International Journal of Gynecology and Obstetrics 118, Supplement 2 (2012) S87–S91

Contents lists available at SciVerse ScienceDirect

International Journal of Gynecology and Obstetrics

journal homepage: www.elsevier.com/locate/ijgo

CONSEQUENCES OF UNSAFE ABORTION ON MORBIDITY AND MORTALITY

Stories behind the statistics: A review of abortion-related deaths from 2005 to 2007 in Mexico City

Marieke G. van Dijk [a,*], Armando Ahued Ortega [b], Xipatl Contreras [a], Sandra G. García [a]

[a] Population Council Mexico Office, Mexico City, Mexico
[b] Ministry of Health, Mexico City, Mexico

ARTICLE INFO

Keywords:
Maternal mortality
Mexico
Unsafe abortion

ABSTRACT

Evidence suggests that restricting abortion does not reduce its occurrence but increases health risk. A qualitative analysis was performed, reviewing the medical charts of 12 women who died from unsafe induced abortions in Mexico City; most deaths occurred before abortion was decriminalized. Women resorted to using unsafe techniques, without medical guidance or under incorrect recommendations by providers, ultimately resulting in the loss of their lives. Postabortion care in private and public health facilities was often inadequate. The cases illustrate the importance of liberalizing abortion laws and improving postabortion care to protect the life and health of women seeking to terminate pregnancy.

1. Introduction

Of the 21.6 million women who resort to unsafe abortions worldwide, approximately 47 000 lose their lives because of complications [1]. Almost all unsafe procedures take place in developing countries, and generally women in the poorest countries are most at risk of having serious consequences of unsafe abortion [2,3]. Unsafe abortion, as defined by the World Health Organization, is a procedure to terminate an unintended pregnancy performed by an individual lacking adequate skills or occurring in conditions that do not meet basic medical standards, or both [4]. As one of the main and preventable causes of maternal mortality, unsafe abortion is one of the focal points of international efforts to achieve Millennium Development Goal 5, which aims to reduce maternal mortality by three-quarters by the year 2015 [5].

Evidence suggests that restricting abortion does not reduce its occurrence but instead increases health risk [6,7]. Despite having some of the most restrictive abortion laws in the world, Latin America and the Caribbean (LAC) has the highest rate of abortion at 31 per 1000 women aged 15–44 years [1]. In Mexico, this rate is slightly above this average (33 per 1000 women in 2006); recent estimates suggest that 874 747 induced abortions were performed in 2006 [8]. Table 1 lists the official maternal mortality statistics in the period spanning 2005 to 2008. According to the *International Classification of Diseases,* 10th Revision (ICD-10), "pregnancy with abortive outcome" has accounted for between 78 and 89 deaths in Mexico per year (6%–8% of all maternal deaths), making unsafe abortion the fifth leading cause of maternal mortality in the country [9]. In Mexico City, the number of abortion-related deaths (spontaneous and induced) has varied between 6 and 13 throughout the mentioned period (Table 1). Although the proportion of these deaths due to induced abortion is unknown, most are likely the result of induced rather than spontaneous abortion.

Table 1
Maternal mortality in Mexico and Mexico City

Location and cause	No. of maternal deaths			
	2005	2006	2007	2008
Mexico				
All	1242	1166	1097	1167
Due to "pregnancy with abortive outcome" [a]	93	94	81	76
Mexico City				
All	80	78	89	78
Due to "pregnancy with abortive outcome" [a]	8	8	13	6

[a] According to the International Classification of Diseases, 10th Revision (ICD-10), "pregnancy with abortive outcome" includes the following diagnoses: ectopic pregnancy; hydatidiform mole; other abnormal products of conception; spontaneous abortion; medical abortion; other abortion and unspecified abortion; failed attempted abortion; complications following abortion; and ectopic and molar pregnancy.

These numbers may seem relatively low, but almost all of these deaths represent women who suffered and then ultimately died seeking to terminate a pregnancy and suggest the psychological, social, and economic costs their families and society experienced as a result of their deaths. These are issues of tremendous public health importance and human rights concern.

In April 2007, in a decisive step forward for the country and region, Mexico City decriminalized elective abortion in the first 12 weeks of pregnancy. From the end of April 2007 to early June 2011, a total of 60 783 women had received safe, legal

* Corresponding author: Marieke G. van Dijk, Consultant for Population Council Mexico Office, Morelos 21, Col. Del Carmen Coyoacan, 04100, Mexico City, Mexico. Tel: +52 55 59998630.
E-mail address: mariekevandijkcph@kpnmail.nl (M.G. van Dijk).

abortion procedures in public hospitals and clinics run by the Mexico City Ministry of Health (MOH) [10]. Many private clinics also offer abortion services to meet the growing demand [11]. However, abortion laws continue to remain heavily restricted outside the capital city and abortion is permitted only for very limited indications. Although all 32 states permit abortion in the case of rape, 29 allow it when pregnancy threatens a woman's life and only 12 when it threatens a woman's health [12]. Furthermore, backlash from the legalization of elective abortion in Mexico City has caused 16 of the 32 states to amend their constitutions to include language that grants legal rights as a person to embryos from the moment of conception [13]. These reforms have the potential to further restrict the already limited legal options for women to receive safe abortion in these states, potentially leading to an increase in clandestine abortion.

In an effort to reduce the maternal mortality rate in Mexico, all maternal mortality charts are extensively assessed by state-level Ministry of Health Maternal Mortality Committees, composed of MOH and external maternal health experts. These Committees aim to evaluate causes of maternal deaths and provide recommendations on how to prevent them in the future [14]. The Mexico City Committee has repeatedly insisted on increasing access to safe abortion care and on providing training to physicians in the public and private sector on safe procedures to eliminate abortion-related deaths. Fortunately, along with the decriminalization of first-trimester abortion, most MOH public healthcare obstetrician-gynecologists have been trained in manual and electric vacuum aspiration (MVA and EVA, respectively) and medical abortion.

This paper attempts to illustrate the "human face" of the problem of preventable unsafe abortions and the resulting maternal mortality by describing case studies of women who died from unsafe induced abortions in Mexico City before and immediately after the reform. These stories strengthen the argument in favor of legalizing abortion in other Mexican states and countries with restrictive abortion laws and underscore the urgent need for improving postabortion care and contraceptive options to protect the life and health of women seeking to terminate pregnancy.

2. Methods

The Mexico City MOH authorized the authors to review maternal mortality medical records over 3 years (2005, 2006, and 2007). A qualitative analysis of a total of 478 medical charts was performed. The analysis reviewed the cause of death in the death certificate of each record and selected those that included hemorrhage, sepsis, or other causes without a mention of a specific underlying pathology that might have resulted from induced abortion for use in the study. In addition, those that did mention abortion as a cause of death were selected. A total of 33 such cases were identified. The contents of these records were studied and selection was made of those that specifically stated that the death was related to induced abortion either as reported by the patient or her family, or as indicated by a physician who suspected induction of abortion.

Twelve medical charts were located that indicated that the women had died from complications related to unsafe induced abortions, both before the decriminalization and in the year after the reform in Mexico City (2005: 5 cases; 2006: 3 cases; 2007: 4 cases, of which 3 occurred after the reform). The quality of the charts varied among the 12 cases, but they generally provided the most relevant information for the analysis. One chart included only a death certificate, and the limited information in this chart was used only for the overview of sociodemographic characteristics.

Relevant quantitative measures related to the women's sociodemographic characteristics and their reproductive history were extracted from the patients' medical charts in an Excel spreadsheet (version 2007; Microsoft, Redmond, WA, USA). Qualitative data on the abortion procedure and the patient's condition, diagnosis, and treatment were recorded in a Word document for each case. Some charts included information from reviews by the MOH Maternal Mortality Committee. The data were analyzed manually and the information was categorized by different themes, which included type of abortion method used, complications of the induced abortion, delay in seeking care, and treatment received in the hospital(s). Four cases were selected for this paper, to let the stories "speak for themselves". In the summaries of the cases, only the most relevant information from the medical records was included.

In accordance with the guidelines set by the Population Council's Institutional Review Board (IRB), this study was exempt from full committee review, as it required secondary data analysis of mortality records. Patient identifiers were blinded and each record was given a unique ID code. Nevertheless, investigators were required to describe the procedures used to ensure confidentiality and privacy of the information contained in the medical records. These procedures were also approved by the Mexico City MOH and the Maternal Mortality Committee of Mexico City.

3. Results

3.1. Characteristics of the women

The women in this study came from varying demographic and socioeconomic backgrounds. Their mean age was 28 years (range, 14–40 years). Regarding education level, 5 of the 12 women had completed secondary school, 2 were enrolled at or had completed study at the university, 1 had completed only primary school, 1 (aged 14) did not complete primary school, and educational attainment was missing for 3 women. As for occupation, 6 women worked in the home, 4 were students, 1 was a cook, and 1 a laborer.

From the notes recorded in the medical charts, the gestational age at the time of the abortion ranged from 4–21 weeks. In 4 cases, abortion occurred during the first trimester of pregnancy, while 5 occurred during the second trimester; gestational age was missing for 3 cases. None of the women received prenatal care. Nine women died in public medical facilities (2 of them were referred from a private institution or by a physician with a private practice), 1 woman died in a private hospital, 1 during the transfer from a private to a public hospital, and 1 in her home (her family brought the body to a private hospital). The death certificates in every chart reported hemorrhage and sepsis or septic shock as the cause of death, and several mentioned incomplete abortion as a secondary or tertiary cause.

The medical charts noted in a number of cases that clandestine "providers" induced the abortion using home remedies or procedures. In 3 cases, perforation of the uterus or other organs occurred, suggesting the use of sharp objects or a poorly performed dilation and curettage (D&C) procedure. In 2 cases, women had induced the abortion with misoprostol (in one case, misoprostol had been prescribed by a private provider; in the other, it was not reported whether the medication was prescribed or obtained in some other way), and in 1 case, with a "capsule" prescribed by a private physician, but with no further explanation of the method. In 6 cases, the chart omitted information on the abortion method.

3.2. Common themes that were identified

Common themes were identified during the chart review, such as women's fear of seeking medical help, incorrect use of misoprostol, and poor quality of postabortion care. Four cases of women's experiences that illustrate these themes are highlighted here. In each of the 12 cases reviewed, the medical histories suggested that unsafe abortion led to the death of previously healthy women.