

# CHANGES IN YEARS OF LIFE LOST DUE TO BREAST AND CERVICAL CANCER IN MEXICO ACCORDING TO THE STATE MARGINAL INDEX 1997 AND 2007

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## 1. INTRODUCTION

Currently, breast cancer (BC) and cervical cancer (CC), are the first and second cause of death from malignant tumors among women in Mexico. In 2007, in 14.6% of female deaths that occurred in the country were caused by these two disease, however, little is known about the impacts on the lives and health of women are caused by these two cancers, according to socioeconomic characteristics women. That is why the aim of this study is to calculate the years of life lost (YLL) due to breast and cervical cancer in Mexico for the years of 1997 and 2007, according to the state marginal index.

The YLL is an indicator with which it comes to determining how many years of life lost on average a population for the death of people at certain ages and for different reasons. This technique has been used frequently in studies of mortality in Mexico, despite being one of the main tools to measure changes in the level of mortality

## 2. MATERIAL AND METHOD

Descriptive study, cross-sectional and comparative analysis using *Mortality Vital Statistics of Mexico* for breast and cervical cancer by 5-year age groups (from age 20 to age 79). To estimate the YLL the technique proposed by Arriaga in 1996 was used, using the

assumption of no mortality between the selected ages. Finally, the analysis was stratified by degree of marginalization to the state level developed by the National Population Council (CONAPO). Total records for BC and CC was 7754 to 1997, of which 10.7% were discarded individuals, in 8694 and 2007 was 11.6% cases were exempted for that year.

### **3. RESULTS**

For 1997, the YLL for CC were higher than the YLL for BC, a situation that was reversed in 2007. A decrease in the YLL for cervical cancer (0.048) and an increase for breast cancer (0.016) was observed in the analyzed period. By clusters, women living in places with high and very high marginality index lost more YLL due to cervical cancer, while women from more developed areas lost more YLL due to breast cancer; the group of medium marginalization had the biggest decrease in YLL due to cervical cancer and the most marked growth of YLL due to breast cancer compared to the other two groups analyzed (figure 1 and 2).

For all strata, the average YLL by CC in 1997 was considerably greater than the average for BC YLL. However, for 2007, women of average marginal regions with very low and low life years lost more than CC for BC. Although the CC is situated over BC in areas of high poverty and very high, these figures have been drawing ever closer, due to the marked decrease in deaths from cervical cancer and a sustained increase in BC.

Figure 1. Average years of life lost for breast cancer according to the state marginal index.  
Mexico, 1997 y 2007

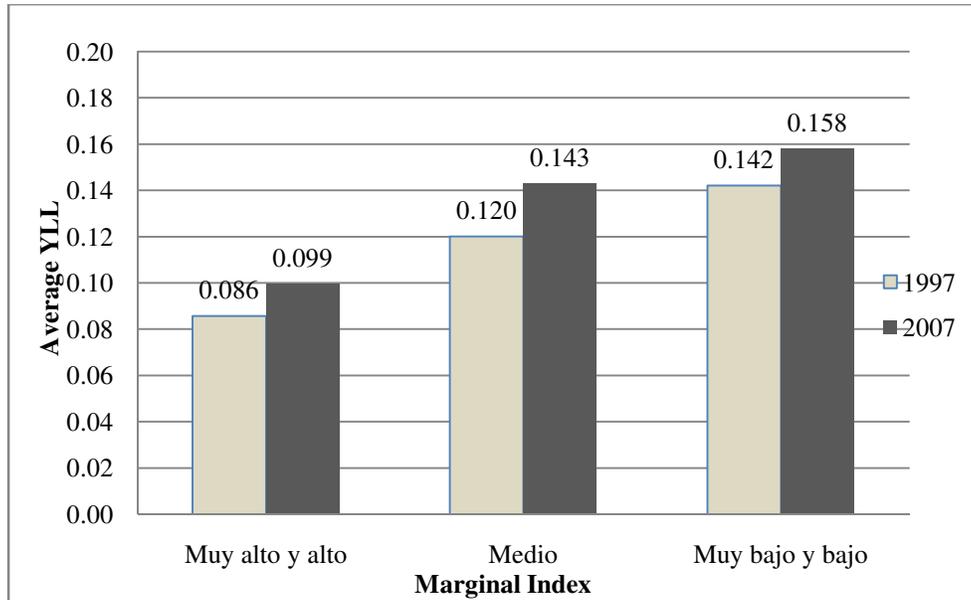


Figure 2. Average years of life lost for cervical cancer according to the state marginal index.  
Mexico, 1997 y 2007

