abortion Surveillance 1978; for all other statistics, data prepared by Christopher Tietze for publication in the Population Council Fact Book, Induced Abortion: 1981.

Table 28
Percentage Distribution of Legal Abortions, by Marital Status[1], Selected Nations and Years

Nation	Year	Currently Married	Previously Married		Never Married
Canada[2]	1978	28.4	10.2		61.4
Czechoslovakia[3]	1978	80.1	7.3		12.6
Denmark[3]	1978	45.4	10.0		44.6
England and Wales[2]	1978	37.9	11.4		50.7
Finland[3]	1978	35.5	11.5		53.0
Hungary[3]	1978	70.2	7.7		22.1
Iceland	1976-78	43.7	11.5		44.8
Norway	1978	43.8	8.0		48.2
Scotland[2]	1977	39.5	12.2		48.3
Singapore	1978	77.4	1.1		21.5
United States[2]	1978	26.4		73.6	

[1]Women of unknown marital status distributed pro rata
[2]"Separated" included with previously married
[3]"Separated" included with currently married

Source: For the United States, CDC Abortion Surveillance 1978; for all other statistics, data prepared by Christopher Tietze for publication in the Population Council Fact Book, Induced Abortion: 1981.

Table 29
Percentage Distribution of Legal Abortions, by Parity[1], Selected Nations and Years

Nation	Year	Parity 0	1	2	3	4	5 or more
Canada[2]	1978	61.2	16.1	14.2	5.6	1.9	1.0
Czechoslovakia[3]	1978	11.6	15.8	46.1	19.5	4.5	2.5
Denmark[2]	1978	37.3	17.3	26.7	13.2	3.8	1.7
England and Wales[4]	1978	52.1	13.0	19.1	9.9	3.8	2.1
Finland[2]	1978	49.1	17.2	19.5	9.0	3.5	1.7
Hungary[4]	1978	21.9	21.1	37.4	13.0	3.7	2.9
Scotland[4]	1977	47.6	13.1	19.4	11.6	5.2	3.1
Singapore[3]	1978	29.8	18.6	26.1	12.0	6.1	7.4
Sweden[2]	1978	40.7	18.3	25.2	11.4	3.1	1.3
Tunisia[3]	1978	7.1	10.4	15.2	14.7	16.9	35.7
United States	1978	56.6	19.2	14.1	5.9	4.2	

[1]Women of unknown parity distributed pro rata
[2]Prior deliveries
[3]Surviving children
[4]Prior live births

Source: For the United States, CDC Abortion Surveillance 1978; for all other statistics, data prepared by Christopher Tietze for publication in the Population Council Fact Book, Induced Abortion: 1981.

Table 30
Percentage Distribution of Legal Abortions, by Weeks of Gestation, Selected Nations and Years

Nation	Year	Weeks of Gestation ≤8	9-12	13-16	≥17
Canada	1978	24.7	59.9	11.1	4.3
Czechoslovakia	1978	56.6	42.9	0.4	0.1
England and Wales	1978	24.7	58.4	13.1	3.8
Finland	1974	29.5	59.3	9.9	1.3
Hungary	1978	68.9	30.2	0.6	0.3
Iceland	1976-78	53.3	43.8	2.1	0.8
Norway	1979	40.3	56.6	2.9	0.6
Scotland	1976	82.2		17.8	
Sweden	1977	40.7	53.3	4.3	1.7
United States	1978	52.2	39.2	4.9	3.7

Source: For the United States, CDC Abortion Surveillance 1978; for all other statistics, data prepared by Christopher Tietze for publication in the Population Council Fact Book, Induced Abortion: 1981.

Table 31
Abortion and Maternal Deaths Reported to the United Nations[1]
by Selected Nations and Years

Region	Nation	Year of Deaths	Deaths		Percent Abortion-Related Deaths[2]
			Abortion	Maternal (Excluding Abortions)	
Europe	Romania	1974	385	132	74
	France*	1975	16	118	12
	Italy*	1975	18	196	8
	Yugoslavia	1975	31	82	27
	Germany (F.R.)	1976	28	191	13
	England & Wales*	1975	8	69	10
	Spain*	1975	12	133	8
	Germany (D.R.)*	1975	2	37	5
	Czechoslovakia*	1975	2	53	4
	Subtotal		502	1,011	33
North America	U.S.A.	1976	16	374	4
	Canada*	1975	3	24	11
	Subtotal		19	398	5
Africa	Egypt	1975	36	934	4
	Kenya	1970	29	346	8
	South Africa	1971	29	96	23
	Mauritius	1977	23	15	61
	Subtotal		117	1,391	8
Asia	India	1973	214	1,129	16
	Philippines	1974	131	1,486	8
	Japan*	1975	21	525	4
	Thailand*	1975	140	784	15
	Subtotal		506	3,924	11
Latin America	Colombia*	1975	207	820	20
	Argentina	1977	162	155	51
	Mexico	1975	159	2,399	6
	Chile	1976	105	148	42
	Venezuela	1977	60	289	17
	Peru	1972	47	886	5
	Ecuador	1975	42	471	8
	Guatemala	1972	32	330	9
	Cuba	1971	29	152	16
	Paraguay	1977	26	123	17
	Subtotal		869	5,773	13
Total			2,013	12,497	14

[1]Source: United Nations Demographic Yearbook 1978, New York, 1979
[2]Percent abortion deaths per all pregnancy-related causes of death (abortion and maternal deaths)
*Updated from personal communication: C. Tietze; from special tabulations WHO file

Fig. 1 SOURCES OF REPORTED LEGAL ABORTION DATA, 1978

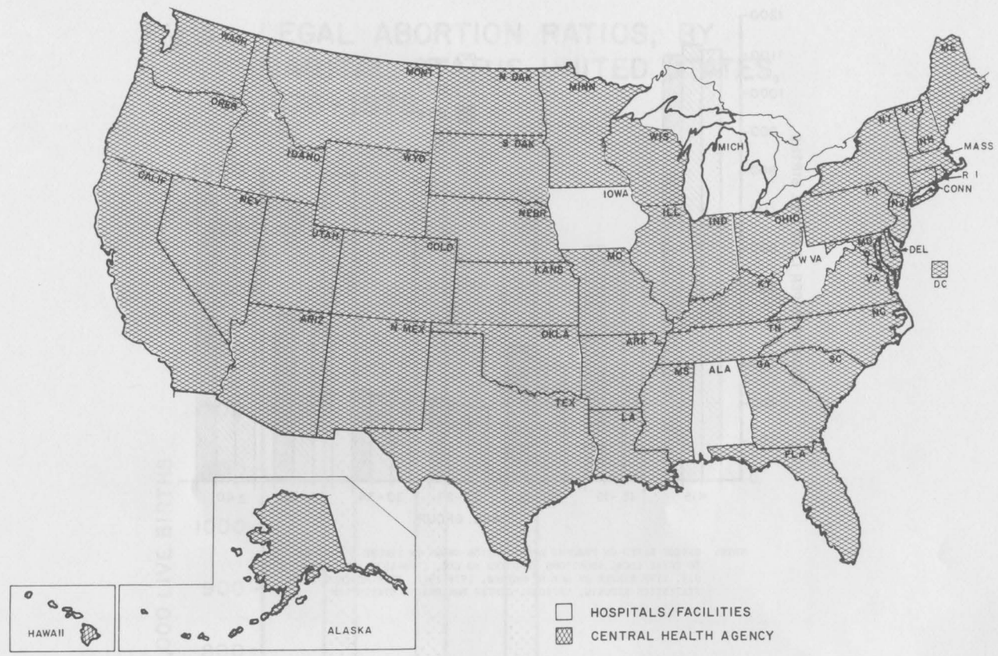
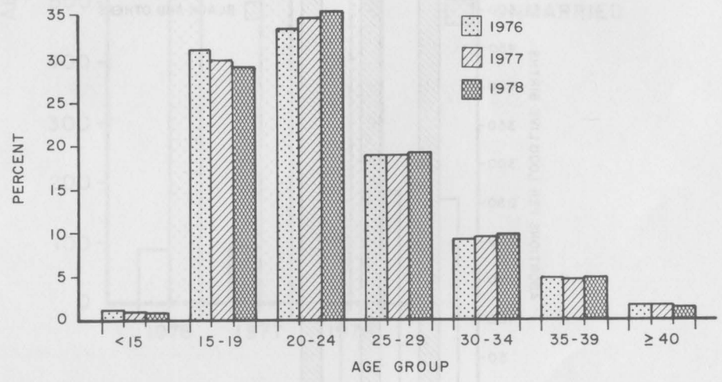


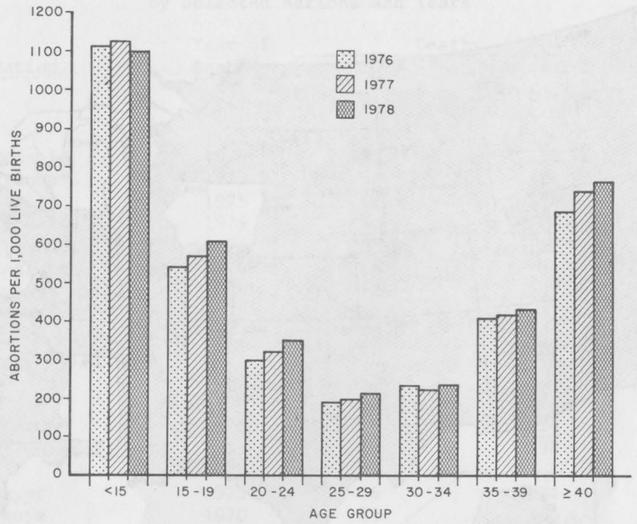
Fig. 2 PERCENT DISTRIBUTION[a] OF REPORTED LEGAL ABORTIONS, BY AGE, SELECTED STATES,[b] 1976-1978



[a]BASED ON TOTAL NUMBER WITH AGE KNOWN

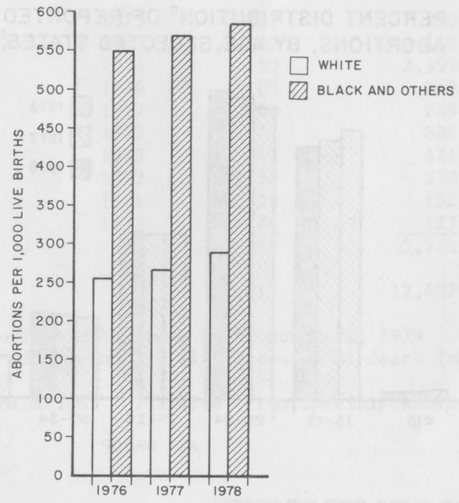
[b]ALL STATES WITH DATA AVAILABLE FOR 1976 (36 STATES), 1977 (37 STATES), AND 1978 (38 STATES)

Fig. 3 LEGAL ABORTION RATIOS, BY AGE, UNITED STATES, 1976-1978



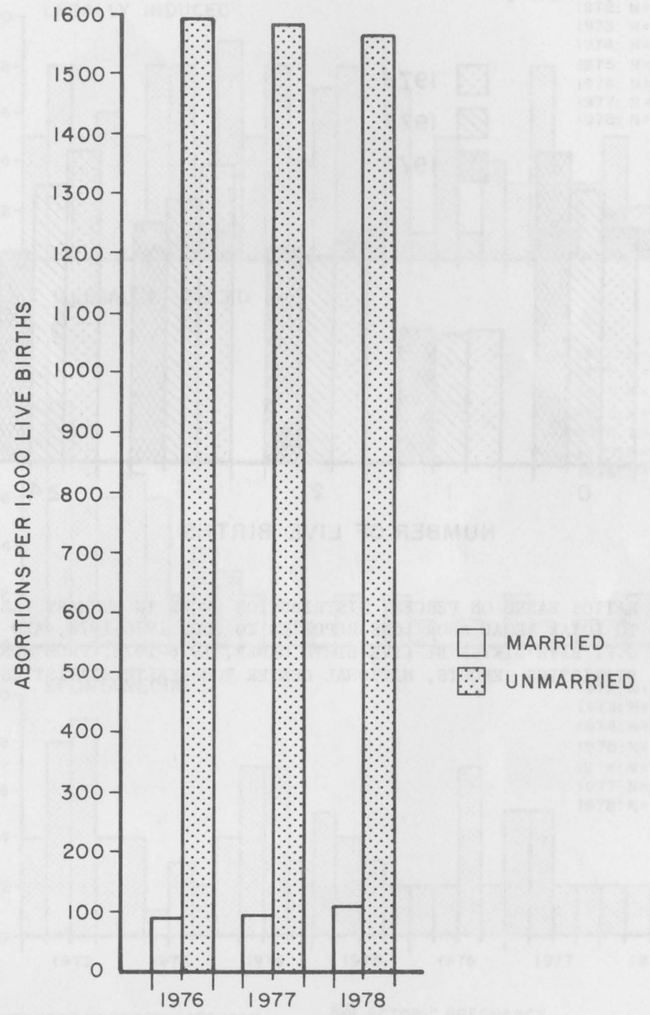
NOTE: RATIOS BASED ON PERCENT DISTRIBUTION SHOWN IN FIGURE 2 APPLIED TO TOTAL LEGAL ABORTIONS REPORTED TO CDC, 1976-1978, AND TOTAL U.S. LIVE BIRTHS BY AGE OF MOTHER, 1976-1978, FROM MONTHLY VITAL STATISTICS REPORTS, NATIONAL CENTER FOR HEALTH STATISTICS

Fig. 4 LEGAL ABORTION RATIOS, BY RACE, UNITED STATES, 1976-1978



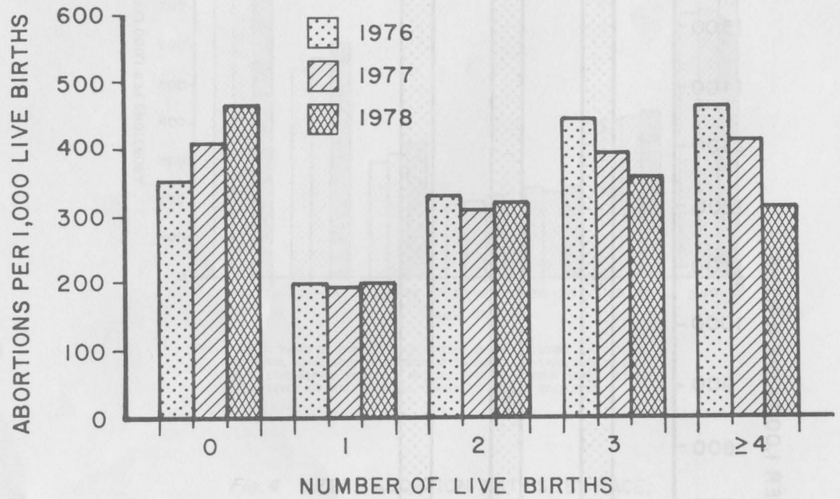
NOTE: RATIOS BASED ON PERCENT DISTRIBUTION SHOWN IN SUMMARY TABLE APPLIED TO TOTAL LEGAL ABORTIONS REPORTED TO CDC, 1976-1978, AND TOTAL U.S. LIVE BIRTHS BY RACE, 1976-1978, FROM MONTHLY VITAL STATISTICS REPORTS, NATIONAL CENTER FOR HEALTH STATISTICS

Fig. 5 LEGAL ABORTION RATIOS, BY MARITAL STATUS, UNITED STATES, 1976-1978



NOTE: RATIOS BASED ON PERCENT DISTRIBUTION SHOWN IN SUMMARY TABLE APPLIED TO TOTAL LEGAL ABORTIONS REPORTED TO CDC, 1976-1978, AND TOTAL U.S. LIVE BIRTHS BY LEGITIMACY, 1976-1978, FROM MONTHLY VITAL STATISTICS REPORTS, NATIONAL CENTER FOR HEALTH STATISTICS

Fig. 6 LEGAL ABORTION RATIOS, BY NUMBER OF LIVE BIRTHS, UNITED STATES, 1976-1978



NOTE: RATIOS BASED ON PERCENT DISTRIBUTION SHOWN IN SUMMARY TABLE APPLIED TO TOTAL LEGAL ABORTIONS REPORTED TO CDC, 1976-1978, AND TOTAL U.S. LIVE BIRTHS BY LIVE BIRTH ORDER, 1976-1978, FROM MONTHLY VITAL STATISTICS REPORTS, NATIONAL CENTER FOR HEALTH STATISTICS

Fig. 7 ABORTION-RELATED DEATHS, BY CATEGORY* AND QUARTER, UNITED STATES, 1972-1978

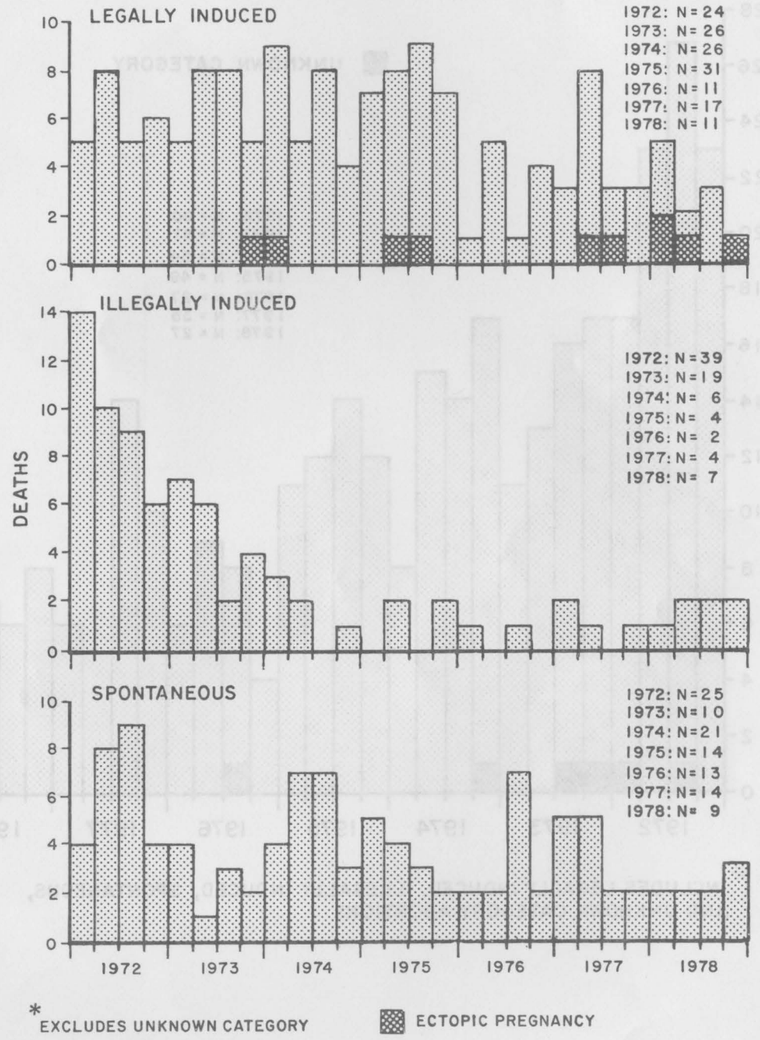
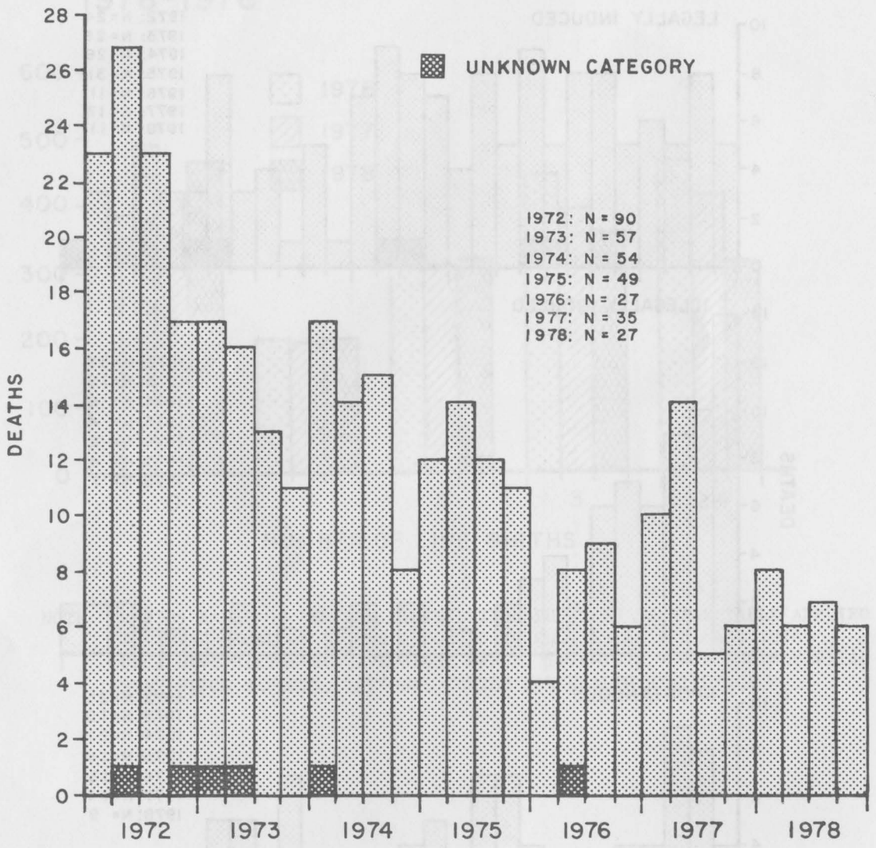


Fig. 8 ABORTION-RELATED DEATHS,* BY QUARTER, UNITED STATES, 1972–1978



* INCLUDES LEGALLY INDUCED, ILLEGALLY INDUCED, SPONTANEOUS, AND UNKNOWN CATEGORY ABORTIONS

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