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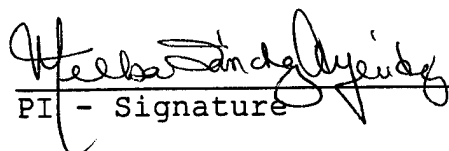
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**Knowledge and Beliefs of Breast Cancer among
Elderly Puerto Rican Women**

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Knowledge and Beliefs of Breast Cancer among Elderly Puerto Rican Women

Introduction

Description of the Problem

There is a need to have more information on barriers to breast cancer screening in older women, particularly the effect of physician referral and the women's knowledge and attitudes. In the case of minorities, this need becomes more important due to other existing barriers in the health care delivery system. Most studies on breast cancer in elderly women focus on epidemiology and the effect of screening modalities. Few address the equally important issues related to how cultural value orientations, beliefs and the type of information exchanged in the client-physician relationship affect breast cancer knowledge and screening practices. This is relevant to the design of programs directed to prevention of breast cancer and the development of an awareness of the need for screening examinations, including breast self examination (BSE), clinical breast examination (CBE), and mammogram among the cohort of women 65+.

Cancer was the second cause of death for older women in Puerto Rico for 1990 (1). Heart ailments was first and diabetes, third. In terms of breast cancer morbidity, when age specific breast cancer incidence rates are calculated for 1990, there is an increase from 88.7 per 100,000 females 40 to 44 to 202.7 per 100,000 females 75 or older (2). Hispanic women's utilization of CBE and mammogram are lower than that of their White and Afro American counterparts (3). The Report "Healthy People 2000" (3) points out that among Mexican American, Cuban and Puerto Rican elderly women, Puerto Ricans comprised the largest group who had never heard of a mammogram. Another study of older Hispanic women indicated that 57% stated that no one had suggested a CBE within the last years and 82% said no one had indicated that they have a mammogram (4). However, a study with Latino women pointed out that physician recommendations and discussion with either a doctor or nurse had an association with ever having a mammogram (5).

Purpose of the Report

The results which are discussed in this report are part of a qualitative and quantitative study to address some unanswered research questions in breast cancer early-detection practices, particularly as it relates to minorities and, specifically, to Latinas. The research design aims to gain insight of some personal and external barriers affecting breast cancer early detection practices of elderly women (65 and older) in Puerto Rico. It centers on beliefs, knowledge and practices. An educational program for Puerto Rican elderly women will be designed and implemented based on the research findings. Focus groups and individual interviews are the research techniques used to explore a range of issues concerning barriers for breast cancer screening that will contribute to attain the research's objective. The principal source of information for the quantitative study are the interviews of elderly women obtained through a random sample of households. This presentation is centered on the analysis of the focus groups --the first stage of the project--, the validation process of the questionnaire for the national survey --the second stage of the project--, and the data collection of the national survey --the third stage of the project--.

The results of the focus groups have been used to construct a cohort- and culturally-sensitive questionnaire. The questionnaire was validated for the population under consideration and was applied to a national survey of 500 Puerto Rican women 65 and older. The analysis of the information obtained from the national survey will be conducted during the third year of the project.

Focus Groups¹

Focus groups were conducted to gain insight among women 65 years of age and older in Puerto Rico of breast cancer and screening issues ranging from breast cancer knowledge and beliefs to perception of barriers for early detection practices. Seven focus group discussions with a maximum of ten persons each were conducted. A total of 62 women between the ages of 65 to 89 participated in the focus groups. The median age was 72 years. Criteria for eligibility included: (a) female 65 or older, (b) resident of Puerto Rico for at least the last six months, (c) mentally alert, and (d) voluntary participation.

Sample was stratified according to two variables: level of education and area of residence. The definitions used by the Department of Labor of the Commonwealth of

¹ A detailed narrative of the focus-groups stage appeared on Report I (October 1995). The present report is an expansion of the analysis described on the previous account.

Puerto Rico (5) were used to categorize level of education into professional and non-professional. Professional identified those women who had held occupations which required a degree such as a university, associate or technical degree. Thirty seven percent of the participants were professionals and had a university degree whether Bachelor's or Graduate while 63% were non-professionals. Eight per cent of the older women were illiterate and 11% had completed third grade.

Census definitions were employed for designation of metropolitan and non metropolitan areas (6). Four focus groups were conducted in the metropolitan areas and three in the non metropolitan areas. The seven focus groups were divided as follows: (a) two groups of professional elderly women from the metropolitan areas, (b) two groups of non-professional elderly women from the metropolitan areas, (c) one group of professional elderly women from a non metropolitan area, and (d) two groups of non-professional elderly women from a non metropolitan area.

The Instrument

The focus groups discussions revolved around: (a) breast cancer knowledge and beliefs, (b) practice and knowledge of early detection procedures, (c) information provided by physicians, (d) screening exams ordered by physicians, and (e) reasons for not seeking screening procedures. An instrument of open-ended questions was developed for this purpose based on review of the scientific literature.

Data Analysis

The interpretation of the themes expressed by the participants revolved around four main variables: knowledge of breast cancer, personal or internal barriers, external barriers and early detection practices. Each category was subdivided according to different modalities. The theme of personal or internal barriers was itemized into: (a) beliefs of breast cancer and early detection practices, and (b) attitudes. The external barriers theme was grouped into five categories: (a) cost, (b) accessibility, (c) relationship with health professionals, (d) information provided by the media, and (e) information provided by lay persons. The theme of relationship with health professionals was further subdivided into: (a) early detection screening ordered or performed by physician, (b) gender of the health professional, and (c) information provided to the elderly woman. The analysis of the early detection practices centered around three classifications: (a) BSE, (b) CBE, and (c) mammogram.

Definitions

The following definitions were developed for the analysis:

1. **Knowledge:** A view of an issue that conforms to experience and reality. It is based on scientific knowledge and is verifiable. For the analysis, it centered upon the National Cancer Institute's explication of: definition of the disease, types of breast cancer, early detection, symptoms, diagnosis, and treatment (7).

2. **Belief:** Opinions that are not based on scientific knowledge. They are held without the need of corroboration. A belief is not dependent on the objective truth (8). For the study, if a belief was established on factual evidence it was considered as knowledge. If it was based on other factors such as prejudice, intuition, hear-say or superstition, among others, it was regarded for purpose of analysis as a belief.

3. **Attitude:** An acquired or learned predisposition to act in a determined way in relation to something or someone (9).

Although lack of knowledge of definitions and symptoms of the disease as well as current guidelines suggested by the National Cancer Institute was used to define beliefs, in no way did the research team perceived this as a deficit knowledge in a negative way. The purpose was to focus on what the women know in order to further our understanding of risk factors and early detection practices.

Results of the focus groups

Wording

Participants used a variety of words and expressions to denominate topics related to breast cancer. These pertained to: (a) parts of the body (breast, reproductive organs), (b) symptoms and effects of breast cancer (nodules, metastasis, breast hardening), and (c) exams and procedures (BSE, CBE, mammogram, breast amputation, biopsy).

Professional women used scientific words to denominate breast cancer issues more than non-professional women. As an example, professional women referred to "nodules" as a symptom of breast cancer while non-professionals used terms such as "little balls", "tiny mass," or "something hard". Professional women used the word "metastasis" while non-professionals remarked that cancer "is something that spreads or runs throughout the body". Non-professionals denominated mammograms as "breast plaques", "cancer examination", or "plates that press the breast". Professional women used the nomenclature "mammograms" and "sonomammograms". Professional women utilized the

term "biopsy" whereas non-professionals employed "the needle exam". Professional women talked about symptoms that could be confused with breast cancer using terminology such as "calcifications" and "fibrocystic disease". Some of the non-professional women were aware that certain symptoms can be confused with breast cancer but did not use the same vocabulary. They alluded to "hardenings" or "little masses" that were "not diagnosed as breast cancer". Non-professionals talked about "amputation of the breast" while professionals talked about "mastectomy". Professionals spoke about "partial or radical mastectomy" and their counterparts about "removal or amputation of the whole breast or the breast"; not placing so much emphasis on how much of the breast was left.

It was observed that none of the participants, even those professionals who were physicians or worked as volunteers at the Puerto Rico Cancer Society, employed the scientific term for breast cancer in Spanish. In Spanish the scientific term for breast cancer is "*cáncer de mama*". The participants utilized "*cáncer del seno*" which is the widely used term in Puerto Rico and most Spanish-speaking countries. This is culturally related. Breast-feeding is a function of the breast and in Spanish breast-feed is "*amamantar*" or "*darle al bebé de mamar*". At the same time, the breast has a sexual function. In a cultural tradition where a strict dichotomy exists between a woman's maternal² and sexual roles, a distinction is made between both functions of the breast and a more euphemistic terminology is used to establish a compromise between both spheres of female activity (10). The term "*seno*" is the socially accepted term for this part of the female anatomy. At the same time, the use of "*seno*" could also be cohort-related. The women who participated in the study grew up in an era where male and female anatomy terminology were not easily verbalized and other terms in Spanish for the female breast were not perceived as "socially correct".

Barriers

The comparison of barriers to early detection practices revealed similar views among participants, regardless of level of education or area of residence. Reasons cited for non-compliance were divided into external and internal barriers. Perception of patient-physician relationship, lack of information provided by health professionals, the media and other

² "*Marianismo*" is still prevalent in Puerto Rico and other Spanish-speaking countries.

sources, accessibility, and costs were categorized as external barriers. Forgetfulness, fear of confirmation of the disease, perceived level of pain caused by mammograms, dislike in touching themselves, and lack of knowledge were classified as internal barriers.

Internal Barriers

A. Beliefs. Knowledge and beliefs cited frequently by the participants were examined. Examples of knowledge statements are the following: "At our age we have to be aware of breast cancer", "Cancer can be cured with early detection examination", "Breast cancer can lead to death", "Women who have relatives with breast cancer are more prone to get it", "Self-examination must be done monthly", "Sometimes breast cancer is painless", and "Fluids that come out from the nipple can be signs of breast cancer". Examples of beliefs statements are: "Mammogram examinations always cause pain", "Breast cancer examinations are not necessary if we are in good health", "Once one reaches old age there is no need to have any examination", "When one has breast cancer, pain is always present", "If pain goes away, then it is not breast cancer", "Women that have never been married or touched by a man [have never had sexual intercourse] have less possibilities of developing breast cancer", and "Placing a pointed object near the breast area (such as keys or coins) can bruise the breast and lead to breast cancer". Area of residence did not account for differences between the women who participated in the focus groups. On the other hand, professional women more than non-professionals used more frequently knowledge than belief statements in their expressions.

A similar difference was observed between the subgroups in terms of expressing nuisances associated to mammograms. Professional women used more the term discomfort than pain. They were also more likely to express that although the examination could be bothersome, the advantages outweighed the ache. Non-professional women were more colorful in their explanations. One expressed the following accompanying the remarks by vivid body gestures:

You put your breast there, and they throw this plate upon it and I said to myself: "They have bursted my breast!". I told her [technician] "Listen girl, take that off because it hurts a lot." And it did hurt a lot; it was a tremendous pain!

Three basic themes were found in terms of risk factors for breast cancer, regardless of whether they were classified as knowledge or belief: physical bruises, family history, and behavior. In discussing "physical bruises", it was noticed that the women made two distinctions: risks related to bruises to the breast and risks related to fondling of breasts

during intercourse. In relation to the first, some women, all of them non-professionals, believed that hiding or keeping keys or coins near the bosom makes breasts subject to bruising with hard objects and could lead to cancer. In a similar vein, it was noted that breasts tightly constrained by brassieres are more prone to develop cancer.

The following remarks are illustrative of the belief that handling of breasts during normal sexual relations can be a cancer risk factor:

Single women do not get breast cancer [laugh].

I have no risk of developing breast cancer; I have never been touched by a man [laugh and body gestures toward breast].

More professional women than non-professionals mentioned that family history is a risk for breast cancer. The latter, however, expressed a stronger conviction that if there was no family history a woman would not be afflicted by the disease while their counterparts stated that the probability was higher but did not phrase it in terms of certainty.

Very few of the women alluded to behavior or lifestyle choices as risk factors. Obesity and a diet high in fats were two of the issues mentioned, both by professionals and non-professionals. Another point stated by those with a post-secondary degree was that breast-feeding helped to decrease the risk of breast cancer.

B. Attitudes. Cultural, gender and cohort issues were detected in relation to BSE and CBE. Modesty was mentioned by some professional and non-professional women as the cause for not performing BSE. Two professional women explained:

I feel ashamed to touch my body because I was educated by nuns who taught me it was wrong.

I do not want to touch my body in the way that one must touch one's breast during self examination.

Most of the participants in the focus-group discussions did not express a gender preference in terms of a physician and the CBE. Those who did, declared a preference for a female health professional. Some participants expressed a preference in being examined by women health professionals citing modesty reasons. Some professional women as well as non-professional expressed unpleasantness or shame in having a CBE performed by a male doctor. The following statement by a professional woman illustrates this attitude: **"We were told that no man should touch our breasts except our husband."** Her non-

professional counterpart stated: **"I feel ashamed when a male doctor sees me naked."** A similar comment is made by a non-professional woman but in respect to any health professional performing a CBE and the unpleasantness related to this examination: **"I was taught to protect my breasts; that my private parts were not to be touched by anyone."**

It was also observed that some professional and non-professional women stated that they favored that a male doctor conduct the examination. This predilection has a cohort-linked foundation as illustrated by this woman's comment: **"I prefer a male doctor. When I grew up there were no female doctors."**

External Barriers

Cost, accessibility and information provided by physicians were cited by the elderly women as barriers for breast cancer early detection screening practices. Lack of money and inadequate health insurance coverage were mentioned as external barriers for mammograms by the participants. Lack of transportation, accessibility to services --particularly distance--, shortage of health personnel --specially those relevant to mammograms--, and the delay in appointments were cited as important reasons for not adhering to CBE or mammograms. Professional women from the metropolitan areas did not express any barriers related to cost or accessibility of services. This trend is probably related to the fact that these women had higher incomes due to educational level (all had a Bachelor's, Master's or Doctorate degree) and also to the reality that health services in Puerto Rico are highly concentrated in the metropolitan areas, particularly San Juan.

Most of the participants ascribe a high level of authority to the physician in terms of the physician-patient relationship. The elderly women perceived the practitioners --be they general or specialized-- as very knowledgeable and the ones that are responsible to make the decisions as to whether they should seek screening procedures. In regard to the mammogram, two of the women expressed:

My doctor is the one who knows; when he tells me, then I'll do it.

The doctor examined me [CBE] and told me I didn't need it [mammogram].

Some of the participants talked about maintaining a personal relationship with their physician; a relationship based on affection and trust which were deemed as requisites for dealing with issues such as breast cancer and exams. Puerto Rican cultural tradition emphasizes personal relations. These relationships are based on "personalismo"; the notion

that what is important is the singularity of each human being; his/her interior quality. Puerto Ricans, particularly those who now form the cohort 65 and older, prefer to deal with others in terms of a network of personal relationships (11). The aged tend to view their service providers as not only someone who provides services but one with whom they feel comfortable (11). This cultural and cohort preference is illustrated by the following remark: **"The clinical examination depends on the confidence that we have in our doctors."**

A majority of the participants mentioned that their physicians **"neither ordered nor performed any breast cancer examination."** Some expressed that they did not have mammograms because their doctors thought it was not necessary. Two of the women expressed feeling discriminated by their physicians for reasons of age or socioeconomic status. They stated:

Specialists do not touch people, and specially old people.

Since health insurance pays very little and the doctor has so many patients, the poor are treated [examined] more rapidly.

Only two of the participants mentioned that physicians others than general practitioner or gynecologist gave them referral for a mammogram --a cardiologist and an internist--.

In discussing the information provided by the health professionals, BSE was the early detection practice most frequently mentioned. The participants stated that either the physicians or nurses taught them about how to perform the BSE and the symptoms to look for: **"The doctor told me that if I felt something strange that I had to visit a physician immediately."** In some occasions, the practitioners provide written materials about breast cancer or have audiovisual materials in their offices for the women to see. However, the main complaints aired by the elderly women had to do with the scarce information provided by their physicians and the lack of explanation of the results after the different screening procedures were performed or read. These expressions are representative:

The doctors are mute; they don't talk.

They order the exams but they don't explain the results to the patients.

Professional women, whether from the metropolitan or non metropolitan area, displayed a more assertive attitude in their patient-physician relationship in terms of demanding information or referrals: **"If my doctor does not give me information, I will ask him. If he does not give it to me, I will not go back to him."**

Information related to BSE was the most frequently offered by means other than health professionals. This is similar to the information on breast cancer most frequently offered by physicians (when offered). The media was the source of information on breast cancer most frequently cited; more than health professionals. Television, radio and newspapers were the most mentioned sources. The American Cancer Society and the Puerto Rican Association for Cancer Prevention (*Liga Puertorriqueña del Cáncer*) were only alluded to by two women, both professionals.

Analysis of the information gathered in the focus groups provided insight for content of survey measures in terms of question wording, item development, and development of constructs to address gender and cohort culturally-sensitive issues which were incorporated into the questionnaire. Likewise, it helped to reflect differences pertaining to educational level.

Validation Process

The purpose of this part is to present the results of the validation process of the data collection instrument for the national survey of knowledge and beliefs on breast cancer (see Appendix 1). The validity and reliability techniques were used for this process.

Reliability is the extent to which variation in an instrument for collecting data reflects real differences rather than random fluctuation. The reliability of the questionnaire was analyzed by the test-retest approach. Fifty elderly women were interviewed twice (with a minimum of two weeks difference between each interview). The results were statistically compared using paired t-test and binomial test for paired samples (12).

Validity determines whether the instrument assess what it intends to measure. There are at least three ways to assess validity (13):

- 1. Content Validity:** It is determined by the assessment that the content of the questions or items of the instrument measure what they are expected to measure.
- 2. Criterion Validity:** It is determined by the correlation of the measures of the instrument with some other measure of the trait under study; ideally, a "gold standard" which has been used and accepted in the field.
- 3. Construct Validity:** It is determined by the capacity of the hypothetical construct to explain the relationship among various behaviors or attitudes in a specific group. This construct is regularly formed by a combination of different variables or characteristics of the study population.

Criterion validity was not considered for this questionnaire because a "gold standard" instrument for measuring the objective of this project is not available. Content validity was achieved by the review of the format and content of the questions, based on the experiences of the focus-group results, and the evaluations of the project consultants. Construct validity was developed by the identification of constructs using the statistical technique of factor analysis, a multivariate method intended to explain relationships among several difficult-to-interpret correlated variables in terms of a few conceptually meaningful relatively independent factors (14).

The construct validity intends to evaluate or confirm the existence of a hypothetical concept that permits the identification of different subgroups of a population under study. This concept is measured by a set of mutually related variables that form a scale. For example, assuming that the concept will be the knowledge of breast cancer, a possible statement to evaluate would be:

The persons with higher punctuation in the scale X (obtained from a set of variables related to breast cancer perception) differ to persons with lower punctuation in the scale in terms of knowledge breast cancer.

In the validation questionnaire of this study, the beliefs and knowledge regarding breast cancer were defined in scales. The scales were correlated with early detection practices and sociodemographic variables to determine the association. As the number of significant associations increased, the better the construct validity (15).

Sample Group

A total of 52 women 65 years or older who reside in Puerto Rico were interviewed between the months of September and October 1995. All women were mentally able to answer the questions in the questionnaire. The questionnaire was administered twice to each interviewee to evaluate the instrument reliability. The estimated time between the first and second administration of the questionnaire ranged between 12 and 21 days; with a median time of 14 days. The second administration of the questionnaire was not performed in two cases due to death of the person or out-of-the country travel. Therefore, the reliability analysis was based on the fifty (50) completed interviews.

To carry out the data collection process, Puerto Rico was divided into two areas based on the Census definitions: metropolitan areas and non-metropolitan areas. The municipalities selected in the metropolitan areas were: San Juan, Guaynabo, Trujillo Alto,

Arecibo, Cayey and Fajardo. The municipalities selected in the non-metropolitan areas were: Guayama, Barranquitas, Morovis, Lares and Guayanilla (See Appendix 2). A group of professional and non-professional women were identified in each area. The fifty two women were distributed as follows: (a) twelve professional women from a metropolitan area, (b) twelve professional women from a non metropolitan area, (c) fifteen professional women from a metropolitan area, and (d) thirteen non professional women from a non metropolitan area (Table 1). The interviews were carried out by two female interviewers.

Table 1. Interviewees by Area of Residence and Education Level, Validation Process

Education Level	Area of Residence		Total
	Metro	No-metro	
Professional	12	12	24
Non-professional	15	13	28
Total	27	25	52

Women ages ranged from 65 to 92 years with an average of 72 years. Most women (69.2%) were 74 years or younger. Less than one-third (30.8%) of the women were 75 years old or more at the time of the interview. Half of the interviewees were married or living together, 28.9 were widowed and 13.5% were divorced or separated. Only four women (8%) had never been married (Table 2).

Table 2. Interviewees by Sociodemographic Characteristics, Validation Process

Sociodemographic Characteristics	Number	Percent (%)
Age		
< 75	36	69.2
≥ 75	16	30.8
Marital Status		
Never Married	4	7.7
Widowed	15	28.9
Married/Living together	26	50.0
Separated/Divorced	7	13.5

Ninety percent of the elderly women had Medicare Part A, which covers hospitalization services (Table 3). Of those, 73.9% also had Medicare Part B, which covers ambulatory services. Medicare Part B pays for one mammogram every two years. Only 28.9% of the interviewees reported Medicaid cover.

Three-fourths of the interviewees reported to have other health insurance (Table 3). For example, 46.2% of these had a private health plan and 28% had professional-association plans. Ten percent of the interviewees were covered by the government health plan.

Table 3. Interviewees by Type of Medical Plan, Validation Process

Medical Plan	Number	Percent (%)
Medicare A (n = 52)		
Yes	47	90.4
No	5	9.6
Medicare B (n = 46)		
Yes	34	73.9
No	12	26.1
Medicaid (n = 52)		
Yes	15	28.9
No	37	71.2
Other health plans (n = 39)		
Private	18	46.2
Professional Associations.	11	28.2
Government	4	10.3
Others	6	15.4

* An interviewee did not know whether she had Medicare Part B.

Several of the questions in the questionnaire were related to adherence to early detection practices. Questions explored the utilization (and in some occasions, the frequency) of BSE, CBE, and the mammogram. Reasons to carry out or not these methods were also investigated.

A majority (88.5%) reported practicing BSE (Table 4). The reasons for not following the procedure were: feeling well, fear to find some indications of the malignancy, not having nuisances, and reliance on the CBE.

Over two-thirds of the women (69.2%) had a health professional perform a CBE during the last five years and 81% expressed to have had a mammogram sometime in their life. The reasons offered by those never having a mammogram were: lack of symptoms or signs, non-referral by a physician, lack of perception of needing one, and never thinking about it. Of those who had had a mammogram sometime in their life, only 35% had one during the last year (Table 4). The main reason to have the mammogram during the last year was doctor's referral (7). Other reasons were: perception of signs or symptoms related to breast cancer, compliance with a mammogram routine, and personal or familiar

breast cancer history. The main reasons indicated by the interviewees for not having the mammogram in the last year were carelessness and absence of symptoms. Other reasons were: accessibility, lack of medical referral, fear of pain, and perception of no need.

Table 4. Interviewees by Early Detection Practices, Validation Process

Early Detection Practices	Number	Percent (%)
BSE (n = 52)	46	88.5
CBE during the last five years (n = 52)	36	69.2
Mammogram performed sometime in life (n = 52)	42	80.8
Mammogram performed last year (n = 42)	18	34.6

Forty percent of the women had visited the gynecologist during the last twelve months prior to the interview. During that visit, 57.1% had a CBE, 28.6% received information about methods for early detection practices, 28.6% received explanations about how to conduct the BSE, and 47.6% received a referral from the gynecologist for a mammogram (Table 5).

Table 5. Interviewees by Gynecologist Visit, Validation Process

Early-Detection Practices	Number	Percent (%)
Gynecologist visit last year (n = 52)	21	40.4
CBE (n = 21)	12	57.1
Explanations of early detection methods (n = 21)	6	28.6
Explanations about how to do BSE (n = 21)	6	28.6
Mammogram referral (n = 21)	10	47.6

Newspapers and magazines were the principal sources of information on breast cancer for 44.2% of the interviewees. Other sources were: health professionals (21.2%), television (13.2%), and friends/neighbors (9.6%). Relatives, books and conferences contributed in smaller proportion to the information about breast cancer.

Endorsement Frequency for Knowledge and Beliefs Statements

The questionnaire had 32 statements to measure knowledge and beliefs on breast cancer (See Appendix 1). For each one of the statements the interviewee answered: **true**, **false** or **don't know**. The endorsement frequency was taken as a criterion to select the statements to be included in the reliability and construct analysis. If more than 90% of the

interviewees answered the same alternative, then the statement did not contribute information for the scales construction, and, therefore, it was eliminated. This analysis was made using both interviews for each participant.

Statements 63, 67, 69 and 79 showed an excess of 90% in the endorsement frequency in the alternative "true" (Table 6). These statements were eliminated for further analysis.

Table 6. Endorsement Frequency for Breast Cancer Knowledge and Belief Statements, Validation Process (Included first and second interviews).

Statements	True	False	Don't Know
54. A possible treatment for breast cancer is to remove the nodule (ball, lump, mass, gland).	89.2	6.9	3.9
55. Women who have had breast cancer have more possibilities of developing it a second time.	83.3	7.8	8.8
56. Radiation therapy (X-rays) is a breast cancer treatment.	74.5	7.8	17.6
57. Women with large breasts have more possibilities of developing cancer than women with small breasts.	31.4	43.1	25.5
58. A possible symptom of breast cancer is fluid coming out of the nipples.	80.4	9.8	9.8
59. Radiation therapy (X - rays) may produce similar symptoms as a sunburn's symptoms (red and injured skin).	80.4	2.0	17.6
60. A swelling of the arm can be a consequence (result) of breast cancer treatment.	76.5	2.9	20.6
61. The only breast cancer symptom is a nodule (ball, lump, mass, gland).	18.8	67.3	13.9
62. Women who give birth to their first child before 30 years of age have a lesser possibility of developing breast cancer.	44.1	23.5	32.4
63. A mammography is recommended once a year for women 50 years of age or older.	94.1*	2.0	3.9
64. Thin women have a higher possibility of developing breast cancer.	5.9	66.7	27.5
65. To hit, bruise or hurt the breast can cause breast cancer.	63.7	24.5	11.8
66. Women who begin their first period before 12 years of age have more possibilities of developing breast cancer.	22.5	34.3	43.1
67. The breast self-exam (touching yourself) instructions are easy to follow.	94.1*	3.9	2.0
68. Women whose mother or sister have suffered from breast cancer have more possibilities of developing this type of cancer.	85.3	6.9	7.8
69. It is recommended that women undergo an annual clinical breast examination (doctor touches the breast).	99.0*	1.0	----
70. The only breast cancer treatment is mastectomy or amputation of the breast (remove the breast).	19.6	72.5	7.8

* Item was recommended to be eliminated for endorsement criteria

Table 6 (continuation). Endorsement Frequency for Breast Cancer Knowledge and Belief Statements, Validation Process (Included first and second interviews)

Item	True	False	Don't Know
71. Pain, stinging sensation or discomfort in the breast are possible symptoms of breast cancer.	68.6	20.6	10.8
72. The mammography (breast cancer plate or X-rays) detects (discovers) breast cancer in its early stages.	86.3	4.9	8.8
73. Women 50 years or older have more possibilities of developing breast cancer than younger women.	64.7	21.6	13.7
74. The breast self examination (touching yourself) must be performed once every month.	73.5	19.6	6.9
75. The mammogram (breast cancer plate or X-rays) is necessary only when a woman feels discomfort in her breast.	20.6	75.5	3.9
76. Women who have suffered from breast cancer must wait five (5) years to know if they are cured.	63.7	16.7	19.6
77. Breast cancer always leads to death.	22.5	71.6	5.9
78. The breast self examination must be performed monthly.	77.5	19.6	2.9
79. Breast cancer can spread to other parts of the body (metastasize) if not treated early.	97.0*	1.0	2.0
80. Breast cancer always causes pain.	34.3	46.1	19.6
81. Women who have never been married have less possibilities of developing breast cancer.	24.5	54.9	20.6
82. Women with a diet high in fats have more possibilities of developing breast cancer.	78.4	15.7	5.9
83. A swelling or increase in the size of the breast is a possible symptom of breast cancer.	70.6	16.7	12.7
84. Women with a diet high in fiber (vegetables, fruits, cereals) have less possibilities of developing breast cancer.	78.4	16.7	4.9
85. A mammogram (breast cancer plate or X rays) is the most accurate test to detect (discover) breast cancer.	85.3	9.8	4.9

* Item was recommended to be eliminated for endorsement criteria.

Questionnaire Reliability

The reliability of the questionnaire was analyzed by the test-retest method. The reliability determines the degree to which variations in an instrument for data collection reflect real differences or random fluctuations. The "test-retest" method consists of accomplishing two interviews at two different times and comparing the results using the paired sample statistics (13).

The 50 women who completed both interviews were used to evaluate the instrument reliability. The data were organized as follows:

Answer Question "I" First Interview	Answer Question "I" Second Interview	
	True	False/Do not know
True	a	b
False/Do not know	c	d

- a:** number of persons that answered true in the first and second interview for question "I".
- b:** number of persons that answered true in the first interview and changed to false or I do not know in the second interview for question "I".
- c:** number of persons that answered false or I do not know in the first interview and changed to true in the second interview for question "I".
- d:** number of persons that answered false in the first and second interview for question "I".

The totals b and c were considered discordant pairs. If the questions were consistent in time, it was expected that $b=c$. To determine the significance between the discordant pairs, the binomial distribution with parameters $n=b+c$ and $p=0.5$ was used. If the probability of observing b or a more extreme value, under the binomial distribution with the mentioned parameters, is small ($p<0.10$), then evidence against the reliability of the statement or study question exists; otherwise, if the probability is very large, then there is evidence in favor of the reliability of the statement.

The results of this binomial test demonstrated that statements 54, 56 and 59 were not consistent in time ($p<0.10$). Therefore, these statements were eliminated from the validation analysis (Table 7). This analytical method for paired samples was also used to evaluate the consistency of the questions related to breast-cancer early-detection practices. The results showed that all the questions were consistent over time (Table 8).

To confirm these results, the student t test for paired samples was carried out. In this test, it was not necessary to group categories. Codification of the possible answers in the perception questions was the following: - 1, false; 0, do not know; 1, true. The statistical hypothesis specified for this test were the following:

$$H_0: m_d = 0 \text{ vs. } H_a: m_d \neq 0$$

where m_d is the average of the differences between the scores in the first and second interviews. To evaluate these hypothesis, the following test statistic was calculated:

t: $md/se(md) \sim t$ -Student distribution with $n-1$ degrees of freedom.

md: mean differences of the scores between the first and second interview for the fifty participants.

se(md): standard error of the mean difference for the fifty participants.

If the statistic "t" was away from zero under the null hypothesis that H_0 was true, then evidence against the consistency of the question exists. If the statistic was close to zero, then there is evidence in favor of the consistency of the question. To report the results of the test, the p value was calculated. If $p < 0.10$ then we concluded that the statement was not consistent over time. The statements 56, 59, 73, 81 and 84 were not consistent over time under this analysis. Consequently, they were eliminated from the validity analysis.

Table 7. Questionnaire Reliability for Breast Cancer Knowledge and Beliefs Statements, Validation Process (Binomial test and t-test for paired samples)

Statements **	Binomial Probabilit (p- value)	Student t-test (p-value)
54. A possible treatment for breast cancer is to remove the nodule (ball, lump, mass, gland).	0.006	0.18
55. Women who have had breast cancer have more possibilities of developing it a second time.	0.21	0.36
56. Radiation therapy (X-rays) is a breast cancer treatment.	0.001	0.038
57. Women with large breasts have more possibilities of developing cancer than women with small breasts.	0.66	0.21
58. A possible symptom of breast cancer is fluid coming out of the nipples.	0.14	0.11
59. Radiation therapy (X-rays) may produce similar symptoms as a sunburn symptoms (red and injured skin).	0.077	0.052
60. A swelling of the arm can be a consequence (result) of breast cancer treatment.	0.23	0.24
61. The only breast cancer symptom is a nodule (ball, lump, mass, gland).	0.45	0.19
62. Women who give birth to their first child before 30 years of age have a lesser possibility of developing breast cancer.	0.33	0.54
64. Thin women have a higher possibility of developing breast cancer.	0.45	0.47
65. To hit, bruise or hurt the breast can cause breast cancer.	0.52	0.14

* Statements with <0.10 probability in one of the two tests were eliminated.

** Statement 63 was eliminated for endorsement criteria.

Table 7 (continuation). Questionnaire Reliability for Breast Cancer Knowledge and Beliefs
Statements, Validation Process
(Binomial test and t-test for paired samples)

Statements **	Binomial Probabilit (p- value)	Student t-test (p-value)
66. Women who begin their first period before 12 years of age have more possibilities of developing breast cancer.	0.62	0.93
68. Women whose mother or sister have suffered from breast cancer have more possibilities of developing this type of cancer.	0.50	0.16
70. The only breast cancer treatment is mastectomy or amputation of the breast (remove the breast).	1.00	0.20
71. Pain, stinging sensation or discomfort in the breast are possible symptoms of breast cancer.	0.33	0.91
72. The mammography (breast cancer plate or X-rays) detects (discovers) breast cancer in its early stages.	0.77	0.67
73. Women 50 years or older have more possibilities of developing breast cancer than younger women.	0.48	0.055
74. The breast self examination (touching yourself) must be performed once every month.	0.50	0.32
75. The mammogram (breast cancer plate or X-rays) is necessary only when a woman feels discomfort in her breast.	1.00	0.68
76. Women who have suffered from breast cancer must wait five (5) years to know if they are cured.	0.66	0.97
77. Breast cancer always leads to death.	0.77	0.68
78. The breast self examination must be performed monthly.	0.23	0.12
80. Breast cancer always causes pain.	0.79	0.57
81. Women who have never been married have less possibilities of developing breast cancer.	0.81	0.021
82. Women with a diet high in fats have more possibilities of developing breast cancer.	0.60	0.27
83. A swelling or increase in the size of the breast is a possible symptom of breast cancer.	0.16	0.11
84. Women with a diet high in fiber (vegetables, fruits, cereals) have less possibilities of developing breast cancer.	0.54	0.022
85. A mammogram (breast cancer plate or X rays) is the most accurate test to detect (discover) breast cancer.	0.28	0.74

* Statements with <0.10 probability in one of the two tests are eliminated.

** Statements 67,69 and 79 were eliminated for endorsement criteria.

Table 8. Questionnaire Reliability for Selected Variables, Validation Process
(Binomial test for paired samples)

Selected Variables	Binomial Test (p- value)
Medicare Part B	0.75
Pain sometime in life	0.81
Nodule sometime in life	0.77
Secretions sometime in life	1.00
Biopsy sometime in life	1.00
Breast cancer family history	1.00
Performed BSE	1.00
Mammogram sometime in life	1.00
CBE	0.81
Visit gynecologist during last 12 month	0.82
Monthly BSE	0.77
Mammogram during the last 12 months	0.77

Construct Validity

The construct validity was evaluated through the construction of several scales that represent the belief and knowledge items. The principal component and factors analysis techniques were used to construct the scales. These scales were correlated with early detection practices and other sociodemographic variables to determine if they identify different groups of the population. Correlations between scales and selected variables were obtained with the chi-square test (χ^2). In addition, the odds ratio (OR) was used to determine the direction of the correlation between the scale and selected variables.

Principal Component Analysis

The principal component analysis is a method that permits the summary of an original set of correlated quantitative random variables in a number of uncorrelated components. A component is a linear combination of these random variables (14). The first component is the one with the greater variance. The number of components will be equal to the number of original random variables. This procedure was used to identify a minimum number of linear combinations that summarizes the observations regarding knowledge and beliefs. To determine the minimal number of components that can summarize the original variables, the criterion of the cumulative variance of the components greater than 60% or the components where the eigenvalue was greater than one was used.

The statements of knowledge and beliefs on breast cancer for principal component analysis were separated, as described on Table 9. For the knowledge statements, the first five components accumulated 67% of the variance and the eigenvalue in the fifth component was 1.0957 (Table 10). In the belief statements (Table 9), the variance accumulated through the third component was 65.2% and the eigenvalue 0.9536 (Table 11).

Table 9. Breast Cancer Knowledge and Beliefs Statements for Construct Validity Analysis, Validation Process

BREAST CANCER KNOWLEDGE STATEMENTS
55. Women who have had breast cancer have more possibilities of developing it a second time.
58. A possible symptom of breast cancer is fluid coming out of the nipples.
60. A swelling of the arm can be a consequence (result) of breast cancer treatment.
62. Women who give birth to their first child before 30 years of age have a lesser possibility of developing breast cancer.
66. Women who begin their first period before 12 years of age have more possibilities of developing breast cancer.
68. Women whose mother or sister have suffered from breast cancer have more possibilities to developing this type of cancer.
71. Pain, stinging sensation or discomfort in the breast are possible symptoms of breast cancer.
72. The mammography (breast cancer plate or X-rays) detects (discovers) breast cancer in its early stages.
74. The breast self-examination (touching yourself) must be performed once every month.
76. Women who have suffered from breast cancer must wait five (5) years to know if they are cured.
82. Women with a diet high in fats have more possibilities of developing breast cancer.
83. A swelling or increases in the size of the breast is a possible symptom of breast cancer.
85. A mammogram (breast cancer plate or X-rays) is the most accurate test to detect (discovers) breast cancer.
BREAST CANCER BELIEFS STATEMENTS
57. Women with large breasts have more possibilities of developing cancer than women with small breasts.
61. The only breast cancer symptom is a nodule (mass, gland, ball, lump).
64. Thin women have a higher possibility of developing breast cancer.
65. To hit, bruise or hurt the breast can cause breast cancer.
70. The only breast cancer treatment is mastectomy or amputation of the breast (remove the breast).
75. The mammogram (breast cancer plate or X-rays) is necessary only when a woman feels discomfort in her breast.
77. Breast cancer always leads to death.
80. Breast cancer always causes pain.

Table 10. Principal Components Analysis for Breast Cancer Knowledge Statements, Validation Process

Principal Components	Cumulative Variance	Eigenvalues
1	0.2129	2.7678
2	0.3746	2.1024
3	0.4945	1.5582
4	0.5893	1.2322
5	0.6736	1.0957
6	0.7428	0.9005
7	0.8021	0.7702
8	0.8549	0.6872
9	0.8979	0.5585
10	0.9336	0.4640
11	0.9638	0.3923
12	0.9853	0.2796
13	1.0000	0.1914

Table 11. Principal Components Analysis for Breast Cancer Beliefs Statements, Validation Process

Principal Components	Cumulative Variance	Eigenvalues
1	0.3791	3.0328
2	0.5331	1.2319
3	0.6523	0.9536
4	0.7425	0.7217
5	0.8304	0.7028
6	0.9019	0.5721
7	0.9588	0.4553
8	1.0000	0.3298

Factor Analysis

The statistical technique of factor analysis (14) was used as an initial reference to define scales of breast-cancer knowledge and beliefs. This technique permits to identify a quantitative variable, V_i , in a linear combination of factors not seen, F_j , which are common for all the variables V_i . The model definition for factor analysis is the following:

$$\begin{aligned}
 V_1 &= \lambda_{11}F_1 + \lambda_{12}F_2 + \dots + \lambda_{1m}F_m + E_1 \\
 V_2 &= \lambda_{21}F_1 + \lambda_{22}F_2 + \dots + \lambda_{2m}F_m + E_2 \\
 &\vdots \quad \quad \quad \vdots \quad \quad \quad \vdots \\
 &\vdots \quad \quad \quad \vdots \quad \quad \quad \vdots \\
 V_k &= \lambda_{k1}F_1 + \lambda_{k2}F_2 + \dots + \lambda_{km}F_m + E_k
 \end{aligned}$$

where:

- V_i : Indicates variables with a multinormal distribution with mean zero and variance one.
- F_j : Indicates factors or variables that are not correlated and are common to the V_i . They are normally distributed with mean zero and variance one.
- λ_{ij} : Factor loading and identifies the correlation between the j^{th} variable and the j^{th} factor.
- E_i : Indicates an unique factor to the variable ' i ' independent and normally distributed with mean zero and variance γ_i .

The principal components technique was used to determine the number of factors, F_j ; where the cumulative variance of the components would be greater than 65% and the eigenvalue would be greater than one. To estimate the loading factors, the VARIMAX method was used, which supposes factors F_j are uncorrelated. The data processing was accomplished with the computing package SAS.

The variables V_j represented the statements related to knowledge and beliefs on breast cancer. The variables F_j define some theoretical concept of knowledge or beliefs, and were formed based on groupings of the variables V_j . The grouping criteria were the factor loadings greater than or equal to 0.5. The statements that satisfied this criteria determined the way the corresponding factor was named. The resulting statement in each factor defined the scales of knowledge and belief of breast cancer. In case a statement could be allocated in two or more factors, the item content determined which factor best fit.

Factors analysis for the knowledge statements was performed with 13 statements distributed in five factors. The first factor (1) included five statements with the following factor loadings: statement 62 (0.5512), statement 66 (0.5537), statement 72 (0.6473), statement 76 (0.5785), statement 82 (0.6237) (Table 12). The statements 62, 66 and 82 were related to risk factors associated with breast cancer. Statement 72 was related to mammography. This statement reflected an appropriate factor loading for the second factor and its content indicated that it should be included in that factor. The statement 76 had an appropriate factor loading for the fifth factor. This statement was not be considered as part of the first factor due to the fact that its content was not related to the other statements included in this factor.

The second factor consisted of four statements related to early-detection practices (Table 12). The statements 72 and 85 were related to mammograms as early-detection practices. Statement 74 was related to BSE. Statement 83 was related to a perceived symptom during BSE. The factor loadings of the statements for this factor were: statement 72 (-0.5507), statement 74 (0.5479), statement 83 (0.6650), statement 85 (-0.6028).

The third factor (3) included three statements with factor loadings greater than or equal to 0.50. These were statement 58 (0.69059), statement 68 (0.58633) and statement 71 (0.60064). These statements referred to symptoms or signs associated to breast cancer (Table 12).

The fourth factor (4) includes statement 60 (0.83580). This statement was related to breast-cancer treatment. The fifth factor (5) was formed with two statements: statement 55 (0.51267) and statement 76 (- 0.56027) (Table 12). Statement 55 refers to the possibility of developing breast cancer after having had the disease and statement 76 to the waiting time to know if a person has been cured of breast cancer.

Table 12. Factor Analysis for Knowledge of Breast Cancer Statements, Validation Process

Statement	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
55	0.3289	0.2999	-0.2320	0.4255	0.5127
58	0.3208	0.2519	0.6906	-0.0654	0.0991
60	0.0877	-0.2075	0.2568	0.8358	-0.0595
62	0.5512	0.1981	-0.4120	0.1849	-0.2338
66	0.5537	-0.1730	-0.0851	-0.2082	-0.3754
68	0.4320	-0.4522	0.5863	-0.2394	0.0196
71	0.3077	0.3971	0.6006	0.1804	-0.1414
72	0.6473	-0.5507	-0.0611	0.1301	0.2375
74	0.3725	0.5479	-0.0450	-0.1075	0.2991
76	0.5785	-0.1404	-0.1805	0.1054	-0.5603
82	0.6237	0.2143	-0.1061	-0.3739	0.2775
83	0.4105	0.6650	-0.0892	0.0259	-0.1153
85	0.4553	-0.6028	-0.1496	-0.0298	0.3149

*Bold numbers indicate the statements in each factor that satisfied the criteria of factor loading equal or greater to 0.50.

The factors analysis for the belief statements was accomplished with three factors and eight statements. The first factor contained seven of the statements submitted to analysis with a factor loading greater than or equal to 0.50. Therefore, it was decided to build a belief scale with eight belief statements (Table 13).

One of the limitations of factor analysis was the assumption of normality in the statements of knowledge and beliefs. These statements took only three possible values: -1, 0, 1. Therefore, the results of factor analysis were used as an initial orientation of what sort of statements should be grouped to a scale.

Table 13. Factors Analysis for Breast Cancer Beliefs Statements, Validation Process

Statement	Factor 1	Factor 2	Factor 3
57	0.6048	-0.4358	-0.3856
61	0.6791	-0.2479	0.1713
64	0.6113	-0.5039	0.1664
65	0.5375	0.0918	0.7391
70	0.6029	-0.2257	-0.3489
75	0.7178	0.3061	0.0644
77	0.6596	0.5202	-0.1784
80	0.4793	0.5504	-0.2094

*Bold numbers indicate the statements in each factor that satisfied the criteria of factor loading equal or greater to 0.50.

Construction of Scales

The results of factor analysis were initially used to form scale of knowledge and beliefs of breast cancer. A factor was converted into a scale when three statements or more had factor loadings greater than or equal to 0.50. The scales were defined in an additive manner using the score of the respective statements.

The factors that met this criterion in the knowledge statements were the first (1), second (2) and third (3) factors. The statements of the first factor were associated with the knowledge area of risk factors for breast cancer; those of the second factor with knowledge of practices for early detection; and those of the third factor with knowledge of symptoms related to breast cancer. As a consequence, three sub scales were defined for

knowledge. The sub scale of risk factors consists of three statements; the sub scale for early-detection practices consists of four statements; and the sub scale of symptoms for breast cancer consists of three statements. In addition, an overall scale for knowledge was formed with the three sub scales plus the statements 55, 60, 76 (Diagram 1).

The "beliefs" scale was constructed adding the statements of the first factor derived from the factors analysis. This factor contained all the statements related to beliefs included in the questionnaire.

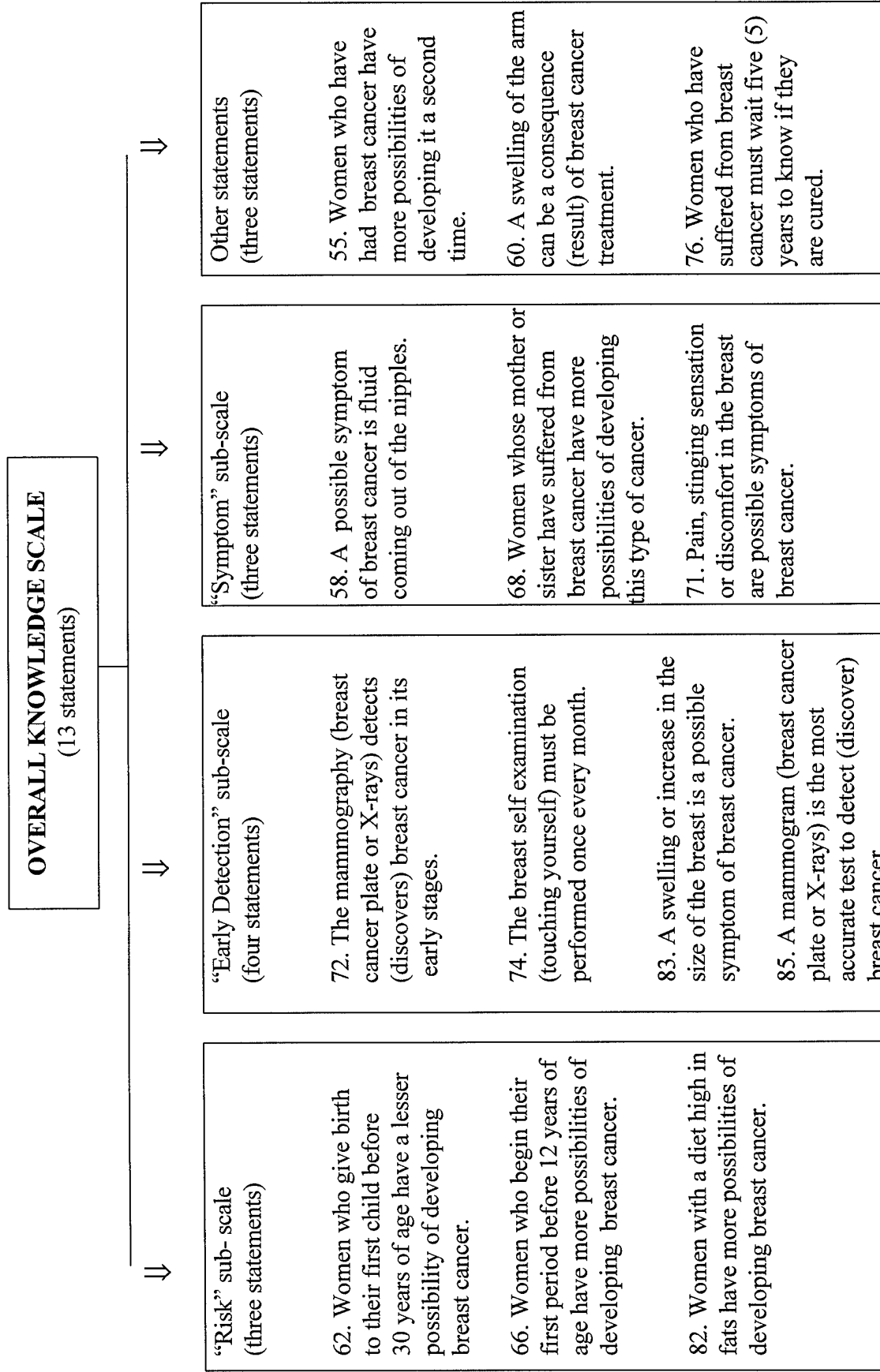
After the scales were defined, the median of the scores for each scale was calculated (Table 14). The median was used to determine low and high values in the scales. For the "knowledge" scales, the sample was divided in two groups: those which had limited knowledge (below the median) versus those which had adequate knowledge (median or above). A similar procedure was performed for the "beliefs" scale. In this case, above the median means that the women had a high level of opinions that are not based on scientific knowledge.

Table 14. Median Of The Constructed Scales, Validation Process

Scale	Median	Maximum Value	Minimum Value
"Risk"	1.5	3	0
"Early-Detection"	3	4	0
"Symptom"	3	3	0
"Knowledge"	9	3	4
"Beliefs"	3	8	0

Contingency tables were constructed between the grouped scales and sociodemographic variables, breast cancer history variables and early-detection practices' variables. The chi-square distribution was used to determine the significance of the association between the scales and these variables. As the number of significant results increases, better the validity for each construct. The odds ratio was computed to determine the direction of these associations.

DIAGRAM 1



The "risk" sub scale demonstrated a significant association with the variable area of residence ($p=0.025$). Persons residing in the metropolitan area demonstrated to have a limited knowledge about breast-cancer risk factors compared with those in the non-metropolitan area (Table 15). Women who reported at least one discomfort related to breast cancer (nodules, secretions, pain) or breast cancer family history demonstrated to have a trend toward a limited knowledge in this sub scale ($p=0.06$) compared with those without them.

The "early-detection" sub scale demonstrated significant association with the CBE compliance at the most every two years ($p=0.006$). Women that had the CBE every two years or less have adequate knowledge about the breast cancer early detection procedures (Table 15). The "symptoms" sub scale showed a significant association with the variable area of residence ($p=0.058$). The knowledge about symptoms of breast cancer was adequate in the women residing in the non-metropolitan areas (Table 15).

Women with educational level less than 12 years had a high level of beliefs ($p=0.021$). Similar results were obtained for women that had not had a mammography sometime in their life ($p=0.072$), for women that had not had mammography in the last twelve months ($p=0.068$), and those who had not visited a gynecologist during the last twelve months ($p=0.018$) (Table 16). The overall knowledge scale did not show any significant association with the selected variables (Table 16).

Table 15. Sociodemographic, Breast Cancer History and Early-Detection Practices Variables by Risk, Detection and Symptom Sub Scales, Validation Process
ODDS Ratio and Significance level

Selected Variable	"Risk" Sub-Scale (Low vs. High)	"Early-Detection" Sub-Scale (Low vs. High)	"Symptom" Sub-Scale (Low vs. High)
Region (Metro vs. No metro)	OR = 4.25 p = 0.025(*)	OR = 2.00 p = 0.355	OR = 3.09 p = 0.058(/)
Education (≤12 years vs. < 12 years)	OR = 1.87 p = 0.404	OR = 2.76 p = 0.130	OR = 0.38 p = 0.102
Age (< 75 years vs. ≥75 years)	OR = 1.44 p = 0.764	OR = 0.73 p = 0.738	OR = 0.80 p = 0.769
Medicare Part B (Yes vs. No)	OR = 0.96 p = 1.000	OR = 3.00 p = 0.288	OR = 0.49 p = 0.341
Other plan (Yes vs. No)	OR = 0.81 p = 1.000	OR = 2.44 p = 0.472	OR = 0.28 p = 0.106
At least one discomfort (Yes vs. No)	OR = 3.02 p = 0.06(/)	OR = 0.50 p = 0.35	OR = 1.15 p = 0.50
Frequency of BSE (Monthly vs. Other)	OR = 1.00 p = 1.000	OR = 0.68 p = 0.755	OR = 1.36 p = 0.781
Mammogram sometime in life (Yes vs. No)	OR = 2.82 p = 0.291	OR = 1.60 p = 0.710	OR = 0.83 p = 1.000
Frequency of mammogram (Every 2 years vs. Other)	OR = 1.44 p = 0.764	OR = 0.73 p = 0.738	OR = 1.15 p = 1.000
Last mammogram (≤ one year vs. Other)	OR = 2.86 p = 0.144	OR = 0.69 p = 0.746	OR = 0.44 p = 0.245
CBE sometime in life (Yes vs. No)	OR = 3.08 p = 0.132	OR = 0.48 p = 0.316	OR = 0.80 p = 0.769
Last CBE (≤ 2 years vs. Other)	OR = 0.84 p = 0.555	OR = 0.15 p = 0.006(*)	OR = 0.67 p = 0.562
Visit gynecologist in last year (Yes vs. No)	OR = 1.62 p = 0.572	OR = 0.49 p = 0.353	OR = 0.80 p = 0.781

(*) P < 0.05

(/) 0.05 < P < 0.10

Table 16. Sociodemographic Variables, Breast Cancer History and Early-Detection Practices by the Beliefs and Knowledge Scale, Validation Process
ODDS Ratio and significance level

Selected Variable	Overall Knowledge Scale (Low vs. High)	Beliefs Scale (Low vs. High)
Region (Metro vs. No metro)	OR= 2.29 p= 0.171	OR= 0.75 p= 0.774
Education (≤12 years vs. < 12 years)	OR= 0.95 p= 1.000	OR= 4.33 p= 0.021(*)
Age (< 75 years vs. ≥ 75 years)	OR= 0.44 p= 0.229	OR= 3.47 p= 0.119
Medicare Part B (Yes vs. No)	OR= 0.60 p= 0.520	OR= 1.59 p= 0.726
Other plan (Yes vs. No)	OR= 0.35 p= 0.121	OR= 2.32 p= 0.328
At least one discomfort (Yes vs. No)	OR= 1.57 p= 0.429	OR= 0.96 p= 0.939
Frequency of BSE (Monthly vs. Other)	OR= 1.89 p= 0.400	OR= 1.65 p= 0.565
Mammogram sometime in life (Yes vs. No)	OR= 0.68 p= 0.725	OR= 6.75 p= 0.072(/)
Frequency of mammogram (Every 2 years vs. Other)	OR= 0.92 p= 1.000	OR= 0.94 p= 1.000
Last mammogram (≤ one year vs. Other)	OR= 0.56 p= 0.390	OR= 3.47 p= 0.068(/)
CBE sometime in life (Yes vs. No)	OR= 0.64 p= 0.548	OR= 2.14 p= 0.353
Last CBE (≤ 2 years vs. Other)	OR= 0.53 p= 0.392	OR= 4.57 p= 0.018(*)
Visit gynecologist in last year (Yes vs. No)	OR= 0.37 p= 0.136	OR= 0.75 p= 0.761

(*) $P < 0.05$

(/) $0.05 < P < 0.10$

Internal Consistency

The internal consistency evaluates the correlation that exists between the statements that belong to a given scale. Its evaluation can be summarized with the alpha Cronbach's coefficient and the Pearson correlation (13). The coefficient is calculated using this formula:

$$\text{alpha } (\alpha) = \frac{n}{n - 1} \left[1 - \frac{\sum \sigma_i^2}{\sigma_T^2} \right];$$

Where:

- n = number of statements,
- σ_i = standard deviation of item i ,
- σ_T = standard deviation of total score.

The Cronbach's alpha for each scale confirmed that the statements were highly correlated if this value was very close to one. For practical purposes, if the Cronbach's alpha was greater than 0.20 a scale was consistent (13). Another way to analyze the item correlation with the scale was the elimination the item and compute again the alpha. If a increases significantly when an item is deleted, then the item must be excluded to increase the internal consistency.

The Cronbach's alpha for the "knowledge" scale was 0.6143 (Table 17). The statement with the highest total correlation was item 62 with a correlation of 0.4566. The statement with the lowest correlation was item 82 with 0.0473. In the "knowledge" scale of symptoms, the higher Cronbach's alpha was 0.4339, followed by detection with 0.4098. The "risk" sub scale had the lowest alpha with a value of 0.3069 (Table 18).

Table 17. Internal Consistency Assessment in the Knowledge Scale,
Validation Process

Knowledge Scale	Total Correlation *	Cronbach 'S Alpha**
Item 55	0.2454	0.5829
Item 58	0.1968	0.5906
Item 60	0.0879	0.6051
Item 62	0.4566	0.5409
Item 66	0.3451	0.5631
Item 68	0.1445	0.5974
Item 70	0.1596	0.5991
Item 71	0.1921	0.5925
Item 72	0.3856	0.5658
Item 74	0.1959	0.5932
Item 76	0.4194	0.5474
Item 82	0.0473	0.6332
Item 83	0.3734	0.5569
Item 85	0.1984	0.5905
STANDARDIZED ALPHA		0.6143

* Pearson correlation between the Knowledge scale and respective item

**Compute of the Cronbach 's alpha if the item was omitted

Table 18. Internal Consistency Assessment Sub Scales of Risk, Detection and Symptoms
Validation Process

Risk Sub-Scale	Total Correlation*	Cronbach 's Alpha**
Item 62	0.2460	0.0322
Item 66	0.1503	0.2197
Item 82	0.0919	0.3881
STANDARDIZED ALPHA		0.3069
Detection Sub-Scale	Total Correlation	Cronbach 's Alpha*
Item 72	0.2849	0.2738
Item 74	0.2892	0.2200
Item 83	0.1583	0.3853
Item 85	0.1426	0.3884
STANDARDIZED ALPHA		0.4098
Symptoms Sub-Scale	Total Correlation	Cronbach 's Alpha*
Item 58	0.3088	0.2446
Item 68	0.2094	0.4213
Item 71	0.2832	0.3070
STANDARDIZED ALPHA		0.4339

* Pearson correlation between the Knowledge scale and respective item

**Compute of the Cronbach 's alpha if the item was omitted

In the "beliefs" scale, a Cronbach's alpha of 0.7598 was obtained. This scale was the one with the best internal consistency. All the statements had a correlation greater than 0.30, which implies that all their components are adequately correlated with the total scale (Table 19). According to the results, the "beliefs" scale had better consistency than the "knowledge" scale. This may be explained by the fact that statements were defined by the focus group experience. The focus-group provided the orientation to culturally adapt the questionnaire.

Table 19. Internal Consistency for the Beliefs Scale Validation Process

Beliefs Scale	Total Correlation*	Cronbach's Alpha**
Item 57	0.4037	0.7384
Item 61	0.4984	0.7206
Item 64	0.4400	0.7355
Item 65	0.4861	0.7229
Item 70	0.4173	0.7356
Item 75	0.5689	0.7067
Item 77	0.4908	0.7220
Item 80	0.3428	0.7523
STANDARDIZED ALPHA		0.7598

* Pearson correlation between the Knowledge scale and respective item

**Compute of the Cronbach's alpha if the item was omitted

Content Analysis

The content analysis was used to evaluate the questions to be included in the questionnaire for the national survey. The statistical analysis used for the evaluation of the statements related to the knowledge and beliefs of breast cancer, included the following methods: endorsement frequency, binomial test for paired samples, paired t-test, and factor analysis.

The discarded statements by the statistical analysis were evaluated by the researchers for their exclusion or inclusion in the national-survey questionnaire. The criteria for inclusion of these statements were: uniqueness of content and relevance according to scientific literature. Taking these factors into consideration, four statements were included after minimal changes in wording or sentence structure. The exclusion criteria were: (a) very technical or specific knowledge was necessary to answer the question, (b) content was included in other statements, and (c) wording (Table 20).

Table 20. Summary of Item Content Analysis, Validation Process

Statements	Type Of Statement	Action
54. A possible treatment for breast cancer is to remove the nodule (ball, lump, mass, gland).	Knowledge	Not recommended Binomial test
55. Women who have had breast cancer have more possibilities of developing it a second time.	Knowledge	Recommended Scale of knowledge
56. Radiation therapy (X-rays) is a breast cancer treatment.	Knowledge	Not recommended Binomial and paired t tests
57. Women with large breasts have more possibilities of developing breast cancer than women with small breasts.	Belief	Recommended Scale of beliefs
58. A possible symptom of breast cancer is fluid coming out of the nipples.	Knowledge	Recommended Sub-scale of symptoms
59. Radiation therapy (X-rays) may produce similar symptoms as a sunburn's symptoms (red and injured skin).	Knowledge	Not recommended Binomial and paired t tests
60. A swelling of the arm can be a consequence (result) of breast cancer treatment.	Knowledge	Recommended Knowledge scale
61. The only breast cancer symptom is a nodule (ball, lump, mass, gland).	Belief	Recommended Belief scale
62. Women who give birth to their first child before 30 years of age have a lesser possibility of developing breast cancer.	Knowledge	Recommended Sub-scale of risk
63. A mammography is recommended once a year for women 50 years of age or older.	Knowledge	Recommended Researchers' judgment (Low endorsement frequency)
64. Thin women have higher possibility of developing breast cancer.	Belief	Recommended Belief scale
65. To hit, bruise or hurt the breast can cause breast cancer.	Belief	Recommended Belief scale
66. Women who begin their first period before 12 years of age have more possibilities of developing breast cancer.	Knowledge	Recommended Sub-scale of risk
67. The breast self-exam (touching yourself) instructions are easy to follow.	Perception	Not recommended Endorsement frequency
68. Women whose mother or sister have had breast cancer have more possibilities of developing this type of cancer.	Knowledge	Recommended Sub-scale of symptoms
69. It is recommended that women undergo an annual clinical breast examination (doctor touches the breast).	Knowledge	Recommended/Rephrased Researchers' judgment (Low endorsement frequency)

Table 20 (continuation). Summary of Item Content Analysis, Validation Process

Statements	Type Of Statement	Action
70. The only breast cancer treatment is mastectomy or amputation of the breast (remove the breast).	Belief	Recommended Belief scale
71. Pain, stinging sensation or discomfort in the breast are possible symptoms of breast cancer.	Knowledge	Recommended Sub-scale of symptoms
72. The mammography (breast cancer plate or x-rays) detects (discovers) breast cancer in its early stages.	Knowledge	Recommended Sub-scale of detection
73. Women 50 years or older have more possibilities of developing breast cancer than younger women.	Knowledge	Recommended Researchers' judgment (Significant paired t-test)
74. The breast self-examination (touching yourself) must be performed once every month.	Knowledge	Recommended Sub-scale of detection
75. The mammogram (breast cancer plate or X-rays) is necessary only when woman feels discomfort in her breast.	Belief	Recommended Belief scale
76. Women who have suffered from breast cancer must wait five (5) years to know if they are cured.	Knowledge	Recommended Knowledge scale
77. Breast cancer always leads to death.	Belief	Recommended Belief scale
78. The breast self examination must be performed monthly.	Knowledge	Not recommended Repeated with
79. Breast cancer can spread to other parts of the body (metastasize) if not treated early.	Knowledge	Not recommended Endorsement frequency
80. Breast cancer always causes pain.	Belief	Recommended Belief scale
81. Women who have never been married have less possibilities of developing breast cancer.	Belief	Recommended Researchers' judgment (Significant paired t-test)
82. Women with a diet high in fats have more possibilities of developing breast cancer.	Knowledge	Recommended Sub-scale of risk
83. A swelling or increases in the size of the breast is a possible symptom of breast cancer.	Knowledge	Recommended Sub-scale of detection
84. Women with a diet high in fiber (vegetables, fruits, cereals) have less possibilities of developing breast cancer.	Knowledge	Not recommended Paired t-test
85. A mammogram (breast cancer plate or X-rays) is the most accurate test to detect (discovers) breast cancer.	Knowledge	Recommended Sub-scale of detection

National Survey

National Survey Questionnaire

The validation process was designed to prepare a final questionnaire for the survey among Puerto Rican women 65 years or older regarding their knowledge and beliefs of breast cancer (See Appendix 3). This process was accomplished evaluating each question in terms of the statistical results, the researchers' judgment, and the experience of the focal groups. The final version of the questionnaire for the national survey was divided into seven content areas: (a) sociodemographic information, (b) family and personal history, (c) early-detection practices, (d) breast-cancer knowledge and beliefs, (e) sources of information, (f) support networks, and (g) health status.

The national-survey questionnaire contained 98 questions distributed as follows:

- Fifteen questions about sociodemographic information that include age, year of birth, level of schooling, marital status, family composition, health insurance, sources of income, and financial support;
- Twelve questions on family and personal health history;
- Thirty-four questions related to early detection procedures, that include BSE, CBE and mammogram, frequency of procedures, reasons for non-compliance with early- detection practices, specialty and gender of health professionals, particularly physician;
- Twenty-five statements pertaining to breast-cancer knowledge and beliefs;
- Two questions about sources of information on breast cancer and early-detection practices;
- Three questions about support networks;
- Seven questions on self-reported status;

In comparison with the validation questionnaire, the national survey questionnaire included the following modifications:

1. the inclusion of more accurate alternatives for the questions;
2. some changes in the order of the alternatives of the questions;
3. some changes in the structure of any questions like the elimination of parenthesis and the use of boldface for the emphasis of some important terms.
4. the review of the syntax for the specifications of time, for the addition of information that make the question more precise and for opening or closing questions in a manner to facilitate their administration;
5. the inclusion of an additional area, support networks, to includes questions related to the people that aid the interviewee, if any, in events related to her health (previously included in the health status area of the validation questionnaire) ;
6. the inclusion of a question directed to investigate if the interviewee has a female friend or neighbor that has or had been diagnosed with breast cancer;
7. the questions about reasons for non-compliance with early-detection practices were closed according to the findings of the focus group and open-ended questions in the validation questionnaire.

National Survey Design

Once the questionnaire for knowledge and beliefs about breast cancer for elderly women in Puerto Rico was validated and adjusted for a national survey, the research team was proceeded to collect information of 500 elderly women. A stratified design for data collection was selected in order to show differences of knowledge and beliefs about breast cancer in the study population of elderly women. The variables considered for stratification were area of residence and social class³. The strata for this design were defined by the

³ Social class was used as a proxy of educational level. The professional women are more frequently located in middle and upper classes and non-professional women in the low class.

combination of type of city and social class. The median house price was used for determining the social class. The blocks with an average house value of \$40,000 or below were considered low class; above \$40,000 was middle or upper class (17). The US census definitions were used to determine the type of city: inside central metropolitan, outside central metropolitan, non metropolitan (6). In every stratum, blocks of households were identified and a random sample of them were selected using the following distribution:

**Table 21 . Number of Blocks of Households Randomly Selected
by Type of City and Social Class**

Type of City	Low Class*	Middle or Upper Class**	Total
Inside-central, Metropolitan (largest city in the metropolitan area)	9	9	18
Outside-central, Metropolitan (Surrounding inside-central cities)	9	9	18
Non-metropolitan	8	8	18
Total	26	26	52

* See Appendix 4 ** See Appendix 5

An average of 12 households were identified in each block. A map of each selected block was obtained from the Department of Labor of Puerto Rico. The blocks were visited to verify occupied households, and to provide instructions for the interviewers on how to locate each block.

Specific instructions were also designed for selection of the survey participants. Once a female interviewer arrived to the selected household, she made an initial approach for interviewing one eligible woman (65 years or older and mentally apt). If this woman accepted to be interviewed, she had to sign the informed consent form and then the interview was carried out. After the completion of the interview, the interviewer received a gift of \$10 for her participation. In addition she was requested to give the name of other women in the neighborhood (in the sampled block or in the nearby blocks) who met the eligibility criteria. In the case that a household did not lodge an elderly woman, the interviewer asked for the names of elderly women in the neighborhood who could participate in the survey. The referral persons were used to complete the number of interviews established for every selected block (See Appendix 6). On average, each block generated 10 interviews to attain the goal of 500 completed interviews.

Training of Interviewers

A two-day training for interviewers was designed in order to standardize interview procedures and assure validity in data collection. Four female interviewers were selected on the bases of previous work experience as interviewers, academic training in public health, and capability to travel to the chosen areas. Instructional materials were developed for the training, such as a Handbook for Interviewers. The Handbook of Procedures was modified according to the new questionnaire and the interviewers used it as reference during the training. It was provided to the interviewers prior to the training session.

Training objectives were the following:

1. To describe the scope of the project.
2. To explain administrative aspects of the National Survey (Example: forms to be used, procedures for payment incentives for the participants, consent forms).
3. To explain the questionnaire to be used in the National Survey and clarify instructions for its application (Questions were discussed one by one.)
4. To explain procedures related to the identification and selection of participants (Example: location of the household, selection of candidate and referral process).
5. To prepare the interviewers with the knowledge and skills needed to effectively interview the elderly women selected in the sample.

Training content in this particular topic focused on a discussion on the epidemiology of breast cancer among elderly women, and special considerations in interviewing the elderly, such as normal changes in the sensory system and social and psychological changes that may affect the interview process. Appropriate interviewing techniques for older adults were emphasized.

The training was conducted in an interactive way in which discussion and opportunity for the application of concepts were provided. Lectures, group discussions and role playing were the educational methodologies used to fulfill the training objectives. The trainees had the opportunity to apply the concepts acquired during the training in a role-playing activity in which they practiced interview techniques and procedures using the national-survey questionnaire in its entirety. An evaluation checklist was developed in order to monitor and assess trainees performance during the role playing.

The following aspects were emphasized during the training sessions in order to guarantee homogeneity in data collection: (a) wording of questions (must be asked exactly as worded with no additions or omissions of words), (b) instructions for adequate sequences of questions, (c) establishment of rapport, (d) confidentiality principles, (e) purposes of the study, and (f) relevance of the informed consent form. An evaluation session with the participants followed the training. Participants were asked to offer their opinions about the training and express any doubts regarding interview procedures.

Data Collection

The data-collection phase of the national survey started in March 1996 and lasted until August 1996. The proposed 500 interviews were completed. There were 191 (38.2%) interviews of low class living in metropolitan areas, and 149 (29.8%) of no-low class living in non-metropolitan areas. The distribution of interviewees for the non-metropolitan areas was 80 (16%) for each social class (Table 22). The 55.4% of the interviewees were between the ages of 65 and 74 (young-old), 37% between 75 and 84 (middle-old), and 7% were 85 years or older (old-old) (Table 23).

Table 22. Interviewees by type of City and Social Class,
National Survey (Puerto Rico, 1996)

Type Of City	Class		Total
	Low	No low	
Inside-central metropolitan	104	67	171
Outside-central metropolitan	87	82	169
Non-Metropolitan	80	80	160
Total	271	229	500

Table 23. Interviewees by Age and Type of City, National Survey
(Puerto Rico, 1996)

Type Of City	Age (Years Old)			Total
	65-74	75-84	85 +	
Inside-central metropolitan	85	72	14	171
Outside-central metropolitan	102	51	16	169
Non-Metropolitan	90	62	8	160
Total	277	185	38	500

The statistical analysis of the collected data will be conducted on the third year of the project, 1996-97. The analysis will be used to pinpoint areas of need for the development of the health-promotion model educational program geared to provide knowledge on breast cancer and early-detection practices to elderly Puerto Rican women as well as to instill in them the need to adhere to breast cancer early-detection practices. Measures of central location and spread will be calculated to summarize the results. Contingency tables will be prepared to determine statistical associations. Regression models will be studied to determine how the knowledge and beliefs scales behave among different subgroups when confounding variables are considered.

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APPENDIXES

APPENDIX 1

- a. Validation Questionnaire, Spanish Version*
- b. Validation Questionnaire, English Version*

UNIVERSIDAD DE PUERTO RICO
RECINTO DE CIENCIAS MEDICAS
ESCUELA GRADUADA DE SALUD PUBLICA
PROYECTO INTERDISCIPLINARIO DE INVESTIGACION GERONTOLOGICA

Conocimientos y Creencias del Cáncer de Mama en las Mujeres Puertorriqueñas de Edad Avanzada

ID _ _ _ _

I. Información Sociodemográfica

Escriba el código de la respuesta en el espacio provisto a la derecha de la pregunta.

1. ¿Qué edad tiene usted?

2. ¿En que año nació usted? *(Dos últimos dígitos)*

3. ¿Cuál fue el último grado de estudio que usted completó?

- (1) No fui a la escuela
- (2) Primero a Tercero
- (3) Cuarto a Sexto
- (4) Séptimo a Octavo
- (5) Noveno a Once
- (6) Escuela Superior
- (7) Grado Técnico o Vocacional
- (8) Bachillerato
- (9) Estudios Graduados
- (10) Otro _____

Especifique

4. ¿Cuál es su estado civil actual?

- (1) Viuda
- (2) Casada o Convive
- (3) Separada o Divorciada
- (0) Nunca casada

5. ¿Cuántas hijas (mujeres) tiene vivas actualmente?

6. ¿Cuántos hijos (hombres) tiene vivos actualmente?

7. ¿Cuál es su preferencia religiosa?

(1) Católica

(2) No - católica

_____ Especifique

(0) Ninguna

8. ¿Usted tiene Medicare (parte A - hospitalización)?

(1) Sí

(0) No (pase a la pregunta 10)

(8) No recuerdo

(9) No sé

9. ¿Usted tiene la parte B de Medicare (servicios médicos ambulatorios)?

(1) Sí

(0) No

(8) No recuerdo

(9) No sé

10. ¿Usted tiene Medicaid?

(1) Sí

(0) No

(8) No recuerdo

(9) No sé

11. ¿Usted tiene algún otro plan médico?

(1) Sí

_____ Especifique

(0) No

(9) No sé

12. ¿De dónde provienen sus ingresos?

Lea todas las alternativas. Escriba uno (1) en las que apliquen; cero (0) en las que no apliquen.

Salario propio o de mi esposo (marido)

☐

Seguro Social

☐

Programas de Asistencia Social

☐

Pensión

☐

Ayuda económica de lo/a (s) hija/o(s)

☐

Ayuda económica de los parientes

☐

Renta de propiedad o casa

☐

Otra

☐

Especifique

13. Si usted tiene una necesidad económica (de dinero), ¿a quién principalmente acude usted para que la ayude?

☐

(0) A nadie

(1) A mi esposo (marido)

(2) A mi(s) hija(s)

(3) A mi(s) hijo(s)

(4) A mi hermana(o)

(5) Otra (o) familiar

(6) A mi vecina(o)s

(7) A mi amiga(o)s

(8) Otro

Especifique

14. ¿Vive sola actualmente?

☐

(1) Sí (**pase a la pregunta 16**)

(0) No

15. ¿ Con quién(es) vive actualmente?

Lea todas las alternativas. Escriba uno (1) para las alternativas que apliquen; cero (0) para las alternativas que no apliquen.

Con mi esposo (marido)

☐

Con mi (s) hija (s)

☐

Con mi(s) hijo(s)

☐

Con mi hermana/o (s)

☐

Con otro (a) familiar

☐

Con una amiga (s)

☐

Otros _____

☐

Especifique

II. Historial Familiar y Personal de Cáncer del Seno

Las siguientes preguntas se refieren a su historial de salud.

16. ¿Ha sentido alguna vez dolor o molestia en los senos?

☐

- (1) Sí
- (0) No **(pase a la pregunta 18)**
- (8) No recuerdo **(pase a la pregunta 18)**
- (9) No sé **(pase a la pregunta 18)**

17. ¿Ha sentido dolor o molestia en los senos en los últimos doce meses?

☐

- (1) Sí
- (0) No
- (8) No recuerdo
- (9) No sé

18. ¿Ha tenido alguna vez un nódulo (pelotita, bultito, masita) en los senos?

☐

- (1) Sí
- (0) No **(pase a la pregunta 20)**
- (8) No recuerdo **(pase a la pregunta 20)**
- (9) No sé **(pase a la pregunta 20)**

19. ¿Ha tenido un nódulo (pelotita, bultito, masita) en los senos en los últimos doce meses?

☐

- (1) Sí
- (0) No
- (8) No recuerdo
- (9) No sé

20. ¿Ha tenido alguna vez secreciones (líquidos) por los pezones?

☐

- (1) Sí
- (0) No **(pase a la pregunta 22)**
- (8) No recuerdo **(pase a la pregunta 22)**
- (9) No sé **(pase a la pregunta 22)**

21. ¿Ha tenido secreciones (líquidos) por los pezones en los últimos doce meses?

☐

- (1) Sí
- (0) No
- (8) No recuerdo
- (9) No sé

22. ¿Le han hecho biopsias (prueba de las agujas) del seno alguna vez?

☐

- (1) Sí
- (0) No **(pase a la pregunta 24)**
- (8) No recuerdo **(pase a la pregunta 24)**
- (9) No sé **(pase a la pregunta 24)**

23. ¿Le han hecho biopsias (prueba de las agujas) del seno en los últimos doce meses?

☐

- (1) Sí
- (0) No
- (8) No recuerdo
- (9) No sé

24. ¿Algún familiar suyo ha padecido de cáncer del seno?

☐

- (1) Sí
- (0) No **(pase a la pregunta 26)**
- (8) No recuerdo **(pase a la pregunta 26)**
- (9) No sé **(pase a la pregunta 26)**

25. ¿Quién o quiénes?

Lea todas las alternativas. Escriba uno (1) para las alternativas que apliquen; cero (0) para las alternativas que no apliquen.

Madre	☐
Hermana	☐
Hija	☐
Tía	☐
Abuela	☐
Prima	☐
Nuera o Yerna	☐
Sobrina	☐
Nieta	☐
Otra _____	☐
Especifique	

26. ¿Le han diagnosticado cáncer alguna vez (o sea el médico le ha dicho que tiene cáncer)?

☐

- (1) Sí
- (0) No **(pase a la pregunta 28)**
- (8) No recuerdo **(pase a la pregunta 28)**
- (9) No sé **(pase a la pregunta 28)**

27. ¿Cuál fue el tipo de cáncer que se le diagnosticó?

☐

- (1) Cáncer del seno
- (0) Otro _____
Especifique
- (8) No recuerdo
- (9) No sé

III. Prácticas de Detección Temprana de Cáncer del Seno

Las preguntas a continuación se refieren a pruebas para detectar (descubrir) el cáncer del seno en etapas tempranas.

28. ¿Se hace usted el autoexamen (tocarse usted misma) del seno?

☐

(1) Sí

(0) No **(pase a la pregunta 31)**

29. ¿Cómo aprendió usted a hacerse el autoexamen (tocarse usted misma) del seno?

Aprendí sola

☐

Por el (la) ginecólogo (a)

☐

Por otro médico

☐

Por una enfermera

☐

Por un familiar

☐

Por una amiga

☐

Por la televisión

☐

Porque lo leí

☐

No recuerdo

☐

Otro _____

☐

Especifique

30. ¿Con qué frecuencia se hace el autoexamen (tocarse usted misma) del seno?



- (0) Cuando me acuerdo
- (1) Por lo menos una vez a la semana
- (2) Dos o tres veces al mes
- (3) Una vez al mes
- (4) De cada dos meses
- (5) Dos o tres veces al año
- (6) Una vez al año
- (7) Otra _____

Especifique

- (8) No recuerdo
- (9) No sé

(Pase a la pregunta 33)

31. ¿Cuál es la razón principal para no hacerse el autoexamen del seno (tocarse usted misma) ?

32. ¿Existen otras razones para no hacerse el autoexamen del seno (tocarse usted misma)?



(1) Sí ; ¿cuáles? _____

(0) No

33. ¿Se ha hecho una mamografía (placa del seno o rayos X de los senos) alguna vez en su vida?

☐

- (1) Sí
- (0) No **(pase a la pregunta 38)**
- (8) No recuerdo **(pase a la pregunta 41)**
- (9) No sé **(pase a la pregunta 41)**

34. ¿Con qué frecuencia se hace la mamografía (placa del seno o rayos X de los senos)?

☐

- (1) Más de una vez al año
- (2) Cada año
- (3) Cada dos años
- (4) Cada tres años
- (5) Más de cada tres años
- (6) Otra _____
Especifique
- (8) No recuerdo
- (9) No sé

35. ¿Cuándo fue su última mamografía (placa de seno o rayos X de los senos)?

☐

- (1) Hace un año o menos **(pase a la pregunta 40)**
- (2) Hace dos años
- (3) Hace tres años
- (4) Hace cuatro años
- (5) Hace cinco años o más
- (6) Sólo me la ha hecho una vez
- (7) Otro _____
Especifique
- (8) No recuerdo
- (9) No sé

36. ¿Cuál es la razón principal para no haberse hecho la mamografía (placa del seno o rayos X en los senos) en el último año?

37. ¿Existen otras razones para no haberse hecho la mamografía (placa del seno o rayos X de los senos) en el último año?



(1) Sí ; ¿cuáles? _____

(0) No

(Pase a la pregunta 41)

38. ¿Cuál es la razón principal para nunca haberse hecho una mamografía (placa del seno o rayos X de los senos)?

39. ¿ Existen otras razones para nunca haberse hecho una mamografía



(placa del seno o rayos X de los senos)

(1) Sí; ¿cuáles? _____

(0) No

(Pase a la pregunta 41)

40. ¿Cuál es la razón principal para haberse hecho la mamografía (placa del seno o rayos X de los senos) en el último año?

41. ¿Algún profesional de la salud (médico, enfermera...) le ha hecho el examen clínico de los senos (cuando el doctor le toca los senos) en los últimos cinco años?



(1) Sí

(0) No **(pase a la pregunta 46)**

(8) No recuerdo **(pase a la pregunta 46)**

(9) No sé **(pase a la pregunta 46)**

42. ¿Qué tipo de profesionales de la salud le ha hecho el examen clínico de los senos (cuando el doctor le toca los senos) en los últimos cinco años?

Lea cada una de las alternativas. Marque todos los que apliquen. Escriba uno (1) para los profesionales que apliquen; cero (0) para los profesionales que no apliquen.

Ginecólogo (doctor de las enfermedades de la mujer)

☐

Otro médico _____

☐

Especialidad (si recuerda)

Enfermera

☐

No recuerdo

☐

No sé

☐

Otro _____

☐

Especifique

43. ¿Algún profesional de la salud le ha explicado las pruebas o las maneras para detectar (descubrir) a tiempo el cáncer del seno?

☐

(1) Sí ; ¿quién (es)? _____

(0) No

(8) No recuerdo

(9) No sé

44. ¿Algún profesional de la salud le ha explicado cómo hacerse el autoexamen del seno (tocarse usted misma)?

☐

(1) Sí; ¿quién (es)? _____

(0) No

(8) No recuerdo

(9) No sé

45. ¿Algún médico le ha dado un referido para hacerse la mamografía (placa del seno o rayos X de los senos)?

☐

(1) Sí; ¿cuál especialidad? _____

- (0) No
- (8) No recuerdo
- (9) No sé

46. ¿Ha ido al ginecólogo(a) (doctor de las enfermedades de la mujer) en los últimos doce meses?

☐

- (1) Sí
- (0) No **(pase a la pregunta 52)**
- (8) No recuerdo **(pase a la pregunta 52)**
- (9) No sé **(pase a la pregunta 52)**

47. En esa visita, el ginecólogo(a), ¿le hizo el examen clínico de los senos (cuando el doctor le toca los senos)?

☐

- (1) Sí
- (0) No
- (8) No recuerdo
- (9) No sé

48. En esa visita, el ginecólogo, ¿le explicó las pruebas o las maneras de detectar (descubrir) a tiempo el cáncer del seno?

☐

- (1) Sí
- (0) No
- (8) No recuerdo
- (9) No sé

49. En esa visita el ginecólogo, ¿le explicó cómo hacerse el autoexamen del seno (tocarse usted misma) ?

☐

- (1) Sí
- (0) No
- (8) No recuerdo
- (9) No sé

50. En esa visita, el ginecólogo, ¿ le dio un referido para hacerse la mamografía (placa del seno o rayos X de los senos)?

☐

- (1) Sí
- (0) No
- (8) No recuerdo
- (9) No sé

51. ¿Cuál era el sexo (género) del ginecólogo que la atendió en esa visita?

☐

- (0) Hombre (masculino)
- (1) Mujer (femenino)

52. ¿Cuándo fue la última vez que un doctor (a) le examinó los senos?

☐

- (1) Menos de un año
- (2) Un año
- (3) Dos años
- (4) Tres años
- (5) Cuatro años
- (6) Cinco años o más
- (8) No recuerdo
- (9) No sé

53. En términos de sexo (género), ¿cuál prefiere usted que le haga el examen clínico de los senos (cuando el doctor le toca los senos)?

☐

- (0) Hombre
- (1) Mujer
- (2) No importa

IV. Conocimientos y Creencias sobre el Cáncer del Seno

A continuación le voy a leer unas aseveraciones u oraciones sobre el cáncer del seno. Me gustaría saber su opinión sobre las mismas. Para cada aseveración le agradeceré que responda utilizando una de las siguientes alternativas: **cierto, falso, no sé**.

Marque con una X la respuesta en la columna correspondiente.

ASEVERACIONES	Cierto 1	Falso 0	No sé 9
54. Un posible tratamiento para el cáncer del seno es sacar el nódulo (pelotita, bultito, masita, glandulita).			
55. Las mujeres que han tenido cáncer del seno tienen más posibilidades de desarrollarlo otra vez.			
56. La terapia de radiación (rayos X) es un tratamiento del cáncer del seno.			
57. Las mujeres con senos grandes tienen más posibilidades de desarrollar cáncer del seno que las mujeres con senos pequeños.			
58. Un posible síntoma de cáncer del seno es que salga líquido del pezón.			
59. La terapia de radiación (rayos X) puede tener síntomas similares a las quemaduras del sol (piel rojiza y lastimada).			
60. Una hinchazón en el brazo puede ser una consecuencia (resultado) del tratamiento de cáncer del seno.			
61. Un nódulo (pelotita, bultito, masita, glándulita) en el seno es el único síntoma del cáncer de seno.			
62. Las mujeres que dan a luz (que paren) a su primer hijo antes de los 30 años tienen menos posibilidades de tener cáncer del seno.			
63. Se recomienda una mamografía cada año para las mujeres de 50 años o más.			
64. Las mujeres delgadas tienen más posibilidad de desarrollar cáncer del seno.			
65. Golpear, magullar o lastimar el seno puede causar cáncer del seno.			
66. Las mujeres que comienzan su primer periodo (regla) antes de los 12 años tienen más posibilidades de desarrollar cáncer del seno.			

ASEVERACIONES	Cierto 1	Falso 0	No sé 9
67. Las instrucciones para hacerse el autoexamen del seno (tocarse usted misma) son fáciles de seguir.			
68. Las mujeres cuyas madres o hermanas han tenido cáncer del seno tienen más posibilidades de desarrollar cáncer del seno.			
69. Se recomienda que las mujeres vayan anualmente al médico para que les hagan un examen clínico (cuando el doctor le toca los senos) de los senos.			
70. El único tratamiento para el cáncer del seno es la mastectomía o amputación de este (cortarle el seno).			
71. Dolor, ardor o molestia en el seno o el pezón son posibles síntomas de cáncer del seno.			
72. La mamografía (placa del seno o rayos X del seno) detecta (descubre) el cáncer del seno en sus primeras etapas.			
73. Las mujeres de 50 años o más tienen más posibilidades de tener cáncer del seno que las mujeres más jóvenes.			
74. El autoexamen del seno (tocarse una misma) debe hacerse una vez al mes.			
75. La mamografía sólo es necesaria cuando la mujer siente molestia en los senos.			
76. Las mujeres que han padecido de cáncer del seno tienen que esperar cinco (5) años para saber si se han curado.			
77. El cáncer del seno siempre ocasiona la muerte.			
78. El autoexamen del seno (tocarse una misma) debe hacerse todos los meses.			
79. Si el cáncer del seno no se atiende a tiempo se riega (metástasis) a otras partes del cuerpo.			
80. El cáncer del seno siempre da dolor.			
81. Las mujeres que nunca se han casado tienen menos posibilidades de desarrollar cáncer del seno.			
82. Las mujeres con una dieta alta en grasa tienen más posibilidades de desarrollar cáncer del seno.			
83. La hinchazón o el crecimiento de los senos es un posible síntoma del cáncer del seno.			
84. Las mujeres con una dieta alta en fibra (vegetales, frutas, cereales, viandas) tienen menos posibilidades de desarrollar cáncer del seno.			
85. La mamografía (placa del seno o rayos X del seno) es la prueba más segura para detectar (descubrir) el cáncer del seno.			

V. Fuentes de Información

86. ¿En dónde o de quién ha obtenido principalmente la información relacionada con cáncer del seno? *Marque sólo una.*

☐

- (1) Profesionales de la salud
- (2) Radio
- (3) Televisión
- (4) Periódicos o Revistas
- (5) Amigos/vecinos
- (6) Material informativo en centros de salud
- (7) Nunca obtuve información sobre el cáncer del seno (**pasar a la pregunta 88**)
- (8) Otra _____
Especifique

87. ¿De qué otras fuentes usted ha obtenido información sobre el cáncer del seno?

Lea todas las alternativas. Escriba uno (1) para las alternativas que apliquen; cero(0) para las alternativas que no apliquen

Profesionales de la salud

☐

Radio

☐

Televisión

☐

Periódicos o Revistas

☐

Amigos/vecinos

☐

Material informativo en centros de salud

☐

Otra _____

☐

Especifique

VI. Estado de Salud

Las siguientes preguntas se refieren a su condición de salud.

88. ¿Cómo considera usted su salud con relación a otras personas de su edad?

☐

Lea las alternativas.

- (1) Mucho mejor
- (2) Mejor
- (3) Igual
- (4) Peor
- (5) Mucho peor

89. ¿Toma alguna medicina que haya sido recetada por un médico?

☐

- (1) Sí
- (0) No (pase a la pregunta 91)
- (8) No recuerdo (pase a la pregunta 91)
- (9) No sé (pase a la pregunta 91)

90. ¿Para qué condición(es) o enfermedad (es) toma la (s) medicina (s)?

91. ¿Cuáles son sus principales problemas de salud?

92. ¿Quién es la persona que más le ayuda cuando se enferma?



- (0) Nadie
- (1) Esposo (marido)
- (2) Hija (s)
- (3) Hijo (s)
- (4) Hermana\o (s)
- (5) Otro familiar
- (6) Vecina\o
- (7) Amiga\o
- (8) Otro _____

Especifique

93. La mayoría de las veces, ¿quién la lleva a sus citas médicas?



- (1) Tengo auto propio
- (2) En transportación pública (guagua)
- (3) Mi esposo (marido)
- (4) Mi(s) hija(s)
- (5) Mi(s) hijo(s)
- (6) Otros familiares
- (7) Mis vecinos
- (8) Le pago a alguien
- (9) Transportación del Municipio
- (10) A pie
- (11) Otro _____

Especifique

94. La mayoría de las veces, ¿quién la acompaña a las citas médicas?

☐☐

Marque sólo una alternativa.

- (0) Nadie, voy sola
- (1) Esposo
- (2) Mi(s) hija(s)
- (3) Mi(s) hijo(s)
- (4) Nuera o Yerna
- (5) Hermana/o (s)
- (6) Otro (a) familiar
- (7) Vecina(o)
- (8) Amiga (o)
- (9) Escolta del Servicio Municipal
- (10) Otro _____

Especifique

95. ¿Ha vistado al médico en los últimos doce meses?

☐

- (1) Sí
- (0) No
- (8) No recuerdo
- (9) No sé

96. ¿Con qué frecuencia visita al médico?

☐☐

- (0) No visito al médico
- (1) Más de una vez al mes
- (2) Una o dos veces al mes
- (3) De cada dos a seis meses
- (4) Cada seis meses
- (5) Una vez al año
- (6) Cada dos años
- (7) Sólo cuando me siento enferma
- (8) No recuerdo
- (9) No sé
- (10) Otro _____

Especifique

97. ¿Cuál fue la razón principal de su última visita al médico?

FIN DEL CUESTIONARIO

MUCHAS GRACIAS

—

UNIVERSITY OF PUERTO RICO
MEDICAL SCIENCES CAMPUS
GRADUATE SCHOOL OF PUBLIC HEALTH
INTERDISCIPLINARY GERONTOLOGICAL RESEARCH PROJECT

*Knowledge and Beliefs about Breast Cancer among Elderly Puerto Rican Women
Validation Process*

ID _ _ _ _

I. Sociodemographic Information

Write the code to the answer in the space provided to the right of the question.

1. How old are you?

2. In what year were you born? (Last two digits)

3. What was the last year of studies that you completed?

- (1) Did not attend school
- (2) First to third
- (3) Fourth to sixth
- (4) Seventh to eighth
- (5) Ninth to eleventh
- (6) High school
- (7) Technical or vocational degree
- (8) Four years of university
- (9) Graduate Studies
- (10) Other _____

Specify

4. What is your current marital status?

- (1) Widow
- (2) Married or co-habitates
- (3) Separated or divorced
- (0) Never married

5. How many of your daughters are alive?

6. How many of your sons are alive?

7. What is the religion of your preference?

(1) Catholic

(2) Not - catholic

Specify

(0) None

8. Do you have Medicare (Part A - hospitalization)?

(1) Yes

(0) No (Go to question 10)

(8) Do not remember

(9) Do not know

9. Do you have Medicare part B (medical ambulatory services)?

(1) Yes

(0) No

(8) Do not remember

(9) Do not know

10. Do you have Medicaid?

(1) Yes

(0) No

(8) Do not remember

(9) Do not know

11. Do you have another health plan?

(1) Yes

Specify

(0) No

(9) Do not know

12. Where does your income come from?

Read all alternatives. Write one (1) for those which apply; zero (0) for those do not apply.

My own salary or my husband's (spouse)

☐

Social Security

☐

Welfare Programs

☐

Pension

☐

Economic assistance from son(s)/ daughter(s)

☐

Economic assistance from other relatives

☐

Rent from property or house

☐

Other _____
Specify

☐

13. Si usted tiene una necesidad económica (de dinero), ¿a quién principalmente acude usted para que la ayude?

☐

(0) No one

(1) My husband (spouse)

(2) My daughter(s)

(3) My son(s)

(4) My sister(s)/brother(s)

(5) Another relative

(6) My neighbor(s)

(7) My friends (s)

(8) Other _____
Specify

14. Do you live alone?

☐

(1) Yes (go to question 16)

(0) No

15. With whom do you live?

Read all alternatives. Write one (1) for those alternatives ; zero (0) for those alternatives that do not apply.

With my husband (spouse)

☐

With my daughter (s)

☐

With my son(s)

☐

With my sister (s) / brother (s)

☐

With another relative

☐

With female friend

☐

Others _____
Specify

☐

II. Family and Personal History of Breast Cancer

The following questions are geared to your health history.

16. Have you ever felt pain or any discomfort in the breast?

☐

- (1) Yes
- (0) No (go to question 18)
- (8) Do not remember (go to question 18)
- (9) Do not know (go to question 18)

17. Have you felt pain or any discomfort in the breast during the last twelve (12) months?

☐

- (1) Yes
- (0) No
- (8) Do not remember
- (9) Do not know

18. Have you ever felt a nodule (small round mass, small bulky mass, mass) in the breast?

☐

- (1) Yes
- (0) No (go to question 20)
- (8) Do not remember (go to question 20)
- (9) Do not know (go to question 20)

19. Have you felt a nodule (small round mass, small bulky mass, mass) in the breast during the last twelve (12) months?

☐

- (1) Yes
- (0) No
- (8) Do not remember
- (9) Do not know

20. Have you ever experienced a secretion (liquid) coming out of your nipples?

☐

- (1) Yes
- (0) No **(go to question 22)**
- (8) Do not remember **(go to question 22)**
- (9) Do not know **(go to question 22)**

21. Have you experienced a secretion (liquid) coming out of your nipples during the last twelve months ?

☐

- (1) Yes
- (0) No
- (8) Do not remember
- (9) Do not know

22. Have you ever undergone a breast biopsy (needle test)?

☐

- (1) Yes
- (0) No **(go to question 24)**
- (8) Do not remember **(go to question 24)**
- (9) Do not know **(go to question 24)**

23. Have you ever undergone a breast biopsy (needle test) in the last twelve months?

☐

- (1) Yes
- (0) No
- (8) Do not remember
- (9) Do not know

24. Has any of your relatives suffered from breast cancer?

☐

- (1) Yes
- (0) No **(go to question 26)**
- (8) Do not remember **(go to question 26)**
- (9) Do not know **(go to question 26)**

25. ¿Who?

Read all alternatives. Write one (1) for those who apply ; zero (0) for those alternatives that do not apply.

Mother

☐

Sister

☐

Daughter

☐

Aunt

☐

Grandmother

☐

Female cousin

☐

Daughter in law

☐

Niece

☐

Grand-daughter

☐

Other _____

☐

Specify

26. Have you ever been diagnosed cancer (has your physician informed you that you have cancer)?

☐

- (1) Yes
- (0) No (go to question 28)
- (8) Do not remember (go to question 28)
- (9) Do not know (go to question 28)

27. What type of cancer where you diagnosed?

☐

- (1) Breast cancer
- (0) Other type _____
Specify
- (8) Do not remember
- (9) Do not know

III. Early Detection Practices of Brast Cancer

The following questions refer to the tests for breast cancer detection in early stages.

28. Do you examine your breast (touch your breast, self examination)?

☐

(1) Yes

(0) No (go to question 31)

29. How did you learn to examine your breast (touch your breast, self examination)?

By myself

☐

A gynecologist

☐

Another physician

☐

A nurse

☐

A relative

☐

A friend

☐

On the television

☐

Read about it

☐

Do not remember

☐

Other _____
Specify

☐

30. How frequently have you examine your breast (touch your breast, self examination) ?



- (0) When I remember
- (1) At least once a week
- (2) Two or three times per week
- (3) Once a month
- (4) Every two months
- (5) Two or three times per year
- (6) Once a year
- (7) Other _____

Specify

- (8) Do not remember
- (9) Do not know

(Go to question 33)

31. What is the main reason for not examining your breast (touch your breast, self examination) ?

32. Are there other reasons for not examining your breast (touch your breast, self examination)?



(1) Yes; which ones? _____

(0) No

33. Have you ever had a mammogram (breast plate or X- rays)?

☐

- (1) Yes
- (0) No **(go to question 38)**
- (8) Do not remember **(go to question 41)**
- (9) Do not know **(go to question 41)**

34. How frequently do you have a mammogram (breast plate or X- rays)?

☐

- (1) More than once a year
- (2) Every year
- (3) Every two years
- (4) Every three years
- (5) More than every three years
- (6) Other _____
Specify
- (8) Do not remember
- (9) Do not know

35. When was your last mammogram (breast plate or X rays)?

☐

- (1) One year or less **(go to question 40)**
- (2) Two years ago
- (3) Three years ago
- (4) Four years ago
- (5) Five years ago
- (6) Sólo me la ha hecho una vez
- (7) Other _____
Specify
- (8) Do not remember
- (9) Do not know

36. What is the main reason for not having a mammogram (breast plate or X rays) in the last year?

37. Are there other reasons for not having a mammogram (breast plate or X rays) in the last year?

☐

(1) Yes ; ¿which ones? _____

(0) No

(Go to question 41)

38. What is the main reason for not ever having a mammogram (breast plate or X rays)?

39. Are there other reasons for not ever having a mammogram (breast plate or X rays)?

☐

(1) Yes; ¿which ones? _____

(0) No

(Go to question 41)

40. What is the main reason for having a mammogram (breast plate or X rays) in the last year?

41. During the last five years, has any health professional (physician, nurse...) clinically examined your breast (when the physician touches your breast)?

☐

- (1) Yes
- (0) No **(go to question 46)**
- (8) Do not remember **(go to question 46)**
- (9) Do not know **(go to question 46)**

42. What types of health professionals have clinically examined your breasts (when the physician touches your breast) during the last five years?

Read all alternatives. Write one (1) for health professionals that apply; zero (0) for those do not apply.

Gynecologist (doctor de las enfermedades de la mujer)

☐

Another physician _____
Specialization (si recuerda)

☐

Nurse

☐

Do not remember

☐

Do not know

☐

Other _____
Specify

☐

43. ¿Has any health professional explained the methods or ways used to detect (discover) early of breast cancer?

☐

(1) Yes ; ¿who? _____

(0) No

(8) Do not remember

(9) Do not know

44. ¿Has any health professional explained to you how to perform breast self-examination (touch your breast)?

☐

(1) Yes; ¿who? _____

(0) No

(8) Do not remember

(9) Do not know

45. ¿Has any physician given you a referral for a mammogram (breast plate or X - rays)?

☐

(1) Yes; ¿cuál specialization? _____

(0) No

(8) Do not remember

(9) Do not know

46. ¿Have you visited the gynecologist (physician specialized in women's health problems) during the last twelve months?

☐

(1) Yes

(0) No **(go to question 52)**

(8) Do not remember **(go to question 52)**

(9) Do not know **(go to question 52)**

47. During that visit, did the gynecologist conduct clinical breast examination
(when the physician touches your breasts)?

☐

- (1) Yes
- (0) No
- (8) Do not remember
- (9) Do not know

48 . During that visit, did the gynecologist explained to you the methods or ways
to early detect (discover) breast cancer?

☐

- (1) Yes
- (0) No
- (8) Do not remember
- (9) Do not know

49. During that visit, did the gynecologist explained to you how to conduct a breast
self examination (touch yor breasts) ?

☐

- (1) Yes
- (0) No
- (8) Do not remember
- (9) Do not know

50. During that visit, did the gynecologist gave you a referral for a mammogram
(breast plate o X rays)?

☐

- (1) Yes
- (0) No
- (8) Do not remember
- (9) Do not know

51. During that visit, was the gynecologist male or female?

☐

- (0) Male (man)
- (1) Female (woman)

52. When was the last time that a physician conducted a clinical breast examination
(when the doctor touches your breasts)

☐

- (1) Less than a year
- (2) A year
- (3) Two years
- (4) Three years
- (5) Four years
- (6) Five years or more
- (8) Do not remember
- (9) Do not know

53. In terms of the sex (gender), which sex do you prefer to perform the clinical
breast examination (when the doctor touches your breasts)?

☐

- (0) Male physician
- (1) Women physician
- (2) No preference (does not matter)

IV. Knowlwdge and beliefs about Breast Cancer

I am going to read some statements related to breast cancer. I would like to know your opinion . For each statement, please answer using the following alternatives: **true, false, do not know** .

Indicate with an (X) the response on the appropriate column

STATEMENTS	True 1	False 0	Don't Know 9
54. A possible treatment for breast cancer is to remove the nodule (ball, lump, mass, gland).			
55. Women who have had breast cancer have more possibilities of developing it a second time.			
56. Radiation therapy (X-rays) is a breast cancer treatment.			
57. Women with large breasts have more possibilities of developing cancer than women with small breasts.			
58. A possible symptom of breast cancer is fluid coming out of the nipples.			
59. Radiation therapy (X-rays) may produce similar symptoms as a sunburn's symptoms (red and injyred skin).			
60. A swelling of the arm can be a consequence (result) of breast cancer treatment.			
61. The only breast cancer symptom is a nodule (ball, lump, mass, gland).			
62. Women who give birth to their first child before 30 years of age have a lesser possibility of developing breast cancer.			
63. A mammography is recommended once a year for women 50 years or older.			
64. Thin women have a higher possibility of developing breast cancer.			
65. To hit, bruise or hurt the breast can cause breast cancer.			
66. Women who begin their first period before 12 years age have more possibilities of developing breast cancer.			

STATEMENTS	True 1	False 0	Don't Know 9
67. The breast self-exam (touching yourself) instructions are easy to follow.			
68. Women whose mother or sister have suffered from breast cancer have more possibilities of developing this type of cancer.			
69. It is recommended that women undergo an annual clinical breast examination (doctor touches the breast).			
70. The only breast cancer treatment is mastectomy or amputation the breast (remove the breast).			
71. Pain, stinging sensation or discomfort in the breast are possible symptoms of breast cancer.			
72. The mammography (breast cancer plate or X-rays) detects (discovers) breast cancer in its early stages.			
73. Women 50 years or older have more possibilities of developing breast cancer than younger women.			
74. The breast self examination (touching yourself) must be performed once every month.			
75. The mammogram (breast cancer plate or X-rays) is necessary only when a woman feels discomfort in her breast.			
76. Women who have suffered from breast cancer must wait five (5) years to know if their are cured.			
77. Breast cancer always leads to death.			
78. The breast self examination must be performed monthly.			
79. Breast cancer can spread to other parts of the body (metastasize) if not treated early.			
80. Breast cancer always causes pain.			
81. Women who have never been married have less possibilities of developing breast cancer.			
82. Women with a diet high in fats have more possibilities of developing breast cancer.			
83. A swelling or increase in size of the breast is a possible symptom of breast cancer.			
84. Women with a diet high in fiber (vegetables, fruits, cereals) have less possibilities of developing breast cancer.			
85. A mammogram (breast cancer plate or X rays) is the most accurate test to detect (discover) breast cancer.			

V. Sources of Information

86. From where or who have you obtained most of the information related to breast cancer? *Indicate only one.*

☐

- (1) Health professionals
- (2) Radio
- (3) Television
- (4) Newspapers or Magazines
- (5) Friends / Neighbor(s)
- (6) Instructional material at health centers
- (7) I never obtained information (go to question 88)
- (8) Other _____

Specify

87. From which other sources have you obtained information about breast cancer?

Read all the alternatives. Write one (1) for those that apply ; zero (0) for those do not apply

Health professionals

☐

Radio

☐

Television

☐

Newspaper or Magazines

☐

Friends/ Neighbors

☐

Instructional material at health centers

☐

Other _____

☐

Specify

VI. Health Status

The following questions refers to your health condition

88. How do you evaluate your health in comparison to other people in your age group? ☐

Read the alternatives.

- (1) Much better
- (2) Better
- (3) The same
- (4) Worse
- (5) Much worse

89. Do you take medicines prescribed by a physician? ☐

- (1) Yes
- (0) No **(go to question 91)**
- (8) Do not remember **(go to question 91)**
- (9) Do not know **(go to question 91)**

90. For what condition (s) or illness (es) do you take a medicine?

91. Which do you consider are your principal health problems?

92. Who helps you the most when you are sick?



- (0) No one
- (1) Husband (spouse)
- (2) Daughter (s)
- (3) Son (s)
- (4) Sister (s) \ Brother (s)
- (5) Another relative
- (6) Neighbor
- (7) Friend
- (8) Other _____

Specify

93. Most of the time, how do you go to your medical appointments?



- (1) Your own car
- (2) Public transportation (guagua)
- (3) My husband's car
- (4) My daughter's car
- (5) My son's car
- (6) Relative's car
- (7) My neighbor's car
- (8) I pay someone to transport me
- (9) Municipality -or government- provided transportation
- (10) I walk
- (11) Other _____

Specify

94. Most of the time, who accompanies you to medical appointments?

☐☐

Marque sólo una alternativa.

- (0) No one
- (1) Husband (spouse)
- (2) My daughter (s)
- (3) My son (s)
- (4) daughter-in-law
- (5) Sister (s) \ Brother (s)
- (6) Another relative
- (7) Neighbor
- (8) Friend
- (9) government-provided escort
- (10) Other _____

Specify

95. Have you visited a physician during the last twelve months?

☐

- (1) Yes
- (0) No
- (8) Do not remember
- (9) Do not know

96. How often have you visited a physician ?

☐☐

- (0) Do not visit a physician
- (1) More than once a month
- (2) Once a month
- (3) Each two to six months
- (4) Two times a year
- (5) One time a year
- (6) Each two year
- (7) When I feel sick
- (8) Do not remember
- (9) Do not know
- (10) Other _____

Specify

97. ¿What was the main reason for your last visit to the physician?

END OF QUESTIONNAIRE

THANK YOU

APPENDIX 2

[illegible]

CULEBRA

VIEQUES

Metropolitan Area

Non-Metropolitan Area



APPENDIX 3

- a. National Survey Questionnaire, Spanish Version*
- b. National Survey Questionnaire, English Version*

**UNIVERSIDAD DE PUERTO RICO / RECINTO DE CIENCIAS MEDICAS
FACULTAD DE CIENCIAS BIOSOCIALES Y ESCUELA GRADUADA DE SALUD PUBLICA
PROYECTO INTERDISCIPLINARIO DE INVESTIGACION GERONTOLOGICA**

DOCUMENTO COMA - 02

*CONOCIMIENTOS Y CREENCIAS SOBRE EL CANCER DE MAMA EN MUJERES DE
EDAD AVANZADA EN PUERTO RICO*

NUMERO DE CONTROL

☐☐☐☐☐☐

CUESTIONARIO

ENCUESTA NACIONAL



ABRIL - JULIO, 1996

Introducción

Estamos llevando a cabo un estudio sobre el cáncer del seno y las pruebas de detección temprana de este cáncer. Para recopilar la información de interés se desarrolló un cuestionario a ser completado por una entrevistadora. Nos gustaría que participe de una entrevista que durará alrededor de 30 minutos. Su participación es voluntaria. Usted puede rehusar a participar o a contestar algunas de las preguntas. Si decide participar la información que ofrezca será mantenida en estricta confidencialidad. Antes de comenzar la entrevista se le requerirá que firme una hoja de consentimiento informado. Esta hoja contiene información detallada sobre el estudio que estamos llevando a cabo.

Firmar hoja de consentimiento informado

El propósito de esta hoja es asegurarnos que la persona ha sido debidamente informada del estudio en el cuál va a participar. Es importante que la persona lea esta hoja. Si la persona no puede leer, la entrevistadora deberá leer la hoja de consentimiento informado. Una vez concluída la lectura la entrevistada firma en el espacio correspondiente a la participante. La entrevistadora firma en el espacio correspondiente a testigo.

Si la persona no firma la hoja de consentimiento, no se puede llevar a cabo la entrevista.

UNIVERSIDAD DE PUERTO RICO
RECINTO DE CIENCIAS MEDICAS
ESCUELA GRADUADA DE SALUD PUBLICA
PROYECTO INTERDISCIPLINARIO DE INVESTIGACION GERONTOLOGICA

Conocimientos y Creencias sobre el Cáncer de Mama en las Mujeres de Edad Avanzada en Puerto Rico

CUESTIONARIO

NUMERO DE CONTROL

A. Información Sociodemográfica

Escriba el código de la respuesta en el espacio provisto a la derecha de la pregunta.

1. ¿Qué edad tiene usted?

2. ¿En qué año nació usted? (*Dos últimos dígitos*)

3. ¿Cuál fue el último grado de estudio que usted completó?

- (00) No fue a la escuela
- (01-12) Grado completado
- (13) Escuela Normal de Maestros
- (14) Grado Técnico o Vocacional
- (15) Grado Asociado
- (16) Bachillerato
- (17) Estudios Graduados
- (18) Otro grado _____

Especifique

4. ¿Cuál es su estado civil actual?

- (0) Nunca casada
- (1) Viuda
- (2) Casada o Convive
- (3) Separada o Divorciada

5. ¿Cuántas hijas (mujeres) tiene vivas actualmente?

6. ¿Cuántos hijos (hombres) tiene vivos actualmente?

7. ¿Cuál es su preferencia religiosa?

(0) Ninguna

(1) Católica

(2) No católica _____

Especifique

8. ¿Usted tiene Medicare parte A, la que cubre hospitalización?

(1) Sí

(0) No *(Pase a la pregunta 10)*

(8) No recuerdo *(Pase a la pregunta 10)*

(9) No sé *(Pase a la pregunta 10)*

9. ¿Usted tiene la parte B de Medicare, la que cubre servicios médicos ambulatorios?

(1) Sí

(0) No

(8) No recuerdo

(9) No sé

10. ¿Usted tiene Medicaid u otro plan médico del gobierno de Puerto Rico?

(1) Sí

(0) No

(8) No recuerdo

(9) No sé

11. ¿Usted tiene otro plan médico?

(1) Sí _____

Especifique

(0) No

(8) No recuerdo

(9) No sé

12. ¿De dónde provienen sus ingresos?

Lea todas las alternativas. Escriba uno (1) en las fuentes que apliquen; cero (0) en las fuentes que no apliquen.

Salario propio o de su esposo (marido)

☐

Seguro Social

☐

Programas de Asistencia Social (incluye cupones de alimento)

☐

Pensión o Retiro

☐

Ayuda económica de hijo/a (s)

☐

Ayuda económica de los parientes

☐

Renta de propiedad o casa

☐

Negocio propio

☐

Otras fuentes _____

☐

Especifique

13. Generalmente, ¿qué persona la ayuda cuando tiene una necesidad económica o problemas de dinero?

☐

(0) Nadie

(1) Mi esposo (marido)

(2) Mi(s) hija(s)

(3) Mi(s) hijo(s)

(4) Mi(s) hermana/o(s)

(5) Otro familiar

(6) Mi(s) vecina/o(s) / amiga/o(s)

(7) Otra persona _____

Especifique

14. ¿Vive sola actualmente?

☐

(1) Sí

(Pase a la pregunta 16)

(0) No

15. ¿ Con quién(es) vive actualmente?

Lea todas las alternativas. Escriba uno (1) para las alternativas que apliquen; cero (0) para las alternativas que no apliquen.

Esposo (marido)

☐

Hija(s)

☐

Hijo(s)

☐

Hermana/o(s)

☐

Otro familiar

☐

Amiga(s)

☐

Otra persona _____

☐

Especifique

B. Historial Familiar y Personal

Las siguientes preguntas se refieren a su historial de salud.

16. ¿Ha sentido **dolor o molestia** en los senos en los **últimos cinco (5) años**?

☐

- (1) Sí
- (0) No *(Pase a la pregunta 18)*
- (8) No recuerdo *(Pase a la pregunta 18)*
- (9) No sé *(Pase a la pregunta 18)*

17. ¿Ha sentido **dolor o molestia** en los senos en los **últimos doce meses**?

☐

- (1) Sí
- (0) No
- (8) No recuerdo
- (9) No sé

18. ¿Ha sentido alguna vez un **nódulo** (endurecimiento, masa, pelotita, bultito) en los senos?

☐

- (1) Sí
- (0) No *(Pase a la pregunta 20)*
- (8) No recuerdo *(Pase a la pregunta 20)*
- (9) No sé *(Pase a la pregunta 20)*

19. ¿Ha sentido un **nódulo** (endurecimiento, masa, pelotita, bultito) en los senos en los **últimos doce meses**?

☐

- (1) Sí
- (0) No
- (8) No recuerdo
- (9) No sé

20. ¿Ha tenido alguna vez **secreciones por los pezones** (líquidos **no** relacionados con la lactancia o amamantar)?

☐

- (1) Sí
- (0) No *(Pase a la pregunta 22)*
- (8) No recuerdo *(Pase a la pregunta 22)*
- (9) No sé *(Pase a la pregunta 22)*

21. ¿Ha tenido secreciones por los pezones en los últimos doce meses?

☐

- (1) Sí
- (0) No
- (8) No recuerdo
- (9) No sé

22. ¿Le han hecho biopsia (prueba de las agujas) del seno alguna vez?

☐

- (1) Sí
- (0) No *(Pase a la pregunta 24)*
- (8) No recuerdo *(Pase a la pregunta 24)*
- (9) No sé *(Pase a la pregunta 24)*

23. ¿Le han hecho biopsia (prueba de las agujas) del seno en los últimos doce meses?

☐

- (1) Sí
- (0) No
- (8) No recuerdo
- (9) No sé

24. ¿Algún familiar suyo ha padecido de cáncer del seno?

☐

- (1) Sí
- (0) No *(Pase a la pregunta 26)*
- (8) No recuerdo *(Pase a la pregunta 26)*
- (9) No sé *(Pase a la pregunta 26)*

25. ¿Qué familiar?

Lea todas las alternativas. Escriba uno (1) para las alternativas que apliquen; cero (0) para las alternativas que no apliquen.

Madre

☐

Alguna hermana

☐

Alguna hija

☐

Alguna tía

☐

Abuela

☐

Alguna prima

☐

Alguna sobrina

☐

Alguna nieta

☐

Otro familiar

☐

Especifique

26. ¿Le han diagnosticado cáncer alguna vez (o sea el médico le ha dicho que tiene cáncer)?

☐

- (1) Sí
- (0) No *(Pase a la pregunta 28)*
- (8) No recuerdo *(Pase a la pregunta 28)*
- (9) No sé *(Pase a la pregunta 28)*

27. ¿Cuál fue el tipo de cáncer que se le diagnosticó?

☐

- (1) Cáncer del Seno
- (0) Otro tipo de cáncer _____
Especifique
- (8) No recuerdo
- (9) No sé

C. Prácticas de Detección Temprana

Las preguntas a continuación se refieren a prácticas relacionadas a su salud.

28. ¿Se examina usted misma los senos (tocarse usted misma los senos, autoexamen) como método para detectar (descubrir) a tiempo el cáncer del seno?

☐

(1) Sí

(0) No

(Pase a la pregunta 32)

29. ¿Se ha examinado usted misma los senos (tocarse usted misma los senos, autoexamen) más o menos para la misma fecha durante los **últimos doce meses**?

☐

(1) Sí

(0) No

(Pase a la pregunta 31)

(8) No recuerdo

(Pase a la pregunta 31)

(9) No se

(Pase a la pregunta 31)

30. Durante los **últimos doce meses**, ¿con qué frecuencia usted misma se ha examinado los senos (tocarse usted misma los senos, autoexamen) ?

☐

(1) Veces a la semana

Especifique

(2) Veces al mes

Especifique

(3) Veces al año

Especifique

(8) No recuerdo

(9) No sé

31. ¿Cómo aprendió o quién le enseñó a examinarse los senos (tocarse usted misma los senos, autoexamen)?

Lea todas las alternativas. Escriba uno (1) para las alternativas que apliquen; cero (0) para las alternativas que no apliquen.

Por el (la) ginecólogo/a

☐

Por otro médico

☐

Por una enfermera

☐

Por un familiar

☐

Por una amiga

☐

Por la televisión

☐

Porque lo leyó

☐

No recuerda

☐

Otro/a _____

☐

Especifique

(Pase a la pregunta 35)

32. ¿Cuál es la **razón principal** para **NO** examinarse usted misma los senos (tocarse usted misma los senos, autoexamen)?

☐

(1) No sabía que hay que hacerse el autoexamen

(2) No sé cómo se hace el autoexamen

(3) Me siento incómoda / No me gusta tocarme mi cuerpo

(4) Miedo a encontrar algo que pueda ser cáncer del seno

(5) El médico lo hace

(6) El médico no lo ha recomendado

(7) Me siento bien / No siento molestia o síntomas

(8) Otra razón _____

Especifique

33. ¿Existen otras razones para **NO** examinarse usted misma los senos (tocarse usted misma los senos, autoexamen)?

☐

(1) Sí

(0) No

(Pase a la pregunta 35)

34. ¿Cuáles son las otras razones para **NO** examinarse usted misma los senos (tocarse usted misma los senos, autoexamen)?

Escriba uno (1) para las razones mencionadas por la entrevistada; cero (0) para las razones no mencionadas.

No sabía que hay que hacerse el autoexamen

☐

No sé cómo se hace el autoexamen

☐

Me siento incómoda / No me gusta tocarme mi cuerpo

☐

Miedo a encontrar algo que pueda ser cáncer del seno

☐

El médico lo hace

☐

El médico no lo ha recomendado

☐

Me siento bien / No siento molestia o síntomas

☐

Otras razones _____

☐

Especifique

35. ¿Se ha hecho una **mamografía** (placa o rayos X de los senos) alguna vez en su vida?

☐

(1) Sí

(0) No

(Pase a la pregunta 42)

(8) No recuerdo

(Pase a la pregunta 46)

(9) No sé

(Pase a la pregunta 46)

36. ¿Se hace la **mamografía** (placa o rayos X de los senos) con cierta regularidad?

☐

- (1) Sí
- (0) No *(Pase a la pregunta 38)*
- (8) No recuerdo *(Pase a la pregunta 38)*
- (9) No sé *(Pase a la pregunta 38)*

37. ¿Con qué frecuencia o regularidad se hace la **mamografía** (placa o rayos X de los senos)?

☐

- (0) Más de una vez al año
- (1) Cada año
- (2) Cada dos años
- (3) Cada tres años o más
- (8) No recuerdo
- (9) No sé

38. ¿Cuándo fue su **última mamografía** (placa o rayos X de los senos)?

☐

- (1) Hace un año o menos *(Pase a la pregunta 45)*
- (2) Hace dos años
- (3) Hace tres años
- (4) Hace cuatro años
- (5) Hace cinco años o más
- (8) No recuerdo *(Pase a la pregunta 46)*
- (9) No sé *(Pase a la pregunta 46)*

39. ¿Cuál es la **razón principal** para **NO** haberse hecho la **mamografía** (placa o rayos X de los senos) durante los **últimos doce meses**?

☐

- (1) No sabía que tenía que hacérmela
- (2) No lo creo necesario a mi edad / No le veo la importancia
- (3) No he tenido síntomas
- (4) El médico no la ha ordenado
- (5) Es cara / El plan médico no la cubre
- (6) Es dolorosa / Es molesta
- (7) Problemas con la transportación
- (8) Descuido / Olvido / Vagancia
- (9) Otra razón _____

Especifique

40. ¿Existen otras razones para **NO** haberse hecho la **mamografía** (placa o rayos X de los senos) durante los **últimos doce meses**?

☐

(1) Sí

(0) No

(Pase a la pregunta 46)

41. ¿Cuáles son las otras razones para **NO** haberse hecho la **mamografía** (placa o rayos X de los senos) durante los **últimos doce meses** ?

Escriba uno (1) para las razones mencionadas por la entrevistada; cero (0) para las razones no mencionadas.

No sabía que tenía que hacérmela

☐

No lo creo necesario a mi edad / No le veo la importancia

☐

No he tenido síntomas

☐

El médico no la ha ordenado

☐

Es cara / El plan médico no la cubre

☐

Es dolorosa / Es molesta

☐

Problemas con la transportación

☐

Descuido / Olvido / Vagancia

☐

Otras razones _____

☐

Especifique

(Pase a la pregunta 46)

42. ¿Cuál es la **razón principal** para **NUNCA** haberse hecho una **mamografía** (placa o rayos X de los senos)?



- (1) No sabía que tenía que hacérmela
- (2) No lo creo necesario a mi edad / No le veo la importancia
- (3) No he tenido síntomas
- (4) El médico no la ha ordenado
- (5) Es cara / El plan médico no la cubre
- (6) Es dolorosa / Es molesta
- (7) Problemas con la transportación
- (8) Descuido / Olvido / Vagancia
- (9) Otra razón _____

Especifique

43. ¿ Existen otras razones para **NUNCA** haberse hecho una **mamografía** (placa o rayos X de los senos)?



- (1) Sí
- (0) No

(Pase a la pregunta 46)

44. ¿Cuál son las otras razones para **NUNCA** haberse hecho una **mamografía** (placa o rayos X de los senos) ?

Escriba uno (1) para las razones mencionadas por la entrevistada; cero (0) para las razones no mencionadas.

No sabía que tenía que hacérmela

☐

No lo creo necesario a mi edad / No le veo la importancia

☐

No he tenido síntomas

☐

El médico no la ha ordenado

☐

Es cara / El plan médico no la cubre

☐

Es dolorosa / Es molesta

☐

Problemas con la transportación

☐

Descuido / Olvido / Vagancia

☐

Otras razones _____

☐

Especifique

(Pase a la pregunta 46)

45. ¿Cuál fue la **razón principal** para hacerse la **mamografía** (placa o rayos X de los senos) durante los **últimos doce meses**?

☐

(1) Referido médico

(2) Historial previo de cáncer del seno

(3) Signos / síntomas relacionados con cáncer del seno

(4) Conoce la necesidad de hacer el examen

(5) Historial familiar de cáncer del seno

(6) Otra razón _____

Especifique

46. ¿Algún médico o enfermera le ha hecho el **examen clínico** de los senos (cuando el doctor o enfermera le toca los senos) ?

☐

- (1) Sí
- (0) No (Pase a la pregunta 49)
- (8) No recuerdo (Pase a la pregunta 49)
- (9) No sé (Pase a la pregunta 49)

47. ¿Cuándo fue la última vez que algún médico o enfermera le hizo el **examen clínico** de los senos (cuando el doctor o enfermera le toca los senos) ?

☐

- (0) Menos de un año
- (1) Un año
- (2) Dos años
- (3) De tres años a cinco años
- (4) Seis años o más (Pase a la pregunta 50)
- (8) No recuerdo (Pase a la pregunta 50)
- (9) No sé (Pase a la pregunta 50)

48. ¿Quién o quiénes (médico o enfermera) le han hecho el **examen clínico** de los senos (cuando el doctor o enfermera le toca los senos) en los **últimos cinco (5) años** ?

Lea todas las alternativas. Escriba uno (1) para las alternativas que apliquen; cero (0) para las alternativas que no apliquen.

Ginecólogo (doctor de las enfermedades de la mujer)

☐

Médico primario (generalista, médico de familia)

☐

Médico internista

☐

Médico de otra especialidad

☐

Enfermera

☐

No recuerdo

☐

No sé

☐

49. En relación al **examen clínico** de los senos (cuando el doctor o enfermera le toca los senos), ¿prefiere que le haga el examen un doctor o una doctora?

☐

- (1) Doctor (hombre)
- (2) Doctora (mujer)
- (5) No tengo preferencia (no importa)

50. **Después de la menopausia** (cambio de vida), ¿algún profesional de la salud le explicó las maneras (procedimientos o formas) de detectar (descubrir) a tiempo el cáncer del seno?

☐

- (1) Sí
- (0) No *(Pase a la pregunta 52)*
- (8) No recuerdo *(Pase a la pregunta 52)*
- (9) No sé *(Pase a la pregunta 52)*

51. ¿Quién o quiénes (qué profesional de la salud) le han explicado las maneras (procedimientos o formas) de detectar (descubrir) a tiempo el cáncer del seno?

Lea todas las alternativas. Escriba uno (1) para las alternativas que apliquen; cero (0) para las alternativas que no apliquen.

Ginecólogo (doctor de las enfermedades de la mujer)

☐

Médico primario (generalista, médico de familia)

☐

Médico internista

☐

Médico de otra especialidad

☐

Enfermera

☐

Otro profesional _____

☐

Especifique

No recuerdo

☐

No sé

☐

52. **Después de la menopausia** (cambio de vida), ¿algún profesional de la salud le explicó cómo examinarse usted misma los senos (tocarse usted misma los senos, autoexamen)?

☐

- (1) Sí
(0) No (Pase a la pregunta 54)
(8) No recuerdo (Pase a la pregunta 54)
(9) No sé (Pase a la pregunta 54)

53. ¿Quién o quiénes (qué profesional de la salud) le han explicado cómo examinarse usted misma los senos (tocarse usted misma los senos, autoexamen)?

Lea todas las alternativas. Escriba uno (1) para las alternativas que apliquen; cero (0) para las alternativas que no apliquen.

Ginecólogo (doctor de las enfermedades de la mujer)

☐

Médico primario (generalista, médico de familia)

☐

Médico internista

☐

Médico de otra especialidad

☐

Enfermera

☐

Otro profesional _____

☐

Especifique

No recuerdo

☐

No sé

☐

54. En los **últimos cinco (5) años**, ¿algún médico le dio un referido para hacerse la **mamografía** (placa o rayos X de los senos)?

☐

- (1) Sí
(0) No (Pase a la pregunta 56)
(8) No recuerdo (Pase a la pregunta 56)
(9) No sé (Pase a la pregunta 56)

55. ¿Qué médicos le han dado un referido para hacerse la **mamografía** (placa o rayos X de los senos)?

Lea todas las alternativas. Escriba uno (1) para las alternativas que apliquen; cero (0) para las alternativas que no apliquen.

Ginecólogo (doctor de las enfermedades de la mujer)

☐

Médico primario (generalista, médico de familia)

☐

Médico internista

☐

Médico de otra especialidad

☐

No recuerdo

☐

No sé

☐

56. ¿Ha ido al médico **ginecólogo** (doctor de las enfermedades de la mujer) durante los **últimos doce meses**?

☐

(1) Sí

(0) No

(Pase a la pregunta 62)

(8) No recuerdo

(Pase a la pregunta 62)

(9) No sé

(Pase a la pregunta 62)

57. Durante esa visita, el médico **ginecólogo** que la atendió, ¿era hombre o mujer?

☐

(1) Hombre

(2) Mujer

58. Durante esa visita, ¿el (la) **ginecólogo/a** le explicó las maneras (procedimientos o formas) de detectar (descubrir) a tiempo el cáncer del seno?

☐

- (1) Sí
- (0) No
- (8) No recuerdo
- (9) No sé

59. Durante esa visita, ¿el (la) **ginecólogo/a** le hizo el **examen clínico** de los senos (cuando el doctor o enfermera le toca los senos)?

☐

- (1) Sí
- (0) No
- (8) No recuerdo
- (9) No sé

60. Durante esa visita, ¿el (la) **ginecólogo/a** le explicó cómo examinarse usted misma los senos (tocarse usted misma los senos, autoexamen)?

☐

- (1) Sí
- (0) No
- (8) No recuerdo
- (9) No sé

61. Durante esa visita, ¿el (la) **ginecólogo/a** le dio un referido para hacerse la **mamografía** (placa o rayos X de los senos)?

☐

- (1) Sí
- (0) No
- (8) No recuerdo
- (9) No sé

**PAUSA. LA ESTRUCTURA DEL CUESTIONARIO
CAMBIA EN LA PRÓXIMA SECCIÓN.**

D. Conocimientos y Creencias sobre el Cáncer del Seno

A continuación le voy a leer unas aseveraciones u oraciones relacionadas con el cáncer del seno sobre las cuales nos gustaría saber su opinión. Cuando las oraciones sean leídas, por favor dígame si éstas son ciertas o falsas.

Marque con una equis (X) la respuesta en la columna correspondiente.

ASEVERACIONES	Cierto	Falso	No sé
62. Las mujeres que han tenido cáncer del seno tienen más posibilidades de desarrollarlo otra vez.			
63. Las mujeres con senos grandes tienen más posibilidades de desarrollar cáncer del seno que las mujeres con senos pequeños.			
64. Un posible síntoma de cáncer del seno es que salga líquido del pezón.			
65. Una hinchazón en el brazo puede ser una consecuencia (resultado) del tratamiento de cáncer del seno.			
66. Un nódulo (endurecimiento, masa, pelotita, bultito, glándulita) en el seno es un síntoma del cáncer de seno.			
67. Las mujeres que dan a luz (que paren) a su primer hijo antes de los 30 años tienen menos posibilidades de tener cáncer del seno.			
68. Las mujeres de 50 años o más deben hacerse una mamografía (placa o rayos X de los senos) cada año.			
69. Las mujeres delgadas tienen más posibilidad de desarrollar cáncer del seno.			
70. Golpear, magullar o lastimar el seno puede causar cáncer del seno.			
71. Las mujeres que comienzan su primer periodo (regla) antes de los 12 años tienen más posibilidades de desarrollar cáncer del seno.			
72. Las mujeres cuyas madres o hermanas han tenido cáncer del seno tienen más posibilidades de desarrollar este cáncer.			

ASEVERACIONES	Cierto	Falso	No sé
73. Un examen clínico de los senos (cuando el médico toca los senos) anual es una forma para detectar (descubrir) a tiempo el cáncer del seno.			
74. A las mujeres que les da cáncer del seno siempre hay que hacerle una mastectomía o amputación de éste (cortarle el seno).			
75. Dolor, ardor o molestia en el seno o el pezón son posibles síntomas de cáncer del seno.			
76. La mamografía (placa o rayos X de los senos) detecta (descubre) el cáncer del seno en sus primeras etapas.			
77. La posibilidad de desarrollar cáncer de los senos es mayor según aumenta la edad.			
78. El autoexamen del seno (tocarse usted misma los senos) debe hacerse una vez al mes.			
79. La mamografía (placa o rayos X de los senos) sólo es necesaria cuando la mujer siente molestia en los senos.			
80. Las mujeres que han padecido de cáncer del seno tienen que esperar cinco (5) años para saber si se han curado.			
81. Las mujeres con una dieta alta en grasa tienen más posibilidades de desarrollar cáncer del seno.			
82. El cáncer del seno siempre da dolor.			
83. Las mujeres que no han tenido relaciones sexuales tienen menos posibilidades de desarrollar cáncer del seno.			
84. El cáncer del seno siempre ocasiona la muerte.			
85. La hinchazón o el crecimiento de los senos es un posible síntoma del cáncer del seno.			
86. La mamografía (placa o rayos X del seno) es la prueba más adecuada o eficiente para detectar (descubrir) el cáncer del seno.			

E. Fuentes de Información

87. ¿En dónde o de quién usted ha obtenido la mayor parte de la información de cáncer del seno?

☐

(0) Nunca obtuve información

(Pase a la pregunta 89)

(1) Profesionales de la salud

(2) Radio

(3) Televisión

(4) Material de Lectura (periódicos, revistas, libros)

(5) Familiares

(6) Amigo/a(s) / vecino/a(s)

(7) Material informativo en centros de salud

(8) Otra fuente _____

Especifique

88. ¿De qué otras fuentes usted ha obtenido información sobre el cáncer del seno?

Lea todas las alternativas. Escriba uno (1) para las alternativas que apliquen; cero (0) para las alternativas que no apliquen

Profesionales de la salud

☐

Radio

☐

Televisión

☐

Material de lectura (periódicos, revistas, libros)

☐

Familiares

☐

Amigo/a(s) / vecino/a(s)

☐

Material informativo en centros de salud

☐

Otras fuentes _____

☐

Especifique

F. Redes de Apoyo

89. ¿Quién es la persona que más la atiende (ayuda) cuando se enferma o se siente mal de salud ?

☐

- (0) Nadie
- (1) Mi esposo (marido)
- (2) Mi(s) hija(s)
- (3) Mi(s) hijo(s)
- (4) Mi(s) hermana/o(s)
- (5) Mi nuera o yerna
- (6) Otro familiar
- (7) Mi vecina/o / amiga/o
- (8) Otra persona _____

Especifique

90. La mayoría de las veces, ¿cómo se transporta a sus citas médicas?

☐

- (1) Auto propio
- (2) Transportación pública (guagua o carro público)
- (3) Auto de familiar
- (4) Auto de vecinos / amigos
- (5) Le pago a alguien
- (6) Transportación del Municipio o del Gobierno
- (7) Transportación Privada
- (8) A pie
- (9) Otro medio de transportación _____

Especifique

91. La mayoría de las veces, ¿quién va con usted a la oficina del médico cuando tiene cita?

☐

- (0) Nadie
- (1) Mi esposo (marido)
- (2) Mi(s) hija (s)
- (3) Mi(s) hijo(s)
- (4) Mi nuera o yerna
- (5) Mi(s) hermana/o(s)
- (6) Otro familiar
- (7) Mi amiga/o / vecina/o
- (8) Otra persona _____

Especifique

G. Estado de Salud

92. ¿Ha visitado al médico (cualquier tipo de médico) en los últimos doce meses?

☐

- (1) Sí
- (0) No *(Pase a la pregunta 94)*
- (8) No recuerdo *(Pase a la pregunta 94)*
- (9) No sé *(Pase a la pregunta 94)*

93. ¿Con qué frecuencia ha visitado al médico (cualquier tipo de médico) en los últimos doce meses ?

☐

- (1) Veces a la semana _____
Especifique
- (2) Veces al mes _____
Especifique
- (3) Veces al año _____
Especifique
- (8) No recuerdo
- (9) No sé

94. ¿Toma algún medicamento (medicinas) recetado por un médico?

☐

- (1) Sí
- (0) No *(Pase a la pregunta 96)*
- (8) No recuerdo *(Pase a la pregunta 96)*
- (9) No sé *(Pase a la pregunta 96)*

95. ¿Para qué condición(es) o enfermedad(es) toma el (los) medicamento(s)?

96. ¿Cuáles considera usted son sus **principales problemas** de salud?

97. ¿Cómo considera usted su salud **con relación a otras** personas de su edad?

☐

Lea las alternativas.

- (1) Mucho mejor
- (2) Mejor
- (3) Igual
- (4) Peor
- (5) Mucho peor

98. ¿Usted tiene o ha tenido alguna persona cercana a usted (vecina, amiga, conocida) que padece o ha padecido o se le ha diagnosticado cáncer del seno?

☐

- (1) Sí
- (0) No
- (8) No recuerdo
- (9) No sé

✿ MUCHAS GRACIAS POR SU COOPERACION ✿

FIN DEL CUESTIONARIO

- Cumpla con el requisito del obsequio de \$10.00.
- Asegúrese de que la entrevistada firme el recibo como que usted le entregó el dinero.
- Entregue el material informativo.
- Pregunte si la persona conoce alguna vecina de 65 años ó más.
- Anote en la hoja de referidos (ENAC-07, ENAC-08) los nombres ofrecidos por la entrevistada.
- Agradezca la participación en el proceso.

FIN DE LA ENTREVISTA

**UNIVERSITY OF PUERTO RICO
MEDICAL SCIENCES CAMPUS
FACULTY OF BIOSOCIAL SCIENCES AND
GRADUATE SCHOOL OF PUBLIC HEALTH
INTERDISCIPLINARY GERONTOLOGICAL RESEARCH PROJECT**

DOCUMENT COMA - 02

**KNOWLEDGE AND BELIEFS ABOUT BREAST CANCER AMONG
ELDERLY PUERTO RICAN WOMEN**

CONTROL NUMBER

☐☐☐☐☐☐

**QUESTIONNAIRE
NATIONAL SURVEY**



APRIL-JULY, 1996

INTRODUCTION

We are conducting a study on breast cancer and early detection practices. To gather relevant information a questionnaire was constructed and will be administered by a female interviewer. We would like that you participate in an interview that lasts around 30 minutes. Your participation is voluntary. You can refuse to participate or to answer some of the questions. If you agree to participate, the information that you offer will be kept under strict confidentiality. Before you begin the interview, you are required to sign a consent form. This form contains specific information about the study that we are conducting.

HAVE PARTICIPANT SIGN, THE INFORMED CONSENT FORM

The purpose of this form is to guarantee that the participant has been duly informed of the study in which she will participate. It is important that the participant reads the form. If she can not read, the interviewer will read the form. Once the reading is concluded, the interviewer will sign in the provided space for her. The interviewer will sign in the space designed for the witness.

If the person does not sign the consent form, the interview can not be conducted.

**UNIVERSITY OF PUERTO RICO
MEDICAL SCIENCES CAMPUS
GRADUATE SCHOOL OF PUBLIC HEALTH
INTERDISCIPLINARY GERONTOLOGICAL RESEARCH PROJECT**

**Knowledge and Beliefs about Breast Cancer Among Elderly
Puerto Rican Women**

QUESTIONNAIRE

CONTROL NUMBER

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A. Sociodemographic Information

Write the code to the answer in the space provided to the right of the question.

1. How old are you?

----------------------	----------------------

2. In what year were you born? (Last two digits)

----------------------	----------------------

3. What was the last year of studies that you completed?

----------------------	----------------------

(00) Did not attend school

(01-12) Completed grade

(13) Normal school for teachers

(14) Technical or vocational degree

(15) Associate degree

(16) Four years of university

(17) Graduate Study

(18) Other _____

Specify

4. What is your current marital status?

☐

- (0) Never married
- (1) Widow
- (2) Married or co-habitates
- (3) Separated or divorced

5. How many of your daughters are alive?

☐ ☐

6. How many of your sons are alive?

☐ ☐

7. What is the religion of your preference?

☐

- (0) None
- (1) Catholic
- (2) Not Catholic

Specify _____

8. Do you have Medicare Part A, which covers hospitalization?

☐

- (1) Yes
- (0) No *(Go to question 10)*
- (8) Can not remember *(Go to question 10)*
- (9) Do not know *(Go to question 10)*

9. Do you have Medicare part B, which covers medical ambulatory services?

☐

- (1) Yes
- (2) No
- (8) Can not remember
- (9) Do not know

10. Do you have Medicaid or any other health plan of the government of
Puerto Rico?

☐

- (1) Yes
- (0) No
- (8) Can not remember
- (9) Do not know

11. Do you have another health plan?

☐

- (1) Yes _____
Specify
- (0) No
- (8) Can not remember
- (9) Do not know

12. Where does your income come from?

Read all alternatives. Write one (1) in the sources that apply; zero (0) in those sources that do not apply.

Your own salary or your husband's (spouse)

☐

Social Security

☐

Welfare Programs (including food stamps)

☐

Pension or retirement fund

☐

Economic assistance from son(s) /daughter (s)

☐

Economic assistance from other relatives

☐

Rent from property or house

☐

Own business

☐

Other sources _____

☐

Specify

13. Usually, who helps you when you have an economic need or money problem?

☐

(0) No one

(1) My husband (spouse)

(2) My daughter (s)

(3) My son (s)

(4) My sister(s)/brother(s)

(5) Another relative

(6) My neighbor(s)/friend(s)

(7) Another person _____

Specify

14. Do you live alone?

☐

(1) Yes

(Go to question 16)

(0) No

15. With whom do you live?

Read all alternatives. Write one (1) for those who apply; zero (0) for those alternatives that do not apply.

Husband (spouse)

☐

Daughter(s)

☐

Son(s)

☐

Sister(s)/Brother(s)

☐

Another relative

☐

Female friend(s)

☐

Another person _____

☐

Specify

B. Family and Personal History

The following questions are geared to your health history.

16. Have you felt pain or any discomfort in the breasts during the
last five (5) years?

☐

- (1) Yes
- (0) No *(Go to question 18)*
- (8) Do not remember *(Go to question 18)*
- (9) Do not know *(Go to question 18)*

17. Have you felt pain or any discomfort in the breast during the
last twelve (12) months?

☐

- (1) Yes
- (2) No
- (8) Do not remember
- (9) Do not know

18. Have you ever felt a **nodule** (hardening, mass, small round mass,
small bulky mass) in the breasts?

☐

- (1) Yes
- (0) No *(Go to question 20)*
- (8) Do not remember *(Go to question 20)*
- (9) Do not know *(Go to question 20)*

19. Have you felt a **nodule** (hardening, mass, small round mass, small
bulky mass) in the breasts during the **last twelve months?**

☐

- (1) Yes
- (0) No
- (8) Do not remember
- (9) Do not know

20. Have you ever experienced **secretions coming out of your nipples**
(liquids **not** related to lactancy or breast feeding)?

☐

- (1) Yes
- (0) No *(Go to question 22)*
- (8) Do not remember *(Go to question 22)*
- (9) Do not know *(Go to question 22)*

21. Have you experienced **secretions coming out of your nipples**
during the **last twelve months?**

☐

- (1) Yes
- (0) No
- (8) Do not remember
- (9) Do not know

22. Have you ever undergone a **breast biopsy** (needle test)?

☐

- (1) Yes
- (0) No *(Go to question 24)*
- (8) Do not remember *(Go to question 24)*
- (9) Do not know *(Go to question 24)*

23. Have you undergone a **breast biopsy** (needle test) during the
last twelve months?

☐

- (1) Yes
- (0) No
- (8) Do not remember
- (9) Do not know

24. Has any of your relatives suffered from breast cancer?

☐

- (1) Yes
- (0) No *(Go to question 26)*
- (8) Do not remember *(Go to question 26)*
- (9) Do not know *(Go to question 26)*

25. Who?

Read all the alternatives. Write one (1) for those who apply; zero (0) for those alternatives that do not apply.

Mother	☐
Sister	☐
Daughter	☐
Aunt	☐
Grandmother	☐
Female cousin	☐
Niece	☐
Grand-daughter	☐
Other relative _____	☐
<i>Specify</i>	

26. Have you ever been diagnosed cancer (has your physician informed you that you have cancer)?

☐

- (1) Yes
- (2) No *(Go to question 28)*
- (3) Do not remember *(Go to question 28)*
- (4) Do not know *(Go to question 28)*

27. What type of cancer where you diagnosed?

☐

- (1) Breast cancer
- (0) Other type _____
Specify
- (8) Do not remember
- (9) Do not know

C. Early Detection Practices

The following questions refer to health-related practices

28. Do you examine your breasts (touch your breasts, self-examination) as a method to detect (discover) breast cancer?

☐

- (1) Yes
- (0) No *(Go to question 32)*

29. Have you examined your breasts (touch your breasts, self-examination) on the same date, more or less, during the last twelve months?

☐

- (1) Yes
- (0) No *(Go to question 31)*
- (8) Do not remember *(Go to question 31)*
- (9) Do not know *(Go to question 31)*

30. During **the last twelve months**, how frequently have you examined your ☐
breasts, (self examination)?

- (1) Times per week _____
Specify
- (2) Times per month _____
Specify
- (3) Times per year _____
Specify
- (8) Do not remember
- (9) Do not know

31. How did you learn or who taught you how to examine your breasts
(touch your breasts, self-examination)?

Read all alternatives. Write one (1) for those that apply; zero (0) for those alternatives that do not apply.

- A gynecologist (male or female) ☐
- Another physician ☐
- A nurse ☐
- A relative ☐
- A friend ☐
- On the television ☐
- Read about it ☐
- Do not remember ☐
- Other _____ ☐
Specify

(Go to question 35)

32. What is the **main reason** for **NOT** examining your breasts (touch your breasts, self-examination)? ☐

- (1) I did not know that it was necessary
- (2) I do not know how to perform the self-examination
- (3) I feel uncomfortable/ do not like to touch my body
- (4) Fear to find something that could be breast cancer
- (5) The physician does it
- (6) The physician has not recommended it
- (7) I feel fine/ do not feel any bother or symptoms
- (8) Another reason _____

Specify

33. Are there other reasons for you **NOT** examining your breast (touch your breasts, self-examination)? ☐

- (1) Yes
- (0) No *(Go to question 35)*

34. What are the other reasons for you **NOT** examining your breasts (touch your breasts, self-examination)?

Write one (1) for the reasons cited by the interviewer; zero (0) for those not cited.

I did not know that it was necessary ☐

I do not know how to perform the self-examination ☐

I feel uncomfortable/ do not like to touch my body ☐

Fear to find something that could be breast cancer ☐

The physician does it ☐

The physician has not recommended it ☐

I feel fine /do not feel any bother or symptoms ☐

Other reasons _____ ☐

Specify

35. Have you ever had a mammogram (breast plate or X-rays)? ☐

(1) Yes

(0) No *(Go to question 42)*

(8) Do not remember *(Go to question 46)*

(9) Do not know *(Go to question 46)*

36. Do you have a mammogram (breast plate or X-rays) performed
on a regular basis?

☐

- (1) Yes
- (0) No *(Go to question 38)*
- (8) Do not remember *(Go to question 38)*
- (9) Do not know *(Go to question 38)*

37. How frequently or on what regular basis do you have a mammogram
(breast plate or X-rays)?

☐

- (0) More than once a year
- (1) Every year
- (2) Every two years
- (3) Every three years or more
- (8) Do not remember
- (9) Do not know

38. When was your **last mammogram** (breast plate or X-rays)?

☐

- (1) One year or less *(Go to question 45)*
- (2) Two years ago
- (3) Three years ago
- (4) Four years ago
- (5) Five years or more
- (8) Do not remember *(Go to question 45)*
- (9) Do not know *(Go to question 45)*

39. What is the main reason for **NOT** having a **mammogram** (breast plate or X-rays) during the **last twelve months?**

☐

- (1) I did not know it was necessary
- (2) I do not think it is necessary at my age/ does not see its importance
- (3) I have had no symptoms
- (4) The physician has not prescribed it
- (5) It is expensive/ The health plan does not cover it
- (6) It is painful/It is bothersome
- (7) Transportation problems
- (8) Negligence/Forgetfulness/Carelessness
- (9) Another reason _____

Specify

40. Are there other reasons for **NOT** having a **mammogram** (breast plate or X-rays) during the **last twelve months?**

☐

- (1) Yes
- (0) No *(Go to question 46)*

41. What are the other reasons for **NOT** having mammogram (breast plate or X-rays) during the **last twelve months?**

Write one (1) for the reasons cited by the interviewee; cero (0) for those not cited.

I did not know that it was necessary ☐

I do not think that it is necessary at my age/do not see its importance ☐

I have had no symptoms ☐

The physician has not prescribed it ☐

It is expensive/The health plan does not cover it ☐

It is painful/It is bothersome ☐

Transportation problems ☐

Negligence/Forgetfulness/Carelessness ☐

Other reasons _____ ☐

Specify

(GO TO THE QUESTION 46)

42. What is the **main reason** for **NOT EVER** having a **mammogram**
(breast plate or X-rays)?

☐

- (1) I did not know that it was necessary
- (2) I do not think that it is necessary at my age/do not see its importance
- (3) I have had no symptoms
- (4) The physician has not prescribed it
- (5) It is expensive/The health plan does not cover it
- (6) It is painful/It is bothersome
- (7) Transportation problems
- (8) Negligence/Forgetfulness/Carelessness
- (9) Another reason _____

Specify

43. Are the other reasons for **NOT EVER** having a **mammogram**
(breast plate or X-rays)?

☐

- (1) Yes
- (0) No *(Go to question 46)*

44. What are the other reasons for **NOT EVER** having a **mammogram** (breast plate or X-rays)?

I did not know that it was necessary

☐

I do not think that it is necessary at my age/do not see its importance

☐

I have had no symptoms

☐

The physician has not prescribed it

☐

It is expensive/The health plan does not cover it

☐

It is painful/It is bothersome

☐

Transportation problems

☐

Negligence/Forgetfulness/Carelessness

☐

Other reasons _____

☐

Specify

(GO TO THE QUESTION 46)

45. What was the **main reason** for having a **mammogram** (breast plate or X-rays) during the last twelve months?

☐

(1) Referral from physician

(2) Previous history of breast cancer

(3) Signs/symptoms related to breast cancer

(4) Knows the need to have the performed

(5) Family history of breast cancer

(6) Another reason _____

Specify

46. Has a physician or nurse conducted a **clinical breast exam**

☐

(when the physician or nurse touches your breasts)?

(1) Yes

(0) No *(Go to question 49)*

(8) Do not remember *(Go to question 49)*

(9) Do not know *(Go to question 49)*

47. When was the last time that a physician or nurse conducted a

☐

clinical breast exam (when the physician or nurse touches your breasts)?

(0) Less than a year

(1) A year

(2) Two years

(3) Three to five years

(4) Six years or more *(Go to question 50)*

(8) Do not remember *(Go to question 50)*

(9) Do not know *(Go to question 50)*

48. Who (physician or nurse) has **clinically examined** your breasts (when the physician or nurse touches your breasts) during the **last five years?**

Read all alternatives. Write one (1) for those that apply; zero (0) for those that do not apply.

Gynecologist (physician specialized on women's health problems) ☐

Primary care physician (general, family physician) ☐

Internist ☐

Physician with another specialization ☐

Nurse ☐

Do not remember ☐

Do not know ☐

49. Do you prefer that a male or female physician conduct the **clinical breast examination** (when the physician or nurse touches your breasts)? ☐

(1) Male physician

(2) Female physician

(5) No preference (does not matter)

50. **After menopause** (change of life), has any health professional ☐
explained to the ways (procedures or manners) used to detect
early (discover) breast cancer?

- (1) Yes
(0) No *(Go to question 52)*
(8) Do not remember *(Go to question 52)*
(9) Do not know *(Go to question 52)*

51. Which health professional(s) has (have) explained to you the ways
(procedures or manners) to detect early (discover) breast cancer?

Read all alternatives. Write one (1) for those that apply; zero (0) for those that do not apply.

Gynecologist (physician specialized in woman's health problems) ☐

Primary physician (general, family physician) ☐

Internist ☐

Physician with another specialization ☐

Nurse ☐

Another professional _____ ☐

Specify

Do not remember ☐

Do not know ☐

52. **After menopause** (change of life), did any health

☐

professional explained to you how to perform a breast self-examination (touch your breasts)?

(1) Yes

(0) No (Go to question 54)

(8) Do not remember (Go to question 54)

(9) Do not know (Go to question 54)

53. Which health professional(s) explained to you how to perform a breast self-examination (touch your breasts)?

Read all alternatives. Write one (1) for those that apply; zero (0) for those that do not apply.

Gynecologist (physician specialized in women's health problems.

☐

Primary physician (general, family physician)

☐

Internist

☐

Physician with another specialization

☐

Nurse

☐

Another professional

☐

Specify

Do not remember

☐

Do not know

☐

54. During the **last five (5) years**, has any physician given you a referral for a **mammogram** (breast plate or X-rays)?

☐

- (1) Yes
- (0) No *(Go to question 56)*
- (8) Do not remember *(Go to question 56)*
- (9) Do not know *(Go to question 56)*

55. Which physicians have given you a referral for a **mammogram** (breast plate or X-rays)?

Read all alternatives. Write one (1) for those that apply; zero (0) for those that do not apply.

Gynecologist (physician specialized in women's health problems)

☐

Primary physician (general, family physician)

☐

Internist

☐

Physician with another specialization

☐

Do not remember

☐

Do not know

☐

56. Have you visited the **gynecologist** (physician specialized in women's health problems) during the **last twelve months**?

☐

- (1) Yes
- (0) No *(Go to question 62)*
- (8) Do not remember *(Go to question 62)*
- (9) Do not know *(Go to question 62)*

57. During that visit, was the **gynecologist** male or female?

☐

- (1) Male
- (2) Female

58. During that visit, did the **gynecologist (male/female)** explained to you the ways (procedures or manners) to early detect (discover) breast cancer?

☐

- (1) Yes
- (0) No
- (8) Do not remember
- (9) Do not know

59. During that visit, did the **gynecologist (male/female)** conduct a **clinical breast exam** (when the physician or nurse touches your breasts)?

☐

- (1) Yes
- (0) No
- (8) Do not remember
- (9) Do not know

60. During that visit, did the **gynecologist (male/female)** explained to you how to conduct a breast self-examination (touch your breasts)?

☐

- (1) Yes
- (0) No
- (8) Do not remember
- (9) Do not know

61. During that visit, did the gynecologist (male/female)
gave you a referral for a mammogram (breast plate or
X-rays)?

☐

- (1) Yes
- (0) No
- (8) Do not remember
- (9) Do not know

**PAUSE. THE STRUCTURE OF THE
QUESTIONNAIRE CHANGES IN THE NEXT
SECTION.**

D. Knowledge and Beliefs about Breast Cancer

I am going to read to you some statements related to breast cancer, and about which I would like to know your **opinion**. When I read the statements, please indicate whether they are true or false.

Indicate with an (X) the response on the appropriate column.

STATEMENTS	TRUE	FALSE	DO NOT KNOW
62. Women who have had breast cancer have more possibilities of developing it a second time.			
63. Women with large breasts have more possibilities of developing cancer than women with small breasts.			
64. A possible symptom of breast cancer is fluid coming out of the nipples.			
65. A swelling of the arm can be a consequence (result) of breast cancer treatment.			
66. A breast nodule (hardening, mass, small round mass, small buldy mass) is a symptom of breast cancer.			
67. Women who give birth to their first child before 30 years of age have a lesser possibility of developing breast cancer.			
68. Women who are 50 years of age or older must have a mammogram (breast plate or X-rays) every year.			
69. Thin women have a higher possibility of developing breast cancer.			
70. To hit, bruise or hurt the breast can cause breast cancer.			

STATEMENTS	TRUE	FALSE	DO NOT KNOW
71. Women who begin their first period before 12 years age have more possibilities of developing breast cancer.			
72. Women whose mothers or sisters have suffered from breast cancer have more possibilities of developing this type of cancer.			
73. An annual clinical breast examination (when the physician touches your breasts) is a way of early detecting (discovering) breast cancer.			
74. Women who have breast cancer must always undergo a mastectomy or amputation of the breast.			
75. Pain, stinging sensation or discomfort in the breast are possible symptoms of breast cancer.			
76. The mammography (breast plate or X-rays) detects (discovers) breast cancer in its early stages.			
77. The possibility of developing breast cancer increases with age.			
78. The breast self-examination (touching your breasts) must be performed once every month.			
79. The mammogram (breast plate or X-rays) is necessary only when a woman feels discomfort in her breasts.			

STATEMENTS	TRUE	FALSE	DO NOT KNOW
80. Women who have suffered from breast cancer must wait five (5) years to know if they are cured.			
81. Women with a diet high in fats have more possibilities of developing breast cancer.			
82. Breast cancer always cuses pain.			
83. Women who have never had sexual intercourse have less possibilities of developing breast cancer.			
84. Breast cancer always leads to death.			
85. A swelling or increase in size of the breasts is a possible symptom of breast cancer.			
86. The mammogram (breast plate or X-rays) is the most adequate or efficient test to detect (discover) breast cancer.			

E. Sources of Information

87. From where or who have you obtained **most** of the information on ☐
breast cancer?

- (0) I never obtained information *(Go to question 89)*
- (1) Health professionals
- (2) Radio
- (3) Television
- (4) Reading materials (newspapers, magazines, books)
- (5) Relatives
- (6) Friend(s)/Neighbor(s) (male/female)
- (7) Instructional materials at health centers
- (8) Another source _____

Specify

88. From which other sources have you obtained information about breast cancer?

Read all alternatives. Write one (1) for those that apply; zero (0) for those do not apply.

Health Professionals

☐

Radio

☐

Television

☐

Reading materials (newspapers, magazines, books)

☐

Relatives

☐

Friend(s) /Neighbor(s) (male/female)

☐

Instructional materials at health centers

☐

Other sources _____

☐

Specify

F. Support Networks

89. Who helps you the most when you are sick or not feeling well? ☐

- (0) No one
- (1) My husband
- (2) My daughter(s)
- (3) My son (s)
- (4) My sister(s)/brother(s)
- (5) My daughter-in-law
- (6) Another relative
- (7) My neighbor friend (male/female)
- (8) Another person _____

Specify

90. What means of transportation do you use most of the time
to go to your medical appointments? ☐

- (1) Your own car
- (2) Public transportation
- (3) Relative's car
- (4) Friend's or neighbor's car
- (5) I pay someone to transport me
- (6) Municipality-or government- provided transportation
- (7) Private transportation
- (8) I walk
- (9) Other means of transportation _____

Specify

91. Who accompanies you to your medical appointments most of the time?

☐

- (0) None
- (1) My husband
- (2) My daughter(s)
- (3) My son (s)
- (4) My sister(s)/brother(s)
- (5) My daughter-in law
- (6) Another relative
- (7) My neighbor friend (male/female)
- (8) Another person _____
Specify

G. Health Status

92. Have you visited a physician (any specialization) during the **last twelve months?**

☐

- (1) Yes
- (0) No *(Go to question 94)*
- (8) Do not remember *(Go to question 94)*
- (9) Do not know *(Go to question 94)*

93. How often have you visited a physician (any specialization) During the **last twelve months?**

☐

- (1) Times per week _____
Specify
- (2) Times per month _____
Specify
- (3) Times per year _____
Specify
- (4) Do not remember
- (9) Do not know

94. Do you take medicines **prescribed by a physician?**

☐

- (1) Yes
- (0) No *(Go to question 96)*
- (8) Do not remember *(Go to question 96)*
- (9) Do not know *(Go to question 96)*

95. For what condition(s) or illness(es) do you take medicine?

96. Which do you consider are your **principal health** problems?

97. How do you evaluate your health **in comparison to** other people in your age group?

☐

Read the alternatives

- (1) Much better
- (2) Better
- (3) The same
- (4) Worse
- (5) Much worse

98. Has someone you know (neighbor, friend, acquaintance) suffered
from or been diagnosed breast cancer?

☐

(1) Yes

(0) No

(8) Do not remember

(9) Do not know

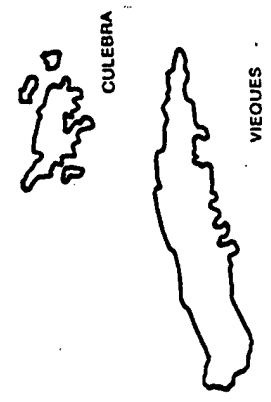
❁ THANK YOU VERY MUCH FOR YOUR COOPERATION ❁

END OF QUESTIONNAIRE

- ▶ **Comply with the requisite of \$10.00.**
- ▶ **Be sure that the interviewee signs the receipt stating that you gave her the money.**
- ▶ **Hand out instructional material.**
- ▶ **Ask if the woman knows a female neighbor 65 years of age and older.**
- ▶ **Write down on referral sheet (ENAC-07, ENAC-08) names offered by the interviewee.**
- ▶ **Thank the interviewee for her participation in interview process.**

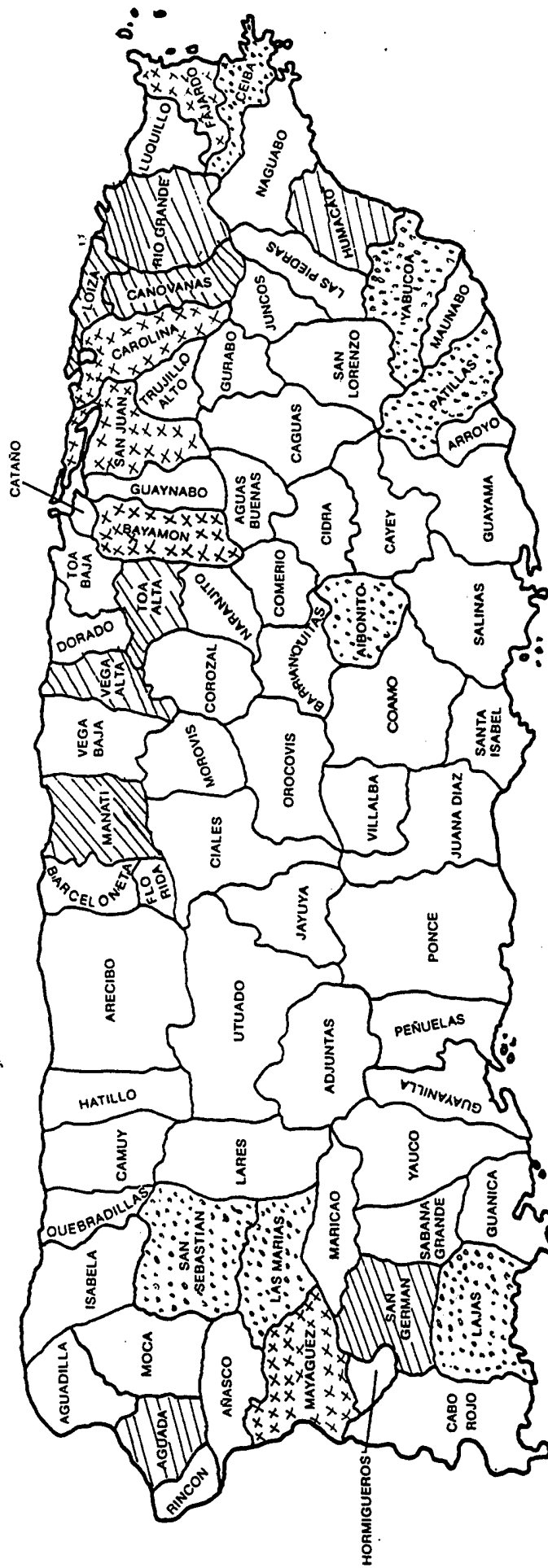
END OF INTERVIEW

APPENDIX 4

[illegible]

APPENDIX 5

Municipalities Selected for Middle and Upper Class Sample, National Survey



Legend:

- Inside-Central City, Metropolitan Area
- Outside-Central City, Metropolitan Area
- Non-Metropolitan Area

APPENDIX 6

- a. Administrative Forms - National Survey, Spanish Version*
- b. Administrative Forms - National Survey, English Version*

UNIVERSIDAD DE PUERTO RICO / RECINTO DE CIENCIAS MEDICAS
FACULTAD DE CIENCIAS BIOSOCIALES Y ESCUELA GRADUADA DE SALUD PUBLICA
PROYECTO INTERDISCIPLINARIO DE INVESTIGACION GERONTOLOGICA

DOCUMENTO COMA-03

CONOCIMIENTOS Y CREENCIAS SOBRE EL CANCER DE MAMA EN MUJERES DE
EDAD AVANZADA EN PUERTO RICO

FORMAS ADMINISTRATIVAS

ENCUESTA NACIONAL



MARZO, 1996

UNIVERSIDAD DE PUERTO RICO
RECINTO DE CIENCIAS MEDICAS
FACULTAD DE CIENCIAS BIOSOCIALES Y ESCUELA GRADUADA DE SALUD PUBLICA
PROYECTO INTERDISCIPLINARIO DE INVESTIGACION GERONTOLOGICA

FORMA ENAC - 01

*Conocimientos y Creencias sobre el Cáncer de Mama en las Mujeres de Edad Avanzada en
Puerto Rico*

RECIBO PARA ENTREGA DE CUESTIONARIOS

_____ ha recibido de la coordinadora de proyecto _____
cuestionarios y _____ sobres de material informativo, el día _____ de
1996. Este material será utilizado en el bloque número _____.

ENTREVISTADORA

DE ACUERDO :

HIMILCE VELEZ ALMODOVAR
COORDINADORA DE PROYECTO

UNIVERSIDAD DE PUERTO RICO
RECINTO DE CIENCIAS MEDICAS
FACULTAD DE CIENCIAS BIOSOCIALES Y ESCUELA GRADUADA DE SALUD PUBLICA
PROYECTO INTERDISCIPLINARIO DE INVESTIGACION GERONTOLOGICA

FORMA ENAC - 02

*Conocimientos y Creencias sobre el Cáncer de Mama en las Mujeres de Edad Avanzada en
Puerto Rico*

RECIBO DE CUESTIONARIOS COMPLETADOS

Certifico que he recibido _____ cuestionarios de _____
utilizados en el bloque _____ del pueblo _____ ,
número de control _____.

HIMILCE VELEZ ALMODOVAR
COORDINADORA DE PROYECTO

FECHA: _____ / _____ / 1996

DE ACUERDO :

ENTREVISTADORA

UNIVERSIDAD DE PUERTO RICO
RECINTO DE CIENCIAS MÉDICAS
FACULTAD DE CIENCIAS BIOSOCIALES Y ESCUELA GRADUADA DE SALUD PUBLICA
PROYECTO INTERDISCIPLINARIO DE INVESTIGACION GERONTOLOGICA

FORMA ENAC - 03

*Conocimientos y Creencias sobre el Cáncer de Mama en las Mujeres de Edad Avanzada en
Puerto Rico*

RECIBO DE OBSEQUIO

Recibí la cantidad de diez dólares (\$10.00) por la participación en la entrevista de la encuesta nacional de la investigación *Conocimientos y creencias sobre el cáncer de mama en las mujeres de edad avanzada en Puerto Rico*.

FIRMA DE LA PARTICIPANTE:

FECHA : ____ / ____ / 1996

PAGADO POR:

ENTREVISTADORA

NÚMERO DE CUENTA: 535312

UNIVERSIDAD DE PUERTO RICO / RECINTO DE CIENCIAS MÉDICAS
FACULTAD DE CIENCIAS BIOSOCIALES Y ESCUELA GRADUADA DE SALUD PÚBLICA
PROYECTO INTERDISCIPLINARIO DE INVESTIGACION GERONTOLÓGICA

FORMA ENAC - 04

Conocimientos y Creencias sobre el Cáncer de Mama en las Mujeres de Edad Avanzada en Puerto Rico

Características generales de la candidata a entrevista

Los datos a continuación tienen el propósito de determinar si la candidata está mentalmente apta para la entrevista. La candidata tiene el derecho de negarse a dar esta información. La información le servirá a la entrevistadora para determinar si la candidata puede completar la entrevista.

¿Cuál es su nombre? _____

¿Qué día es hoy? _____ (La candidata a entrevista puede contestar día de la semana o fecha específica.)

¿En qué año estamos? _____

¿Cuál es su dirección? _____

¿A qué pueblo pertenece este barrio? _____

Resultado de la entrevista:

_____ Candidata **no** mentalmente apta (Si la candidata contesta incorrectamente dos o más de las preguntas, entréguele el material educativo correspondiente y agradézcale su cooperación.)

_____ Candidata mentalmente apta (Si la candidata contesta correctamente dos de las tres preguntas, prosiga a completar la entrevista. Escriba el número de control del cuestionario que corresponda.)

NUMERO DE CONTROL

----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

¿Cuál es su número de teléfono? _____

Nombre de la entrevistadora: _____

Fecha: _____

**Conocimientos y Creencias sobre el Cáncer de Mama en las Mujeres de Edad Avanzada en
Puerto Rico**

RESULTADO DEL ACERCAMIENTO A LAS VIVIENDAS

NÚMERO DE CONTROL: _____ **AREA:** _____ **CLASE:** _____

PUEBLO: _____

<i>NUMERO DE CASA</i>	<i>VIVIENDA HABITADA</i>	<i>MUJER 65 AÑOS O MAS</i>	<i>ACEPTO ENTREVISTA</i>	<i>DIO REFERIDO</i>
VIVIENDA 1				
VIVIENDA 2				
VIVIENDA 3				
VIVIENDA 4				
VIVIENDA 5				
VIVIENDA 6				
VIVIENDA 7				
VIVIENDA 8				
VIVIENDA 9				
VIVIENDA 10				
VIVIENDA 11				
VIVIENDA 12				
VIVIENDA 13				
VIVIENDA 14				
VIVIENDA 15				
VIVIENDA 16				
VIVIENDA 17				
VIVIENDA 18				
VIVIENDA 19				
VIVIENDA 20				

**Conocimientos y Creencias sobre el Cáncer de Mama en las Mujeres de Edad Avanzada en
Puerto Rico**

RESULTADO DEL ACERCAMIENTO A LAS VIVIENDAS

NÚMERO DE CONTROL : _____

NÚMERO DE CASA	VIVIENDA HABITADA	MUJER 65 AÑOS O MÁS	ACEPTO ENTREVISTA	DIO REFERIDO
VIVIENDA 21				
VIVIENDA 22				
VIVIENDA 23				
VIVIENDA 24				
VIVIENDA 25				
VIVIENDA 26				
VIVIENDA 27				
VIVIENDA 28				
VIVIENDA 29				
VIVIENDA 30				
VIVIENDA 31				
VIVIENDA 32				
VIVIENDA 33				
VIVIENDA 34				
VIVIENDA 35				
VIVIENDA 36				
VIVIENDA 37				
VIVIENDA 38				
VIVIENDA 39				
VIVIENDA 40				

Conocimientos y Creencias sobre el Cáncer de Mama en las Mujeres de Edad Avanzada en Puerto Rico

RESULTADO DEL PROCESO DE ENTREVISTAS

NÚMERO DE CONTROL: _____ **AREA:** _____ **CLASE:** _____

PUEBLO: _____

[illegible]

UNIVERSITY OF PUERTO RICO/ MEDICAL SCIENCES CAMPUS
FACULTY OF BIOSOCIAL SCIENCES AND GRADUATE SCHOOL OF PUBLIC HEALTH
INTERDISCIPLINARY GERONTOLOGICAL RESEARCH PROJECT

DOCUMENT COMA- 03

*KNOWLEDGE AND BELIFS OF BREAST CANCER AMONG ELDERLY
PUERTO RICAN WOMEN*

ADMINISTRATIVE FORMS

NATIONAL SURVEY



MARCH, 1996

UNIVERSITY OF PUERTO RICO
MEDICAL SCIENCES CAMPUS
FACULTY OF BIOSOCIAL SCIENCES AND GRADUATE SCHOOL OF PUBLIC HEALTH
INTERDISCIPLINARY GERONTOLOGICAL RESEARCH PROJECT

FORM ENAC - 01

Knowledge and Beliefs about Breast Cancer among Elderly Puerto Rican Women

RECEIPT FOR QUESTIONNAIRE

_____ has received from the project coordinator _____
questionnaires and _____ envelopes containing instructional materials, on _____ of
1996. This material will be used in block number _____.

INTERVIEWER

IN ACCORDANCE:

HIMILCE VELEZ ALMODOVAR
PROJECT COORDINATOR

UNIVERSITY OF PUERTO RICO
MEDICAL SCIENCES CAMPUS
FACULTY OF BIOSOCIAL SCIENCES AND GRADUATE SCHOOL OF PUBLIC HEALTH
INTERDISCIPLINARY GERONTOLOGICAL RESEARCH PROJECT

FORM ENAC - 02

Knowledge and Beliefs about Breast Cancer Among Elderly Puerto Rican Women

RECEIPT OF COMPLETED QUESTIONNAIRES

I certify that I have received _____ questionnaires and _____
instructional materials from _____
uses in block _____.

HIMILCE VELEZ ALMODOVAR
PROJECT COORDINATOR

DATE: ____ / ____ / 1996

IN ACCORDANCE:

INTERVIEWER

UNIVERSITY OF PUERTO RICO
MEDICAL SCIENCES CAMPUS
FACULTY OF BIOSOCIAL SCIENCES AND GRADUATE SCHOOL OF PUBIC HEALTH
INTERDISCIPLINARY GERONTOLOGICAL RESEARCH PROJECT

FORM ENAC - 03

Knowledge and Beliefs About Breast Cancer Among Elderly Puerto Rican Women

RECEIPT FOR INCENTIVE

I have received ten dollars (\$10.00) for participating in the interview of the National Survey of the research "*Knowledge and beliefs of breast cancer among elderly Puerto Rican Women*".

INTERVIEWEE'S SIGNATURE

DATE: ____ / ____ / 1996

PAID BY:

INTERVIEWER

ACCOUNT NUMBER: 535312

UNIVERSITY OF PUERTO RICO/MEDIAL SCIENCES CAMPUS
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***knowledge and Beliefs about Breast Cancer Among Elderly
Puerto Rican women***

General characteristics of potential interviewee

The information that appears below has as an objective to determine if the candidate is mentally apt for the interview. The candidate has the right to deny offering information. The information will help the interviewer to determine if the potential interviewee can finish the interview.

Name _____

What is your thelephone number? _____

To what township does this area belong? _____

What is your address? _____

What day is today? _____ (The potential interviewee can answer either day of the week or specific date).

Interview Results:

____ Candidate not mentally apt. *(If the candidate answers incorrectly two or more questions, hand out the instructional materials and thank her for her cooperation).*

____ Mentally apt candidate *(If the candidate answers correctly two questions proceed to conduct interview. Write corresponding number of questionnaire).*

NUMBER CONTROL

☐	☐	☐	☐	☐	☐
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Interviewer's name: _____

Date: _____

*Knowledge and Beliefs about Breast Cancer among Elderly Puerto Rican Women***RESULTS OF APPROACH TO DWELLINGS****BLOCK:** _____ **AREA:** _____ **CLASS:** _____**TOWN:** _____

<i>HOUSE NUMBER</i>	<i>INHABITED DWELLING</i>	<i>ELDERLY PERSONN</i>	<i>ACCEPTED TO BE INTERVIEWED ENTREVISTA</i>	<i>GAVE REFERRAL</i>
DWELLING 1				
DWELLING 2				
DWELLING 3				
DWELLING 4				
DWELLING 5				
DWELLING 6				
DWELLING 7				
DWELLING 8				
DWELLING 9				
DWELLING 10				
DWELLING 11				
DWELLING 12				
DWELLING 13				
DWELLING 14				
DWELLING 15				
DWELLING 16				
DWELLING 17				
DWELLING 18				
DWELLING 19				
DWELLING 20				

*Knowledge and Beliefs about Breast Cancer Among Elderly Puerto Rican Women***RESULT OF APPROACH TO DWELLING****BLOCK:** _____

<i>HOUSE NUMBER</i>	<i>INHABITED DWELLING</i>	<i>ELDERLY PERSON</i>	<i>ACCEPTED TO BE INTERVIEWED</i>	<i>GAVE REFERRAL</i>
DWELLING 21				
DWELLING 22				
DWELLING 23				
DWELLING 24				
DWELLING 25				
DWELLING 26				
DWELLING 27				
DWELLING 28				
DWELLING 29				
DWELLING 30				
DWELLING 31				
DWELLING 32				
DWELLING 33				
DWELLING 34				
DWELLING 35				
DWELLING 36				
DWELLING 37				
DWELLING 38				
DWELLING 39				
DWELLING 40				

Knowledge and Beliefs about Breast Cancer Among Elderly Puerto Rican Women

RESULTS FROM INTERVIEW PROCESS

BLOCK: _____ **AREA:** _____ **CLASS:** _____

TOWN: _____

[illegible]

Knowledge and Beliefs About Breast Cancer Among Elderly Puerto Rican Women

REFERRALS FROM DWELLINGS IN THE SELECTED BLOCKS

BLOCK: _____ **AREA:** _____ **CLASS:** _____ **TOWN:** _____

[illegible]

Knowledge and Beliefs about Breast Cancer Among Elderly Puerto Rican Women

REFERRALS FROM DWELLINGS IN THE SELECTED BLOCKS

BLOCK: _____

[illegible]

Knowledge and Beliefs about Breast Cancer Among Elderly Puerto Rican Women

REFERRALS FROM DWELLINGS IN THE SELECTED BLOCKS

BLOCK: _____ **AREA:** _____ **CLASS:** _____ **TOWN:** _____

[illegible]

Knowledge and Beliefs about Breast Cancer Among Elderly Puerto Rican Women

REFERRALS FROM DWELLINGS IN THE SELECTED BLOCKS

BLOCK: _____

[illegible]