

Overestimation of abortion deaths in Mexico hinders maternal mortality reduction efforts

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A collaborative study conducted in Mexico by researchers of the University of West Virginia-Charleston (USA), Universidad Popular Autónoma del Estado de Puebla (Mexico), Universidad de Chile and the Institute of Molecular Epidemiology of the Universidad Católica de la Santísima Concepción (Chile), revealed that IPAS-Mexico overestimated rates of maternal and abortion mortality up to 35% over the last two decades. The research, recently published in the *International Journal of Women's Health* highlights that Mexico shows a 82.7% reduction in maternal mortality between 1957 and 2010, from 216.6 to 37.5 deaths per 100,000 live births; for the period between 1990 and 2010, there was a 30.6% decrease in maternal mortality. "These results directly contradict the figures recently reported by researchers from the IPAS-Mexico, who not only fail to detect a significant progress in maternal health since 1990, but also substantially overestimated maternal mortality rates in Mexico" said Elard Koch, the Chilean epidemiologist that led the research.

The research group re-analyzed the official causes of maternal death registered in Mexico employing the International Classification of Diseases (ICD) of the [World Health Organization](#) and the figures of observed [live births](#) each year. In addition, the researchers directly compared the obtained data with the studies conducted by IPAS-Mexico, detecting that the discrepancies with the latter were due to errors in the numerator and denominator of maternal rates, as well as the inadequate use of ICD codes for death causes. "For instance, the nine codes related with death with abortive outcome are often grouped as if they were all

associated to illegal induced abortion; this is clearly inappropriate since ectopic pregnancy, spontaneous abortion, abnormal products of conception and medical abortion are unrelated to illegal abortion" explained Byron Calhoun, specialist in [Obstetrics and Gynecology](#) from the West Virginia University-Charleston and co-author of the study.

The study also shows that abortion mortality in the whole Mexican country has decreased to the point that approximately 98% of total maternal deaths are related to hemorrhage during childbirth, hypertension and eclampsia, indirect causes and other pathological conditions. Koch explained that "given the low figures of abortion deaths observed in Mexico and previous results observed in the Chilean natural experiment published in May of this year in *PLOS ONE*, it is very improbable that changes in the legal status of abortion can elicit significant effects to decrease maternal mortality in these Latin American countries." For instance, out of the 1207 total maternal deaths registered in Mexico during 2009, only 25 could be attributable to induced abortion, resulting in a mortality rate of 0.97 per 100,000 live births. In the case of Chile, out of a total 43 maternal deaths observed during 2009, only 1 could be attributable to induced abortion, with a mortality rate of 0.39 per 100,000 live births. "To evaluate what are the main causes of maternal death is crucial to promote adequate Public Health policies and allocation of resources in developing countries that are never unlimited." Koch and Calhoun agreed.

A fact that concerned the researchers is that part of [maternal deaths](#) due to induced abortion in Mexico may be related to violence against women during pregnancy, whose prevalence has increased alarmingly in the country. Surveys of violence against women (Encuesta Nacional sobre Violencia contra las Mujeres, ENVIM) conducted in 2003 and 2006 show an increase in the prevalence of intimate partner violence from 9.8% to 33.3% and of physical violence during pregnancy from 5.3% to 9.4%. "In addition to some deaths due to spontaneous miscarriages

rapidly complicated by sepsis, membrane rupture and subsequent abortion are often observed in pregnant women suffering episodes of excessive physical violence, falls or accidents. If these women do not receive prompt medical attention, they may die from clinical complications. It is important to remark that any of these abortion deaths cannot be avoided by promoting changes in abortion legislations simply because they are the result of other causes, especially multiple organ failure provoked by septic shock resistant to antibiotic treatment. In fact, these kinds of deaths occur in practically all parts of the world even with the highest maternal healthcare standards, regardless of the legal status of abortion" said Koch.

The researchers stated that implementation of emergency obstetric units and timely access to specialized medical care for high-risk pregnancies, especially in the most vulnerable regions, are key to further reduce [maternal mortality](#) in Mexico. "Hundreds of Mexican women continue to die due to hemorrhage, eclampsia and indirect causes; this suggests very concrete strategies that clearly are unrelated to the legal status of [abortion](#)" Koch and Calhoun concluded.

More information: Koch E, Aracena P, Gatica S, Bravo M, Huerta-Zepeda A, Calhoun BC (2012) Fundamental discrepancies in abortion estimates and abortion related mortality: A reevaluation of recent studies in Mexico with special reference to the International Classification of Diseases. *Int J Women Health* 4: 613-623. Available at www.dovepress.com/articles.php?article_id=11688

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