

Comparison of Three Strategies to Enroll Cancer Survivors in a Lifestyle Program Offered by a Cancer Registry

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Background

- Goal of Overall Study: Determine if cancer registries could take an active role in enhancing health of cancer survivors and their relatives.
- Initial plan was to focus on increasing cancer screening among younger breast and colorectal cancer survivors who may be at higher risk of developing an initial or second cancer in the future.
- Phase 1 was a mailed survey to assess cancer screening rates and levels of health behaviors among breast and colorectal cancer cases diagnosed <50 between 1999-2009.

Background

- Phase 1 data showed high adherence rates to recommended cancer screening: 88% for breast , and 84% for colorectal cases.
- Thus an intervention to increase cancer screening did not seem critical. But, health behaviors were in need of improvement.
 - Over half would be considered overweight or obese.
 - Physical activity levels were below US recommendations.
 - Consumption of fruits and vegetables was low and they averaged consumption of 2 sugar sweetened beverages/day.

Background

- Type of intervention was based on respondent preference.
 - Respondents expressed interest in getting information to stay fit
 - Preferred interventions using written materials, websites and email.
- Therefore Phase 2 was re-designed to target health behaviors.
- Our goal was to test different methods of recruitment and we used an existing evidence-based program shown to be effective in improving diet and physical activity.

Alive! Program

A Lifestyle Intervention via Email

- Created by Berkeley Analytics, Inc. (Nutrition Quest)
- Participant takes an online baseline survey to determine areas of interest/need
 - Instant feedback about their health is provided
 - Participant then chooses an area of focus
 - Increase physical activity
 - Increase fruit or vegetable intake
 - Decrease saturated fat/added sugars
- 12 week personalized program with email instructions/reminders
- Final survey about the experience

Methods-LiveWell Study

- Selected 4,446 breast and colorectal cancer survivors diagnosed <50 between 1999-2009 in Los Angeles County
- Randomized them into three groups using year of diagnosis, cancer site, age group, race/ethnicity.
- Mailed all selected participants an introductory letter with individual password, study brochure, cancer registry brochure, and information sheet.
- Tested 3 methods of follow-up to compare recruitment
 - Follow-Up Letter mailed after 2 weeks
 - Follow-Up Telephone call after 2 weeks (provided additional information)
 - No Follow-Up after initial letter
- No tracing done to locate lost cases, 3 calls attempted

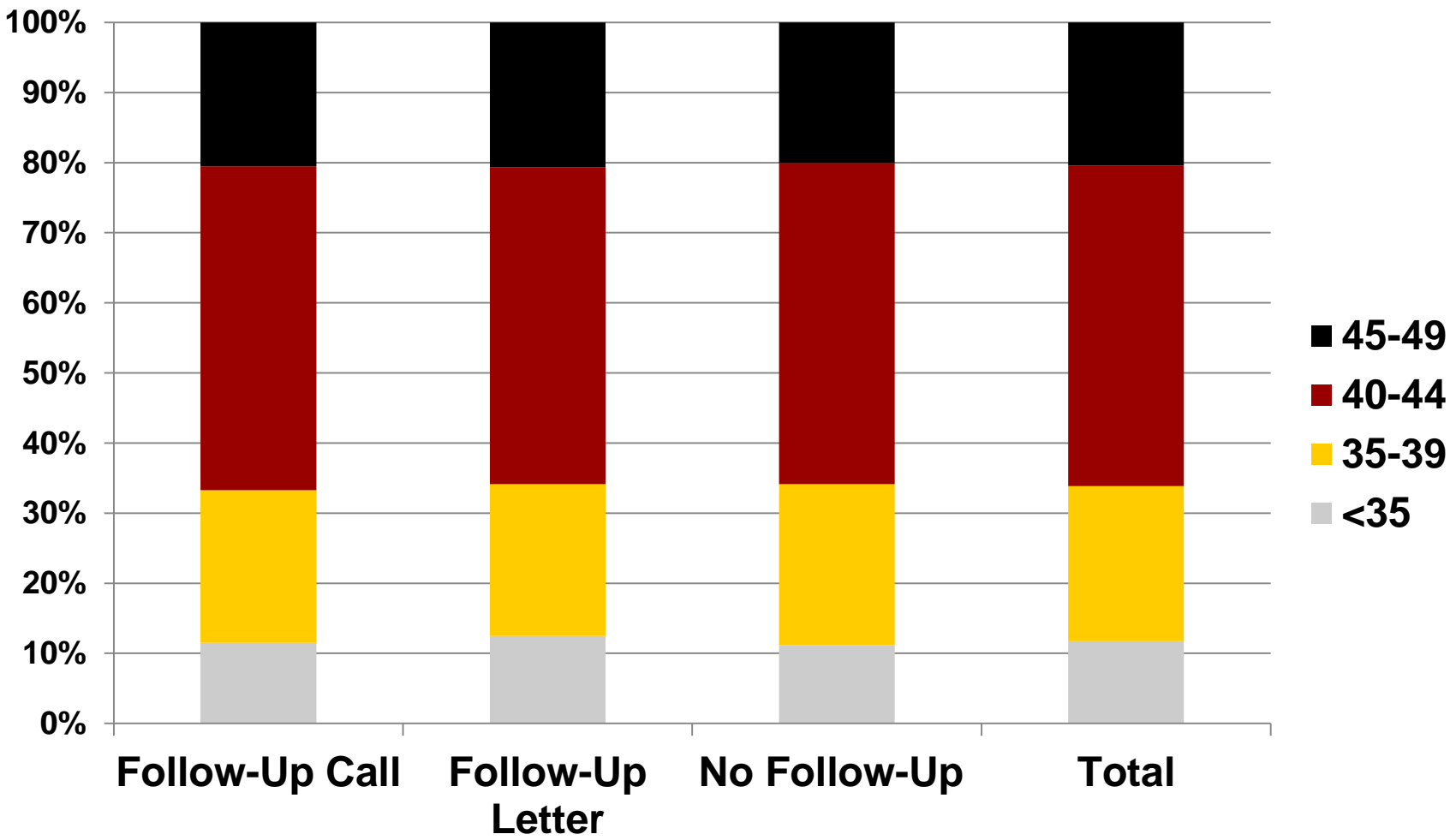
Methods

- Respondents were first requested to log on to a USC developed web site and answer 3 eligibility questions. If eligible, then they were directed to the Alive! website to begin the program.
 - age >18
 - no longer receiving cancer treatment
 - spoke English
- <https://uscnorriscancer.usc.edu/LiveWell>
- Especially poor response (among all three options) after follow-up necessitated a second mailing to all three groups.
 - First mailing was in November, 2013.
 - Second mailing was in January, 2014

Results-Randomization

	Numbers of Cancer Cases Selected by Group			Total
	Follow-Up Call	Follow-up Letter	No Follow-up	
Total	1485	1485	1476	4446
NHW	686	693	685	2064
Black	130	133	150	413
Hispanic	481	497	459	1437
Chinese	69	55	50	174
Japanese	26	19	23	68
Filipino	62	63	61	186
Korean	31	25	48	104

Results-Randomization



Results

- Demonstration of successful randomization
- Response by patient characteristics
- Difference by group
- Other information obtained from phone follow-up group

Frequency of Other variables (all ns by group)

- **Cancer Site:**

- 3683 Breast,
- 763 Colorectal

- **Socioeconomic Status:**

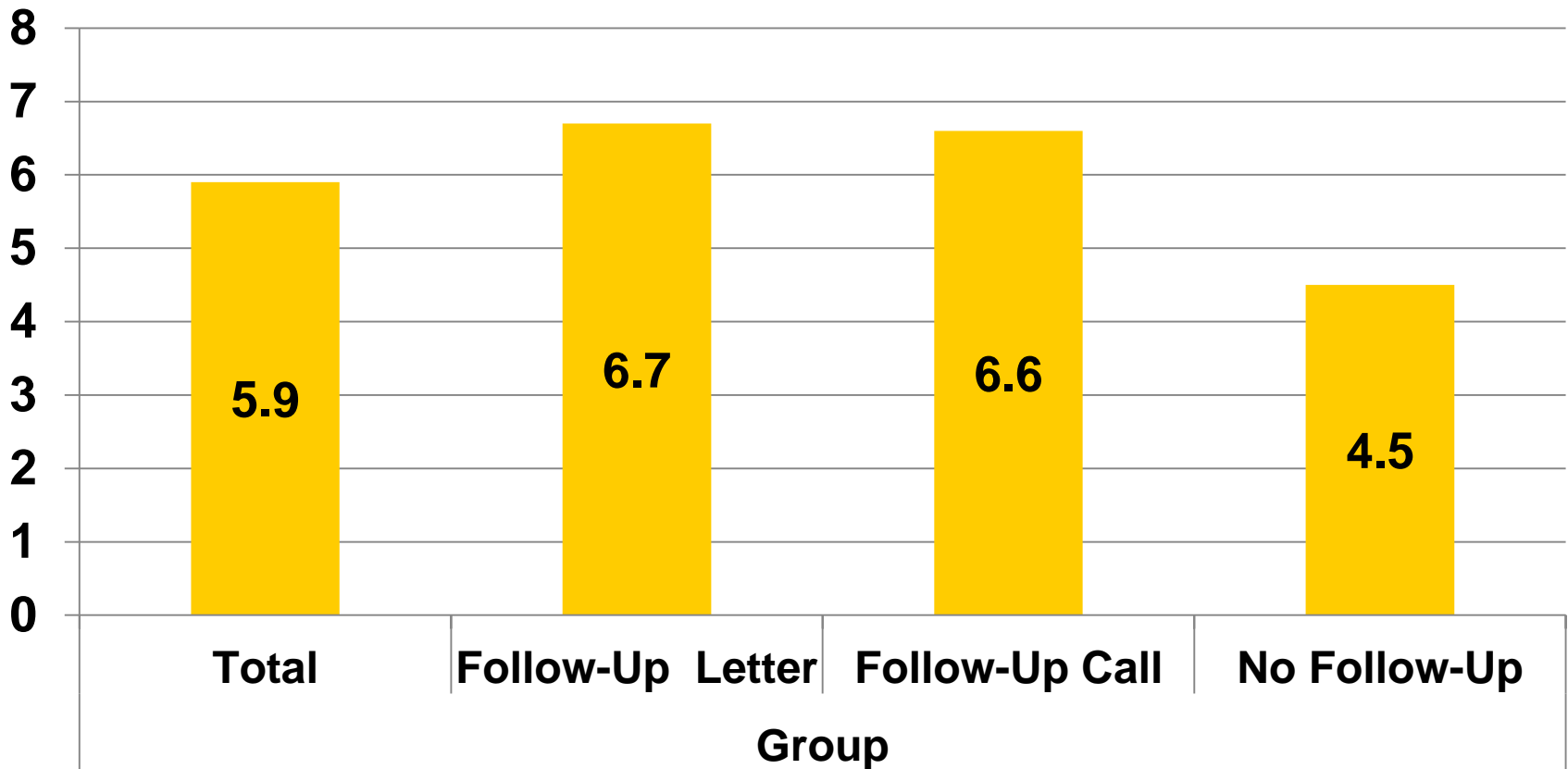
- 782 High
- 729 Above Average
- 607 Average
- 500 Below Average
- 370 Low

- **Dx Year**

- 438 1999
- 912 2000-01
- 914 2002-03
- 730 2004-05
- 745 2006-07
- 707 2008-09

Response

Percent Participating by Group (p=0.01)



Response by Characteristics

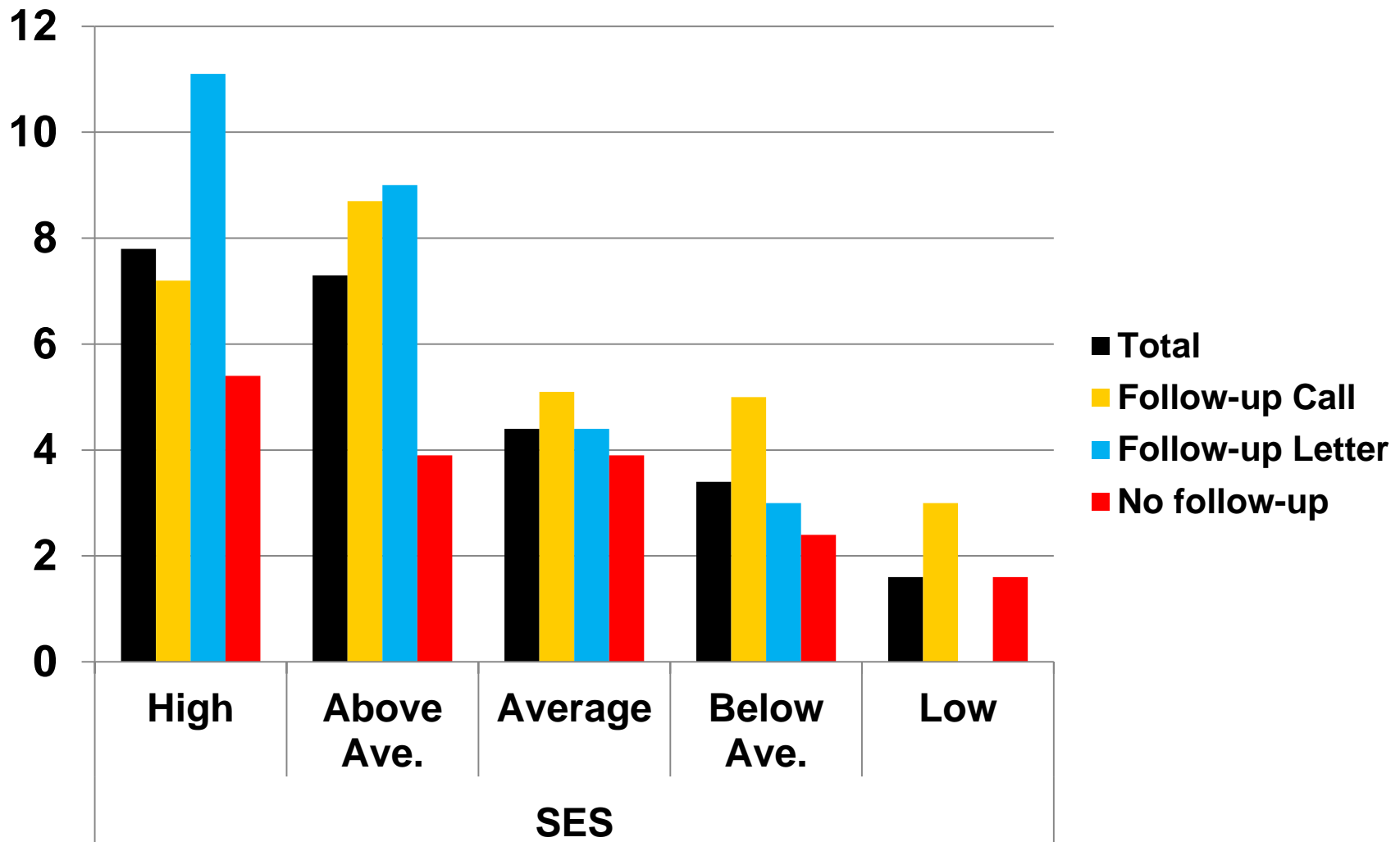
- Variables significantly related to overall response:
 - Race/ethnicity (NHW and Japanese higher)
 - SES-Higher response with higher SES
 - Tumor grade
 - -Higher response among well differentiated
 - Sex-Higher response among females

Response by Characteristics

Percent Participating by SES*



Percent Response by SES by Group



Additional Information from Phone Follow-Up

- Participated=6.6%
- Expressed interest=6.8%
- Contacted, not interested=11.0% (n=164)
 - No English=61
 - Other=54
 - Too busy=20
 - Already had good behavior=12
 - No internet access=12
 - Too sick=5
- Not reached=75.5%

Conclusions

- Pilot experiment on expanding role of cancer registry in impacting health of cancer survivors
- Second letter mailing was as effective as a phone call in improving response. Lower cost follow-up effective.
- Timing of letters was important. More motivated to participate after the new year.
- More potentially interested (based on phone follow-up)
- Problem identified: USC participation Web site needed to be linked to SEARCH engines (some may not have been successful at logging on).

Conclusions

- Additional analyses to be done
 - Actual experience and impact of the Alive! program on those that did participate.
 - Cost/Benefit analysis (Registry costs included paper, staff time for selection of cases and mailings, database development, postage, obtaining IRB approval, printing of brochures, Alive! program costs paid by grant)
 - Implications of 6% participation rate.
 - Potential impact on cancer survivors (attributable risk)