

# Breast Imaging in Argentina

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Argentina is the eighth largest country in the world by area and the 31st largest in population (43 million). The distribution of the population is uneven, with one-third residing in the province of Buenos Aires. Life expectancy is approximately 75 years.

Breast cancer is the top female cancer in Argentina both in incidence and cancer-related mortality. In 2016, there were 19,386 new female breast cancers and 5979 breast cancer-related deaths (A. Di Sibio, written communication with data from the Instituto Nacional del Cáncer [INC], January 20, 2018).<sup>1</sup> The incidence of breast cancer (71.2 per 100,000 women) is below those of the United States, Canada, Nordic Europe, and many Western European countries. The incidence is higher in the provinces with the largest populations. The mortality rate (18.8 per 100,000 women) is higher than in most of the previously mentioned countries.

## Breast Screening in Argentina

Mammography screening is currently opportunistic. Prior attempts to organize screening at national and provincial levels failed. Consensus guidelines from the most important breast health-related scientific societies and institutions recommend annual mammography starting at age 40 years for average-risk women.<sup>2</sup> According to a survey by the National Ministry of Health, women 50 to 70 years of age had screening or diagnostic mammography within the last 2 years at the following rates: 46.1% (2005), 59% (2009), and 65.6% (2013), which is an encouraging trend.<sup>3</sup> Cancer mortality decreased 1.3% annually from 2001 to 2011 but increased 0.6% annually between 2011 and 2015 (written communication with data from the INC, A. Di Sibio, January 20, 2018).

## Health System Providers and Breast Imaging Resources

In Argentina the health care system is organized around 3 main provider types. Social plans such as Programa de Atención Médica Integral (which is similar to Medicaid) cover medical care and medicines for all workers of the formal economy and their families (48.3%). Private-sector coverage includes private insurance carriers and people who meet the total cost of their health expenses (15.7%). The public sector covers the remaining 36% and provides free clinical care for inpatients and outpatients not covered by the other 2 systems, mainly through public hospitals run by the national and local

governments.<sup>4</sup> Breast imaging services are performed by all 3 provider types.

Most of the mammography units in the country are computed radiography units, and there are still some analog units in small towns and rural areas. The best equipment and human resources generally belong to the private sector. A few breast imaging centers and most of the large institutions in the main cities use state-of-the-art equipment, such as full-field digital mammography; some digital breast tomosynthesis; handheld and automated 3-dimensional ultrasound; percutaneous biopsies with ultrasound, stereotactic, and digital breast tomosynthesis guidance; and breast magnetic resonance imaging (MRI) units of at least 1.5 Tesla with dedicated coils. At least 4 places in the country perform MRI biopsies.

## Physician Training

Medical training includes 6 years of university and 1 year of training in the 4 basic medical fields (internal medicine, pediatrics, gynecology, and trauma). Radiology residency programs are 3 or 4 years long and exist in both public and private institutions. Few radiologists pursue a 1-year fellowship. Gynecologists and surgeons undergo a 2-year training program to become “mastologists.” Radiologists complete the same first-year program but a different second-year curriculum for accreditation as breast imaging “specialists” but are not called mastologists.

There is a shortage of breast imagers, as in most places in the world. Support for breast imaging is scarce in the public sector, probably related to lack of investment in equipment and instructors (personal communication, Susana Blanco, MD, of the INC, January 2018). Private institutions have better equipment in all areas of diagnostic imaging and may have better residency programs than the public institutions. There

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are male breast radiologists, but now medicine is dominated by women so most breast radiologists are female. Good radiologists in all fields are well considered and respected, but mastologists in general carry greater authority.

Quality control guidelines and voluntary accreditations for breast radiologists exist but are not required for daily practice. Nonetheless, many centers have good-quality images, especially in large cities. BI-RADS is widely used by radiologists dedicated to breast imaging, and BI-RADS categorization of reports is especially requested by referral physicians who are not breast specialists. Scientific societies like Sociedad Argentina de Mastología (Society of Mastology) and its branches in most provinces and the radiology societies (Sociedad Argentina de Radiología [SAR] and Federación Argentina de Asociaciones de Radiología, Diagnóstico por Imágenes y Terapia Radiante [FAARDIT]) are the primary educational sources for physicians and technologists.

The INC, founded in 2010, has led the critical job of collecting, analyzing, and disseminating data for physicians and the community. The INC is also a great source of education and training for physicians and technologists in the public sector to improve the quality of mammographic images.

### Screening Access and Awareness

The SAR, FAARDIT, and many nongovernmental agencies are the main sources of education and information for women throughout the year but especially in October, the Argentinian breast cancer awareness month. A national survey by the Society of Mastology<sup>5</sup> showed that women of lower socioeconomic status and lower educational levels were less likely to have had a mammogram, possibly because of a lack of information about prevention. Many women have knowledge about the disease but don't get a mammogram because "no one told them to do so." There is a direct relationship between clinical breast examinations and mammography referrals. When women older than 50 years, especially those of lower economic status and educational levels, switch from gynecologists to general practitioners for primary care, they may be less likely to receive clinical breast examinations in public hospitals and therefore may be less likely to receive mammography referral. The main message of awareness campaigns is to encourage women to have mammograms for early detection. These campaigns also educate women about the value of physical examinations.

The scientific literature is replete with data reporting variable access and rates of breast screening attendance because of many common barriers. If inequality according to socioeconomic status exists even with well-organized mass breast screenings where mammography is free,<sup>6</sup> it is worse in an opportunistic screening environment where the quantity and quality of the service varies across different sectors of the health care system.

**8** To save lives and minimize the impact of breast cancer.

## Breast Density Awareness and Supplemental Screening

Breast density awareness has been increasing. Although not officially mandated, most radiologists report breast density according to the BI-RADS lexicon. Personal doctors are responsible for advising patients on supplementary screening options and radiologists can do only what is requested by referring doctors. Education of referring doctors has increased requests for mammography and physician-performed ultrasound screening but there may be delays of 2 months for such combination examinations. Radiologists are well trained in the use of handheld breast ultrasonography devices, so this modality is considered cost-effective. Third-party payers usually cover supplemental ultrasound without complaint. Medical insurance covers the diagnostic study only if the referring physician requests it.

Supplemental screening with MRI is new and payers are variably cooperative. For MRI, the coverage depends on the detailed diagnostic justification and audit of the health system. High-risk patients may receive consultation at specialized centers with experts who evaluate and advise on surveillance strategies. There is a National Program of Familial and Hereditary Tumors, although it is not mandatory, so not all high-risk patients are evaluated by experts. All payers challenge referrals for MRI-guided biopsy.

### Challenges Ahead in Argentina

Access and quality remain our greatest challenges. Women of low socioeconomic status and educational backgrounds and those who live in rural areas are more difficult to engage in clinical consultation and mammography screening. Improving the quality and quantity of breast imaging equipment and support staff are especially needed to address underserved populations. Thank you for your interest in our vast, beautiful country of Argentina. Please come visit!

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