The Public Health Need for Abortion Statistics

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RECENT JUDICIAL RULINGS have addressed the issue of whether mandatory reporting of abortion procedures to central health agencies is contrary to public policy (*1–4*). Legal arguments have contrasted the woman's right to privacy for her abortion decision with the public's right to collect information necessary to safeguard maternal health.

The courts have generally supported the latter viewpoint, finding a valid State interest in requiring reporting of abortions so long as the confidentiality of the records is assured. Why should attention be given to compiling abortion statistics? The answer lies not so much in justifying the need for abortion statistics, but more in justifying the need for statistics on any condition that might affect the public's health, be it anthrax or accidents, asthma or abortion. We feel that health statistics are essential for (*a*) identifying health problems, (*b*) assessing the magnitude of these problems, and (*c*) making recommendations for eliminating the problems. In the absence of accurate, complete, and timely health statistics, there is little basis for rational decision making regarding the effectiveness and efficiency of health care, be it preventive or therapeutic.

We present arguments here in favor of the public health need for abortion statistics. We first describe the role of the Center for Disease Control (CDC) in documenting the epidemiology of legal abortion, then discuss the areas of public health affected by abortion, and finally outline several public health uses for abortion statistics.

Epidemiologic Surveillance of Legal Abortion

As stated in the Department of Health, Education, and Welfare's Health Statistics Plan of November 1975, the CDC is responsible for both collecting statistics on and conducting surveillance of preventable diseases and conditions (*5*). Under the purview of this mission, the prevention of morbidity and mortality associated with legally induced abortion is an operational objective of CDC. Our abortion surveillance program has three activities: (*a*) compiling data to describe the medical and demographic characteristics of women having induced abortions in the United States, (*b*) coordinating a multicenter study to determine morbidity risks associated with abortion, and (*c*) conducting epidemiologic surveillance of abortion-related deaths to assess their preventability.

CDC collects many of its health statistics through epidemiologic surveillance. In recent years the term "epidemiologic surveillance" has been broadened to include the collection, analysis, and dissemination of information related not only to infectious diseases, but also to diverse public health concerns, such as air pollution, cancer, birth defects, and abortion morbidity and mortality. CDC usually gathers data in two ways—case reporting and case investigation. The abortion-reporting activities help identify cases of abortion-related morbidity and mortality and describe the population at risk of this morbidity and mortality. Case investigations provide epidemiologists with data on which to base judgments about the preventability of abortion-related morbidity and mortality. This abortion surveillance framework of reporting and investigation provides the basis for monitoring and controlling problems related to abortion.

Data Collection

Historically, there has been a paucity of data on abortion in the United States. In 1955, experts could provide only a "best estimate" of between 200,000 and 1,200,000 illegal abortions a year (*6*). For almost 15 years this large range remained the most reliable figure available on the magnitude of abortion. In 1967 a survey in North Carolina corroborated the 1955 estimate by indicating that if abortion practices in that State were extrapolated to the entire country approximately 800,000 induced—most of them illegally—abortions would be performed each year (*7*). As long as most abortions were performed illegally, the possibility of collecting accurate health statistics on a clandestine procedure was virtually impossible.

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In 1967, however, with the first liberalization of a State's abortion law, legally induced abortion became an acceptable medical procedure, carrying health risks that had to be assessed. At this point CDC initiated its first abortion activity—the compilation of data to describe the medical and demographic characteristics of women having legally induced abortion.

In 1969, with the cooperation of the State health departments in four States that had enacted new abortion laws, CDC published its first annual Abortion Surveillance report (*8*). Fewer than 25,000 legal abortions were reported for 1969. In contrast, the latest annual report—published in 1977—shows that more than 850,000 abortions were reported for 1975 from 50 States and the District of Columbia (*9*). This number makes legally induced abortions among the most common medical procedures performed in the United States.

In general, CDC relies on the central health agency in each State to collect data on abortions occurring within that State. For the States that currently have no statewide data collection by the central health agency, CDC receives voluntary reported abortion data directly from hospitals and other health facilities. CDC and the National Center for Health Statistics (NCHS) are working toward having abortion data collected as a part of the vital statistics component of the Cooperative Health Statistics System (CHSS). When this is accomplished, CDC will begin to receive statistical information from NCHS rather than directly from the States.

Abortion Morbidity

The second activity of CDC's abortion surveillance program is coordinating a multicenter study to determine morbidity risks associated with abortion. This study is referred to as the Joint Program for the Study of Abortion/CDC (JPSA/CDC). Its purpose is to study prospectively the early medical complications of abortion. The predecessor of this study, the Joint Program for the Study of Abortion (JPSA), was conducted in 1970 and 1971 by the Population Council under the direction of Dr. Christopher Tietze (*10*). In 1971 this study was transferred to CDC to continue the initial research. From September 1971—when data collection began at CDC—to the present, detailed clinical data have been collected on more than 80,000 induced abortions, performed in more than 30 institutions throughout the United States with a variety of abortion procedures and patient management protocols.

Some of the more important findings of JPSA/CDC may significantly alter the performance of abortion. For example, we have found that through the 20th week of pregnancy, dilatation and evacuation methods resulted in lower complication rates than alternative instillation procedures (*11*). Traditional medical practices have called for suction curettage to be used only during the first 12 weeks of pregnancy, saline instillation to be used only after the 15th week of pregnancy, and neither suction curettage nor saline instillation to be used during the 13th, 14th, or 15th weeks (*12*). The JPSA/CDC findings suggest that morbidity would be reduced if medical practices were changed to use mechanical methods not only during the first 12 weeks but also as an alternative to saline instillation through the 20th week of pregnancy.

Abortion Mortality

The third activity of our abortion surveillance program is concerned with abortion-related mortality. Again with the assistance of the central health agency in each State, CDC tabulates abortion-related deaths that come to the attention of the vital statistics or maternal and child health sections. Additional abortion-related deaths come to the attention of CDC from such sources as State medical or hospital associations, published case histories, State maternal mortality committees, and reports from other Federal agencies. State health agencies or the attending physician, or both, are contacted to verify and expand clinical details of each death.

Abortion-related deaths are classified by CDC according to whether the abortion was spontaneous, legally induced, illegally induced, or classification unknown. The 1975 abortion mortality data show that 44 women died of complications of abortion in 1975 compared with 52 in 1974, 56 in 1973, and 88 in 1972. Legal abortions accounted for 27 of the 44 deaths in 1975, illegal abortions 4 deaths, and spontaneous abortions 12 deaths; 1 death was unclassified because of insufficient information. The case fatality rate for legal abortions is about 3 deaths per 100,000 (*9*).

Public Health Impact of Abortion

The most important public health area affected by abortion is maternal mortality. Abortion-related deaths historically have been a major cause of maternal mortality in the United States (*13*). From 1950 until mid-1960, no decrease occurred in the number of abortion-related deaths although maternal mortality from causes other than abortion decreased substantially. After 1965, as the number of legal abortions increased each year, abortion mortality declined

faster than maternal mortality, mainly because of the decrease in the number of deaths from illegal abortions (*13*). Furthermore, national data have helped define the preventable factors associated with abortion mortality. Data show, for example, that as the length of gestation increases, the risk of death associated with abortion increases (*9*).

Complications from abortions have been studied by many different facilities as a means of assessing the quality of medical care. Because definitions of abortion complications are not uniform, it is often difficult to obtain comparable morbidity data. Moreover, because followup of postabortion patients is variable, only the immediate effects of the procedure are usually known. Although the long-term effects of abortion are largely unknown in the United States, some studies from other countries suggest that premature childbirth may occur more frequently to women who have undergone abortion than to women who have not (*14,15*). Because of the widespread use of abortion in the United States, there is a need for definitive data to assess the delayed and long-term effects of abortion.

Infant mortality and the incidence of congenital malformations may be favorably affected by abortion because of the characteristics of the population having abortions. National data show that the highest abortion-to-live-birth ratios occur for women in the oldest and youngest age groups (*9*). These are the women most likely to have problem pregnancies resulting in infant deaths or congenital anomalies (*16*). Also, it might be expected that abortion, by reducing the number of unwanted pregnancies, would reduce the incidence of child abuse and abandonment (*17*).

Changing trends in the nation's fertility over the past decade have indicated that legal abortion has had an effect on birth patterns throughout the country (*18*). The number and characteristics of women undergoing abortion can be compared with similar live birth data to assess the influence of abortion on various parameters associated with fertility. The impact of abortion on childbearing has had an immediate effect on health care delivery in the specialties of obstetrics and pediatrics and, over the long term, may affect other medical specialties as well.

Public Health Uses for Abortion Statistics

If abortion is used as an indicator of unwanted pregnancy, abortion statistics should permit State and local health agencies to plan better the delivery of family planning services (*19*). Although the use of effective contraception can prevent unwanted pregnancies and reduce the number of women who seek abortion, contraceptive failures still occur. Thus, it is not reasonable to assume that provision of family planning services will completely eliminate abortion (*20*).

With wider acceptance of abortion by the American public, statistical data are more necessary than ever in planning for and providing abortions in health facilities. Abortion statistics have already played a major role in estimating how many abortions will be performed in this country and the characteristics of the women who will be requesting these services. One of the most important effects of the 1973 decision by the Supreme Court (*21*) to make abortion a matter of choice between a woman and her physician was to redistribute abortion services into many States that previously had had few or none (*9*). Between 1972 and 1975, out-of-State abortions declined nationally from 44 to 11 percent. Nationwide data allowed prediction of which States would be faced with the greatest demand for abortion services.

In 1973 the existing hospital facilities in this country were not prepared to cope with the increased demand for abortion as a new health-care service. In response to this demand a large number of private outpatient abortion clinics were opened, predominantly in urban areas, to perform first-trimester abortion procedures (*22*). However, the quality of care delivered by these new outpatient facilities is variable, and statistics on abortions being performed by them are necessary for health agencies to evaluate the quality of their services.

Abortion statistics also have provided a basis for important legislative and judicial decisions that have had national and local impact. National data on abortion morbidity and mortality were used by the U.S. Supreme Court in making its 1973 decisions of *Roe* v. *Wade* and *Doe* v. *Bolton* (*21*); in subsequent decisions in November 1975, which ruled that abortions not performed by physicians are unlawful (*23*); and in July 1976, which ruled that prohibition of saline abortion is unlawful (*4*). In these decisions, the court based its verdict on the relative safety of first-trimester abortions, second-trimester abortions, and normal-term births. Without adequate documentation of the comparative risks facing a woman with an unwanted pregnancy, the Supreme Court would not have been able to prepare an informed decision.

A final example of the importance of abortion statistics was demonstrated in the decision of the Georgia Legislature not to overturn the reform abortion legislation passed in that State following the

1973 Supreme Court decision. Two facts made available to the legislators in their deliberations were the number of Georgia residents who had had abortions outside the State before liberalization of the Georgia law and how the percentage of residents having abortions out of State dropped from 70 percent in 1972 before liberalization of the Georgia law to 10 percent in 1973, the year the law was liberalized (*9*). Data on geographic distribution of abortions have been presented to legislators in other States to emphasize the health disadvantage to women having to go out of State for an abortion.

In summary, public health is very much a part of the abortion issue. Moral and constitutional questions related to abortion may be argued philosophically; however, health questions related to abortion should be answered by sound epidemiologic reasoning based on adequate abortion statistics.

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SYNOPSIS

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As with the delivery of any medical service, abortion has definite public health effects that should be evaluated. The Center for Disease Control (CDC) has monitored the impact of abortion in three ways: (*a*) conducting epidemiologic surveillance of legally induced abortion beginning in 1969. (*b*) funding a multicenter study of abortion morbidity beginning in 1971, and (*c*) undertaking surveillance of abortion-related mortality begining in 1972. These activities are intended to identify health problems related to abortion, to assess the magnitude of these problems, and to make recommendations directed at eliminating the problems.

In addition to the programmatic uses of aborton data, the CDC statistics have also provided a basis for both legislative and judicial decisions that have had national and local impact. The CDC and the National Center for Health Statistics are currently working collectively to strengthen the reporting of national abortion statistics so that the public health need for abortion statistics can be met.