

# Improving Health Literacy 5 Minutes at a Time: Brief teaching intervention improves mothers' ability to read nutrition labels

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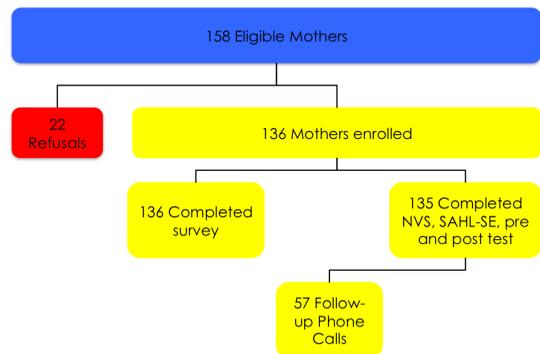
## BACKGROUND

- Maternal health literacy affects the health of the entire family
- Poor nutrition label comprehension correlates with limited health literacy and numeracy skills
- 2009 pilot study showed that exposure to a teaching module improved mothers' ability to read labels

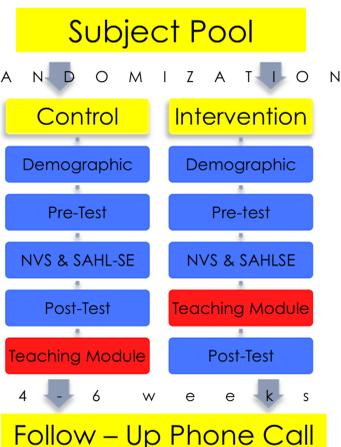
## HYPOTHESES

- Repeated exposure to health literacy testing tools alone will not result in improvement in post test score
- Juice intake will be associated with health literacy and use of labels
- 10% of mothers will demonstrate retention of intervention content after 1 month

## METHODS



**Pre-test:** 6 questions of reading a juice label  
**Health Literacy Measure:** Newest Vital Sign (NVS) and Short Assessment of Health Literacy (SAHL)  
**Teaching intervention:** (recorded module) label overview, serving size, calories, Vitamin C  
**Post-test:** same as pre-test  
**Follow-up calls:** Use of labels, juice amount



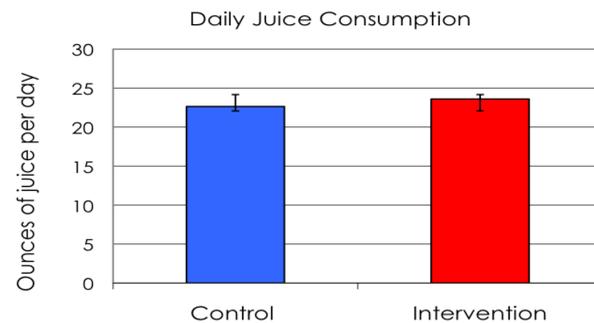
**Statistics:** analyzed with JMP (SAS, Cary, NC), descriptive statistics and comparison of means with Wilcoxon tests or ANOVA/t-test, P < .05

## RESULTS

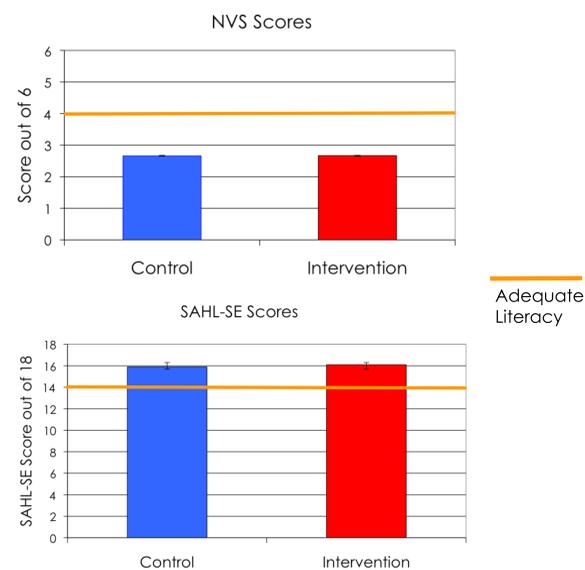
of Subjects in Control & Intervention Groups

N= 135	Control (n=66)	Intervention (n=70)	p value
Medicaid	92%	94%	<0.66
English as 1 <sup>st</sup> language	44%	56%	<0.31
Spanish as 1 <sup>st</sup> language	50%	41%	<0.31
Spanish speaking only	9%	9%	<0.89
Hispanic	64%	71%	<0.43
Looks at Labels	50%	64%	<0.20
WIC class	59%	46%	<0.13
Years of Education	11.7	11.6	<0.80

## Juice Intake

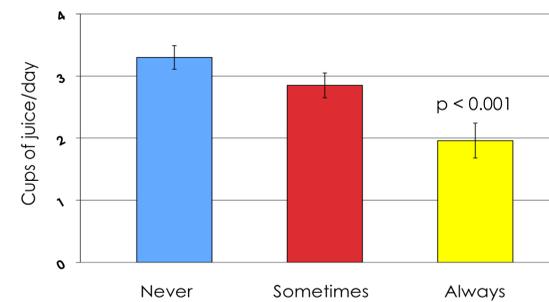


## Health Literacy - Control vs. Intervention Groups



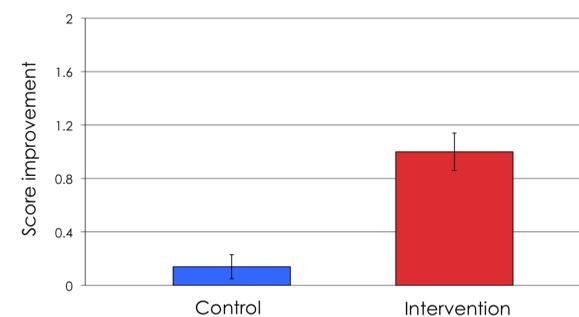
## Using labels and juice intake

### Association of Juice Intake with Reading Labels



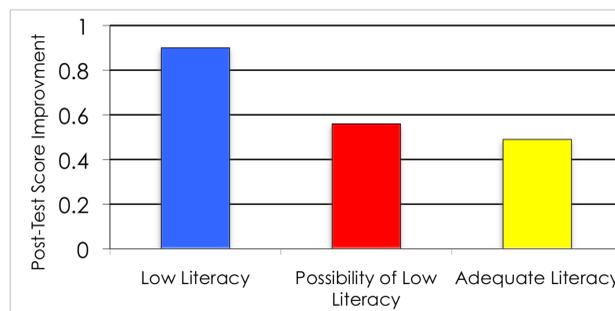
## Post-test Performance

### Improvement in Post-test Score \*\*



\*Mothers in the intervention group improved on average by at least 1 point on the post test (p < 0.0001).  
\*\*Only 1 in 5 mothers in control group improved by 1 point

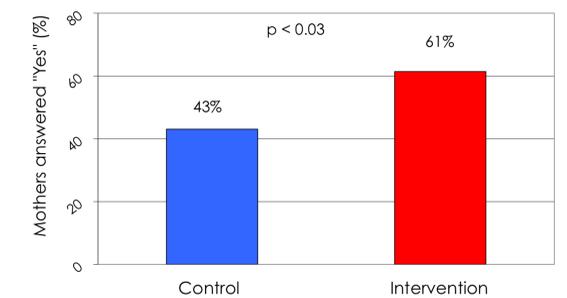
## Relationship of NVS Health Literacy to Post-Test Improvement



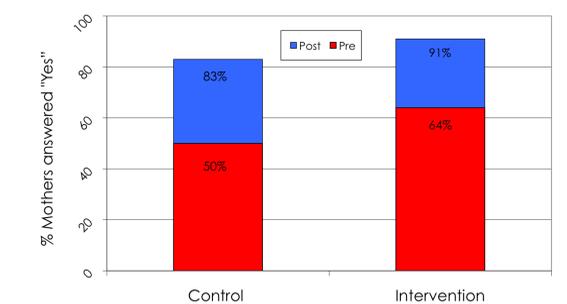
Statistically significant when combined with 2009 Pilot Study Data

## Plans to Change in Future

### Would you change juice drinking habits in the future?

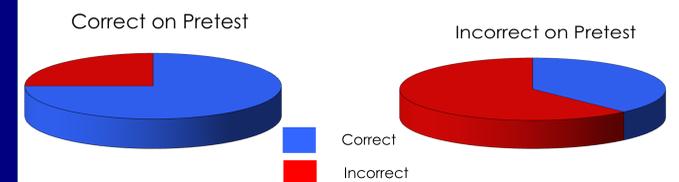


### Would you look at labels more in the future?



## Follow up phone calls

### Recall of AAP recommendation on daily juice intake (6oz) after one month



- Of the mothers who answered the juice question *correctly* on pre-test, 75% answered correctly on follow up call.
- Of those who answered the juice question *incorrectly* on the pre-test, almost 40% answered correctly on follow up phone call

## CONCLUSIONS

- Only mothers in the intervention group showed improvement in post-test scores
- Mothers in the intervention group were more likely to report plans to change amount of juice given to child
- Mothers who report reading labels also reported giving their children less juice
- Almost 40% of mothers still recalled the AAP recommendation on juice intake after 1mo