User's Guide

to

The Manual of Intervention Strategies to Increase Mammography Rates

The Prudential Center for Health Care Research

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Adapted from
The Manual of Intervention Strategies to Increase Mammography Rates
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Introduction

Mammography screening is effective in the early detection of breast cancer especially among women 50 years and older. Detection and treatment of breast cancer at an early stage of disease can reduce mortality and medical care costs. For women aged 50 and older, mammography screening done every 1 to 2 years, followed by appropriate treatment for women who test positive, can decrease breast cancer mortality by up to 30%[1, 2]

Based on past research on mammography interventions, The Prudential Center for Health Care Research (PCHCR) has identified steps that can be taken to increase mammography rates, and has put together the tools that you will need to choose and implement intervention strategies. These tools, and a detailed discussion of the steps, are contained in: *The Manual of Intervention Strategies to Increase Mammography Rates* (Resource Manual), by Faye L. Wong (CDC). A *User's Guide* has been designed to assist you in utilizing the Resource Manual.

- It is Prudential HealthCare's priority to increase mammography screening rates among eligible members of the plan.
- The goal of the *User's Guide* and the Resource Manual is to assist you in increasing the mammography screening rates among the eligible members of your health plan.
- The Resource Manual is a source of basic information on mammography and the intervention strategies and tools that health plans may use to help increase the screening rates.
- The *User's Guide* outlines major points from the Resource Manual, and will help you find the information in the larger manual that is most relevant for your needs.

The manuals are designed to be user-friendly, practical and adaptable to the needs and capacity of different health plans. Together with the resources suggested in the manuals, a health plan will have access to the basic information needed to successfully plan, implement and evaluate the effectiveness of mammography intervention strategies.

There are three major steps involved in designing and implementing an intervention to increase mammography screening rates. To develop a successful intervention strategy, it is very important that you complete all three steps together. The best way to use this manual is to read each of the steps and decide which option or combination of options best suits your health plan.

For any improvement to take place, we suggest that you choose one person to be responsible for the mammography intervention program. The point person for your plan would be responsible for ensuring completion of the steps and implementation of the strategies, while working with a team to accomplish these goals.

Organization of the *User's Guide*: **Page**

Overview of the steps to Mammography Intervention

Step 1: Assessment

Assess the population of women and specific providers to be targeted for improved mammography rates.

Each health plan is serving different types of women, who are not obtaining mammograms for a particular reason. The intervention selected should address the characteristics of your members, including the barriers which the women at your health plan are encountering. In order to find out what these barriers and characteristics are, the following options are presented. You could:

- Conduct a mail or telephone survey.
- Review existing data.

In addition to the women that you will be targeting, it is important that the providers become involved in this process. To assess your providers and to gather their input, the following options are presented:

- Conduct a mail or telephone survey of providers.
- Conduct a focus group with selected providers.

The tools for these options are already developed and are included in the Resource Manual.

Step 2: Intervention

Implement appropriate and feasible intervention strategies, targeting your selected members and providers, and addressing identified barriers.

Given that you now know the characteristics of the women who are not receiving mammograms, and the realities of the offices and their providers, there are several options you can choose from when deciding which intervention to implement.

- Provider-focused strategies:
  - ◊ Encourage physician recommendations of mammograms.
  - ◊ Develop clinic mammography teams.
- Member-focused strategies:
  - ◊ Establish a system for telephone reminder calls.
  - ◊ Establish a system for mailed reminders.

Remember that a **multi-intervention approach** has been shown to be more effective than implementing a single intervention strategy.

Step 3: Evaluation

Monitor and evaluate the effectiveness of intervention strategies.

It is critical to evaluate the effectiveness of the interventions which you have chosen. Evaluation will enable you to continue effective interventions and improve factors which may be hindering the effectiveness of other interventions. Key topics to address in evaluating intervention strategies:

- The outcome of the intervention.
- The impact of the intervention.
- The quality of the intervention.
- Organizational barriers to success of the intervention.

Barriers

Can you picture a member who might miss a mammography appointment in one of your offices? Picture some of the women served by your health plan. Perhaps she looks like this: A woman, about 50 years old who has no major health problems. She comes in for her yearly physical and seems comfortable with the office staff, but she does not come in for her mammography appointment. These are some of the common barriers which might be preventing her from coming in for her mammogram[3] (the four most common barriers are highlighted):

Role of the provider

- **Feels that a mammogram is not needed because her physician has never recommended that she have one.**

Women's own barriers

- **Has not thought about it.**
- **Has no breast problems, believes a mammogram is not necessary.**
- **Does not have enough time.**
- Does not know similar-age women who obtain mammograms.
- Has fears associated with screening, including fear of possible pain associated with the procedure, and fear of a diagnosis of breast cancer.
- Has concerns about the high cost of getting a mammogram.
- Has concerns about the financial burden of diagnostic procedures and treatment for breast cancer if it is needed.
- Has not had a recent clinical breast exam or Pap test.
- Does not have an identified routine source of health care.
- Is low income and concerned that she must take time off from work to be screened.
- Lives a far distance from the screening site.

In addition, research shows that special population sub-groups (e.g. low-income women, women of color, older women) have unique needs with regard to interventions.

☞ Please consult pp. 18-19 of the Resource Manual for suggestions relating to special population groups.

We cannot assume that all women face all (or any particular one) of these barriers. Part of the goal of Step 1 is to find out which specific barriers your members face. Then, with Step 2, you will be able to choose or tailor your interventions to address these barriers. Your interventions must address specific barriers, if members are going to change their mammography-seeking behavior.

Most of the interventions listed in Step 2 are designed to be broad and relevant for many different types of barriers, however, the content of the interventions can be easily tailored to address common barriers. Under Step 2 we list pages in the Resource Manual which detail adaptations for specific barriers.

☞ For more general information on women's barriers see pp. 7-11 in the Resource Manual.

☞ For information on provider barriers, see pp. 12-17 in the Resource Manual.

Step 1: Assessment

Assess the women and the health plan's providers that you will target for your intervention.

As discussed above, successful interventions will address the specific barriers that members face. In addition, interventions must also be tailored to the barriers which providers experience (see pp. 12-17). Suggested assessment strategies are presented in the following two tables.

Table 1: Member Assessment

Tool/Method	Information Obtained	Advantages	Disadvantages	Page #
Questionnaire • Develop a questionnaire: ◊ Group model health plan: Have women fill out before seeing the doctor or nurse for an office visit. ◊ IPA model: Mail the questionnaire to a sample of women. • Sample questions provided.	• Mammography behavior • Barriers • Facilitators • Background Characteristics	• Less time intensive than a telephone survey. • Low cost.	• No opportunity to probe or clarify answers. • Office questionnaire: can not assess women who do not come in for care. • Mailed questionnaire: low response rate.	23-27
Telephone Survey • Conduct a telephone survey of a random sample of women served by the health plan. • Sample questions provided.	• Mammography behavior • Barriers • Facilitators • Background Characteristics	• Can contact women who do not seek health care. • Good for women with low literacy. • Better response rate than questionnaire • More detailed information.	• May have high number of incorrect phone numbers. May involve higher cost.	23, 26-28
Analysis of available data: Mammography Registry • Link the health plan's administrative and claims databases by computer. Then, analyze characteristics of women served by the health plan.	• Mammography behavior • Background Characteristics	• General overview of all women in the health plan.	• Limited descriptive • data available. • Data may be incomplete.	23, 35-37, 112-114

Table 2: Provider Assessment

Tool/Method	Information Obtained	Advantages	Disadvantages	Page #
Mailed Questionnaire • Develop a questionnaire and mail it to a random sample of the health plan's staff and providers. • Sample questions provided.	• Provider knowledge • Provider actions • Capacity to provide services	• Less time intensive than telephone survey • Low response rate	• No opportunity to probe or clarify answers	29-32
Telephone Survey • Conduct a telephone survey of a random sample of the health plan's staff and providers. • Sample questions provided.	• Provider knowledge • Provider actions • Capacity to provide services information	• Better response rate than questionnaire • More detailed complete the call	• Difficulty in getting staff and providers to commit time to	29-32
Focus Group • Conduct focus group discussions with a diverse group of staff and providers in the health plan's network. • Sample questions provided.	• Provider knowledge • Provider actions • Capacity to provide services	• Synergy/exchange of group discussion • More "buy-in" from staff and providers	• Time intensive • Difficult to schedule • Higher cost	29-32

Step 2: Intervention

Develop and Implement your intervention strategies

Now that you know the characteristics of women in your health plan, and you have assessed the performance of your plan in providing mammograms, you may choose among a number of intervention strategies to best meet the particular needs of your health plan. Research has shown that some interventions are more effective than others, and particularly that multi-intervention strategies are more effective than single interventions.[4] Thus, it is important to choose interventions that are most effective, given your population and resources, and that address the needs of both members and providers.

Table 1: Provider Interventions

Intervention	Effectiveness*	Advantages	Disadvantages	Page #
Encourage Physician Recommendations Encourage physicians to recommend all women age 50-69 for mammography screening. <u>Provider reminders</u> • Provide physicians with a list of women due or overdue for a mammogram. • Sample letter provided <u>Performance Feedback</u> • Provide data feedback to physicians on the rate of mammography screening among their patients in comparison to rates of other providers in the network (e.g. HEDIS rates). • Sample letter provided	Excellent	• Addresses the most common barrier to mammography screening. • Supports physicians in performing uniformly recommended preventive procedure.	• Requires physician cooperation.	81-85, 12-15
Provider Education <u>Dissemination of policies</u> Disseminate policies that support mammography screening (expanding on Prudential HealthCare Guidelines). • Include in provider newsletters. • Conduct an in service for new providers in the network. • Include in Provider Orientation Handbook.	Good	• Can clarify goals of the health plan • Low cost • Increases visibility of mammography intervention program	• No guarantee of implementation • No guarantee that provider newsletter would be read	86-87
<u>Continuing Education</u> Educate on the importance of physician referrals. Educate on breast cancer and mammography screening. • Host a breakfast or dinner, with a participating hospital, to discuss barriers to mammography screening. • Invite experts on breast cancer and mammography to speak at meetings of providers. • Support attendance at professional conferences and meetings	Good	• Can address provider barriers • Opportunity for providers to mention other concerns • May be able to assist providers in meeting their continuing education requirements	• May have to provide incentives for participation • Advance coordination may be time consuming	86-87, 12-15

*EFFECTIVENESS: These classifications are based on both single and multi-intervention studies. Most single-intervention studies did not show statistically significant effects. Thus, these ratings are often drawn from studies that used the intervention (under consideration) in combination with other interventions.

Poor - Evidence from research: most studies find that this intervention has little effect.

Fair - Evidence from research is mixed: some studies find no effect of this intervention, some find a moderate increase in mammography rates.

Good - Evidence from research is more conclusive: a number of studies show that this intervention is associated with moderate increases in mammography rates.

Excellent - Evidence from research is strong and extensive: most studies find that this intervention has a significant effect on mammography rates; for example, mammography rate increases of 20% or more are not uncommon.

Step 2: Intervention

Develop and Implement your intervention strategies

Table 1: Provider Interventions

Intervention	Effectiveness	Advantages	Disadvantages	Page #
Office Tracking Systems				
Office Manager Education Educate office staff on the procedures for tracking preventive care for their patients. Provide flow charts to track and prompt preventive services, and stickers to flag the charts of women due or overdue for a mammogram. • Hold a seminar for office managers to discuss the importance of mammography and demonstrate the benefits of tracking systems. • Develop and distribute a mammography prompt form for use as a reminder to inquire about a woman's mammography status, make a mammogram referral, document the results, and follow up as needed	Good	• Local (office) control and participation in mammography efforts. • Effective way to reach members, ideal for IPA model health plans with a large number of providers.	• Only targets women who come in for heath care. • No guarantee of implementation	88-90 16
Clinic Mammography Teams In partnership with providers and clinic/office staff, plan a team approach to promote mammography screening. Together: • Develop overall goals Member receives • Develop specific goals for each staff member. • Develop written procedures for the team. • Meet regularly to assess progress.	Good	• Local (office) control and consensus • Develops strong teamwork • Member receives consistent message throughout her visit from a variety of staff	• Requires high level of coordination at outset. • More time intensive at outset.	88-90 16

A physician recommendation is one of the most well documented facilitators to a woman obtaining a mammogram. One study found that "94% of women whose physicians had recommended mammograms had had one in the last 2 years, while only 36% of women whose physicians had not made the recommendation had had a mammogram." [5]

Worksite and Community Partnerships

Other intervention strategies include partnerships with employers to provide mammograms (and incentives to get mammograms) to their employees who are health plan members,and partnerships with state or local health departments to participate in community efforts for breast cancer prevention. See pages 96-106 in Resource Manual for more information.

**COST: Much of the cost of member interventions is dependent on the type of personnel employed. Letters or calls from physicians are most expensive, those from medical assistants are less expensive. Some studies show that phone calls are less expensive than mailed reminders. See Appendix E in the Resource Manual.

Step 2: Intervention

Develop and Implement your intervention strategies

Table 2: Member Interventions

Intervention	Effectiveness	Advantages	Disadvantages	Page #
Telephone reminder calls				
In-depth reminder call: • A more in-depth conversation to discuss any barriers to obtaining a mammogram,and to offer information and support, as well as to schedule an appointment. • Sample script provided. • Counseling for specific barriers provided.	Excellent	• Can address individual barriers • Opportunity for members to raise other health concerns • Good for women with low literacy.	• May have high number of incorrect phone numbers • More time intensive.	41-46, 50-60
Short reminder call: • A brief reminder call to schedule an appointment for women who are due or overdue for a mammogram. • Or a call to reschedule for those who miss an appointment. • Sample script provided.	Good	• Low cost** • Less time intensive • Good for women with low literacy.	• May have high number of incorrect phone numbers • Can not address barriers	41-49
Mailed reminder				
Tailored Letter • Mail a tailored one page letter to women, addressing some of the specific barriers discovered during assessment (step 1). • Sample Tailored Letter Provided. • Messages for specific barriers provided.	Good	• Can address specific barriers	• May have high number of incorrect addresses • More time intensive	62-63, 66-70, 55-60
Reminder Letter • Mail a standard one page letter to women, explaining the importance of mammograms and encouraging an appointment. • Double reminder intervention: send a second letter or postcard following up the first. • Sample Reminder Letter provided.	Fair	• Less time intensive.	• May have high number of incorrect addresses • Can not address specific barriers	62-63, 65
Postcard • Mail a standard postcard or birthday card reminder to women due or overdue for a mammogram. • Sample Postcard provided.	Poor	• Less time intensive • Low cost	• May have high number of incorrect addresses • Can not address barriers	62-64
Dissemination of Information				
Member Newsletters • Each year feature 1 or more stories about the early detection of breast cancer. Include brief educational messages and an action step. • Educational messages provided.	Fair	• Less time intensive • Utilize existing resource	• No guarantee that newsletter will be read	72, 74-75
Prerecorded Health Messages • When members are put on hold, use a pre-recorded message to inform them about breast cancer and mammography screening. • Educational scripts provided.	Fair	• Less time intensive • Low cost • Utilize existing resource • Good use of member's waiting time	• Member may not hear the whole message	73-75

Step 2: Intervention

Develop and Implement your intervention strategies

Multi-Intervention Strategies

Research has shown that multi-intervention strategies are most effective[4] (see pp. 129-151 in the Resource Manual). We present some combinations of interventions to give you some possible multi-intervention strategies. You may review these and select one of these combinations, or you may choose a combination better suited to your health plan. As a first step to all interventions, you must ensure that providers are receiving the Prudential HealthCare mammography guidelines. Now is also the time to think about how to evaluate the intervention before you implement it, to ensure that a mechanism is in place to collect data about intervention effectiveness (see Step 3).

Sample A - Targeting women overdue for a mammogram

- Short reminder phone calls to women who are overdue for their mammograms, with an offer to schedule an appointment.
- Mailed tailored letters, with educational material, to women who fail to schedule or who have missed their appointments.
- Follow-up intensive phone calls to these women to discuss barriers, information, and support.
- Create a clinic mammography team so that all staff who see women over 50 have a "key mammography message" to deliver to the women.
- Educate providers by inviting a breast cancer expert to speak at a regular meeting.

Sample B - Targeting women due for a mammogram

- Large print newsletter with an educational article on mammography, a checklist to help women identify if they need a mammogram, and a prompt to call for an appointment.
- Provider reminders listing all women 50 years and older who are due for a mammogram, and advising physicians to schedule a mammography appointment, and discuss common barriers with their patients.
- Telephone reminder calls to women who fail to schedule or who miss their appointments, with counseling on barriers.
- Educate providers by sponsoring a dinner symposium with an expert on mammography use.
- Display posters in waiting areas and examination rooms to encourage older women to get a mammogram or to ask their doctor about one.

Sample C - Targeting providers

- Create a clinic team to ensure mammography assessment of all women during routine office visit (e.g. annual health exam, sick visit).
  - ◊ Have physicians, physician assistants, nurse practitioners, and/or nurses discuss with women the need for and benefits of mammography.
  - ◊ Have physicians recommend mammograms for appropriate women.
  - ◊ Offer to make a mammogram appointment before women leave the office.
  - ◊ Provide team with regular feedback on the percent of women who followed through on their mammogram appointments.
- Educate all staff on barriers assessment and counseling.
- Telephone reminders to women who miss their appointments, with further discussion.

Step 3: Evaluation

Monitor and evaluate the *effectiveness* of the interventions implemented.

It is critical to evaluate the effectiveness of the interventions which you have chosen. Evaluation will enable you to continue effective interventions and improve factors which may be hindering the effectiveness of other interventions. Measuring actual mammography rates is only one step in the evaluation process. Monitoring different aspects of the inter vention will enable you to more clearly determine what is working and what needs improvement. The sources of information utilized for evaluation will vary by health plans and their capacity for data collection and analysis. However, the following key topics should be addressed using the best available methods and personnel.

Key topics to address in evaluating intervention strategies

Evaluation Topics	Data to Gather	Page #
Outcome The number and rate of women diagnosed with breast cancer that were identified by a mammogram.	• Percent of screening mammograms that were abnormal. • Percent of women with abnormal screening mammograms who completed diagnostic testing for breast cancer. • Number of cases of breast cancer identified, and staging at diagnosis.	109, 112-114
Impact The number and percentage of targeted women who obtained a mammogram.	• Percent of women receiving the intervention who obtained a mammogram. • Percent of women given a mammogram referral by physician who obtained a mammogram. • Increase in mammogram appointments following general dissemination of information	109, 112-114
Quality of the intervention Assess all elements involved in the process of implementation of the intervention.	• Quality of system to identify women who need a mammogram. • Quality of intervention outreach to women (e.g. friendliness, sincerity and competence of callers). • Quality of information given to women (e.g. tailored to their barriers; available in clear manner and relevant language). • Improvement in the skills and knowledge of providers regarding mammograms. • Increase in percent of physicians making referrals.	110, 112-114
Organizational barriers Assess the organization of the health plan for the existence of any barriers to a successful outcome.	• Ease of scheduling appointments. • Average wait for mammogram appointment. • Average wait at radiology facility. • Convenient location of radiology facilities.	111-114

Best Practices from Prudential Health Plans*

Austin

- *Telephone Survey* of a sample of women over 50 who had not had mammograms, to assess barriers to mammography
- *Reminder letter* to all women 50-69, with breast cancer facts, list of radiology facilities, and educational brochure.
- *Provider letters* listing women over 50 who have not had mammograms

California

- **Quarterly *telephone reminder*** calls to all women who turned 50 in the previous quarter.
- Quarterly *Provider letters* (to reinforce the phone intervention), listing their patients who turned 50 in the previous quarter.
- *Women's Newsletter* article targeted to women 50 and older.

Central Ohio, (Columbus)

- *Mailed Questionnaire* to assess member's barriers to mammography
- **Multi-level, specifically targeted interventions**
  - ◊ *Telephone intervention* for enrolled members who have no Prudential claims history of having had a mammogram
  - ◊ *Tailored letter,* with list of radiology facilities, educational brochures, and contest postcard[+] for phone intervention group, as well as new members, and members who are overdue for a mammogram
  - ◊ *Reminder postcard* to enrolled members who are due for a mammogram
- *Letter to providers* listing their patients mammography status, outlining the health plan's interventions, and encouraging providers to schedule mammograms (scripts included)

[+]Sponsoring a contest for all female members age 50 and over who have a mammogram in 1997. They return the postcard (showing completion of mammogram), and the medical director will draw one lucky winner in December. The prize is a 6 hour day spa treatment at a local spa.

Cincinnati

Integration of Assessment and Interventions

- *Mailed Questionnaire* to assess member's barriers to mammography
- *Tailored letter* to all women over 50, addressing the most common barriers mentioned in the survey, and including a list of radiology facilities and a breast cancer fact sheet.
- *Provider newsletter* outlining the results of the survey and providing education about overcoming these barriers to mammography

Denver

- *Reminder letter* to women over 50 who have not had a mammogram in the last two years, with a list of radiology facilities
- *Provider letters* listing women over 50 who have not had mammograms

South Florida

- ***Office manager seminars*** with provider's office staff to educate them on importance of mammography, help them develop an office-based tracking system for identifying women due for mammograms, and encourage them to contact women who have not received mammograms
- *Mobile mammography vans*

Tampa

- *Telephone Survey* of women over 50 who had not had mammograms, to assess barriers to mammography
- ***Mammography registry*** - extraction of data to establish a list of women over 50 and their mammogram status
- *Performance feedback letters* to providers, showing mammogram rates for their patients in comparison to the rates of other providers in the network, encouraging them to contact women who have not had mammograms, and providing the "Barriers Counseling" script from the Resource Manual.

*The health plans listed are those who participated in the Pilot Test of the Mammography Manuals, and interventions were implemented in 1997. Evaluation of the interventions will take place in 1998.

Conclusion

We hope that you find these manuals helpful. The Resource Manual will give you details and specific resources to support your mammography interventions, while the User's Guide outlines the preferred approach to developing an intervention strategy.

In summary, we believe that the following three actions will have the greatest impact on increasing mammography screening rates:

Recommendations

- **Appoint one person in your health plan to be responsible for the mammography intervention program.**
- **Encourage physicians to refer all women 50-69 for mammography screening.**
- **Have a direct interchange (by phone or in person) with women in the health plan that addresses their specific barriers and concerns.**

We welcome your feedback on the User's Guide and the Resource Manual.
Please direct any comments to:

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PLEASE NOTE: ANY MATERIALS DEVELOPED FROM THE SAMPLES PROVIDED IN THE RESOURCE MANUAL MUST BE REVIEWED BY PRUDENTIAL HEALTHCARE ADVERTISING COMPLIANCE BEFORE THEY ARE IMPLEMENTED.

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