Identifying Local Barriers to Mammography in Women Served by a Rural Acute Care Hospital

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Background

• Cancer mortality rates are higher in rural areas than urban areas in the United States. 1
• Compared with women in urban areas, women living in rural areas: 2,3,4 • Have lower rates of screening mammograms
• Experience later-stage diagnoses of breast cancer
• Have less access to medical treatment for breast cancer
• Women living in rural Wisconsin continue to experience later stage diagnoses; have less access to medical treatment, and may receive less chemotherapy compared with women living in urban areas. 2,5 6 • Although breast cancer is the most common type of cancer diagnosed in Columbia County WI, only 40% of eligible women are being screened with mammography.

Objective

Understand barriers and facilitators to mammography faced by women in rural Wisconsin

Methods

The University of Wisconsin-Madison (UW) collaborated with Prairie Ridge Health (PRH). PRH is a rural hospital in Columbus, Wisconsin, which has a population of approximately 5,500 persons. The project qualified for an IRB exemption based on review by the UW IRB.

Data collection

Our community-based participatory research identified barriers to screening mammography by:

• Virtual: 11 interviews with clinicians and clinic staff at PRH
• Three 60-minute virtual focus groups with women living in the same area (Held 11/2021 to 2/2022)
• A 25-question survey (online and hardcopy) to collect insights from women at least 40 years old

Recruitment

Clinicians and clinic staff interviews: PRH team members invited their staff to participate in interviews. Suggestions of potential participants created with snowballing approach were also accepted. A list of interested participants was created and shared with the WREN team.

Focus Group: Women were recruited by advertisements informing patients and community members about the study. Advertisements were distributed via social media (PRH website and Facebook page) and US mail.

Survey: The anonymous Qualtrics survey link was available on the PRH website. A list of 1,800 women residents within the PRH service area who were 40 years and older and eligible for mammography were mailed a paper version of the survey.

Tools

Interview guide: Questions probed on PRH practices for mammography and barriers for rural women

Focus group guide: Designed to uncover attitudes towards screening mammography, including facilitators and barriers

Survey: Collected demographic data, attitudes toward and barriers to breast cancer screening

Analyses

Clinic and staff interviews: Interviews with PRH clinicians and staff as well as focus groups were conducted virtually and transcribed for qualitative analysis. Three researchers independently coded responses. Focus groups: Three researchers created a codebook for responses and assigned codes for responses that were facilitators and barriers to mammography. Each researcher independently coded responses and met to finalize coding on each code.

Survey: Results of the online and hardcopy surveys were combined and analyzed for descriptive statistics and coded for qualitative analysis.

Summary and Conclusions

PRH Staff Interview Results

11 PRH staff were interviewed:

• 4 physicians, 3 mammography technicians, 2 schedulers/ registration, 1 medical assistant, 1 advanced practice nurse

Barriers to mammography identified during interviews included:

• Lack of transportation
• Limited scheduling options for working women
• Lack of awareness of the benefits of mammography
• Financial/insurance issues
• Concern about clinic visits during the pandemic

Survey Results

137 women responded to the survey (140 online and 167 paper copy): 13 women were not eligible (9 were part of our focus groups; 4 were younger than 40 yo)

Demographic snapshot

Previously diagnosed with breast cancer Mean age, y (range) Identified as White Metropolitan Area Percent of respondents reporting they had had a mammogram within the previous year

<table>
<thead>
<tr>
<th>Mammography status</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Previously diagnosed with breast cancer</td>
<td>99%</td>
</tr>
<tr>
<td>Mean age, y (range)</td>
<td>58.1 (25-87)</td>
</tr>
<tr>
<td>Identified as White</td>
<td>73%</td>
</tr>
<tr>
<td>Metropolitan Area</td>
<td>37%</td>
</tr>
<tr>
<td>Percent of respondents reporting they had had a mammogram within the previous year</td>
<td>47%</td>
</tr>
</tbody>
</table>

Attitudes about mammography

• 60% indicated that women should start getting mammograms at 40 years old
• 72% thought that women should get mammograms every year
• 50% had their last mammogram at PRH
• Responses regarding mammography at the rural hospital (including scheduling) were favorable

Engagement with the healthcare system

• 1% of respondents reported seeing a healthcare provider in the past year
• Awareness of and experience with mammography was high
• 98% of women indicated that they knew of mammography
• 90% of respondents reporting that they had seen or heard an advertisement that encouraged them to get a mammogram
• 85% had a healthcare provider recommend that they get screened for breast cancer
• 78% indicated that the recommendation was communicated to them in person
• 97% reported ever having had a mammogram
• 52% were between the ages of 40 and 49 when they had their first mammogram
• 75% indicated that their first mammogram was not a bad experience
• 75% indicated that they had a positive experience

Focus Group Results

Three focus groups were with 1, 9, and 11 participants.

• Participants in these focus groups placed high value on screening mammography. As such, 62% (14/22) of quotes coded from these three groups indicated facilitators to screening mammography

• PRH staff identified barriers such as lack of:
  • Transportation
  • Scheduling
  • Fear of procedure (eg, pain/discomfort)
  • Fear of results
  • Age-general perception of too young or too old for mammogram
  • Necessary self-assessment to get breast cancer
  • COVID-19
  • Lack of transportation

<table>
<thead>
<tr>
<th>Facilitators</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Necessary self-assessment to get breast cancer</td>
<td>7%</td>
</tr>
<tr>
<td>COVID-19</td>
<td>5%</td>
</tr>
<tr>
<td>Lack of transportation</td>
<td>11%</td>
</tr>
<tr>
<td>Fear of procedure (eg, pain/discomfort)</td>
<td>19%</td>
</tr>
<tr>
<td>Fear of results</td>
<td>17%</td>
</tr>
<tr>
<td>Necessary self-assessment to get breast cancer</td>
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Survey results

Women responded to the survey (140 online and 167 paper copy)

<table>
<thead>
<tr>
<th>Survey results</th>
<th>Percentage</th>
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</table>
| Positive | 72%
| Neutral | 27%
| Negative | 1%

Summary of the study:

Women were engaged with the healthcare system with 91% reporting that they saw a health care provider in the past 12 months, which may indicate a participation bias.

Top barriers were insurance/financial issues, scheduling, and fear of mammography.

Scheduling options

• Three focus groups were with 1, 9, and 11 participants.

• “Don’t forget to schedule...”
• “Put it off”
• “Hope that they have health insurance, since probably won’t go to pay for it...”
• “If they don’t think that ‘I’m too old or too young to get a mammogram”
• “Put it off”

Future projects should include efforts to:

• Reach rural women not engaged with the healthcare system
• Address gaps in patient education (eg, the role of mammography for women not having a family history of breast cancer)
• Continue to explore strategies that address the barriers identified

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References