Morbidity and Mortality from Induced Abortion in Selected Foreign Countries

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This article reviews published articles on abortion in the countries of India, Bangladesh, Vietnam, Turkey, Philippines, Japan, Zambia, and Finland. Based on this review, it appears that abortions are frequently performed in a haphazard, slipshod, illegal, secretive or deceptive manner. Most often, abortion is an important means of birth control. From the available studies, it appears that women in the countries frequently have a high incidence of infections whether pre or postabortion. Because of the limited health resources of many of these countries, this factor alone makes it very unlikely that abortion, at least as currently practiced in many of these countries, will ever be "safe". There is also substantial evidence that induced abortion contributes to an increased risk of HIV or AIDS, particularly among younger women. Specific examples are provided which demonstrate that abortion contributes to preventable maternal mobidity and mortality.

India

Induced abortion is legal in India if performed in authorized facilities. A recent review article concluded that abortion is often performed under unsafe and unsanitary conditions. Authorized facilities are often poorly equipped and as many as 80% of the abortions in India are illegal apparently because they are performed in unauthorized facilities. The report further concluded that the advancements required to make surgical abortion safe in India appear insurmountable in the near future and that medical abortion holds more promise than surgical abortion.1

The obstacles to make surgical abortion "safe" appear insurmountable

Various prior reports indicate a serious problem from abortion complications in India. One study reported that the incidence of ectopic pregnancy was 1 in 368 during the 15 year period from 1959-1973, but had increased to I in 160 from 1988-1993. Unruptured tubal pregnancy was diagnosed in 3% of the women during the earlier period compared to 9.8% of the women in the later period. Medical termination of pregnancy, abortion, insertion of IUDs, and previous tubal ligation were cited as important risk factors.2 Another study of women in Karnataka, India in 1993 found that women with a reported history of abortions were more likely to report symptoms of anemia (30.1% v. 22.7%), report lower genital tract infections (21.4% v. 16.4%) and were less likely to seek treatment for acute pelvic inflammatory disease (78.6% v. 48.3%) compared to women not reporting any abortion history.3

Indian women of reproductive age have been found to have a high incidence of preexisting bacteria and viruses. One study found that 92% of Indian women in a rural area had one or more gynaecological or sexual diseases with the average number of diseases per women being 3.6.4 The presence of these bacteria or viruses at the time of mechanically induced abortions would spread throughout their reproductive tract and cause infections such as endometritis or pelvic inflammatory disease even if otherwise sanitary conditions were present. Further, it is unlikely that antibiotics to treat any infections would be administered either before or after the abortion.

Finnish study finds childbirth is safer than abortion, p.6

In India, abortion of unborn female children is frequently used for purposes of sex selection. Although it is illegal, numerous loopholes allow it to flourish. According to Dr. Prem Aggarwal, the General-Secretary of the Indian Medical Association, women often have an ultrasound scan in the early stages of a pregnancy and opt for an abortion if the child is female. According to Dr. Aggarwal, the gender ratio in India is 927 females to 1000 males but in 31 districts the number of females per 1000 males is less than 900. In certain communities in Bihar and Rajasthan, the sex ratio has fallen to 600 females per 1000 males.5 A study of a Jet village in North India which was undergoing rapid urbanization and cultural change with a reduction in family size, nevertheless reinforced the preference for sons and the disfavor of daughters.6 Female infanticide in India has also been reported to frequently occur.7

Bangladesh

Induced abortion including a procedure referred to as menstrual extraction has been reported to cause a large percentage of deaths of Bangladesh women from pregnancy-related tetanus. A recent study reported that in the 12 month period preceding July, 1997, 280 pregnancy-related deaths from tetanus were identified. Of these deaths, 104 (34.9%) were attributed to abortion. In addition, the records of 5 infectious disease hospitals located in urban areas of Bangladesh were reviewed for the years of 1992-1996. Of the 390 females age 10-50 who were hospitalized and died of tetanus in these hospitals, 215 (55.1%) developed tetanus infection after induced abortion and 18 (4.6%) developed tetanus after the postpartum period. The study reported that tetanus-toxoid vaccination in pregnant Bangladesh women occurs as part of prenatal care and that the current program is not designed to include women who terminate pregnancies or obtain menstrual regulations. The authors proposed that all Bangladesh girls should be provided tetanus-toxoid vaccination by age 12. However, there are no plans to do so.8

Menstrual regulation (MR) was introduced in Bangladesh in the mid 1970s. The term was helpful in establishing abortion at an early stage of gestation because it was ambiguous. It could mean a deliberate euphemism for deliberate abortion or simply imply it was meant to be a means of ensuring a "healthy" or "non pregnant state". It provided an excellent rationale for menstrual regulation for ensuring non pregnancy.9

The MR program trained government doctors, a few private doctors, and large numbers of female family planning workers called "family welfare visitors" in menstrual regulation. Others were informally trained by working under a formally trained person. These included other "family welfare visitors", doctors without formal medical degrees, paramedics or nurses and others. The MR training only lasted about three weeks and, based on one study, was incomplete and haphazard resulting in frequent complications. A 1986 study by the Bangladesh Association for the Prevention of Septic Abortion found that serious complications following MR occurred in 8.4%-13.5% of the cases depending on who had performed the MR procedure. Sometimes women too advanced in their pregnancy for an MR were referred for illegal abortions. Frequently those who did MR had no follow-up services to treat incomplete abortions. Although the training reportedly included maintenance

and sterilization of MR equipment, approximately 40% of those who received MR training were trained by demonstration only. Many of those who received formal or informal training did not receive a copy of the training manual. Many of the individual "family welfare visitors" performed only a few menstrual extractions and about one-quarter were performed in private homes. It was estimated that 241,442 MR procedures were performed during the study period.10

One of the arguments advanced in support of MR was that it would involve women in the maternal health care system. However, as the high incidence of tetanus-related deaths of women who had an MR and no tetanus-toxin protection, it can be seen that this important aspect of health care did not take place.

Vietnam

According to the Alan Guttmacher Institute there were at least 1,520,000 abortions in Vietnam in 1996 with a ratio of 43.7 abortions to 100 pregnancies. This is one of the highest incidence of abortion in the world. In contrast, there is a reported ratio of 25.9 abortions to 100 pregnancies in the U.S.11 The high incidence of abortion may be due, in part, to a substantial number of menstrual regulations which are performed at 5 gestational weeks or less. For example, of the total number of 1,336,017 pregnancy terminations reported by the Vietnam Ministry of Health in 1992, 45% were reported to be menstrual regulations.

Abortion appears to be widely used as a method of birth control

Induced abortion appears to be widely used as a method of birth control in Vietnam. A recent cervical screening program among women in rural northern Vietnam published in 1999 found that some women had as many as 10 abortions.12 An earlier study in 1992 reported 2.5 abortions among Vietnamese women in their reproductive lifetime.13 A document issued by the Ministry of Health in 1992 which contained a table entitled "Use of Contraceptives from 1986 to 1990" listed abortion as the number one contraceptive method with more than one million abortions performed, followed by the IUD, the pill, and female sterilization.14

The 1994 survey of rural and urban Vietnamese women obtained five year histories of reproduction, contraception, abortion, and symptoms of reproductive tract infections. A recent abortion, particularly in a rural area, strongly increased the chances of women having reproductive tract symptoms. For example, among women reporting an abortion or menstrual regulation in the last 6 months, 69.2% of rural women had probable reproductive infections compared to 42.1% of urban women. The authors concluded that the study demonstrated the need to improve the quality of care at abortion facilities, particularly in rural areas, and to reduce the use of pregnancy termination in Vietnam.15 Another study reported that an expression frequently heard among both men and women in Vietnam was "one abortion equals three deliveries" which meant that it is three times more taxing than a delivery on women's physical and psychological health.(14)

Turkey

Because of concerns over population growth, a law was passed in 1983 legalizing abortion through the end of the tenth week of pregnancy upon the request of the necessary individuals. In the case of juveniles, parental consent is required. In the case of married women, the written consent of both spouses is necessary. Doctors are also required to explain the possible health risks before proceeding with abortion.16 A Turkish law professor has concluded that treatment without consent or without informed consent is "medical malpractice" under Turkish law."17

In 1996, a study was published by the Population Council of 226 abortion consultations and abortion

procedures which primarily took place in family planning outpatient facilities of Turkish government hospitals. The study reported that virtually all of the women seeking abortion were married, their average age was 32 years, and they averaged three prior births. Seventy-seven percent of the abortion procedures were done by vacuum aspiration. A majority (87%) reported they did not desire any more children and 62% acknowledged having had a previous unwanted pregnancy. Among the women with previous unwanted pregnancy, there was an average of 3.1 abortions including the abortion on the day of the interview. The authors concluded that many of the women were seemingly locked in a cycle of unwanted pregnancy and abortion.

The quality of the counseling was poor

Approximately 78% of the women undergoing abortion said they had used at least one family planning method in the past, and two thirds said they were using a family planning method at the time they became pregnant (mostly withdrawal). The quality of the counseling was poor. Less than one-half (44%) were told what to do if they experienced any postabortion problems. Only one-third were aware that bleeding was a possible complication and only about one-fourth (27%) were aware of abdominal pain as a possible complication despite the fact that about one-half (47%) did not receive any medication for pain. Only 2% were aware of increased health risks with multiple abortions.[18]

The frequent non-use of contraceptives by Turkish women seeking abortion, as reported by the Population Council, has been found in other studies. Another Turkish study examined 85 couples who came to a family planning clinic for an induced abortion. Forty-seven (55.3%) of the women had at least one prior abortion and virtually all had knowledge of at least one effective contraceptive method. However, when pregnancy occurred, 70% were using ineffective methods or no method. In 80% of the cases both the woman and her spouse said they wanted the abortion. The authors concluded that it appeared that abortion was being used as a birth control method.[19]

Japan

In a Japanese study of the incidence of chlamydia Trachomatis among pregnant women in Nagasaki Prefecture, in 1996, 20.8% of the women were seropositive. A multiple regression analysis found that four characteristics showed a significant association with seropositivity: (1) premarital pregnancy; (2) non-use of condoms; (3) short duration of education and (4) more frequent induced abortion.[20] An earlier study in Hokkaido, Japan surveyed 3010 pregnant housewives and found an overall chlamydia Trachomatis incidence of 7.2%. A higher incidence of 21.9% was found among pregnant teenage housewives. Placenta previa, threatened abortion, preterm delivery, and small for date infants were higher in the untreated chlamydia positive group compared to the chlamydia negative group.[21] A higher incidence of chlamydia Trachomatis in adolescents compared to women in general has been found in several other studies.[22]

Adolescent pregnancy and frequent abortion has also been recognized as a serious problem in Japan.[23] A study examined beliefs, attitudes, behavioral and situational factors among Japanese adolescents in five major Japanese cities, finding that sexually transmitted diseases were related to their experiences with abortion, casual sex or prostitution, as well as the number of lifetime sexual partners. Casual sex was found to be significantly related to one's abortion experience or the abortion experience of the partner.[24]

Abortion has been found to be a risk factor for HIV virus in adolescents

Sexually transmitted diseases and abortion have also been linked in a study of adolescents at an adolescent services center in New York City. In this study, inner city adolescents who were HIV positive were

significantly more likely to have sexually transmitted diseases and a history of abortion.25 Another study of West African women with HIV-1 infection found that women under 20 years of age with a history of spontaneous or induced abortion increased the risk for HIV-1 infection to a greater degree than older women.26 There is evidence that adolescent abortion can result in a loss of desire for self-preservation. A study of 75 female runaway adolescents in New York City found that suicide attempts and suicide ideation were significantly related to having had an abortion.27 A study of adolescent prostitutes in Puerto Rico found that the path to prostitution begins with family or academic problems. This leads to early sexual experience with a boyfriend followed by pregnancy and abortion. Thereafter, there is economic and emotional despair resulting in prostitution and subsequent drug use.28

In 1998, the National Institute of Mental Health in Chiba, Japan published an important study on the psychosocial characteristics of Japanese women who obtained single and repeated elective abortions. The study evaluated 635 women who were expecting their first baby and who attended the antenatal clinic of a large general hospital in Japan. Some 103 (16.2%) of this sample had one prior elective abortion and 47 (7.4%) had experienced two or more elective abortions. Discriminant function analysis was performed using psychosocial variables. It was found that both first and repeated aborters could be predicted by smoking habits and an unwanted current pregnancy. Women who were repeated aborters differed from women with a single elective abortion in having a longer pre-marital dating period, non-arranged marriages, smoking habits, early maternal loss experience or a low level of maternal care during childhood. The authors concluded that the findings suggested that both the frequency of abortion and its repetition have psychosocial origins.29

The findings of this Japanese National Institute of Mental Health study are similar to the findings of an earlier Finnish study which also compared women seeking a second abortion with women with a single abortion. The Finnish study found that women repeating abortion had less capacity for integrated personal relationships and had experienced their family of origin as less secure, more conflict-ridden, and less expressive of emotion, more distant with more rejection by their parents. Women repeating abortion also had poorer relationships with their mothers, who provided less adequate models as women compared to women with a single abortion.30 Another study of women repeating abortion authored by a social worker at a London Hospital found that the women typically had unconscious conflicts and lack of nurturing in their family of origin. The women also had shallow relationships with the putative father and seemed to select male partners known to be objectionable to the repeaters' parents.31

Philippines

Although abortion is illegal in the Philippines, there are reports that it frequently occurs. According to estimates of the Alan Guttmacher Institute, 401,000 abortions occurred in 1994 (possible range: 320,000-481,000) at a rate of 25 per 1000 women aged 15-44. It was estimated at 5.1% of the women were hospitalized for abortion complications.(11)

Despite its illegality, there has been some limited study of abortion in the Philippines. One study interviewed 200 women between February, 1993 and June 1993 who reported with complications of induced abortion at Dr. Fabella Hospital and Philippine General Hospital. Twenty-six percent (26%) were age 24 and below, 27% were age 25-29, 31% were age 30-34, and 16% were age 35 and above. Seventy-three percent (73%) were married, 19% were in union, and 7% were single; 45% were not working and 55% were working. The educational level of the women was 8% primary education, 49% secondary education, and 43% higher education. Eighty-nine percent had at least one child and 30% of the married women had five or more children; thirty-five percent had used contraceptives, 74% said they did not want a child, 13% were undecided if they wanted a child, 12% said they wanted a child after 2 years, and 1% said they wanted a child as soon as possible. Despite having had an abortion, the women generally believed that abortion was not justified. The

reasons where postabortion women believed that abortion was justified are described in Table 1.

Table 1	
Attitude of Philippine women Toward Abortion Who Were Treated for Postabortion Complications -- 1993	
Reason for Abortion	Percent Who Agreed Abortion Was Justified in Given Situation
Pregnancy results from rape	57%
Pregnancy Bad for Woman's Health	10%
Woman is Unmarried	4%
Woman is in School	4%
Man is in School	4%
Fetus is Deformed	46%
Woman Has No Money But Has Many Children	16%
Last Child is Too Young	6%
Timing of Pregnancy is Wrong	13%
Pregnancy is Result of Incest	71%
Pregnancy is Result of Infidelity	16%

Some 89% of the women said it was difficult or very difficult to obtain an abortion. Abortions were obtained through a secret referral system involving a network of close friends or relatives. Abortions were performed by doctors and other paramedics, including nurses as well as self-acclaimed abortionists, including traditional healers. Abortions were also self-induced or performed by a close friend of the woman. The methods described to procure the abortion were bitter concoctions; assorted herbal medicines, excessive weight or pressure on the uterus and catheter insertion into the uterus. The average cost of the abortion was $35.

Women violated their own beliefs when they had abortions

With respect to their own reasons for abortion, women stated (1) they were having financial difficulties, because their husbands were unemployed or irregularly employed and an additional child would be a burden; (2) They themselves were working and another child would mean time away from work and consequent loss of badly needed income; or (3) she intended to leave the country to work abroad and therefore could not afford to be pregnant. Other reasons were related to fertility intentions or contraceptive failure. The authors noted the discrepancy between the reported attitude and the behavior of the women and concluded that "abortion is not an acceptable option even by those who resort to it, but it is the final option."32

A non-randomized survey of 286 women who had a past abortion was conducted in Luzon, the Visayas, and

Mindanao in 1979. Married women (75% of the sample) had a mean number of 5.4 pregnancies and a mean rate of 30.4 abortions per 100 pregnancies, while single women (25% of the sample) had a mean number of 1.4 pregnancies and a mean rate of 83.3 abortions per 100 pregnancies. Some 26.6% had repeat abortions (12.3% of single women; 30.1% of married women), and about 25% said they would consider another abortion. Most of the abortions were performed by a Hilot/hebolaro (26.8%), midwives (28.6%), or doctors (17.4%) or others with no medical status (22%). Only 3.8% of the abortions were self-induced. The primary reasons stated for abortion by married women were economic difficulties (32.5%); did not want more children (28.7%); child spacing (10.9%); work hindered by pregnancy (8.3%); or health difficulties (6.0%). The primary reasons stated by single women for abortion were ashamed/afraid of parents (32.9%); still studying (21.5%); boyfriend married/can't marry (30.4%). About 75% said they knew of one or more women who had had an abortion.33

A 1976 survey of all married women aged 15-49 was conducted in five rural villages in Cavite Province. Of the 676 women responding, 17% admitted that they had had at least one induced abortion. Methods used ranged from oral tablet, herb, injection, D&C, and massage. About 12% of the respondents were hospitalized with complications from abortion. Women age 25 or older were more likely to report having had an abortion compared to women under age 25. Women who had ever practiced contraception were more likely to report an abortion compared to those women who had never practiced contraception (30.1% v. 8.4%). Women with primary education or less were more likely to report an abortion compared to women with college or higher (18.9% v. 12.7%). Women who reported attending church 4 or more times in the last month were less likely to approve of abortion (34.5%) compared to women who attended 13 times per month (53.4%) or who did not attend in the last month (46.9%). Of the respondents who did not report having had an abortion, 25.8% said they knew how to obtain an abortion. Half of the respondents said they approved of abortion, 46% said they disapproved of abortion and 5% were ambivalent, 57% stated incorrectly that abortion is legal while only 39% said abortion was illegal.34

Maternal Mortality: International Perspective

Finland

Finland is one of the few countries in the world which has accurate birth, death and abortion registries. A Finnish register linkage study of birth, abortion, hospital records and death certificates of all Finnish women who died in 1987- 1994 found the mortality rate per 100, 000 of registered, ended pregnancies was 27 per 100,000 for births, 48 per 100,000 for miscarriages or ectopic pregnancies, and 101 per 100,000 for abortions. After an abortion the mortality risk was significantly increased for accidents, suicides, and homicides compared to women with no pregnancy. In contrast, the mortality risk following childbirth was decreased (but not significantly) for accidents, suicides and homicides compared to women with no pregnancy.35 [see Table 2] This study followed a register linkage of suicide among Finnish women during 1987-1994 which was one year after various pregnancy outcomes. This study found that the suicide rate associated with childbirth was 5.9 per 100,000 births, 18.1 per 100,000 miscarriages, and 34.7 per 100,000 abortions compared with a mean annual suicide rate of 11.3 per 100,000.36

Table 2

Risk of Pregnancy-Related Death: Register Linkage Study
Finland, 1987 - 1994

Age-Adjusted Deaths per 100,000 cases	Birth	Miscarriage	Abortion	No Pregnancy

Odds Ratio				
Total Mortality	0.50	0.87	1.76*	1.0
Natural Deaths	0.49	0.43	0.80	1.0
Accidents	0.49	1.40	2.08*	1.0
Suicides	0.57	1.44	3.68*	1.0
Homicides	0.31	1.82	4.33*	1.0
* Statistically significant within 95% confidence limits				
Source: Pregnancy-associated deaths in Finland 1987-1994 - definition problems and benefits of record linkage. M. Gissler et al. Acta Obstet GynecolScand 76:651, 1997				

The data quality of the Finnish register was evaluated prior to the mortality study and found to be a reliable source for the incidence of abortion.37 A British study of admissions of women of reproductive age to a health authority for attempted suicide also demonstrated an elevated rate for women with induced abortion compared to normal delivery. They concluded that a deterioration in mental health may be a consequential effect of induced abortion.38 Other studies have also found a higher incidence of psychiatric hospital admissions, suicide, illicit drug use, smoking, or other adverse psychosocial effects for postabortion women compared to postpartum women.39

Zambia

A community study in four districts of Western Province in Zambia identified 298 women who died after an induced abortion between 1980-1993. Of the women who were identified, 171 (57%) were schoolgirls, 111 (37%) were single, and 15 (5%) were married. About half of the abortion-related deaths were reportedly caused by an overdose of modern medicine, usually chloroquine.

The deaths occurred in an area where the social norms taught that a girl should be a virgin at marriage. However, it was determined that more than one-half of the secondary schoolgirls reported sexual contact, and 58% of the girls in grades 10-12 had had sex. Generally their sexual partners were not schoolboys, but workers, teachers, businessmen, and drivers who could provide money, transportation, or high marks in school. Most contacts were regular. One-fifth of the sexually active girls had casual partners as well. These were one night stands for pleasure or money.

The food in the boarding schools where many girls attended is poor and students have little or no pocket money to supplement their poor diet or buy a soft drink, soap, or other small items. Boarders lack the protection of their extended family and most of the girls depend upon their peer group and teachers for social contact. Most of the boarding schools tend to be far from the market and towns. Men in cars were observed waiting for the end of classes when they would offer schoolgirls a ride to wherever they were going. In exchange for sex they provide money, food, and transportation. Schoolgirls may use condoms which are usually provided by their partner. Since many of the partners are married, their relationship must be kept secret and pregnancy would reveal the secret.

It was reported that most pregnancies are unwanted by the schoolgirls. Girls often decided to abort before being discovered and possibly expelled from school. The girls anticipated a harsh reaction from parents at home if they disclosed their pregnancy. However, if the parents were informed, they would be upset initially but would accept the baby into their home. About one-third of the girls attempted abortion alone using a variety of methods. One-quarter of the attempted abortions were unsuccessful, resulting in childbirth. It was estimated that 1% of the secondary schoolgirls died of abortion complications despite the fact that Zambia has one of the most liberal abortion laws in sub-Saharan Africa. Other African studies cited in the article also found that unmarried schoolgirls in other countries, including Gambia, are a most likely group to undergo abortion.40 A Cuban study also reported that young women who were students had a risk of aborting which was 10 times higher than that of housewives and 7 times that of employed women of the same age with students in coeducational boarding schools being at the highest risk.41

Isolation of the young woman from a network of support appears to be a particular risk factor for pregnancyrelated morbidity or mortality. Another type of young woman which appears to be in this category is a maid in domestic service. A Brazilian study of women with postabortion complications found that women under age 20 who were maritally unstable were frequently working in domestic service as maids. The authors noted that these women often had no recognized employment status, live in poor conditions, experience less job stability, all of which which might lead to an abortion if pregnancy occurs.42 Students or women in Ethiopia who were maids or janitresses have also been found to be much more likely to die in childbirth compared with women who survive childbirth.43

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