

EVERYONE NEEDS FOLIC ACID IS A DIGITAL PROGRAM WITH FACE AND CONTENT VALIDITY FOR LOW-INCOME DIVERSE AUDIENCES

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Abstract

Everyone Needs Folic Acid, a nutrition program delivered with a digital photo frame platform, was developed to help low-income persons appreciate the role of folic acid (FA) for all age groups. Program assessment was conducted in 2 stages: Stage 1 focused on the original program and Stage 2 evaluated the subsequent program revisions. Participants (n=73) were white (97%), overweight or obese (63%), not eating competent (73%), and had at least 2 children (53%). The sample was low-income; 42% used at least 1 assistance program in the past year and 27% were Supplemental Nutrition Assistant Program (SNAP) participants. The original program was easy to read (90%), understandable (87%), and helpful (66%). Suggested improvements were to provide dosage information, increase pictures of folic acid rich foods, and reduce message redundancy. Stage 2 participants (n=50) were recruited from the Stage 1 sample. When asked if they recalled any information about the original program, 27% of Stage 2 respondents remembered a lot, 45% remembered some, and 28% reported little or no information recall. 72% had applied information to themselves or their family and 96% indicated that they would recommend this program to others. Participants compared 6 original with revised slides and preferred the original in 2 pairs, the revised slide in the other 4. *Everyone Needs Folic Acid* demonstrated face and content validity for SNAP-eligible persons. Funded by USDA, SNAP-Ed.

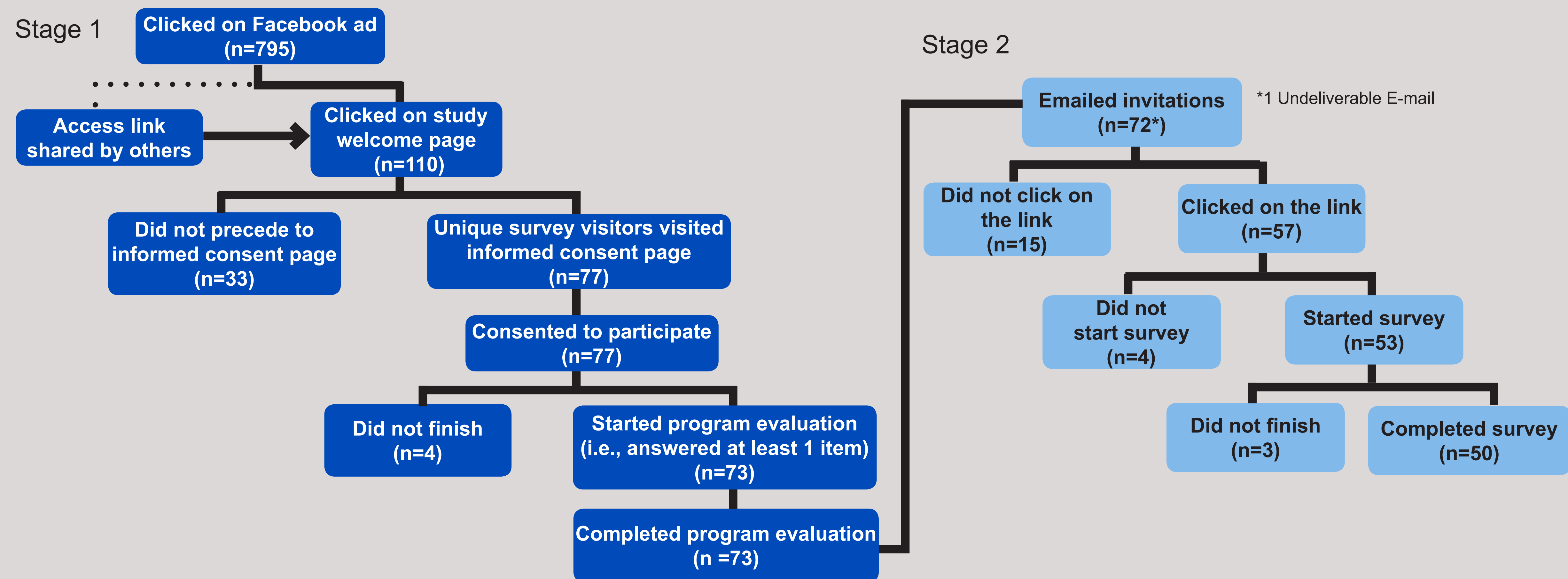
- Nutrition education is an essential component of translational research.¹
- Everyone Needs Folic Acid* is a 15-slide program that emphasizes the need for folic acid for people of all ages and suggests how to obtain folic acid from foods and supplements.²
- The goal is to translate the works in folic acid for the vulnerable groups with an innovative approach.
- What is an ne/Frames?³⁻⁵
 - Nutrition education with the use of digital photo frame as a platform.
 - Designed for individuals to view as they wait for services or appointments.



Background & Purpose

The purpose of this investigation was to evaluate the usefulness, comprehension, and interest of *Everyone Needs Folic Acid*.

Recruitment & Methods



- Program assessment was conducted in 2 stages: Stage 1 focused on the original program and Stage 2 evaluated the subsequent program revisions.
- Study Design: Cross-section, online survey. After completing an online survey that included food and eating behavior items, respondents were directed to view *Everyone Needs Folic Acid* in a video loop, then linked to an online survey about program content and process features.
- Data Collection: Qualtrics Pro (collected over 17 calendar days for Stage 1 and over 12 calendar days for Stage 2)
- Data Analysis: SPSS v21 (Armonk, NY)

Recruitment through Facebook⁶

- For each study a 3-step process was followed:
- Decision to use cost per click on impression/ad (CPC).
 - Budget allowance of \$100 per day for each Facebook campaign.
 - Creation of a Facebook impression (ad) to reach target audience of low-income Pennsylvania residents. Respondents who clicked on the ad were directed to the study website.



The ad was written to reach the Facebook page of our target audience. Impressions were limited to Pennsylvania residents 18-55y, English speakers, and profile/likes linking to one or more of the following words:

food bank, welfare, SNAP, food stamps, minimum wage, food stamp kids, I need more money, currently unemployed, Supplemental Nutrition Assistance Program, I need more cash.

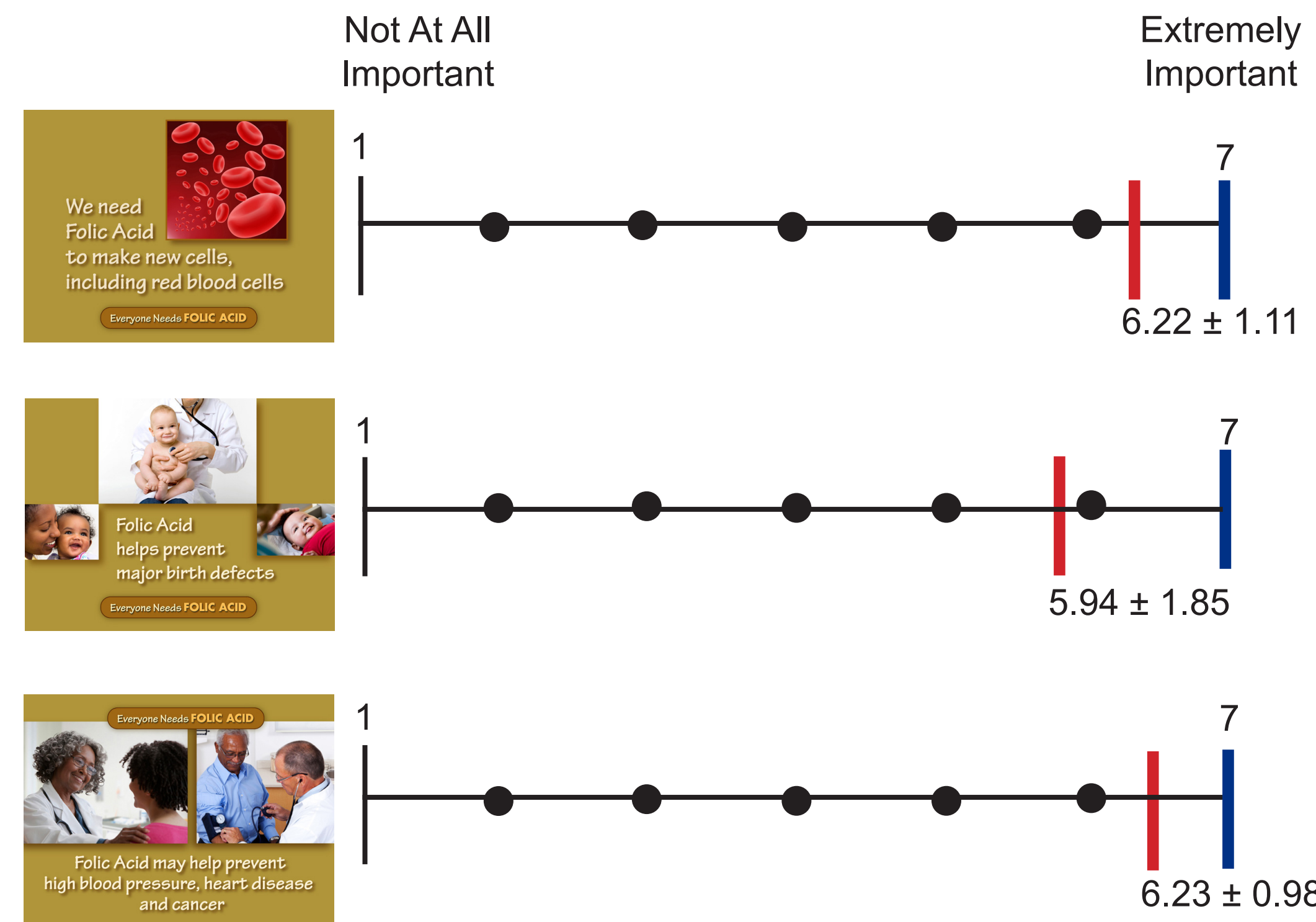
Subjects & Results

Everyone Needs Folic Acid Evaluation: Demographics^a

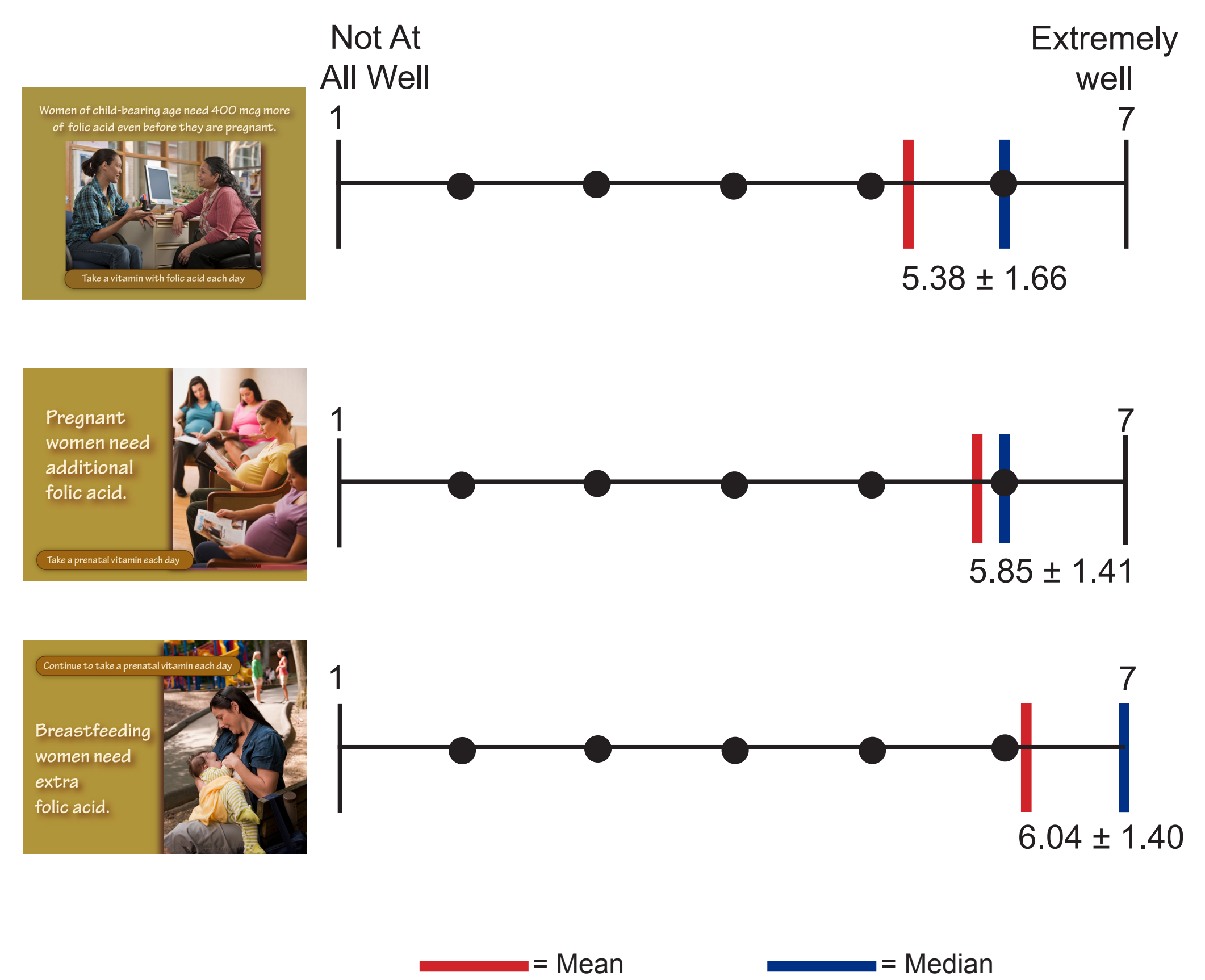
	Completers (n=73)	Attriters (n=4)	Program Assistance (n=32)	Eating Competent (n=29)	Not Eating Competent (n=48)
Mean Age y (SD)	36.7 (12.0)	24.7 (1.3)	35.4 (11.4)	35.3 (10.2)	39.9 (11.9)
Assistance Program Use					
SNAP	27	50	69	31	27
Medical Assistance Benefits	22	50	56	24	23
Women, Infants, and Children	19	50	50	28	16
Others	63	125	160	89	50
Behavior					
Not Eating Competent	62	60	63	N/A	N/A

^aTable entries are percentages with the exception of mean age

2. How did participants rate the importance of the intervention message? (Mean ± SD)



3. How did participants rate the message effectiveness of slides? (Mean ± SD)



4. How did participants rate the appeal of slides showing sources of folic acid?^a

	Mean	SD	Median
Slide 1: Folic Acid is found in fortified cereals and grains.	5.56	1.44	6.0
Slide 2: Folic Acid is found in fortified grains and beans.	5.58	1.49	6.0
Slide 3: Multi-vitamins are a good source of folic acid.	4.85	1.69	5.0
Slide 4: Fruits, seeds and beans are rich in folic acid.	5.60	1.39	6.0
Slide 5: Many grains, including grains and beans, are good sources of folic acid.	5.70	1.55	6.0

^a Respondents rated how well the message was presented using a 7-star rating system (more stars meant a more positive rating).

5. Did the participants prefer original or revised slides?

Original Slide	Decision Rationale	Revised Slide
Slide 1: Women need Folic Acid even before they are pregnant.	Majority of respondents indicated a preference for original slide. Keep original slide.	Slide 1: Women need Folic Acid even before they are pregnant.
Slide 2: Pregnant women need additional Folic Acid.	Majority of respondents indicated a preference for revised slide. Keep revised slide.	Slide 2: Pregnant women need additional Folic Acid.
Slide 3: Breastfeeding women need Folic Acid.	Majority of respondents indicated a preference for revised slide. Keep revised slide.	Slide 3: Breastfeeding women need Folic Acid.
Slide 4: Are you getting enough Folic Acid?	Majority of respondents indicated a preference for revised slide. Keep revised slide.	Slide 4: Are you getting enough Folic Acid?
Slide 5: Enriched ready-to-eat cereals give you the Folic Acid you need for the day.	Majority of respondents indicated a preference for revised slide. Keep revised slide.	Slide 5: Enriched ready-to-eat cereals give you the Folic Acid you need for the day.
Slide 6: Multi-vitamins are a good source of Folic Acid.	Majority of respondents indicated a preference for original slide. Keep original slide.	Slide 6: Multi-vitamins are a good source of Folic Acid.

1. What did participants think about *Everyone Needs Folic Acid*?^a

	All Program Viewers (n=69)	Low-Income ^b (n=48)	Used Program Assistance (n=32)	Eating Competent (n=42)	Not Eating Competent (n=27)
The program is easy to read	90	87	84	93	88
I learned a lot	49	51	53	45	52
The program was helpful	66	67	59	62	69
This show was interesting	39	46	38	35	42
I understood the information	87	84	78	90	85
I liked the pictures in the program	53	53	47	41	61
I would like to see more programs like this one	47	53	53	31	56

^aTable entries are percentages

^bLow-income defined as use of any assistance program OR sometimes, often or always worrying about money for food

Conclusions & Implications

- Everyone Needs Folic Acid* is shown to be useful, informative, valuable and of interest to the target audience.
- Queries about original program content in a second evaluation revealed that information in *Everyone Needs Folic Acid* was valued, retained, and applied.

Implications

- Serve as a model to translate nutrition education material for low-income persons.
- Ready for outcomes assessment to inform evidenced-base of the education.

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Funder

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