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### Breast cancer screening programs and access to mammography in Spain

Luengo S<sup>1</sup>, Azcona B<sup>1</sup>, Lázaro P<sup>1\*</sup>, Madero R<sup>2</sup>, Alvira F<sup>3</sup>, Fitch K<sup>1\*</sup>.

<sup>1</sup> Health Services Research Unit, Instituto de Salud Carlos III, Madrid, Spain.

<sup>2</sup> La Paz Hospital, Madrid, Spain.

<sup>3</sup> Department of Sociology. Complutense University of Madrid.

#### Abstract

**Background:** Access can be measured by whether those who need medical attention receive it. Although controversy exists regarding the appropriateness of periodic mammographies, it is commonly agreed that women in a given age range should be screened for breast cancer.

**Objectives:** To identify how access to mammography differs among Spain's 17 Autonomous Regions (AR), and to analyze the association between mammography use and the existence of breast cancer screening programs.

**Methods:** Women aged 40-70 who had received at least one mammogram in the previous two years were considered to have access to mammography. A cross-sectional population survey was conducted between March and May 1994 in a sample of 3,218 women who were representative of all Spanish women aged 40-70. A questionnaire was used to collect data by personal interview on the dependent variable (mammography use) and the independent variables (factors related to access to the test). Information on breast cancer screening programs in the different Spanish provinces was collected by contacting the responsible institutions. A univariant analysis was conducted to evaluate the association between the existence of screening programs and mammography use. A multivariant analysis was conducted to estimate the effect of screening programs and other factors on access to mammography.

**Results:** The proportion of women who had received a mammogram was largest in Navarre (74%), the Basque Country (41%), Castilla-Leon (39%), and Catalonia (38%). It was lowest in Murcia (12%), Andalusia (13%), and Extremadura (14%). The univariant analysis showed an association between mammography use and the existence of a partial screening program (one not including all the municipalities of the province) (Odds ratio [OR]=1.3; 95% Confidence Interval [CI]=1.1-1.5) and the existence of a complete screening program (including all municipalities) (OR=3.9; CI=3.1-4.9). Asturias, Castilla-La Mancha, Castilla-Leon, Comunidad Valenciana, Galicia, Madrid, Navarre, and La Rioja had either partial or complete screening programs. The multivariant analysis revealed an association between mammography use and a) the existence of a partial program (OR=1.7; CI= 1.3-2.1), b) the existence of a complete program (OR=7.7; CI= 5.2-11.2), and c) residency in Catalonia (OR=1.9; CI= 1.2-2.7), the Basque Country (OR=3.4; CI=2.0-5.3), and Navarre (OR=3.5; CI=1.9-6.3). These associations persisted in the presence of various sociodemographic and health factors as well as attitudes of the women interviewed.

**Conclusions:** Access to mammography differs among Spain's Autonomous Regions. Increased access is associated with the existence of breast cancer screening programs and residency in Navarre, the Basque Country and Catalonia. Other factors that favor access to mammography in these regions should be studied.

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\* Current Address: Técnicas Avanzadas de Investigación en Servicios de Salud (TAISS). Cambrils 41-2, 28034, Madrid. Spain. E-mail: [taiss@taiss.com](mailto:taiss@taiss.com).