

Chile surpasses the United States in maternal health. A study positions Chile among the best in the world

Researchers of the MELISA initiative of the Universidad Católica de la Santísima Concepción (UCSC) publish a study on the PLoS ONE journal.

Chile is now positioned in first place in Latin America and second after Canada, surpassing the United States in the Americas overall, in regards to maternal health. This is according to a collaborative study by the Chilean Research Initiative on Maternal Mortality (CMMRI). This study was funded by UNC Women's Health Research (USA) and the organization for Research, Formation and Study of Women (ISFEM, Chile), and carried out by researchers from the UCSC, the University of North Carolina, and the University of Chile. The results were published on May 4th by the prestigious journal PLoS ONE (<http://dx.plos.org/10.1371/journal.pone.0036613>).

A scientific analysis of fifty years of data on maternal mortality in Chile revealed that the most important factor in its reduction is women's educational level. According to Dr. Elard Koch, an epidemiologist and lead author "higher education of women enables them to better use existing maternal health resources, including trained personnel for delivery, which directly leads to a reduction in their risk of death during pregnancy and childbirth".

Using official data from the Chilean National Statistics Institute compiled over fifty years (1957-2007), the authors looked at factors that could presumably affect maternal mortality, such as: educational attainment, per capita income, global fertility rate, birth order, water supply, sewer coverage, and delivery care by trained health professionals. They also analyzed the effect of policies on maternal mortality, such as historic educational and maternal health interventions, including the legislation that banned abortion in Chile since 1989.

Between 1957 and 2007, the maternal mortality ratio or MMR (maternal deaths related to pregnancy divided by the number of live births) dramatically declined by 93.8%, from 270.7 to 18.2 deaths per 100,000 live births, making Chile a model for maternal health in other countries. "In fact, in 2008, the MMR further declined to 16.5 per 100,000 live births, positioning Chile as the country with the second lowest ratio in the Americas after Canada and two points below the MMR of the United States" says Koch.

The ranking was elaborated using official statistics of each country, comparing them with data from the most recent World Health Organization's (WHO) technical report. The data showed that there was a significant overestimation of the MMR. For example, the WHO global report overestimates MMR values of the U.S. in 28.3%, Canada in 33.3%, Mexico in 48.6%, Chile in 57.6%, and Argentina in 76.3%. Consequently, "the WHO's report underestimated the progress made by several countries in reducing MMR" says Dr. Miguel Bravo, co-author of the study.

Among the variables that influenced the remarkable progress made by Chile, are factors such as access to qualified health professionals, supplementary nutrition for pregnant women and children offered through primary health care centers and schools, water supply, sewer coverage, and fertility. However, the most important factor, which increased the effect of all other factors, was women's educational level. For each additional year of maternal education, which increased in Chile from an average of 3.5 to 12 years, a decrease in the MMR by 29.3 per 100,000 live births was observed.