OBJECTIVE: to identify key characteristics of governmental programs for attention to women health for breast cancer control. Methodology: document review in folders and websites of governmental agencies and NGOs, from March 2010 to June 2011. Found materials were pre-analyzed, analytically described, and interpreted according to theoretical references. Results: from analysis, there were at Federal level, the National Program for Cervical and Breast Cancer Control, named “Viva Mulher”; in Paraná State, the Program for Prevention and Control of Gynecological Cancer; and at municipality of Curitiba, the Women of Curitiba Program. Conclusion: those programs aimed at cancer early detection, highlighting the nurse practitioners and physician services. The number of diagnoses increased, suggesting greater supply. With scientific advances in this area, it is clear that most current programs improved strategies for breast cancer control. Descriptors: governmental programs, strategies, breast neoplasias.

RESUMO

Objetivo: identificar as principais características dos programas governamentais de atenção à saúde da mulher para o controle do câncer de mama. Metodologia: revisão documental em folhetos e sites de órgãos públicos e ONGs, de março de 2010 a junho de 2011. Os materiais encontrados foram pré-analizados; descritos analiticamente; e interpretados à luz do referencial. Resultados: da análise emergiram: em nível Federal, o Programa Nacional de Controle do Câncer do Colo do Útero e de Mama - Viva Mulher; em nível Estadual do Paraná, o Programa de Prevenção e Controle do Câncer Ginecológico; e em nível Municipal de Curitiba, o Programa Mulher Curitibana. Conclusão: os programas visam à detecção precoce, sendo o enfermeiro e o médico os profissionais destacados. Houve aumento no número de diagnósticos, sugerindo maior oferta; e com os avanços científicos na área, percebe-se que os programas mais atuais aperfeiçoaram estratégias para o controle do câncer de mama. Descritores: programas governamentais; estratégias; neoplasias da mama.
INTRODUCTION

The rise of women in predominantly male activities has brought greater visibility to the genre, thus, the female specific diseases also had a higher profile, making necessary in the first decades of the twentieth century the creation of national health policies aimed at attention to women's health for reducing childish and maternal morbidity and mortality.1

Female’s achievements over the decades resulted in increasing women participation in the labor market, especially from the 1970s, when there was an intensification of their accession to economic activity. In 1981, the female labor force represented 32.9% of the labor market; in 2006, increased 7.55%, representing 40.45%; in 2010, 17.9 million (41.33%) from 43.3 million jobs in the country were represented by women.2,3

Following the increasing women participation in the labor market, the increased number of breast cancer cases is noted in recent decades. In 1979, mortality due to this disease was 8 per 100,000 women. In 2004, 12 from 100.00 women have died by this neoplasia.4

Currently, breast cancer corresponds to the higher incidence of neoplasia among women in Brazil, except for nonmelanoma skin tumors. It has been observed the significant increase of the disease new cases in both developed and developing countries. In developing countries, about half of new cases and two thirds of deaths are expected.5

Although the biopsychosocial disorders resulting from this disease, breast cancer is considered a cancer of good prognosis. It is believed that its discovery at early stages will influence patients to face the neoplasia, which may act in the cancer progression or regression6. However, about 60% of the cases are identified in advanced stages (III and IV), showing the delay in detecting the tumor, resulting in mutilating treatments for the woman.7

In developed countries, as a strategy of early detection, screening mammography and treatment provision have reduced this disease.8

Considering that the Brazilian government has measures to reduce mortality due to breast cancer, this study sought to identify key characteristics of governmental programs for attention to women's health for the control of breast cancer, and to consider the purpose of each program, the professional people involved, and the developments and contributions of those programs.

METHOD

It is a documentary research, since searches informations were performed in documents that have not been rigorously analyzed, consisting of more dispersed and diversified sources.9

The search for documents relating to programs for breast cancer in women occurred from March 2010 to June 2011, identifying programs in Federal level, State of Paraná and Curitiba City, Brazil. The search was performed on governmental websites as Ministry of Health, State Health Department of Paraná, Department of Health of Curitiba, Curitiba City Hall, and the Special Secretariat for Community Relations, in addition to folders prepared by the Government and websites from non-governmental organizations.

Programs were initially selected from 2005, however, because there is no implementation of new program at Federal level at this time, the search has gone back to 1997, when the deployment of “Viva Mulher” Federal Program was implemented.

After selection, these documents were organized into folders according to the level of government to which they belonged. Then, the reading of the material, data pre-analysis, analytical description, and results interpretation were performed under theoretical reference.

This study includes an objective of a larger project of Scientific Initiation Research of the Nursing course at the Federal University of Paraná State, that was approved by the Ethics Committee in Research of the Department of Health Sciences, Federal University of Paraná, under the number 703.038.09.05 registration and CAAE - Certificado de Apresentação para Aprovação Ética (Presentation Certificate to Ethics Appreciation) number 0017.0.091.085-09.

RESULTS

- Federal Level

With the participation at the VI World Conference about Women held in China in 1995, the Brazilian government has pledged to develop strategies to control cancer of the cervix in the country, launching in 1997 the pilot project “Viva Mulher”, National Program for Cancer Control of the Cervix in the cities of Curitiba, Recife, Rio de Janeiro, Belém, Federal District, and the state of Sergipe.10
Initially, program’s actions were directed only to cervix cancer, and in November 1998 initiatives began to create the guidelines of the National Program for Breast Cancer Control. In 2000, the first phase of the “Viva Mulher” Program was deployed with actions aimed at early breast cancer detection. The government has established partnerships for modules development to train health professionals from primary units, enabling professionals to collect the material for Pap test and performing the breast clinical examination.\textsuperscript{10-1} The training was developed in 2001.

To achieve the program goal, five strategies were stipulated, developing actions for greater adherence (lectures, workshops), providing access to care, assessing and monitoring the program, educating and training professionals (continuing education), and tracking changes in professional and patient profiles.\textsuperscript{12}

In 2002, discussions of strategies for the breast cancer control were occurred, and in 2003, the Ministry of Health, the National Cancer Institute, and the Technical Area for Women’s Health with support of the Brazilian Society of Mastology held a workshop to develop recommendations for breast cancer control in the country. From this workshop, the Consensus Document for Controlling Breast Cancer was prepared and published in 2004 with recommendations for prevention, early detection, diagnosis, treatment, and palliative care for breast cancer.\textsuperscript{13}

Through “Portaria” (Ordinance) No. 2.439/GM of December 8, 2005, the Ministry of Health established the National Policy for Oncology, which included the health promotion and rehabilitation, besides the actions proposed by the Consensus Document. That “Portaria” contemplated, among other things, the establishment of a Tobacco Control Plan and other Risk Factors of Cervical and Breast Cancer.\textsuperscript{14}

In 2006, the commitment to the breast cancer control was again reaffirmed with the Pact for Life, through the goals of expanding the mammograms coverage for 60% of women and to perform the puncture in all needed cases.\textsuperscript{15}

The Consensus Document cites smoking and obesity as risk factors for developing breast cancer, noting that actions to promote health should be developed to prevent chronic diseases in general, not only breast cancer. As strategy for early detection, clinical breast exam is recommended for women of all ages as part of integral health care. Annual mammography and clinical examination are recommended for women after 35 years old, who are at high risk. With the purpose of tracking the disease, clinical examination should be performed annually in women after 40 years old, and it is recommended at least one mammogram every two years to women between 50 and 69 years old. Women subjected to these examinations must have guaranteed access to other procedures of diagnostic investigation and treatment when needed.\textsuperscript{8,16}

The document does not mention which professionals are trained to develop early detection actions, citing the multidisciplinary team only from the diagnosis of breast cancer, composed by the physician, nurse, psychologist, physiotherapist, occupational therapist, social worker, and nutritionist. However, already in 2001, “Viva Mulher” pointed to the doctor or nurse as responsible for carrying out clinical breast exam during the routine visit.\textsuperscript{8,12}

The Consensus Document predisposes the participation of nurses soon after the diagnosis and surgery through the nursing visit to assess the operative wound and guide the patient to discharge, directing her toward self-care, and refer women for support groups in order to reinstate her to everyday life.\textsuperscript{8}

Even as the nurse’s activities, the Book of Primary Care - Control of the Cervix and Breast Cancers - 2006 cites the nursing consultation, the collection of preventive screening and clinical breast examination, the request for additional tests, and medications prescription. This attends the protocols or regulatory established by the managers of the municipality, paying attention to the profession’s legal provisions.\textsuperscript{17}

- State Level

At the state level, the State Department of Health of Paraná implemented in October 1997 the Program for Prevention and Control of Gynecological Cancer, which initially aimed only to reduce mortality due to the cervical cancer in Paraná.\textsuperscript{18}

In 2002, the State Department of Health (Secretaria Estadual de Saúde - SESA) established the Program for Early Detection of Breast Cancer, seeking to expand the actions to prevent this cancer in the state, improving women’s access to Health services.\textsuperscript{7}

Since 2003, the Program has adopted the Gail model to assess the individual potential risk that is asymptomatic for development of breast cancer

With this model implementation, women over 35 years old who go to the Health Unit are interviewed about five risk factors...
associated with increased likelihood of developing breast cancer, related to patient age, early menarche (before 11 years old) or late menopause (after 50 years old), history of immediate family with a history of breast cancer before 50 years old (mother or sister), nulliparity or first child at late age (after 30 years old), or if the patient already had a previous diagnosis of hyperplasia with atypias.\textsuperscript{19}

The Gail Model is a computerized statistical program and thus, after answering 5 questions, an immediate calculation evaluates the statistical chance of patient developing breast cancer in the next five years, enabling the disease tracking in the population and a more specific careful to women at higher risk.\textsuperscript{19}

When the calculation results above 3.6, it is called Relative Risk for the woman. This way, she will receive guidance on such risk and, according to her clinical needs, mamrogram or breast ultrasound are indicated, or this woman is forwarded to the referral center for specialized consultation.\textsuperscript{19}

The State Program also supports the orientation of monthly breast self-examination following a clinical breast examination by the doctor or trained nurse to all women, especially for those over 40 years old. Mammography is indicated annually to women from 40 years old, when abnormalities are identified by medical expert examination.\textsuperscript{19}

In addition to the Program for Prevention and Control of Gynecological Cancer, other actions are developed to combat breast cancer, as the “Chaveiro da Vida - prevenção ao alcance das mãos” (“Chain of Life - prevention at hand”) project idealized in 2004 by a former cancer patient, along with other former patients, who saw a need for more informations about this disease. Through workshops and lectures, the project seeks to convey informations to women about the importance of early breast cancer detection.\textsuperscript{20}

Since 2008, the Special Secretariat for Community Relations (Secretaria Especial de Relações com a Comunidade - SERC) implemented “Chaveiro da Vida” in “Paraná in Action” project that roam the state providing knowledge about various subjects.\textsuperscript{18}

\textbullet{} Municipal Level

In 1997, when “Viva Mulher” program was launched, the city of Curitiba was chosen as a pilot capital for its implementation. By the positive results, after five years the program “Viva Mulher” 2002: “The Control of Breast and Cervical Cancer in Curitiba” was created.\textsuperscript{21}

As a measure to combat breast cancer, the program recommended that the health professional, doctor or trained nurse, using the woman's attendance at the Health Unit to carry out preventive examinations for cervical cancer, should perform a clinical breast exam and offer guidance regarding to monthly self-examination.\textsuperscript{21}

Based on studies showing that rates of breast cancer double from 50 to 59 years old, compared with the age group between 40 and 49 years old, the municipal government of Curitiba through Municipal Health Secretariat launched on November 19, 2009, the “Mulher Curitibana” (Woman from Curitiba) Program.\textsuperscript{22}

The “Mulher Curitibana” aims to prevent chronic diseases that affect women after 50 years old, with the main focus on early diagnosis of breast cancer.\textsuperscript{22}

To develop this program, there was an initial study of women profile from Curitiba, identifying about 220,000 women in the range of 50 years old; 70% are users of the Sistema Único de Saúde (Unified Health System) (154,000 women). From this survey, it is proposed to achieve an average of 12,800 visits/monthly, almost doubling the supply of Computed Tomography Laser Mammography (CTLM), biopsy needles, health-trained professionals for the treatment, insured laboratories and tertiary referral services. However, the program first results indicate that the average of attendance has been 7,000/month, below the expected attendance.\textsuperscript{22}

\section*{DISCUSSION}

The morbidity and mortality due to the breast cancer has increased dramatically in Brazil in recent decades. In 1980, it was noticed that a mortality rate was 9 per 100,000 women from the disease, while in 2007 the rate increased to 11 per 100,000 women.\textsuperscript{23}

The finding about the increasing number of breast cancer cases may be related to many factors as increased screening, monitoring, disease registry, as a result of improved diagnosis, the quality of information from death certificates, resulting from advances programs for detection and early diagnosis of breast and cervix cancer implanted in the country from the 90's such as “Viva Mulher”, a program implemented by the Federal Government in 1997.

The main actions focused by governmental programs to reduce incidence rates and
mortality due to the disease are the risk factors prevention and early detection through routine screening, especially the clinical breast examination and mammography, performed by doctor or trained nurses.

It is estimated that the potential of mammograms production and the number of CTLM in use by Serviço Unico de Saúde - SUS (National Health Service) is sufficient to cover at least 50% of the target population in all Brazil regions44, that is a low number considering the goal of 60%, according to Pact for Health.

Between 2000 and 2007, the number of performed mammograms in Brazil increased in 118%. However, despite having the ability to perform 17,000,000 mammograms/year, now the availability is 2,847,000 mammograms/year, with the possibility of increasing to 4,470,000 by 2011. But, 6,180,000 mammograms/year would be needed to attend 70% of the target population.24

Despite efforts to increase the number of mammograms, it is remarkable the poor distribution of equipment, its poor quality, and lack of training employees. Considered by the Brazilian College of Radiology, the good quality of mammograms in 75% of examinations in 1995 decreased to only 10% in 2008.24

The sensitivity of mammography is between 88% and 93.1% and its specificity is between 85% and 94.2%. In addition, the proper equipment, technical knowledge, professional practice and dedication will influence the result quality of mammogram.

Studies carried out in developed countries show that the performance of screening mammography in women from 50 to 69 years old significantly reduces mortality indexes caused by breast cancer. However, mammography does not replace the clinical breast exam, thus, the screening mammography and clinical breast exam are still strategies for early detection of breast cancer in Brazil.5

In addition, screening mammography should be performed even before starting hormone replacement therapy, preoperative plastic surgery, and following-up after mastectomy, in order to monitor the standard breast of the woman, which will serve as a basis for analyzing the emergence of changes in mamma.16

When considering that SISMAMA - Sistema de Informação do Câncer de Mama (Information System of Breast Cancer) data support the actions monitoring for early breast cancer detection, preliminary results are in line with expectations. From June 2009 to March 2010, around 928,000 mammograms were made; 7% were diagnostic mammograms and 93%, screening mammograms. Analyzing data by state, especially the northern region, there is higher number of diagnostic tests than of screening tests and there is a discrepancy among results from other regions.25

Incompatible values between one region and another are due to the possible error on clinical indication of exam or data entry25, revealing the lack of guidance and training of professionals for programs execution. In this case, the programs objectives are not being met effectively, because it is the same program for all the country. The gaps among data from each state draw attention, because the federal protocol is the same for all states.

**CONCLUSION**

Brazilian governmental programs seek to detect and diagnose earlier the breast cancer, aiming to reduce mortality and injuries due to this disease in the country. To achieve the proposed objectives, the programs focus primarily on early detection through routine exams as clinical breast examination and mammography.

The doctor and nurse are the health professionals cited in the programs with regard to primary care. Being a professional who has intense contact with the population, the nurse has a relevant role of awareness among women about the risk factors for developing breast cancer, as well as methods to detect it early.

The most current program implemented at the federal level is adopted by all instances with adaptations according to specific characteristics of the attended population in consequence of regionalization and services hierarchization.

Since the beginning of the programs implementation to the present day, we see the update of informations and adaptations to new technologies related to scientific advances, such as the creation of Documento de Consenso (Consensus Document) in 2004 and Caderno de Atenção Básica (Notebook of Primary Care) in 2006.

However, despite advances, the incidence of breast cancer continues to grow in both developed and developing countries, stimulating further research into whether increasing relates to better tracking of the disease, the improvement of monitoring and recording of malignancy or inefficiency in the execution of programs to control the disease.
REFERENCES


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Corresponding Address
Deisi Cristine Fortin
Lamenha Lins, 260, Ap. 1202
CEP: 80240-030 – Uberaba (PR), Brazil