

# Follow-up of Abnormal Results in an Urban Community-Based Breast Cancer Screening Program

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## ABSTRACT

*Objective:* Determine the rates of follow-up for abnormal mammograms and see how they compare with rates of similar programs elsewhere.

*Data:* Records from 1990-2000 of the Breast Cancer Awareness Program were analyzed and reviewed to determine follow-up rates.

*Results:* The follow-up rate for all 11 years was 85%; during the last 7 years the rate has been 90%.

*Conclusion:* Follow-up rates were as good and generally better than those reported in the literature for similar programs. The rates, though good to begin with, improved with the more rigorous training and requirements of the Wisconsin Well Women's Program.

## INTRODUCTION

The Milwaukee Breast Cancer Awareness Program serves low-income women between 35 and 64 years old who do not have insurance or whose insurance does not cover screening mammography. Though the program became part of the nationwide breast screening program (funded as part of the Wisconsin Well Women's Program, through the Centers for Disease Control and Prevention) in July 1994, the Milwaukee program, which started in 1990, was among the first in the country. Originally funded locally, it was started by a coalition of cancer survivors, community groups, hospitals, and the City of Milwaukee Health Department. Today

approximately 7000 women in Wisconsin are screened every year in the Wisconsin Well Women's Program, and the City of Milwaukee Health Department program screens approximately one third of these women.<sup>1</sup>

The women are considered to have "abnormal" results if a lump, unusual shape, or discharge is noted on palpation or some abnormality is seen on their mammograms. If either breast cancer screen (palpation or mammogram) is considered abnormal, a public health nurse contacts the woman and sets up a time to visit her and explain the results. At the time of the visit an appointment for follow-up care is made.

The object of this study was to determine rates of follow-up and see how they compare with rates of other programs for similar populations in the United States. In the current literature there are few studies documenting follow-up rates for abnormal breast cancer screens. Those rates range from 50% to 93%, with the best follow-up being among women whose exam requires immediate follow-up (62%-93%) rather than follow-up in the next few months (50%-64%).<sup>2-7</sup>

## METHODS

To determine follow-up rates, all follow-up information for women with abnormal screens 1990-2000 was entered into a database. Each record was reviewed in detail to abstract specific information.

## RESULTS

A total of 16,381 screening manual breast exams and mammograms were performed from 1990 to 2000; Of those, 1482 were considered "abnormal," and 124 of these women were diagnosed and treated for breast cancer. Among the women with an "abnormal" breast results, 85% had fully documented and appropriate follow-up (documentation of receiving follow-up care). The breast cancer screening program became more assertive about follow-up on women with normal mammogram but abnormal clinical breast exam after 1994,

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with a 90% total compliance rate. Prior to 1994, only patients with abnormal mammograms were tracked down.

Specific information about women without documentation of adequate follow-up evaluation is shown in Table 1. Among the reasons for refusing appropriate follow-up were that they were afraid of a biopsy, have had the lump for years, did not want to see a doctor for follow-up, did not feel the lump any more, and did not feel follow-up is necessary. Other reasons for lack of follow-up were primarily due to inability to reach the patient: the wrong phone number was given, the address was no longer valid or incorrect, or the patient was untraceable. Some of the documentation was not entirely complete, though by report the follow-up had been done. (In this study, these were counted as lacking follow-up.) The improved follow-up rate after the program became part Wisconsin Well Women's Program was largely due to the Program's detailed reporting requirements.

## DISCUSSION

The follow-up rates of 85%-90% rank among the best programs that documented in the literature their rates of follow-up in low-income populations. The excellent compliance rate is believed to be due to the fact that the nurse made home visits when screens were abnormal, the fast return of results (usually within the week), and the fact that all abnormal screens were considered in need of immediate follow-up so as not to lose contact with the woman. A real attempt was made to make the initial contact a positive experience. Thorough discussion with patients concerning their options and more time to consider the importance of follow-up with a health professional were two key factors. Though follow-up rates were good throughout the program's tenure, those rates improved with the implementation of training and documentation that was required by the Wisconsin Well Woman's Program. Other programs reported in the literature mention similar follow-up problems, such as fear of results, wrong addresses or phone numbers, but interestingly the dynamics of the relationship with the patient were generally not discussed.

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**Table 1.** Information on Follow-up of Abnormal Breast Exams and Reasons for Lack of Follow-up

|  | Screening<br>1990-2000 | Screening<br>1994-2000 |
|--|------------------------|------------------------|
| Numbers of breast screenings                                   | 16,381                 | 8526                   |
| Numbers of abnormal screens                                    | 1482                   | 797                    |
| Follow-up compliance rate                                      | 85%                    | 90%                    |
|  | (no.= 1258)            | (no.=717)              |
| No response to letters/moved                                   | 61                     | 37                     |
| Contacted but no documentation<br>of follow-up being completed | 110                    | 31                     |
| Inadequate record documentation                                | 39                     | 3                      |
| Refused follow-up  | 13                     | 4                      |
| Moved, but was notified  | 11                     | 5                      |

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