
Life Without ROE

Making
Predictions
About Illegal
Abortions

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Table of Contents

THE CONTROVERSY	1
The Usual Estimates	1
THE NUMBER OF ILLEGAL ABORTIONS	2
The Source of the One Million Figure	2
A Realistic Estimate	4
THE NUMBER OF MATERNAL DEATHS FROM ILLEGAL ABORTIONS	10
The Official Statistics: Improvement in Medicine, Not Legalization, Accounts For Decline	10
The Source of the 5,000 to 10,000 Figure	13
Did a Significant Number of Maternal Deaths From Illegal Abortion Go Unreported?	15
Comparing Death Rates Before and After Legalization	17
Examining Statistics For Plausible Hidden Deaths	17
PROSPECTS IF PROTECTIVE LEGISLATION IS ENACTED IN THE 1990s	22
CONCLUSION	24
APPENDIX: THE FACTS IN THE DEATH OF BECKY BELL	25
ENDNOTES	28

List of Tables and Charts

Table 1.	Estimated Number of Illegal Abortions, 1940-1977	6
Chart 1.	Estimated Number of Illegal Abortions, 1940-1977	8
Table 2.	Maternal Abortion Deaths, 1940-1985	11
Chart 2.	Maternal Abortion Deaths, 1940-1985	12
Table 3.	Non-Abortion-Related Deaths, Ages 15-24, 25-34, 35-44, 1968-1977	16
Chart 3.	Non-Abortion-Related Deaths, Ages 15-24, 25-34, 35-44, 1968-1977	18

THE CONTROVERSY

Supporters of legalized abortion frequently claim that women are going to have abortions whether they are legal or illegal and that it is better that women have access to safe, legal abortions than that they resort to unsafe, illegal ones. This argument depends on two basic claims: 1) that laws intended to protect unborn children will have no real effect on the number of abortions and 2) that making abortion illegal will result in thousands of women's deaths. These assertions, in turn, are largely based on the claim that in the years before it was legalized, abortion was both prevalent and dangerous.

Advocates of legalized abortion often state that one million or more abortions occurred annually in the years prior to the legalization of abortion on demand, resulting in 5,000 to 10,000 maternal deaths. These figures are cited by abortion advocates time and time again. In a recent brief before the Supreme Court, abortion advocates asserted that "as a result of these back-alley and self-induced abortions, as many as 5,000 to 10,000 women died each year."¹ Similar figures are often uncritically cited by the media. For example, an article by Suzanne Gordon of the *Washington Post* states that "more than 1.2 million women are estimated to have had illegal abortions each year before *Roe v. Wade*, and approximately 5,000 died annually as a result."²

THE NUMBER OF ILLEGAL ABORTIONS

As abortion was an illegal procedure, no official record of the number of illegal abortions exists. In fact, those on both sides of the abortion issue would agree that it is not possible to determine the exact number of illegal abortions which occurred in the years prior to its nationwide legalization by *Roe v. Wade* in 1973. However, it is possible to demonstrate the lack of justification for the exaggerated claims of abortion advocates. And it is possible to determine a reasonable estimate of the number of illegal abortions which were performed each year prior to 1973, based upon data reported by the National Center for Health Statistics.

In 1973, the first year in which, as a result of the January 22nd Supreme Court decision, abortions were legal throughout the country, there were 780,824 abortions, according to data from the federal government's Centers for Disease Control. The number of abortions did not reach 1 million annually until 1977 -four years after the legalization of abortion on demand.³ If the 1,000,000 estimate for pre-*Roe* illegal abortions were correct, then women would have had to have had almost 30% more abortions when abortion was illegal than when it was legal. That is patently absurd.

Indeed, despite the widespread use of the 1,000,000 estimate, key abortion advocates have acknowledged a lack of data supporting such a figure. A special expert committee at a 1955 Planned Parenthood conference on abortion in the United States concluded that "a plausible estimate of the frequency of induced abortion in the United States could be as low as 200,000 and as high as 1.2 million.... There is no objective basis for the selection of a particular figure between these two estimates."⁴ In 1975, a factbook on abortion published by the Population Council admitted that "no reliable method has yet been developed to estimate the number of illegal abortions."⁵

Where does the 1,000,000 estimate come from? It was put forth in a 1964 work by Jerome Bates and Edward Zawadzki.⁶ They relied on no original research, but simply projected onto contemporary population figures statistics from a 1936 book by Dr. Frederick Taussig.⁷

Taussig's study estimated 681,600 abortions an-

If the 1,000,000 estimate for pre-Roe illegal abortions were correct, then women would have had to have had almost 30 percent more abortions when abortion was illegal than when it was legal.

nually in the United States.⁸ Taussig's own conclusions were based on extrapolations from previous studies. The first study was prior to 1910 and included 600 patients whose histories Taussig had obtained. Another used 250 of another physician's patients. Recognizing the small size of these series, however, Taussig relied most heavily on an analysis of 10,000 case histories from the Margaret Sanger Birth Control Clinic in New York City, reported by M.E. Kopp in *Birth Control in Practice*, published in 1934. From this study, Taussig determined the ratio of one abortion for every 2.5 pregnancies. He projected this ratio on the contemporary urban population. For rural abortions, he used the results of questionnaires sent to Iowa physicians by Dr. E.D. Plass. These doctors were asked to give their own estimates (not documented experience) for the ratio of abortions to pregnancies. Taussig projected the average of their responses—1 abortion for every 5 pregnancies—on the rural population.

These figures for abortions were not limited to illegal abortions, but included miscarriages (25-30%) and "therapeutic" (legal) abortions (10-15%).⁹ Bates and Zawadzki took no account of this, however, in their 1964 work. Instead, "simply adjusting for the intervening population increase, [they] apparently projected Taussig's total figure of 681,600 abortions annually, which was intended to include 35 - 40[45]% non-criminal abortions, into 'about one million' criminal abortions."¹⁰ Thus, even if one were to accept both 1) the validity of Taussig's estimate as of 1934 and 2) the obviously problematic assumption that data of the 1920s and 1930s accurately described the situation three to four decades later in the 1960s, there would still be no basis for Bates and Zawadzki projecting more than about 550,000 to 650,000 —instead of 1,000,000 — as a figure for annual illegal abortions.

But there are significant grounds for questioning the reasonableness of Taussig's estimate even as of 1936. At a 1942 conference on the *Abortion Problem*, the Chief Statistician for Vital Statistics of the U.S. Census Bureau, Halbert Dunn, criticized its accuracy, emphasizing particularly that the New York study of Sanger Birth Control Clinic patients was not representative of urban women in general.¹¹

Since at the time birth control was illegal in most places in the United States, it does not seem scientifically

accurate to base one's projections for the rate of illegal abortions for the entire urban population of the United States on women who were clients of a birth control clinic. Furthermore, given varying cultural and socioeconomic circumstances, New York City could hardly be described as typical of all urban areas in the early 1930s. Nor can Plass' figures be relied on for the rural population. Recall that they were simply based on an average of the "guesstimates" of Iowa doctors, not on any case records at all.

Indeed, a comprehensive 1954 mortality study by a prominent and often-cited abortion advocate, biostatistician Dr. Christopher Tietze, concluded that the available data — which included the Taussig figures that were later uncritically and inaccurately projected by Bates and Zawadzki to obtain the "standard" one million figure — could provide no reasonable estimate of the number of illegal abortions.¹² In 1970, Tietze's position had undergone little change. He wrote, "In 1957 [*sic*; 1955], a committee of the Arden House Conference on Abortion reported that 'a plausible estimate of the frequency of induced abortion in the United States could be as low as 200,000 and as high as 1,200,000 per year.' The group saw 'no objective basis for the selection of a particular figure between those two estimates as an approximation of the actual frequency.' Over the past decade no new data have become available on which to base a more reliable estimate, let alone to assess a possible trend. Nevertheless, constant repetition has led to the wide acceptance of a round figure of one million induced abortions per year...."¹³

It should be obvious that one cannot rely on these highly flawed statistics from the 1920s and 1930s as a basis for projecting the number of illegal abortions which would occur in the 1990s were legislation protecting unborn children from abortion to be enacted.

Recognizing the expert consensus that previous estimates were lacking in validity, a team of researchers (Barbara Syska, Dr. Thomas Hilgers and Dennis O'Hare) in 1981 created a more reliable model for estimating the number of illegal abortions occurring yearly before 1973. The team developed a mathematical model based on government statistics and estimated that, in the 32 years

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preceding *Roe*, the mean number of illegal abortions was approximately 98,000 annually, with a high of about 210,000 in 1961.¹⁴

What was the basis for this model? The team noted that one can determine the maternal mortality rate of pregnancy (how many deaths occur per cases of pregnancy) for each year since 1940, and that one can determine a range of credible estimates for the extent to which illegal abortion is riskier than natural pregnancy.¹⁵ (Researchers agree that the maternal mortality rate due to illegal abortion is higher than that of natural pregnancy.¹⁶) By incorporating the known data about the maternal mortality rate from illegal abortion,¹⁷ and good estimates of the number of pregnancies each year (which can be derived from the reported numbers of live births), an equation can be constructed yielding an estimate of the number of illegal abortions in each year. The nature of this equation will be explained more clearly below.

The relative risk of abortion to natural pregnancy was developed from existing data. The National Opinion Research Center had conducted a survey of the reproductive behavior of 889 mostly non-white women in New York City from 1965 to 1967. This survey, which was published in *Family Planning Perspectives*, a Planned Parenthood publication, determined that 8.3% of the women attempted an abortion and that 3.5% successfully aborted.¹⁸ By using data on the number of live births, maternal abortion deaths, and maternal deaths from pregnancy, properly adjusted for the nonwhite population of New York City in those years, a range of death-to-case rates for natural pregnancy and for illegal abortion could be calculated and compared. The data suggested that in a high risk population illegal abortion was between 5 and 10 times more dangerous than pregnancy.¹⁹

Given the maternal mortality rate for pregnancy, this ratio allows the creation of a range of reasonable approximations for the mortality rate for illegal abortions, which in turn can be expressed as the ratio of maternal deaths due to illegal abortions to the number of illegal abortions.²⁰

Since the rate of maternal mortality due to illegal abortions is equivalent to the safety of pregnancy times a particular risk factor, one can use simple algebraic manipulation to obtain the unknown in this formula - the

By incorporating data about the maternal mortality rate from illegal abortion, and good estimates of the number of pregnancies each year, an equation can be constructed yielding an estimate of the number of illegal abortions in each year.

Table 1

Estimated Number of Illegal Abortions, 1940 - 1977

Estimated Number of Illegal Abortions if Illegal Abortions Were

<u>Year</u>	<u>Five Times More Dangerous*</u>	<u>Ten Times More Dangerous*</u>
1940	99,886	49,943
1941	96,085	48,043
1942	104,282	52,141
1943	103,292	51,646
1944	91,940	45,970
1945	92,781	46,390
1946	101,628	50,814
1947	90,675	45,337
1948	89,093	44,546
1949	88,296	44,148
1950	77,971	38,986
1951	79,859	39,929
1952	98,419	49,210
1953	100,877	50,439
1954	115,844	57,922
1955	122,674	61,337
1956	114,851	57,426
1957	140,268	70,134
1958	159,259	79,630
1959	178,030	89,015
1960	186,100	93,050
1961	214,229	107,115
1962	209,958	104,979
1963	187,952	93,976
1964	177,682	88,841
1965	180,734	90,367
1966	155,122	77,561
1967	135,000	67,500
1968	111,236	55,618
1969	145,570	72,785
1970	143,421	71,710
1971	111,111	55,555
1972	68,085	34,042
1973	42,373	21,186
1974	24,138	12,069
1975	28,000	14,000
1976	20,000	10,000
1977	22,222	11,111

* than pregnancy

Source: Data from Table 3 from Barbara J. Syska, Thomas W. Hilgers, M.D., and Dennis O'Hare, "An Objective Model for Estimating Criminal Abortions and Its Implications for Public Policy," in Thomas W. Hilgers, M.D., Dennis J. Horan, and David Mall, eds., *New Perspectives on Human Abortion* (Frederick, Maryland: University Publications of America, 1981), pp. 164 - 169.

number of illegal abortions.

Take the following abbreviations:

IAD = the estimated number of maternal deaths due to illegal abortion in a given year.

IA = the estimated number of illegal abortions in a given year.

AMDR = the adjusted maternal death rate for the year under evaluation, expressed as the number of maternal deaths (excluding deaths due to legal or illegal abortion) per 100,000 cases of pregnancy (excluding pregnancies ending in legal or illegal abortion).

RF = the risk factor. The number of times more dangerous illegal abortion is in comparison to natural pregnancy.

The formula may then be derived:

$$\text{IAD} / \text{IA} = \text{AMDR} (\text{RF})$$

$$\text{IAD} / \text{AMDR} (\text{RF}) = \text{IA}$$

It is then a matter of straightforward arithmetic to derive estimates for the number of illegal abortions occurring each year, varying with the figure used to estimate the number of times illegal abortion is more dangerous than pregnancy.²¹ It is important to note that the higher the multiple used to express the comparatively greater danger of illegal abortions, the lower will be the estimate of the number of illegal abortions. In other words, the greater the actual danger of illegal abortions to the mother, the lower will be the number of illegal abortions. Conversely, in order to get a larger number of illegal abortions, one must assume that illegal abortions are safer for the mother than estimated.

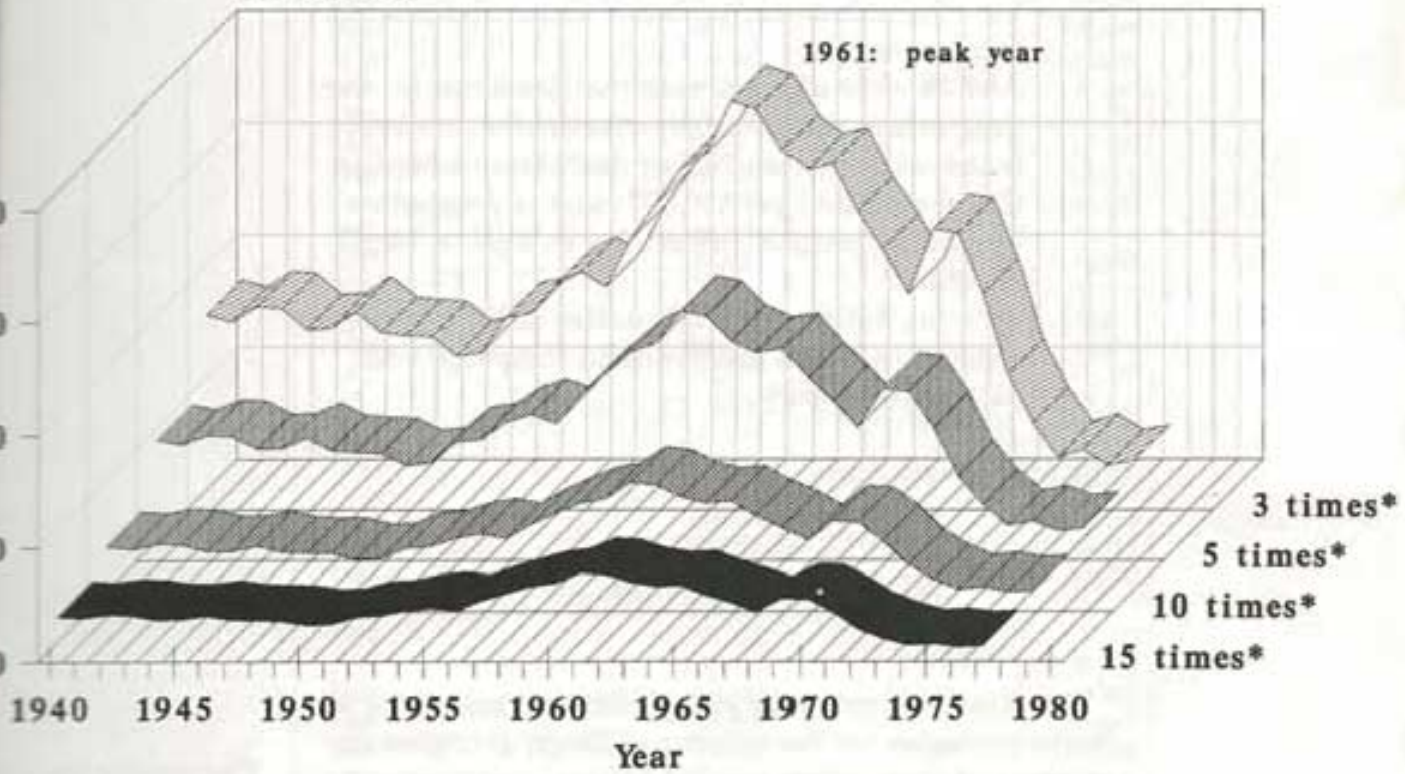
Syska, Hilgers and O'Hare provided the resulting estimates for each year since 1940 under the varying assumptions that illegal abortions were 3, 5, 10, or 15 times as dangerous as pregnancy,²² although on the basis of the New York study, they concluded that an assumption of illegal abortion being 5 to 10 times as dangerous is most reasonable.

Based on these assumptions, the largest reasonably possible number of illegal abortions in any one year

The greater the actual danger of illegal abortions to the mother, the lower will be the number of illegal abortions. Conversely, in order to get a larger number of illegal abortions, one must assume that illegal abortions are safer for the mother than estimated.

Estimated Number of Illegal Abortions, 1940-1977

Thousands



*more dangerous
than natural pregnancy

The two middle lines reflect the most likely range of estimates, based on New York City data on the comparative risk of illegal abortion and natural pregnancy.

Source: Based on Figure 1 from Barbara J. Syska, Thomas W. Hilgers, M.D., and Dennis O'Hare, "An Objective Model for Estimating Criminal Abortions and Its Implications for Public Policy," in Thomas W. Hilgers, M.D., Dennis J. Horan, and David Mall, eds., *New Perspectives on Human Abortion* (Frederick, Maryland: University Publications of America, 1981), pp. 164, 171. Data for chart is taken from Table 3, p. 169.

before legalization was approximately 210,000 in 1961; the lowest was about 39,000 in 1950. The mean was 98,000.²³

In the figures derived from this model, illegal abortions rose in the period 1954-1961 and then began a steady decline. This rise and fall in the number of illegal abortions paralleled the rise and decline of live births in the United States over the same period of time and the national fertility rates for the same years.²⁴

These data demonstrate that there has been an exponential increase in the total number of abortions occurring yearly since the legalization of abortion.²⁵ There are today approximately 1.6 million abortions annually—roughly sixteen times the mean number of illegal abortions estimated before *Roe*.²⁶ It is, therefore, not true that legal abortions are simply replacing illegal ones. This could only be true if illegal abortions were actually safer than childbirth.²⁷

The largest reasonably possible number of illegal abortions in any one year before legalization was approximately 210,000 in 1961; the lowest was about 39,000 in 1950. The mean was 98,000.

*There are today approximately 1.6 million abortions annually—roughly sixteen times the mean number of illegal abortions estimated before *Roe*.*

THE NUMBER OF MATERNAL DEATHS FROM ILLEGAL ABORTIONS

A recent Planned Parenthood advertisement depicts the gravestone of a woman who is presented as having died from an illegal abortion obtained after the reversal of the *Roe* decision. The caption reads: "Will the next Supreme Court Decision be carved in stone?" The text emotionally refers to the "countless number" of women who will "die needlessly" if the *Roe* decision is reversed and states pass protective legislation.²⁸ When advocates of legal abortion are more specific, they commonly cite a figure of 5,000 to 10,000 women as dying annually as a result of illegal abortions obtained in the period prior to *Roe*.

This claim is in stark contrast to the officially reported statistics, which show no year from 1950 onward with even as many as 300 deaths and demonstrate a long pattern of decline long before the legalization of abortion—an abrupt decline in the 1940s, and a steady decline in the 1960s, culminating in 39 maternal deaths due to illegal abortion in 1972, the year before *Roe*.²⁹

The official reports demonstrate that one must go back to the pre-penicillin era (1940) to find more than 1,000 deaths from all induced abortions, legal and illegal.³⁰

The precipitous decline, which should have occurred in the early 1970s if the claims of abortion advocates that legalization is what reduced maternal deaths were true, actually occurred in the 1940s when the number of abortion-related deaths fell from a high of 1,407 in 1940 to slightly more than 260 in 1950.³¹

A period of stabilization in the number of abortion-related deaths occurred in the 1950s. A steady decline began in 1960 and, by the time the first state legalized abortion in 1967, total abortion-related deaths were down to 167 per year.³² By 1972, the year prior to the *Roe v. Wade* decision, there were only 39 deaths from illegal abortion, according to the Center for Disease Control; in the same year, there were 24 maternal deaths from legal abortions.³³ While every death is a profound tragedy, 39 deaths is a small percentage of the five million pregnancies occurring each year in the U.S., and is a figure far below

*The official statistics show no year from 1950 onward with even as many as 300 deaths and demonstrate a long pattern of decline long before the legalization of abortion—culminating in 39 maternal deaths due to illegal abortion in 1972, the year before *Roe**

The Official Statistics:

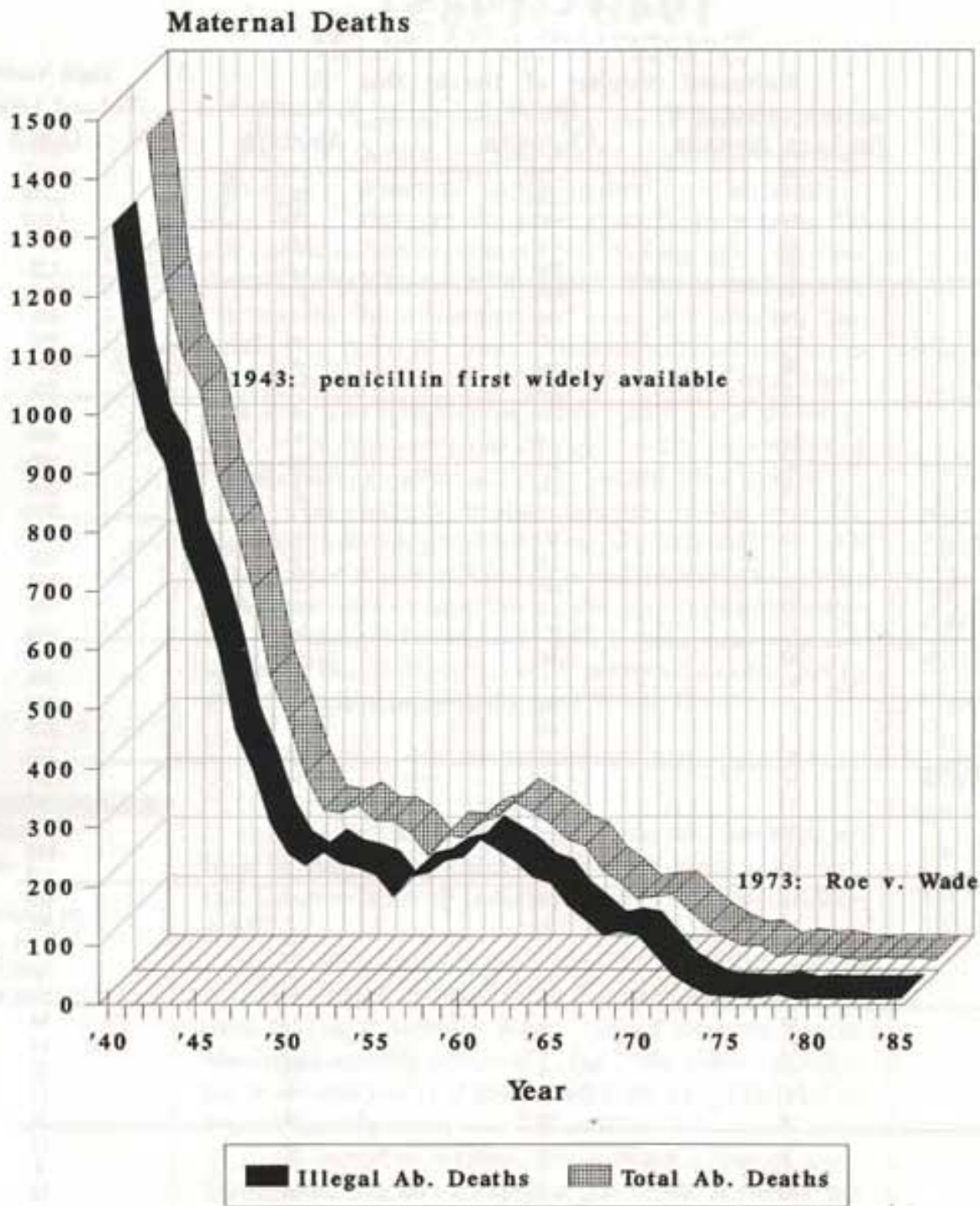
Improvement in Medicine, Not Legalization, Accounts for Decline

Maternal Abortion Deaths, 1940 - 1985

Year	Estimated Number of Deaths Due To			Total Number Induced Abortion Deaths
	Abortions Induced For Legal Reasons	Illegal Abortions	Spontaneous Abortions	
1940	94	1,313	272	1,407
1941	78	1,080	224	1,158
1942	70	962	199	1,032
1943	65	910	189	975
1944	55	770	160	825
1945	50	694	144	744
1946	43	593	123	636
1947	33	457	95	490
1948	28	388	80	416
1949	26	298	70	324
1950	17	246	53	263
1951	31	226	46	257
1952	21	249	50	270
1953	14	230	50	244
1954	21	223	43	244
1955	13	211	42	224
1956	11	174	36	185
1957	10	209	41	219
1958	1	215	43	216
1959	5	235	44	240
1960	10	241	38	251
1961	4	271	49	275
1962	5	253	47	258
1963	5	234	41	239
1964	5	207	35	212
1965	4	197	34	201
1966	1	159	29	160
1967	4	135	21	139
1968	2	109	22	111
1969	1	115	16	116
1970	10	109	9	119
1971	15	75	9	90
1972	24	41	25	65
1973	25	22	10	47
1974	26	7	21	33
1975	29	5	14	34
1976	11	3	13	14
1977	17	4	16	21
1978	9	8	9	17
1979	18	0	9	18
1980	9	2	6	11
1981	7	1	3	8
1982	11	1	6	12
1983	10	1	7	11
1984	11	1	6	12
1985	6	2	6	8

Sources: Data for 1940-1971 are from the National Center for Health Statistics (NCHS); data for 1972-1985 (the last year for which data are available) are from the Centers for Disease Control (CDC). Through 1971, the "Illegal Abortion Deaths" column is the sum of deaths reported as due to "Abortions Induced for Other Reasons" and "Other and Unspecified Abortions" by NCHS. (NCHS reports abortion-related deaths as due to these two causes as well as to "Abortions Induced for Legal Reasons" or "Spontaneous Abortions.") From 1972 onward, the "Illegal Abortion Deaths" column aggregates those reported by CDC under that heading as well as those reported as "Other" and "Unknown."

Maternal Abortion Deaths, 1940 - 1985



Maternal deaths due to abortion dropped dramatically long before legalization. Medical progress, not the legalization of abortion, saved women's lives.

Source: Graphic representation of Table 1.

the 5,000 to 10,000 estimate so frequently used by advocates of legal abortion.

Why was there so significant a decline in abortion-related maternal mortality long before legalization? The answer lies in the improvement in the capacities of modern medicine to cope with the medical problems of the woman who needs emergency care to treat complications arising from a botched or unsanitarily performed abortion. In the 1940s, the significant drop in maternal deaths due to illegal abortion correlated with the introduction of blood transfusions, nasogastric suction, and antibiotics, including penicillin and sulfa.³⁴ Antibiotics have been the greatest single factor in reducing infection-related mortality during the past forty years, and therefore contributed to the steep decline in abortion deaths before legalization.³⁵

After a decade of stabilization in the 1950s, the establishment of intensive care units and better surgical techniques reduced the number of maternal deaths due to illegal abortion from about 270 in 1961 to 115 in 1969, the last year in which the number of legal abortions was under 100,000.³⁶

Reported abortion-related maternal deaths have indeed continued on a slow downward course following legalization.³⁷ Advances in pre-natal care, improvements in the treatment of abortion-related complications primarily through continued advances in antibiotics, improvements in the safety of the abortion procedure itself, and increased operator skill in performing abortions have contributed to declines in both the maternal mortality rate and the abortion mortality rate following 1973.³⁸

Where does the estimate of 5,000 to 10,000 maternal deaths come from? In his 1936 study, already discussed as a source for inaccurate estimates of the total number of illegal abortions, Dr. Frederick Taussig arrived at a figure of 8,000 to 10,000 maternal deaths due to illegal abortion.³⁹

Taussig assumed the maternal death rate from illegal abortion was equal to 1.2% - an assumption which he derived from three sources: a study by the U.S. Children's Bureau that examined maternal deaths in

Antibiotics have been the greatest single factor in reducing infection-related mortality during the past forty years, and therefore contributed to the steep decline in abortion deaths before legalization.

**The Source of the
5,000 to 10,000
Figure**

fifteen states from 1927 - 1928; some German data from the same time period; and the assumption that as many deaths would be concealed as were detected (an assumption for which Taussig provided no explanation or basis).⁴⁰

Six years later, however, at a 1942 conference on abortion, Taussig reevaluated his own figures from this study, stating: "They were trimmed down considerably, particularly as to the number of abortion deaths, in which I attempted to find concealed abortion deaths under other causes of death.... I think we can positively say that there do not occur over 5,000 abortion deaths annually in this country no matter how we try to cull the various brackets in the mortality statistics."⁴¹

The second study, a 1951 work by Russell S. Fisher, simply reworked Taussig's figures. He assumed a larger number of abortions due to the increase in population. On the other hand, he also assumed a lower rate of deaths due to the introduction of antibiotics, reducing Taussig's 1.2% maternal death rate to 0.5%.⁴² However, hospital studies of the period prior to World War II - and, therefore, before antibiotics - revealed a range of maternal death rates of .35% to 1.9% among abortion cases admitted to hospitals.⁴³ Obviously, the number of those admitted to hospitals is only a fraction of the total number of those who undergo abortions. The Fisher "guesstimate" of 0.5% mortality among all women undergoing illegal abortions for the period after the introduction of antibiotics must certainly be high if it is in line with the observed death rate of the small subset of those women admitted to hospitals in the days before antibiotics.

Present and former advocates of legal abortion have also refuted the claim that illegal abortions resulted in maternal deaths on the order of 5,000 to 10,000 a year. Dr. Mary S. Calderone, a former Medical Director for Planned Parenthood, wrote in 1960,

"Abortion is no longer a dangerous procedure. This applies not just to therapeutic abortions as performed in hospitals but also to so-called illegal abortions as done by physicians. In 1957 there were only 260 deaths in the whole country attributed to abortions of any kind.... Second, and even more important, the conference [on abortion sponsored by Planned Parenthood] estimated that 90 percent of all illegal abortions are presently being done by physicians.... Whatever trouble arises usually

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arises from self-induced abortions, which comprise approximately 8 per cent, or with the very small percentage that go to some kind of non-medical abortionist.... So remember...abortion, whether therapeutic or illegal, is in the main no longer dangerous, because it is being done well by physicians."⁴⁴

The former president of the Association for the Study of Abortion, Dr. Robert E. Hall, criticized use of the Taussig estimate. In 1967 he wrote, "Whether this statistic was valid in 1936 I do not know, but it is certainly not now. There are in fact fewer than fifteen hundred total pregnancy deaths in this country per annum; very few others could go undetected and of these fifteen hundred probably no more than a third are the result of abortion. Even the 'unskilled' abortionist is evidently more skillful and/or more careful these days."⁴⁵

Writing in 1970, biostatistician Christopher Tietze complained, "Estimates of 5,000 to 10,000 deaths per year, still used by reputable authorities, may have been valid when they were first published more than 30 years ago. Today, when the total number of deaths among women of reproductive age, 15-44 years, from all causes is about 50,000 annually, these estimates are no longer defensible."⁴⁶

Dr. Bernard Nathanson, former Medical Director for the National Association for the Repeal of Abortion Laws (NARAL), has written:

"How many deaths were we talking about when abortion was illegal? In NARAL, we generally emphasized the frame of the individual case, not the mass statistics, but when we spoke of the latter it was always '5,000 to 10,000 deaths a year.' I confess that I knew that the figures were totally false and I suppose that others did too if they stopped to think of it. But in the 'morality' of our revolution, it was a useful figure, widely accepted, so why go out of our way to correct it with honest statistics? The overriding concern was to get the laws eliminated, and anything within reason that had to be done was permissible."⁴⁷

Since abortion was an illegal procedure, it is on the face of things plausible to speculate that a number of maternal deaths actually related to illegal abortions might not have been officially reported as due to that cause.

"[A]bortion, whether therapeutic or illegal, is in the main no longer dangerous, because it is being done well by physicians."

Dr. Mary Calderone,
Planned Parenthood
Medical Director

1960

"I confess that I knew that the figures were totally false...."

Dr. Bernard Nathanson,
former NARAL Medical
Director

1979

**Did a Significant
Number of
Maternal Deaths
from Illegal
Abortion Go
Unreported?**

Table 3

Non-Abortion-Related Deaths Ages 15 - 24, 25 - 34, 35 - 44 1968 - 1977

<u>Year</u>	<u>15 - 24 Years Old</u>	<u>25 - 34 Years Old</u>	<u>35 - 44 Years Old</u>	<u>Total Non-Abortion Related Deaths</u>
1968	11,115	12,416	28,873	52,404
1969	11,843	12,755	28,309	52,907
1970	12,108	12,859	27,392	52,359
1971	12,552	13,115	26,604	52,271
1972	12,670	13,463	25,878	52,011
1973	12,748	13,587	25,124	51,459
1974	12,053	13,475	23,639	49,167
1975	12,015	13,234	22,254	47,503
1976	11,819	13,263	21,308	46,390
1977	12,352	13,349	21,156	46,857

Sources: To estimate the death totals for causes other than abortion in each age segment: 1) The average percentage of abortions performed on women in each age segment for the ten years 1973 - 1983 was calculated from data in Stanley K. Henshaw and Jennifer Van Vort, *Abortion Services in the United States, Each State & Metropolitan Area, 1984-1985* (New York: Alan Guttmacher Institute, 1988), p. 86 (Table 1). 2) An estimate of the abortion-related deaths for each age segment for each year was then calculated by multiplying the total induced abortion deaths for that year, from Table 2, by the percentage of abortions for that age segment. 3) The result was subtracted from the total deaths from all causes for that age segment for that year, obtained from U.S. Department of Health, Education and Welfare, *Vital Statistics of the United States (1965-1980)* vol. II, part B. This yielded the estimates in the table.

Such a hypothesis may be tested.

Since it is unlikely that many people who die simply disappear without any trace, deaths of women who died from illegal abortions, but were not so reported, would have to have been reported under some other cause of death. A significant under-reporting of illegal abortion-related deaths would therefore have to result in a significant over-reporting of deaths from other causes.

Two approaches that have been followed to detect such over-reporting include 1) comparing ostensibly non-abortion-related death rates among females of childbearing age in the years before legalization with those following legalization, in search of a significant drop-off and 2) directly examining the statistics on reported female deaths in the childbearing years for ostensibly non-abortion-related causes of death that might plausibly hide deaths related to illegal abortion.

Researcher James Miller has compared the death rates from purportedly non-abortion-related causes in the years preceding and following *Roe*.⁴⁸ If 5,000-10,000 women had died from abortion-related causes in the years prior to legalization, then one would anticipate a reduction of some 5,000-10,000 deaths in the female death totals subsequent to *Roe*.⁴⁹ Of abortions performed from 1973 to 1983, an average of 65% were on women aged 24 and under, 29% on women aged 25-34, and only 6% on women 35 and over.⁵⁰ Assuming this were equally true pre-*Roe*, the oldest age bracket could contribute only a very small percentage of the alleged 5,000-10,000 deaths. Yet, this older group is the only segment in the childbearing years that saw any significant reduction in mortality in the years immediately following *Roe*. For the age groups, in which over 90% of abortions are performed, other than small, yearly statistical fluctuations, there was no decrease after as opposed to before *Roe*.⁵¹

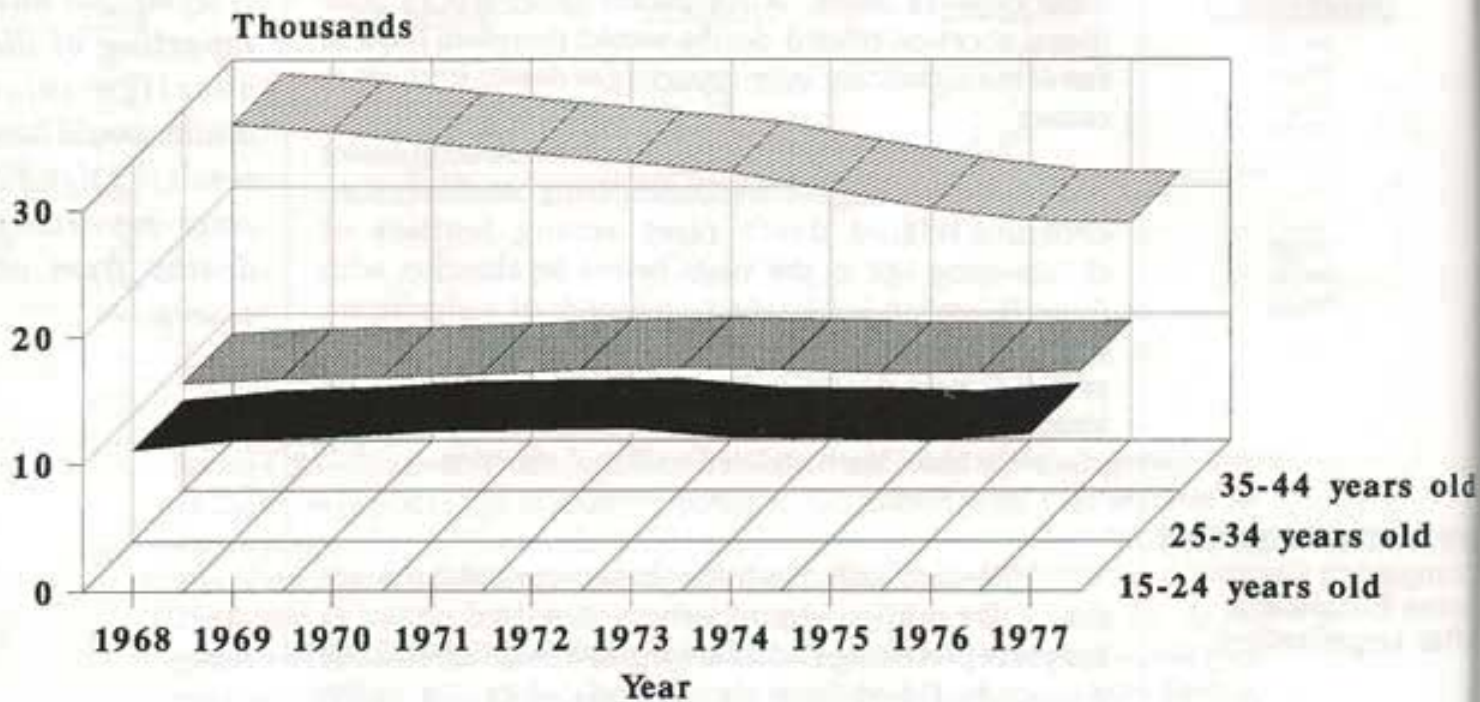
Miller notes that some 50,000 women of reproductive age died yearly in the United States during the years 1963-1974.⁵² The Vital Statistics break these deaths down into 60 "selected causes" of death. An examination of these causes, year-by-year, reveals that it would be implausible to suggest that 5,000-10,000 abortion deaths

A significant under-reporting of illegal abortion-related deaths would have to result in a significant over-reporting of deaths from other causes.

Comparing Death Rates Before and After Legalization

Examining Statistics for Plausible Hidden Deaths

Non-Abortion-Related Deaths Ages 15-24, 25-34, 35-44 1968-1977



Female deaths in the childbearing years from causes other than abortion for the years preceding and following *Roe*. Had large numbers of maternal deaths from illegal abortions been concealed under other causes, these numbers would have dropped substantially following abortion legalization. But apart from small statistical fluctuations, the only such decrease is among those 35 or older, a group that accounts for only 6% of the abortions performed.

Source: Graphic representation of Table 3.

were hidden annually.

Approximately one-third of all of the maternal deaths occurred in the 40-44 age bracket.⁵³ Miller points out that this group today, after legalization, accounts for an extremely small percentage of abortions performed. The overwhelming majority of abortions are performed on women aged 20-24, 15-19, and 25-29, in that descending order. If there really were 5,000-10,000 abortion deaths yearly, they would have probably occurred in these age brackets. But these age brackets are precisely the ones that have the fewest deaths among women of reproductive age.⁵⁴

In the year 1966, the last year before any state legalized abortion, Miller points out:

[T]here were 51,085 deaths among women aged 15-44 from all causes. Of those deaths, 11,660 were due to "malignant neoplasms" (cancers), 10,220 were due to "diseases of the cardiovascular system," and 9,094 were due to "accidents." Thus, just three of the sixty "selected causes" accounted for 30,974 of the 51,085 total.

Six additional causes of death total to 12,658, and boost the death total to 43,632: "suicide" 2,636; "cirrhosis of liver" 1,976; "homicide" 1,755; "influenza and pneumonia" 1,468; "deliveries and complications of pregnancy, childbirth, and the puerperium" 1,049, which includes 189 abortion deaths, and a catch-all category for non-enumerated causes, "all other diseases" 3,774.

There are still 51 causes of death to go. Continuing in like manner it is clear that there is just no room in the statistics for the alleged "5,000-10,000 abortion deaths."⁵⁵

Examining this question in a detailed 1948 article published in the *American Journal of Public Health*, biostatistician Christopher Tietze, an advocate of legal abortion, concluded that "the vast majority of abortion deaths in the United States are correctly reported...."⁵⁶

Tietze looked at four major reasons why deaths

"[T]he vast majority of abortion deaths in the United States are correctly reported...."

Christopher Tietze

1948

from abortion might be assigned to other causes:

1) Abortions reported in conjunction with another non-pregnancy-related cause of death which takes precedence over abortion. Tietze examined the 133 cases of this category which occurred in 1940. He concluded that in many of these cases "the abortion was listed either as a non-fatal complication of a fatal disease or as an unsuccessful therapeutic abortion rather than as the cause of death."⁵⁷ Thus, this was one category in which he identified illegal abortion deaths reported under other causes.

2) Deaths reported as due to a pregnancy-related cause but without mention of the fact of abortion or the period of gestation. Tietze determined that, although inaccurate reporting of abortion-related deaths was found fairly frequently in early studies of the maternal mortality in the United States, "strong efforts made by the health departments and by the special committees on maternal mortality... have resulted in much more accurate reporting of puerperal deaths than was customary 15 to 20 years ago."⁵⁸

3) Deaths reported as septicemia or peritonitis without mention of pregnancy, childbirth or the puerperal state. In such cases, Tietze stated, if the death certificate was one for a woman of reproductive age, it would usually be questioned and the complete diagnosis obtained. Further, he noted that between the ages of 15 and 45 years such non-*puerperal* septicemia appears more often as the cause of death for males than for females, concluding that it is unlikely that many illegal abortions are concealed under this diagnosis. For peritonitis, more female deaths of reproductive age occurred than males, but the average annual excess amounted to only approximately 100 deaths.⁵⁹

4) Deaths in which a false and apparently innocuous diagnosis was entered on purpose in order to conceal an illegal abortion. Tietze was convinced that this happened very infrequently particularly in urban areas. He stated, "as a rule a woman seriously ill after an illegal abortion is not allowed to die in her home under the care of the abortionist or conniving family physician but is taken to a hospital in an effort to save her."⁶⁰

Tietze concluded, "It is felt... that the official statistics include the great majority of all deaths from abortion."⁶¹ In fact, Tietze believed that, if anything, the

official statistics have become more accurate over time as the quality of death registration improved.⁶²

Revisiting the question in 1970, Tietze wrote, "According to official statistics, only 189 deaths from abortion were reported for the entire United States in 1966.... [A]dditional deaths from abortion have doubtlessly been untruthfully or mistakenly reported under other diagnoses. Nevertheless, in my judgment, the true total number of deaths due to illegal abortion, recorded and hidden, cannot be much larger than twice the reported number, or about 400 per year."⁶³ Since by 1972, the year before *Roe*, the reported maternal death rate for illegal abortion had dropped to 39, by Tietze's account the total deaths, reported and unreported, for that year could not have been much above 80 at most.

As Tietze noted in his article, the physician filling out the death certificate would almost never be the abortionist.⁶⁴ There would be, therefore, no strong motivation for the physician to conceal the actual cause of death.⁶⁵

Whatever the unreported number of maternal deaths related to abortion, there certainly are no grounds to suppose that the proportion of unreported deaths was steadily increasing. Therefore, there is no reason to doubt that the Vital Statistics figures accurately reflect a downward trend in the number of maternal deaths from complications of illegal abortion due to the increasing sophistication and efficacy of medical treatment for such complications.⁶⁶

In his 1948 article, Tietze also emphasized the steady decline in abortion related mortality, stating "The outstanding fact...is the steady and almost precipitous decline which has been observed almost everywhere. The reality of the decline cannot be doubted, and the extent of the fall is in all likelihood understated by the official statistics (emphasis added)."⁶⁷ Tietze attributed this decline to three causes: 1) the introduction of contraceptives; 2) more skillful abortionists; and 3) improved methods of treatment, particularly the use of antibiotics.⁶⁸

There is no reason to doubt a downward trend in the number of maternal deaths from complications of illegal abortion due to the increasing sophistication and efficacy of medical treatment for such complications.

PROSPECTS IF PROTECTIVE LEGISLATION IS ENACTED IN THE 1990s

As already demonstrated, the continuing decrease in maternal deaths related to abortion - both legal and illegal - was the result, not of the legalization of abortion, but of continued medical progress. The effects of this progress would continue following a reversal of *Roe v. Wade*.

Dr. Bernard Nathanson, the former medical director of the National Association for the Repeal of Abortion Laws (now the National Abortion Rights Action League), strongly disputes the projections of thousands of women dying should the law again protect unborn children from abortion:

Why...do I dismiss the whole carnage argument? Simply because technology has eliminated it.

The practice of abortion was revolutionized the same moment that the laws were revolutionized, through the widespread introduction of suction curettage in 1970. (Even before this, antibiotics and other advances had already dramatically lowered the death rate.) Instead of scraping the soft wall of the pregnant uterus with a sharp instrument, the operator vacuums it out with a plastic suction curette. Though it is preferable that this is done by licensed physicians, one can expect that if abortion is ever driven underground again, even non-physicians will be able to perform this procedure with remarkable safety....⁶⁹

Even if the rate of risk of abortion were to increase with the passage of protective legislation, it does not follow that the number of abortion-related maternal deaths would increase. This would be true only if there were no offsetting decrease in the total number of abortions. That is because the number of maternal abortion deaths is the **product** of the number of abortions (cases of exposure to the risk) and the risk rate. This may be illustrated by the following formulas:

Even if the rate of risk of abortion were to increase with the passage of protective legislation, it does not follow that the number of abortion-related maternal deaths would increase. This would be true only if there were no offsetting decrease in the total number of abortions.

When:

IA = the number of illegal abortions

RF_{IA} = the risk factor for illegal abortions

IAD = the number of maternal deaths due to illegal abortions

LA = the number of legal abortions

RF_{LA} = the risk factor for legal abortions

LAD = the number of maternal deaths due to legal abortions

Then:

Illegal abortions: $IA \times RF_{IA} = IAD$

Legal abortions: $LA \times RF_{LA} = LAD$

If one assumes, for example, that the number of illegal abortions were 100,000 and the number of legal abortions 1.6 million, then in order to obtain even the same number of maternal deaths when abortion is illegal as when it is legal, the risk of an illegal abortion would have to be 16 times greater than the risk of obtaining one legally.

This means that — contrary to most conventional wisdom — there are grounds for predicting that the total maternal mortality from abortion may well decline, rather than increase, if laws protecting unborn children from abortion are again enacted and enforced.

The total maternal mortality from abortion may well decline, rather than increase, if laws protecting unborn children from abortion are again enacted and enforced.

CONCLUSION

Every death from an abortion, whether of an unborn child or of the child's mother, is a tragedy. But it is a duty owed to all who grapple with the profound issues of civil rights and public policy involved in the abortion issue to prevent its distortion by claims concerning illegal abortions that have no factual basis.

The claim that illegal abortion would be both prevalent and dangerous if legislation protecting unborn children from abortion were passed is both inaccurate and misleading. The truth is that:

- Before *Roe*, the annual number of illegal abortions was much closer to 100,000 than to the unfounded claims of one million;
- Maternal deaths from illegal abortions have not been in the thousands since the 1940's; medical progress dramatically lowered deaths to double digits by the year before *Roe*, and would keep abortion-related maternal deaths down were unborn children again to be protected by law; and
- The number of maternal abortion deaths is a function not only of the risk of abortion but also of the total number of abortions. There are strong reasons to predict that, even given that illegal abortions would be more risky than legal ones, the substantial reduction in the total number of abortions brought about by protective legislation would result in fewer total maternal abortion deaths than those that occur now.

As America looks forward to life without *Roe*, the debate on the legality of abortion must move beyond unsubstantiated claims and toward a realistic approach sensitive to the lives of both women and unborn children.

APPENDIX: THE FACTS IN THE DEATH OF BECKY BELL

Becky Bell

Abortion advocates attacking laws that provide for parental involvement before a minor's abortion have often predicted they will lead to maternal deaths from illegal abortion. For example, advertisements by the American Civil Liberties Union charge that parental notification laws can "lead to dangerous illegal abortions ... serious physical and mental injury and even death."⁷⁰ The claim has been that young girls, afraid to allow their parents to know of their pregnancy or intended abortion, will resort to unsafe, illegal practitioners. Yet, although 15 states now have such laws in effect, some of which have been in force for several years, abortion advocates have been able to produce no more than one claimed instance of a death from an illegal abortion. Even in that case, the much publicized one of Becky Bell, the evidence is very strong that she never had an abortion, illegal or otherwise, but instead miscarried as a result of an overwhelming infection, otherwise unrelated to her pregnancy, that also took her life.

Becky Bell, an Indianapolis teenager who died in 1988, has been widely described by advocates of legal abortion as the first victim of parental involvement laws. Abortion advocates claim that Becky had, and died from the complications of, an illegal abortion.⁷¹ Yet evidence surrounding Becky's death was so conflicting and distorted that it prompted Delbert Culp of Planned Parenthood of Central Indiana to remark, "I have some reservations about hyping this whole thing when it's so mixed about what actually went on."⁷² Indeed, Planned Parenthood Federation of America has admitted, "There may never be sufficient evidence to prove to everyone's satisfaction that Becky had an illegal abortion.... [S]he had either an illegal abortion or was having a miscarriage and didn't get proper treatment..."⁷³ Perhaps most important, however, is the statement of Dr. John Pless, head of forensic pathology at Indiana University Medical Center, who signed Becky's autopsy report—the principal source for the claim that her death was caused by an illegal abortion. He stated in September, 1990, "I cannot prove she had an illegal abortion. I cannot prove she had anything but a spontaneous abortion."⁷⁴

The truth is that there is absolutely no evidence that Becky died from an illegal abortion. All the existing evidence indicates otherwise.

"I cannot prove she had an illegal abortion. I cannot prove she had anything but a spontaneous abortion."

Dr. John Pless, who signed autopsy report

Becky was a normal, happy teenager. Her behavior began to change radically in high school when she became sexually involved with a high school dropout. He introduced Becky to drugs and sex. Becky's parents knew of this change in Becky's behavior. When Becky thought she was pregnant in late 1987, her mother took her to the local Planned Parenthood for a pregnancy test. The test was negative. Shortly thereafter, her parents admitted her to a detoxification program so she could kick her newly acquired drug habit. When Becky thought she was pregnant a second time, she decided against telling her parents. Instead, she confided only in her best friend, Heather Clark. Heather accompanied Becky to Planned Parenthood where they learned that Becky would need the consent of one of her parents before she could have an abortion. Becky decided against telling her parents. She considered having a legal abortion in neighboring Kentucky, where no parental consent is required. Becky even toyed with the possibility of running away to California to put the baby up for adoption.⁷⁵ On the Thursday before Becky's death, an appointment was made to obtain a legal abortion in neighboring Kentucky at EMW Woman's Surgical Center for the following Saturday.⁷⁶

Five days before that appointment was made — on the Saturday prior to her death — Becky attended a party where drugs were available.⁷⁷ She returned home telling her mother that she thought something had been slipped into her drink. Becky wasn't feeling well in the days following the party. She became seriously ill early Friday morning and was taken to the doctor. She was then rushed to the hospital, and she died later that night.

Her autopsy report listed both a "manner of death" and a "cause of death." The "manner of death" was listed as "undetermined." The "cause of death" was given as "septic abortion with pneumonia."⁷⁸ Dr. Tommy L. Hewett, Chairman of the Department of Pathology and Clinical Laboratories at the Baptist Medical Center of Oklahoma points out that "the 'cause of death' is only an opinion...."⁷⁹ The report revealed that there was no evidence of scraping, scratching or tearing of the cervix, which led Dr. Hewett to conclude, "There is also very little compelling evidence that this abortion came at the hands of an abortionist."⁸⁰ Therefore, all indications are that a miscarriage (spontaneous abortion) probably occurred as a secondary complication of the infection that

On the Thursday before Becky's death, an appointment was made to obtain a legal abortion in neighboring Kentucky for the following Saturday.

later killed her. Indeed, Becky's best friend, Heather Clark, who spoke to her almost daily during the last week of her life, and who made the appointment for the Kentucky abortion at Becky's request, is convinced that Becky had a miscarriage.⁸¹

Upon examining the autopsy report, experts have confirmed that it contains no evidence of death from an induced abortion. After being read the report by reporter Cal Thomas, Dr. John Curry, former head of the Tissue Bank at Bethesda Naval Hospital, commented that "there is no evidence of infection on the outside or within the uterus.... [The germ that killed Becky] is a common pneumonia germ...which is unlikely to originate from a contaminated abortion procedure."⁸² The infection that killed her, Curry adds, "could have been treated had it been detected within the first six days."⁸³ Dr. Hewett found "no justification in the report for the designation "septic abortion." He found "no description of endometritis or the findings of inflammation or infection within the uterus," concluding that Becky's "pneumonia is primary and the sepsis secondary."⁸⁴

While no one can be sure how Becky's infection was acquired, Dr. Mayo Gilson suggests:

[T]his patient may well have had an aspiration pneumonia as a result of the prior party that she had attended and in a perhaps less than full facultative state been forced to ingest some substance or accidentally vomited with aspiration of gastric and other foreign body material into her respiratory tree. This massive pleural effusion and pericarditis and marked cardiopulmonary insult with extensive pleural exudates and pneumonia most probably was the event leading to her rapid clinical deterioration and probably secondarily ... contributed to the spontaneous abortion of the pregnancy.⁸⁵

In other words, if she in fact ingested drugs at the Saturday party, she may well have vomited and aspirated part of the vomit into her lungs. This could well have caused the pneumonia infection that, untreated, led first to her miscarriage and later to her death.

"[The germ that killed Becky] is a common pneumonia germ...which is unlikely to originate from a contaminated abortion procedure."

Dr. John Curry

ENDNOTES

1. Brief for Petitioners and Cross-Respondents at 32, *Planned Parenthood of Southeastern Pennsylvania v. Casey*, No. 91-744 (U.S., filed November 7, 1991).
2. *Washington Post*, 4 Apr. 1989, *Washington Post Health Magazine*.
3. U.S. Department of Health, Education, and Welfare, Center for Disease Control, "Abortion Surveillance 1977" (Atlanta: September 1979).
4. Mary Steichen Calderone, ed., *Abortion in the United States: A Conference Sponsored by the Planned Parenthood Federation of America, Inc.* (New York: Hoeber-Harper, 1958), pp. 178-180. The committee, chaired by Christopher Tietze, included Alan Guttmacher, P.K. Whelpton, Carl Erhardt, Irene Taeuber, and Paul Gebhard (replacing Alfred Kinsey upon his death).
5. Christopher Tietze and Murstein, *Induced Abortion: A 1975 Factbook* (New York: The Population Council, 1975), p. 13.
6. Jerome E. Bates and Edward Zawadzki, *Criminal Abortion: A Study in Medical Sociology* (Springfield, Illinois: Charles C. Thomas, 1964). The description of the basis for the one million estimate in the text accompanying notes 6-12 summarizes that given by Germain Grisez, *Abortion: the Myths, the Realities, and the Arguments* (New York: Corpus Books, 1970), pp. 35-36.
7. Frederick J. Taussig, *Abortion, Spontaneous and Induced: Medical and Social Aspects* (St. Louis: C.V. Mosby, 1936).
8. *Ibid.*, pp. 24-26.
9. The high percentage for therapeutic abortions, which during this period included only cases in which the life of the mother was at stake, occurred because the caesarean section and other advances in modern medical technology had not yet been developed. Therapeutic abortions would have been performed routinely, for instance, when a child's head was too large to go through the woman's pelvis. In such a case, for which today a caesarean section would be commonplace, tools would have been used to crush the head of the child.
10. Grisez, *Abortion*, p. 36 (emphasis in original).
11. Halbert L. Dunn, "Frequency of Abortion, Its Effects on Maternal Mortality Rates," in *The Abortion Problem, Proceedings of the Conference Held Under the Auspices of the National Committee on Maternal Health, Inc. June 19th-20th, 1942* (Baltimore: Williams and Wilkins, 1944), p. 5.
12. Department of Social Affairs, Population Division, *Foetal, Infant and Early Childhood Mortality, Vol. 1, The Statistics* (New York: United Nations, 1954), pp. 20-21. The Foreword (p. iii) credits Christopher

Tietze with the authorship of the relevant section.

Another sometimes cited source of illegal abortion estimates comes from the well-known sexuality studies conducted by Dr. Alfred Kinsey in the 1950's. The relevant Kinsey data are published in Paul H. Gebhard, Wardell B. Pomeroy, Clyde E. Martin, and Cornelia V. Christenson, *Pregnancy, Birth and Abortion* (New York: John Wiley & Sons, Inc., 1958). Using the results of this study, which suggested the rate of induced abortion was equivalent to 40% of live births, one could project a total of approximately 1,600,000 induced abortions for the years 1964-1965. This research, however, has numerous flaws (detailed in Grisez, *Abortion*, pp. 38-40); the most important of them is the non-representative nature of the sample group compared to the population as a whole. The sample included mostly urban, highly educated women with disproportionately high rates of divorce and separation and—most crucially—“the majority of the groups was, almost necessarily, made up of persons who had some interest in, and comprehended the value of, sex research.” Gebhardt et al., *Pregnancy*, p. 14.

At the Planned Parenthood Federation meeting on abortion in 1955, the committee chaired by Tietze noted the non-representative nature of the Kinsey material and concluded that these data “do not provide an adequate basis for reliable estimates of the incidence of induced abortion in the urban white population of the United States, much less in the total population.” Calderone, *Abortion in the United States*, pp. 178-80.

13. Christopher Tietze, M.D., “Abortion on Request: Its Consequences for Population Trends and Public Health,” in R.B. Sloane, ed., *Psychiatric Aspects of Abortion*, vol. 2 of *Seminars in Psychiatry* (August 1970), p. 375.

14. Barbara J. Syska, Thomas W. Hilgers, M.D., and Dennis O'Hare, “An Objective Model for Estimating Criminal Abortions and Its Implications for Public Policy,” in Thomas W. Hilgers, M.D., Dennis J. Horan, and David Mall, eds., *New Perspectives on Human Abortion* (Frederick, Maryland: University Publications of America, 1981), p. 171.

15. *Ibid.*, p. 165.

16. *Ibid.*, citing Christopher Tietze, “The Effect of Legalization of Abortion on Population Growth and Public Health,” *Family Planning Perspectives* vol. 7 (1975): p. 123. and Willard Cates and T. W. Rochat, “Illegal Abortions in the United States: 1972-1974,” *Family Planning Perspectives* vol. 8 (1976): p.86.

17. The most obvious challenge to the validity of the Syska, Hilgers and O'Hare model is to question the accuracy of the official reports of the number of maternal deaths due to criminal abortion. That question is considered at length in the text accompanying notes 48-66.

18. S. Polgar and E.S. Fried, “The Bad Old Days: Clandestine abortions among the poor in New York City before liberalization of the

abortion law," *Family Planning Perspectives*, Vol. 8 (1976): p. 125.

19. Syska et al., "Objective Model," p. 166.

20. The number of maternal deaths is reported annually in the *Vital Statistics of the United States*.

21. Syska et al., "Objective Model," p. 166.

22. *Ibid.*, pp. 168-169.

23. *Ibid.*, p. 171.

24. *Ibid.*

25. *Ibid.*, p. 25.

26. Stanley K. Henshaw and Jennifer Van Vort, "Abortion Services in the United States, 1987 and 1988," *Family Planning Perspectives*, Vol. 22 (May/June 1990): pp. 102, 103 (Table 1).

27. *Ibid.*

28. Advertisement, *Washington Post*, 20 May 1992.

29. See Table 2 and Centers for Disease Control, *Surveillance Survey II*, vol. 38 (Sept. 1989): p. 43 (Table 21). Table 2 here lists 41 instead of 39 for 1972 because it includes deaths reported by CDC as "other" and "unknown." It does so to achieve consistency with NCHS data for earlier years in order to calculate the estimates in Table 1.

30. *Ibid.*

31. Thomas W. Hilgers, M.D. and Dennis O'Hare, "Abortion-Related Maternal Mortality: An In Depth Analysis," in Thomas W. Hilgers, M.D., Dennis J. Horan, and David Mall, eds., *New Perspectives on Human Abortion* (Frederick, Maryland: University Publications of America, 1981), pp. 69, 82 (Table 8).

32. *Ibid.* For dates of legalization, Joseph A. Lampe, "The World in Perspective," in Thomas W. Hilgers, M.D. and Dennis J. Horan, *Abortion and Social Justice* (1972; reprint, Thaxton, Virginia: Sun Life, 1980), pp. 89, 96.

33. See Table 2 and note 29.

34. J.C. Willke, M.D., "Back to the Future," in Dave Andrusko, ed., *The Triumph of Hope* (Washington, D.C.: National Right to Life Committee, 1989), pp. 13, 19.

35. Ian Gentiles, "Good News for the Fetus," *Policy Review* vol. 16 (Spring 1987): p. 49.

36. See Table 2. "[T]he number of legal abortions reported to the CDC

rose by 170,800 (from 22,700 to 193,500) between 1969 and 1970...." Edward Weinstock, Christopher Tietze, Frederick S. Jaffe and Joy G. Dryfoos, "Legal Abortions in the United States Since the 1973 Supreme Court Decisions," *Family Planning Perspectives* vol. 7 (January/February 1975): p. 23.

37. See Table 2.

38. Nancy J. Binkin, "Trends in Induced Legal Abortion Morbidity and Mortality," *Clinics in Obstetrics and Gynaecology*, Vol. 13 (March, 1986), p. 1.

39. Taussig, *Abortion*. The description of the basis for the 5,000 to 10,000 figures in the text accompanying notes 39-45 summarizes that given by Germain Grisez, *Abortion: the Myths, the Realities, and the Arguments* (New York: Corpus Books, 1970), pp. 35-36, p. 68.

40. Taussig, *Abortion*, pp. 26-28.

41. "Discussion," in *The Abortion Problem, Proceedings of the Conference Held Under the Auspices of the National Committee on Maternal Health, Inc., June 19th-20th, 1942* (Baltimore: Williams and Wilkins, 1944), p. 28.

42. Russell S. Fisher, "Criminal Abortion," *Journal of Criminal Law, Criminology, and Police Science* vol. 42 (1951) p. 248; revised version in Harold Rosen, ed., *Therapeutic Abortion: Medical, Psychiatric, Legal, Anthropological, and Religious Considerations* (New York: Julian Press, 1954), p. 9.

43. The studies are referenced in Gebhardt et al., *Pregnancy*, p. 204 note 38.

44. Mary Steichen Calderone, M.D., "Illegal Abortion as a Public Health Problem," *American Journal of Public Health*, Vol. 50 (July, 1960): p. 949.

45. Robert E. Hall, "Commentary," in David T. Smith, ed., *Abortion and the Law* (Cleveland: Western Reserve University Press, 1967), p. 228.

46. Tietze, "Abortion on Request," p. 375.

47. Bernard N. Nathanson, M.D., *Aborting America*, (New York: Doubleday & Company, Inc., 1979), p. 193.

48. James A. Miller, "Did 5-10,000 U.S. women die yearly from illegal abortions prior to *Roe*?" article to be published in *HLI Reports*, Human Life International, Gaithersburg, MD.

49. *Ibid.*

50. Percentages compiled from data in Stanley K. Henshaw and

Jennifer Van Vort, *Abortion Services in the United States, Each State & Metropolitan Area, 1984 - 1985* (New York: Alan Guttmacher Institute, 1988), p. 86 (Table 1).

51. See Table 3 and Chart 3.

52. Miller "Did 5-10,000 U. S. women die...?"

53. Ibid.

54. Ibid.

55. Ibid.

56. Christopher Tietze, M.D., "Abortion as a Cause of Death," *American Journal of Public Health*, Vol. 38 (1948), p. 1437.

57. Ibid., p. 1436.

58. Ibid.

59. Ibid.

60. Ibid., p. 1437.

61. Ibid.

62. Ibid.

63. Tietze, "Abortion on Request," p. 375.

64. Tietze, "Abortion Cause of Death," p. 1437.

65. Willke, "Back to the Future," p. 18.

66. Tietze, "Abortion Cause of Death," p. 1437.

67. Ibid.

68. Ibid.

69. Nathanson, *Aborting America*, p. 194.

70. "Minor's Rights to Abortion," ACLU-NC Pro Choice Campaign (undated).

71. See, e.g., American Civil Liberties Union Reproductive Freedom Project, *Shattering the Dreams of Young Women: The Tragic Consequences of Parental Involvement Laws* (1991), p. 7.

72. J. Frolik, "Abortion Debate Shifting," *Cleveland Plain Dealer*, September 1, 1990, p.1.

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73. Letter from Irene Sullivan, Planned Parenthood Federation of America Advertising Manager, to Ms. Charlotte Paris, Dec. 6, 1990.
74. Frolik, "Abortion debate shifting," p. 1.
75. R. Sharpe, "Abortion Law: Fatal Effect?" Gannett News Service, Nov. 24, 1989.
76. "Death by 'Criminal Abortion'" by Sue Halpern, *The Courier Journal*, Aug. 6, 1990, at section C, page 3, col. 1.
77. Sharpe, "Abortion Law: Fatal Effect?"
78. Coroner's Report, Rebecca Suzanne Bell, October 3, 1988.
79. Letter from Tommy L. Hewett, M.D. to Mary Spaulding, dated November 1, 1990.
80. Letter from Tommy L. Hewett, M.D. to Mary Spaulding, dated November 1, 1990.
81. Ibid.
82. C. Thomas, "A Rush to Blame in Becky Bell's Death," *Washington Times*, August 9, 1990.
83. Ibid.
84. Letter from Tommy L. Hewett, M.D. to Mary Spaulding, dated November 1, 1990.
85. Letter from Mayo D. Gilson, M.D., F.A.C.O.G., to Mary Spaulding, dated October 30, 1990.