Promising Practices in Mammography Recruitment, Retention and Rescreening for Breast Cancer Early Detection among Community-Based Programs Supported by the Avon Foundation Breast Care Fund

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Background and Purpose

The **Avon Foundation Breast Care Fund** (AFBCF), coordinated by Cicatelli Associates Inc., has distributed more than $42 million in grants to community-based organizations that provide breast health education and outreach to link medically underserved women with free/low-cost breast cancer screening services. By the end of 2009, almost 1 million mammograms and CBEs will have been facilitated and more than 15 million people will have received education on breast cancer awareness as a result of support from the Fund.

National guidelines have recommended women age 40 and older have mammograms every 1-2 years. [1] [2] However, program data have not been routinely utilized to measure adherence to national screening guidelines or rescreening rates among AFBCF grantee clients, and little is known about the most effective methods and approaches that CBOs can use to facilitate the recruitment and rescreening of clients. This evaluation study was conducted to assess rescreening rates among clients served by AFBCF grantee agencies, and to identify promising practices for effective mammography recruitment, retention and rescreening.

Methods

Data were collected and analyzed at the grantee agency and client level using multiple data sources to describe: 1) organizational characteristics of the Avon-funded CBOs; 2) characteristics of the target population served; 3) client rescreening rates; and 4) program practices for retention, recruitment and rescreening. Our analysis focused on 20 self-selected CBOs from 15 states. Participating agencies were Avon-funded consecutively from 2005 to 2008, participated in qualitative telephone interviews and an online survey, and provided de-identified client-level data on mammography by age and visit date.

Adherence to national guidelines for screening were measured in two ways. First, the ***rescreening rate*** was estimated as the proportion of female outreach clients age 40 years and older who received a screening mammogram in the calendar year 2005 (CY2005) that received a subsequent screening mammogram at the same agency within the following 6-18 months and/or 6-30 months. Agencies unable to report on all clients reported on a random sample. Second, ***recency of mammogram*** was measured using a Client Intake Form (CIF) for each client receiving a mammogram as a result of outreach. The CIF is a brief, anonymous self-report questionnaire with 29 questions on health and socio-demographic status. We evaluated the proportion of clients screened through one of the 20 selected CBOs in CY2007 that indicated that their last mammogram was 1 to 2 years ago, and compared this to the estimated rescreening rates for each agency.

We then analyzed factors associated with higher return rates to identify promising practices, taking into consideration agency and client characteristics.

Characteristics of Avon-Funded CBOs and Clients Served, and Estimated Adherence to National Screening Guidelines

Table 3. Estimated Client Adherence to National Breast Cancer Screening Guidelines for 20 Selected Avon-funded CBOs

	Proportion of Clients Returning for Rescreen (by Date of Mammogram) Among Clients Aged 40+ Screened in CY2005				Recency of Last Mammogram (By Client Self-Report) Among Clients Aged 40+ Screened in CY2007					
	(A) Within 1 year (6-18 months)		(B) Within 1-2 years (6-30 months)		(C) Within 1-2 years (All Clients)		(D) Within 1-2 years (Returning Clients)		Diff % (C)-(B)	Sig Diff
Agency	N	%	N	%	N	%	N	%		
1	1,176	6.0	1,176	6.0	1,102	66.4	876	69.7	60.4	Y
2	902	14.6	902	49.4	446	49.3	286	61.5	-0.1	N
3	310	20.6	310	25.5	166	38.6	NR	NR	13.1	Y
4	248	29.0	248	40.7	1,855	52.0	733	62.6	11.2	Y
5	1,194	30.1	1,194	39.4	603	81.5	187	93.6	41.9	Y
6	250	30.8	250	53.5	834	58.5	219	70.3	5.0	Y
7	740	30.9	740	35.9	189	31.7	16	18.8	-4.2	Y
8	221	33.5	221	53.4	600	78.0	476	86.6	24.6	Y
9	483	34.1	483	42.6	251	57.0	177	62.7	14.3	Y
10	490	36.1	490	43.1	175	60.0	5	60.0	16.9	Y
11	1,000	38.3	1,000	40.4	3,171	75.2	2,272	85.3	34.8	Y
12	825	40.0	825	53.9	384	64.6	140	80.7	10.6	Y
13	3,336	41.5	3,336	73.1	1,129	61.1	1,011	64.0	-12.0	Y
14	255	42.2	255	56.3	215	52.1	155	56.8	-4.2	Y
15	278	46.9	278	57.0	624	62.2	353	79.6	5.1	Y
16	973	53.3	973	62.5	1,147	64.2	659	76.9	1.7	Y
17	450	57.3	450	62.0	50	2.0	39	2.6	-60.0	Y
18	681	58.4	681	59.0	555	80.9	314	96.2	21.9	Y
19	341	88.6	341	91.2	262	67.2	145	66.9	-24.0	Y
20	400	89.0	400	89.3	555	44.1	2	100.0	-45.1	Y
TOTAL	14,553	41.1	14,553	51.7	14,313	64.0	8,065	75.4	12.3	Y

Study Findings

According to client self-report, 84% (14,313/17,103) of clients aged 40 and older screened in CY2007 reported a previous mammogram. Of these, 64.0% (9,163/14,313) indicated that their last mammogram was within the last 1-2 years (range by agency: 2.0%-81.3%). Among returning clients aged 40 and older, 75.4% (6,081/8,065) reported a previous mammogram within the last 1-2 years; however 23.3% of records were missing data used to distinguish new vs. returning clients. [Table 2].

Based on mammography service dates, 41.1% of 14,553 clients were rescreened at the same agency within 6-18 months and 51.7% were rescreened within 6-30 months (range by agency: 6%-89%).

Agencies with higher rescreening rates were more likely to: work with clinical providers and staff with training on cultural competency; use a centralized database system to schedule appointments; offer assistance to enable clients to attend the clinic (e.g. child care, transportation, gas cards); contact clients who did not return for their annual mammogram; and host special events to maintain regular contact with clients.

Rates of rescreening within 1-2 years and self-reported recency of mammogram within 1-2 years were significantly different for all but 1 of the 20 CBOs. [Table 3].

Discussion and Next Steps

Rescreening rates were measured for clients returning to the *same agency* within 30 months and therefore may underestimate the true number of clients who were rescreened by a different agency, and the accuracy of client self-report is unknown. Additional analysis will focus on better understanding variations in estimated adherence to national screening guidelines within and across agencies and to identify promising practices for specific settings and client populations. Further efforts will also utilize available qualitative data for additional Avon-funded CBOs describing agency characteristics and practices as well as client socio-demographic data.

References

[1] Smith RA, Cokkindes V, Brawley OW. American Cancer Society A review of current American cancer society guidelines and issues in cancer screening, 2009; 59: 27-41.

[2] U.S. Preventive Services Task Force. Screening for Breast Cancer: Recommendations and Rationale. February 2002. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/clinic/3rduspstf/breastcancer/brcanrr.htm

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