

BREAST CANCER SCREENING PROGRAM: A POPULATION PROFILE OF CENTRAL PORTUGAL

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The Portuguese Cancer League (LPCC), a private non-profit organization, deals with multiple issues related to oncology. One of the activities that the League is involved in is the National Breast Cancer Screening Program, under a financial contract from Administração Regional de Saúde do Centro, and which relies on hundreds of dedicated volunteers from all over the country to help with fundraising activities and patient support. Everyday new cases of breast cancer are detected, not only in older women but increasingly in younger women too. An early diagnosis of the disease can make a difference in the chances of survival of a patient, in which a screening program can play an important role in early detection and thus dramatically reduce the mortality rate.

The breast cancer risk is associated with several reproductive factors, such as, early menarche and late menopause ages. In this early study, we have approximately 260,000 registries of women in the central region of Portugal. This region is composed of 12 distinct sub-regions namely: Baixo Mondego, Baixo Vouga, Beira Interior Norte, Beira Interior Sul, Cova da Beira, Dão-Lafões, Médio Tejo, Oeste, Pinhal Interior Norte, Pinhal Interior Sul, Pinhal Litoral and Serra da Estrela with a total of 100 counties (concelhos) representing approximately 25% of Portugal. The main objective of this study is to profile the population in these 12 regions in terms of the following variables: Age, Screening Date, Age of Menarche, Age of Menopause, Hormone Replacement Therapy, Pregnancy Status, Nursing Status, Contraceptive Pills. An exploratory data analysis is performed suggesting higher values for the median age of menarche for the regions Douro, Pinhal Interior Sul and Tâmega. Through a correspondence analysis we were able to identify that early menarche and early menopause are associated with women that were born later in our study, i.e. in the 1950s and 60s. This may explain the results found in the early exploratory data analysis where the span of time between age of menopause and age of menarche, representing a woman's years of fertility, increased from approximately 1910 until 1945 but decreased after that time.

In this study we were able to identify the similarities and differences for the central region of Portugal, together with a clear profile of the different counties that were considered, which will certainly stimulate further studies focusing on a multidisciplinary involvement between Statistics and Epidemiology.