



D1 Homicides Mortality Trends in Puerto Rico — 1999-2007

Jose F. Rodriguez-Orengo, PhD*, Puerto Rico Institute of Forensic Sciences, PO Box 11878, San Juan, PR 00922-1878; Maria S. Conte, MD, Puerto Rico Institute of Forensic Sciences, Calle Maga Esquina Casia #9, San Juan, PR 00921; Francisco Cortes, MD, Institute of Forensic Sciences, Call Box 11878, Rio Piedras, PR 00922; Rosa Rodriguez, MD*, Edda Rodriguez, MD, Irma Rivera, MD, Javier Serrano, MD, Jose Torres, MD, and Francisco Davia, MD, Puerto Rico Institute of Forensic Sciences, Calle Maga Esquina Casia #9, Urb. Reparto Metropol, San Juan, PR 00921; Dario Sanabria, MD, Puerto Rico Institute of Forensic Sciences, Department of Pathology, PO Box 11878, Caparra Heights Station, San Juan, PR 00922-1878; Lee M. Tormos, MD, Instituto de Ciencias Forenses, PO Box 11878, Caparra Heights Station, San Juan, PR 00926; Juan Perez-Berenguer, MD, PR Institute of Forensic Sciences, Calle Maga Esquina Casia #9, Urb. Reparto Metropol, San Juan, PR 00921; Carlos F. Chavez-Arias, MD, Puerto Rico Institute of Forensic Sciences, PO Box 11878, Caparra Heights Station, San Juan, PR 00922-1878; and Magdalena Lopez-Charneco, MS, and Enid J. Garcia-Rivera, MD, Puerto Rico Department of Health, Epidemiology Office, PO Box 70184, San Juan, PR 00921

After attending this presentation, attendees will learn about the trends of homicides in Puerto Rico during the period of 1999 until 2007. The goal of this study is to increase the awareness of the forensic community, law enforcement, and public health agencies about the fatalities in Puerto Rico due to homicides.

This presentation will impact the forensic community by presenting statistical information about the trends and demographics of homicides in Puerto Rico during the first part of the 21st century including the gender difference, age range, and map distribution across the Island.

The Puerto Rico Institute of Forensic Sciences (PRIFS) serves a population of about 3.9 millions citizens. PRIFS was created by the Puerto Rican Legislature in 1985 and merged the Police Department Criminal Laboratory, the Forensic Medicine Institute of Puerto Rico, and the Bureau of Special Investigation's Technical Service Division of the Department of Justice. PRIFS receives all homicide cases for investigation. For this retrospective analysis, descriptive statistics with mortality rates were used age-adjusted to the Puerto Rican population established by the U.S. Census. The population estimate for each year was used to make accurate comparisons. Mortality rates and trends were stratified by sex and age.

For the period under study (1999-2007), 52,122 cases were analyzed of which 7,154 (14%) were classified as homicides. The number of homicides ranged from 729 (2000) to 838 (2004) with an annual average of 788 cases. The annual mortality rate did not have significant changes. The rate of over 19 homicides per 100,000 is the largest in the U.S. and its territories. The mortality rate for men was statistically higher than women with over 35 homicides per 100,000 for men compared to only 2.4 homicides per 100,000 for women (Figure 1). Eighty-five percent (85%) of homicides in Puerto Rico were committed using firearms with multiple shot wounds (semi-automatic and automatic weapons), followed by 6.6% of stab wounds, 5.3% of trauma, and 1.6% strangulation. In all categories, the percentage of men was higher (>70%), but for strangulation this percentage was similar, 54.3% for men and 45.7% for women.

The homicides were clustered in the age range of 15 to 44 years of age for both genders (Figure 2). The highest accumulation of cases is in the 20-24 years range with a mortality rate of approximately 600 homicides. Men in this age range had an outstanding cumulative mortality rate of 1,200 homicides. For year 2007, the mortality rate for men in the 20-24 years was 122 per 100,000 range and only 4.2 per 100,000 for women.

The distribution of homicides across the Island shows a pattern towards the northern part and San Juan in particular with a rate of over 40 homicides per 100,000.

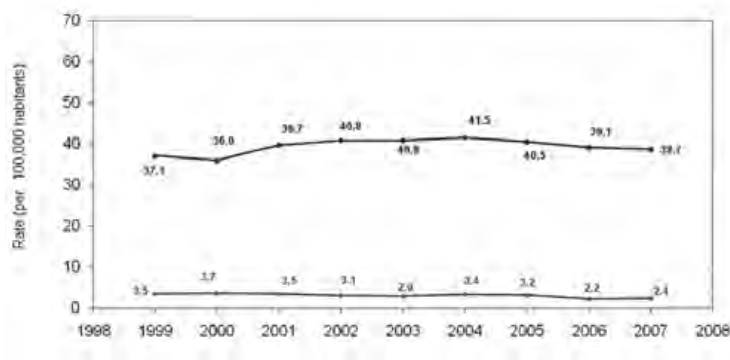


Figure 1. Mortality rate of homicides per gender for the period of 1999-2007 in Puerto Rico.

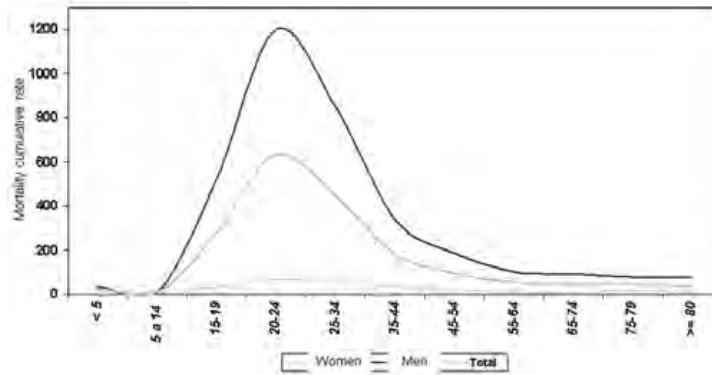


Figure 2. Cumulative homicide mortality rate per gender and age range for the period of 1999-2007 in Puerto Rico.

Homicides, Puerto Rico, Gender