

The Impact of Policy Recommendation with Limiting and Inclusive Language on Consumers Perceptions and Intent to Purchase Fresh and Packaged Forms of Fruits & Vegetables

Consumer Message Testing Research

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Executive Summary

Executive Summary

- Policy language should account for three important aspects of consumers' behavior and perceptions related to the consumption of fresh and packaged forms of fruits and vegetables:
 - Consumers hold an inherent negative bias against packaged forms of fruits and vegetables. Although they perceive all forms of fruit and vegetables as healthy, consumers are less likely to rate convenient, nutritious, packaged forms as healthful
 - Despite this bias, packaged forms of fruits and vegetables constitute a major portion of consumers' fruit and vegetable intake, accounting for about half of their daily fruit and vegetable consumption
 - Notably consumers that utilize food assistance programs are more likely to depend on packaged forms for their daily intake of fruits and vegetables compared to the general population
- Policy recommendations, regardless of the language, impact consumers' perceptions of the healthfulness of packaged fruits and vegetables
 - Limiting language that over-emphasizes the benefits of fresh fruits and vegetables compared to packaged forms, detracts from the perceived healthfulness of packaged fruits and vegetables
 - Inclusive language more strongly and consistently reinforces the healthfulness of all forms of fruits and vegetables including fresh, 100% juice, frozen, canned and dried

Executive Summary

- Vulnerable consumers' perceptions about the healthfulness of packaged forms of fruits and vegetables are negatively affected by limiting language in policy recommendations. These vulnerable consumers include:
 - Consumers living in food assistance households
 - Consumers who report eating less than recommended levels of fruit and vegetables
 - "Fruit & Vegetable Challenged" consumers who report limited access to, and limited budget for purchasing fresh fruit and vegetables
- Policy recommendations with limiting language are less likely to positively impact consumers' intent to purchase package forms of fruits and vegetables
 - Limiting language is less consistently effective at reinforcing consumers stated purchase intent for packaged fruits and vegetables
 - In contrast, inclusive language more strongly and consistently reinforces consumers stated purchase intent for packaged fruits and vegetables
- When directly comparing inclusive vs. limiting language, all consumers feel that inclusive language is more realistic, more encouraging of all forms of fruits and vegetables, and offers more affordable options
 - Notably, vulnerable consumers feel that limiting language recommendations would most likely cause a decrease in their intake of packaged fruits and vegetables

Background, Objectives & Method

Background

- The American Frozen Food Institute (AFFI), Canned Food Alliance (CFA), Can Manufacturers Institute (CMI) and Seneca teamed up with Produce for Better Health Foundation (PBH), who enlisted FoodMinds, to measure the impact of different fruit and vegetable policy statements on consumers' perceptions of, and intent to purchase all forms of fruit and vegetables.



Can
Manufacturers
Institute



Objectives

- Gather existing fruit and vegetable (F&V), purchasing behavior, consumption patterns and perceptions of healthfulness
- Gather reactions to current and upcoming policy statements that use either “limiting” or “inclusive” language when recommending F&V
 - Limiting language is defined as words and phrases that devalue packaged forms of F&V or overemphasize the value of fresh F&V over other forms.
 - Inclusive language incorporate words and phrases that encourage consumption of F&V regardless of form
- Measure change in the perceptions of and intent to purchase all forms of F&V after viewing policy statements with “limiting” or “inclusive” language
- Show that following exposure to policy statements with “limiting language” consumers perceive packaged F&V less favorably and exhibit signs of weaker purchase intent for canned and/or frozen F&V

Method: Survey and Sample

- In order to collect data that supports the objectives, a large-scale, multi-region consumer quantitative online survey was executed
 - Toluna market research provided access to the sample, assisted in data collection and provided data tables
 - FoodMinds analyzed the data and created the summary report
- The sample was split, with a demographically-balanced group of consumers exposed to each type of F&V policy language
 - Half the sample was exposed to inclusive recommendations for increased intake of fruits and vegetables
 - Half the sample reviewed recommendations with limiting language that reinforced fresh produce intake at the expense of packaged forms
- Statistical testing was conducted to highlight significant differences between samples, and between the pre/post impact measures of inclusive and limiting language
 - Capital letters signify statistically significant differences @ 95% confidence level
 - Lowercase letters signify statistically significant differences @ 90% confidence level

Method: Consumer Segments Analyzed

Total

- All respondents representative of the United States population, 18 and older

Low Fruit & Vegetable Consumers

- Consumers who reported eating <5 servings of F&Vs per day

Food Assistance Households (HH)

- Consumers who have received assistance from food programs in past year

Fruit & Vegetable Challenged

- Consumers who report limited access to, and limited budget for purchasing fresh F&V

Inclusive vs. Limiting Language Messages

Inclusive vs. Limiting Language Concepts

- After gathering basic demographic information, respondents were assigned to one of two treatment conditions where they were asked to read the fruit and vegetable intake recommendations shown below
- Following exposure to the recommendations, consumers were asked a series of questions about their interpretation of the language and their perceptions of and intent to purchase various forms of F&V

Inclusive Language

- Include more fruits and vegetables in your diet. Fruits and vegetables may be fresh, canned, frozen, or dried
- When including more fruits and vegetables in your diet, all forms of fruits and vegetables matter—fresh, frozen, canned, dried and 100% fruit or vegetable juice
- With 200+ options and a variety of convenient packaging, packaged fruits, vegetables and beans are easy to store and easy to serve

Limiting Language

- Include more vegetables and beans (without added salt or fat), and fruits (without added sugars) in your diet
- Include canned or frozen fruits and vegetables when fresh produce is not available
- Overall, fruits and vegetables that are just picked or fresh from the farmers market are healthier than frozen or canned ones. However, including frozen and canned fruits and vegetables can still be a good choice

Sources Used for Inclusive Language

- Include more fruits and vegetables in your diet¹. Fruits and vegetables may be fresh, canned, frozen, or dried²
- When including more fruits and vegetables in your diet, all forms of fruits and vegetables matter—fresh, frozen, canned, dried and 100% fruit or vegetable juice³
- With 200+ options and a variety of convenient packaging, packaged fruits, vegetables and beans are easy to store and easy to serve³

1 "Incorporate canned, dried and frozen fruits and vegetables into your breakfast menu." Source: Let's Move. Plan a healthy meal.
<http://www.letsmove.gov/plan-healthy-meal>

2 "Fruits may be fresh, canned, frozen, or dried, and may be whole, cut-up, or pureed." AND "Vegetables may be raw or cooked; fresh, frozen, canned, or dried/dehydrated; and may be whole, cut-up, or mashed." Source: ChooseMyPlate. What foods are in the fruit group.
<http://www.choosemyplate.gov/fruit> AND ChooseMyPlate. What foods are in the vegetable group.
<http://www.choosemyplate.gov/vegetables>

3 "When it comes to good nutrition, all forms of fruits and vegetables matter—fresh, frozen, canned, dried and 100% juice. With 200+ options and a variety of convenient packaging to make fruits and vegetables easy to store and easy to serve, there's bound to be something to please everyone!" Source: CDC National Fruit & Vegetable Program. Fruit & Veggies – More Matters.
<http://www.fruitsandveggiesmorematters.org/fresh-frozen-canned-dried-and-100-juice>

Sources Used for Limiting Language

- Include more vegetables and beans (without added salt or fat), and fruits (without added sugars) in your diet⁴
- Include canned or frozen fruits and vegetables when fresh produce is not available⁵
- Overall, fruits and vegetables that are just picked or fresh from the farmers market are healthier than frozen or canned ones.⁶ However, including frozen and canned fruits and vegetables can still be a good choice⁶

4 "Including more vegetables (without added salt or fat), fruits (without added sugars), whole grains, seafood, nuts, legumes, low/non-fat dairy or dairy alternatives (without added sugars)." Source: 2015 DGAC Scientific Report. Part B Chapter 2: Themes and Recommendations Integrating the Evidence- lines 183-185.

<http://health.gov/dietaryguidelines/2015-scientific-report/pdfs/scientific-report-of-the-2015-dietary-guidelines-advisory-committee.pdf>

5 "Canned or frozen fruits and vegetables are good options when fresh produce is not available." Source: CDC Division of Nutrition, Physical Activity, and Obesity. Cutting Calories. http://www.cdc.gov/healthyweight/healthy_eating/fruits_vegetables.html

6 "Overall, vegetables fresh from the farm or just picked are healthier than frozen or canned ones. But frozen and canned vegetables can still be a good choice." Source: MedlinePlus. Foods – fresh vs. frozen or canned. <https://www.nlm.nih.gov/medlineplus/ency/article/002095.htm>

Profile of Sample Demographics and Segments

Respondent Demographics Balanced Across Treatment Conditions

- On average, participants were 47 years old and their household earned \$63,300 per year
- Consumer demographics were matched between both groups – those that were exposed to inclusive language and limiting language show very similar demographic profiles

	Total (1200)	Inclusive (600)	Limiting (600)
Mean Age	47	47	47
Mean Household Income	\$63,300	\$63,000	\$63,600
Education			
High School or less	22%	23%	21%
2-year college degree or less	36%	35%	38%
4-year college degree or higher	42%	43%	40%
Gender			
Male	49%	49%	49%
Female	51%	51%	51%

Consumption of F&Vs

- On average, the total sample reports 3.1 servings of F&V consumed per day
- Low F&V consumers report eating 2.3 servings per day
- Neither the total sample, nor any of the vulnerable population segments, consume the recommended intake of F&V
 - It is important to note that these consumption numbers are self-reported and likely overstate actual F&V intake levels

	Total	Low F&V Consumers	Food Assistance HH Consumers	F&V Challenged Consumers
Mean Serving of Fruit per day	1.5	1.1	1.6	1.5
Mean Serving of Vegetables per day	1.6	1.2	1.6	1.6
Total	3.1	2.3	3.2	3.1

Q1: About how many cups of fruit (including fresh, canned, frozen, or dried fruit, and 100% fruit juice) do you eat or drink each day? They can be consumed 'as is', or as an ingredient in mixed dishes, salads, soups, sauces, packaged meals, etc.: None, $\frac{1}{2}$ Cup or less, $\frac{1}{2}$ Cup to 1 Cup, 1-2 Cups, 2-3 Cups, 3-4 Cups, 4 Cups or more

Q2: About how many cups of vegetables (including fresh, canned, frozen, dried or 100% vegetable juice) do you eat or drink each day? They can be consumed 'as is', or as an ingredient in mixed dishes, sandwiches, salads, soups, sauces, packaged meals, etc: None, $\frac{1}{2}$ Cup or less, $\frac{1}{2}$ Cup to 1 Cup, 1-2 Cups, 2-3 Cups, 3-4 Cups, 4 Cups or more

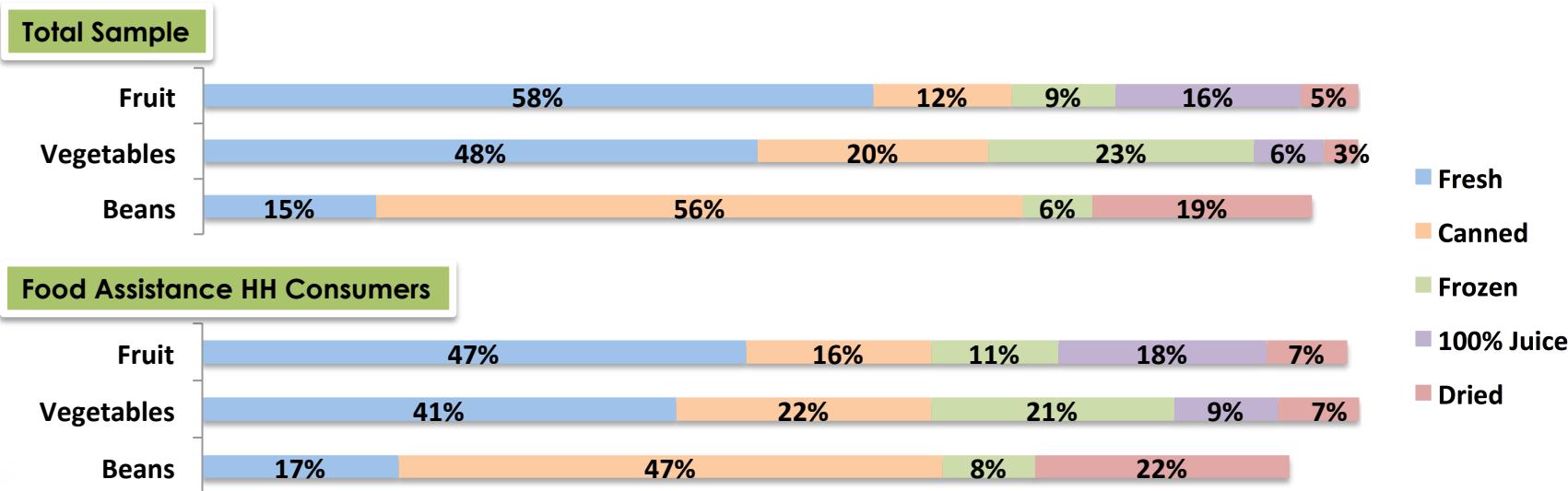
Distribution of Consumer Segments Analyzed

- The following slides show the impact of limiting and inclusive F&V recommendation language within a number of different consumer segments
 - The relative size of these consumer segments are shown in the chart below.
- As with the standard demographics, the proportion of those that were exposed to inclusive and limiting language were well matched across the segments analyzed in this report

	Total (1200)	Inclusive (600)	Limiting (600)
Low F&V Consumers	79%	78%	79%
Food Assistance HH	30%	29%	31%
F&V Challenged	78%	75%	80%

All Forms Contribute to Consumers' Daily F&V and Legume Intake

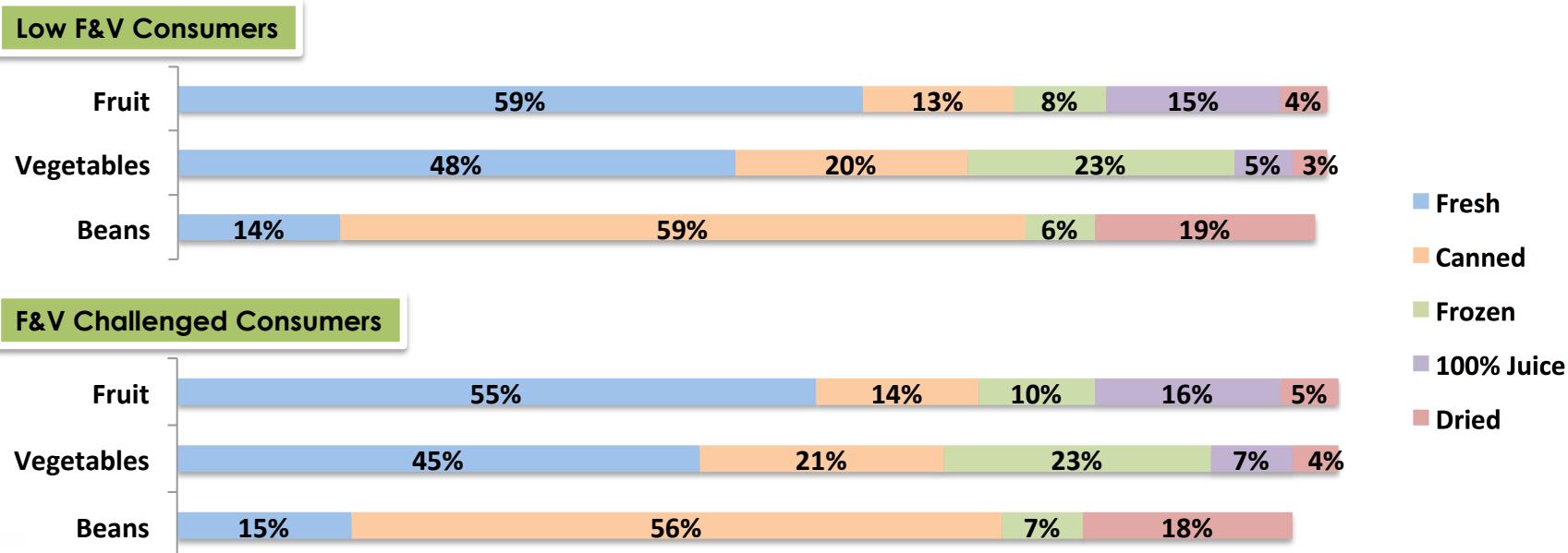
- All forms of F&V and beans are important, each playing a role in helping consumers achieve the recommended daily intake of F&V
- Although consumers report that fresh F&V play the most important role, packaged forms – especially canned, frozen and 100% juice – contribute between 59% and 42% of daily F&V consumption
 - Food Assistance HH are more likely to depend on packaged forms for their daily intake of F&V
 - Canned are the most commonly used form of beans among all consumer segments
 - Frozen accounts for nearly one of every four servings of vegetables consumed



Q6: Thinking only about the food that you prepare at home, what percentage, on average, of these foods are from canned, frozen, fresh, dried or 100% juice?

All Forms Contribute to Consumers' Daily F&V and Legume Intake

- Similar to the total sample, all forms of F&V and beans, play an important role in helping Low F&V Consumers and F&V Challenged Consumers achieve their daily intake of F&V
- packaged forms – especially canned, frozen and 100% juice – are important to both these segments, contributing between 41% and 55% of their daily F&V consumption



Q6: Thinking only about the food that you prepare at home, what percentage, on average, of these foods are from canned, frozen, fresh, dried or 100% juice?

Food Assistance and F&V Challenged are More Likely to Have Limited Access to Fresh Forms

- Relative to the total representative sample of consumers, Food Assistance HH and F&V Challenged Consumers are more likely to identify barriers to fresh F&V consumption including: access to stores, affordability, and higher levels of waste
- These more vulnerable populations also show a greater likelihood to agree that canned and frozen fruits and vegetables are key to preparing affordable meals and maintaining a healthy diet
- It's also important to note that Food Assistance HH are more likely to avoid purchasing low-sodium and low-sugar packaged F&V, potentially negatively impacting their overall F&V intake

Rate your agreement or disagreement with the following statements:	Total (1200)	Food Assistance HH (362)	F&V Challenged (932)	Low F&V Consumers (943)
	A	B	C	D
It is difficult to afford fresh F&Vs	2.3	2.7 A	2.5 A	2.3
Limited access to stores or farmers markets that sell fresh F&Vs	2.3	2.6 A	2.5 A	2.3
Given my budget, canned/frozen F&Vs help prepare affordable meals	2.8	3.1 A	3.1 A	2.8
Too many of fresh F&Vs I purchase go to waste	2.5	2.7 A	2.6 A	2.5
If canned and frozen F&Vs were not available, I wouldn't get enough F&Vs I need for a healthy diet	2.5	2.7 A	2.6 A	2.5
When shopping for canned or frozen F&Vs, if I can't find low salt/sodium vegetables, or low-sugar fruits, I don't purchase canned or frozen F&Vs	2.4	2.6 A	2.5	2.4
Dried fruit helps me prepare affordable, healthy meals	2.4	2.6 A	2.5 A	2.3

Q7: Please rate your agreement or disagreement with the following statements about fruits and vegetables (including beans):
 1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree

Food Assistance and F&V Challenged are More Likely to Struggle with Access to Fresh Forms

- Food Assistance HH and F&V Challenged Consumers are more likely to appreciate the nutrition, lower levels of waste and affordability of canned and frozen fruits and vegetables
- Additionally, F&V Challenged Consumers are more likely to agree that canned beans are convenient and help them with affordable healthy meal preparation

Rate your agreement or disagreement with the following statements:	Total (1200)	Food Assistance HH (362)	F&V Challenged (932)	Low F&V Consumers (943)
	A	B	C	D
Canned and frozen F&Vs are just as nutritious as fresh	2.6	2.7 A	2.7 A	2.6
Given my schedule, the convenience of canned and frozen F&Vs help me prepare balanced meals	2.8	2.9 A	2.9 A	2.8
Canned and frozen F&Vs are great because they are around all year so I can eat them anytime	3.1	3.2 A	3.2 A	3.1
100% fruit or vegetable juice helps me prepare affordable, healthy meals	2.8 d	2.9 A	2.9 A	2.7
Canned and frozen F&Vs are a better value than fresh as they don't spoil and are easy to store	2.7	2.8 A	2.9 A	2.7
Canned beans help me prepare affordable, healthy meals	3.0	3.0	3.1 A	3.0
Canned beans are more convenient than dried beans	3.1	3.1	3.2 A	3.1

Q7: Please rate your agreement or disagreement with the following statements about fruits and vegetables (including beans):
1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree

Consumers Feel that All Forms of F&Vs are Healthy

- While consumers feel that all F&V forms are healthy, fresh F&Vs are perceived as the healthiest form, suggesting an inherent bias against packaged forms of fruits and vegetables across all consumer segments
- Relative to the total sample, Food Assistance HH and F&V Challenged Consumers feel that canned F&V are healthier, indicating the importance of canned forms in their diets

How healthy you consider the following foods to be:	Total (1200)	Food Assistance HH (362)	F&V Challenged (932)	Low F&V Consumers (943)
	A	B	C	D
Fresh fruits	4.7 b	4.6	4.7	4.6
Fresh vegetables	4.6 b	4.5	4.6	4.6
100% vegetable juice	4.2	4.1	4.2	4.2
100% fruit juice	4.0	4.1	4.1	4.0
Frozen vegetables	3.9	3.9	4.0	3.9
Frozen fruits	3.9	3.9	3.9	3.8
Dried fruits	3.8	3.8	3.8	3.7
Dried vegetables	3.7	3.7	3.7	3.7
Canned vegetables	3.4	3.5	3.5 a	3.4
Canned fruits	3.3	3.5 a	3.4 a	3.3

Q3: In general, how healthy do you consider the following foods to be?:
1=Not Healthy at all to 5=Very Healthy

Food Assistance HH and F&V Challenged Consumers Place Significant Importance on Packaged forms of F&Vs

- Fresh F&V are perceived as the most important among all consumers
- Compared to the representative sample, vulnerable populations place higher importance on frozen, dried and canned F&V indicating their need for packaged forms to meet their F&V needs
- Relative to the total sample, Low F&V Consumers do not place as much importance on most forms of F&V, except for canned fruits and vegetables

Importance of these foods in preparing convenient, nutritious and affordable meals:	Total (1200)	Food Assistance HH (362)	F&V Challenged (932)	Low F&V Consumers (943)
	A	B	C	D
Fresh fruits	4.3 D	4.3	4.3	4.2
Fresh vegetables	4.4 D	4.4	4.4	4.3
100% vegetable juice	3.2 d	3.6 A	3.3 a	3.1
100% fruit juice	3.5 d	3.7 A	3.6	3.4
Frozen vegetables	3.6 d	3.7	3.7 a	3.6
Frozen fruits	3.2 d	3.4 A	3.3 A	3.1
Dried fruits	2.9 d	3.2 A	3.0 a	2.8
Dried vegetables	2.7 d	3.1 A	2.9 A	2.6
Canned vegetables	3.3	3.5 A	3.4 A	3.2
Canned fruits	3.0	3.3 A	3.2 A	3.0

Q5: Using the following scale, please rate the importance of these forms in helping you prepare convenient, nutritious and affordable meals that deliver the servings of fruit and vegetables you and your family need for a healthy diet.

1=Not important at all, 2=Not very important, 3=Slightly important, 4=Very important, 5=Extremely important

Perceptions of Inclusive vs. Limiting Language

Recommendations with an Inclusive Tone are Perceived More Positively

- In direct comparison, all consumers feel that inclusive language is more realistic, more encouraging of all forms of F&V and offers more affordable options
- Additionally, consumers said limiting language recommendations are more likely to decrease intake of packaged F&V and increase the likelihood of wasting fresh F&V

Of these two recommendations, which:	Total (1200)		Low F&V Consumers (943)	
	Inclusive	Limiting	Inclusive	Limiting
Is more realistic	59%	41%	59%	41%
Is more encouraging of all forms	59%	41%	59%	41%
Is most affordable on current budget	63%	37%	63%	37%
Encourages decreased intake of packaged F&Vs	39%	61%	37%	63%
Increases likelihood fresh F&V would go to waste	42%	58%	42%	58%

Vulnerable Consumer Segments Perceived Recommendations with an Inclusive Tone More Positively

- Looking more specifically at vulnerable segments, Food Assistance Households and F&V Challenged Consumer feel that inclusive language is more realistic, more encouraging of all forms of F&Vs and offers more affordable options
- Additionally, these consumers said limiting language recommendations are more likely to decrease intake of packaged F&V
- F&V Challenged Consumers are more likely to indicate that fresh F&V go to waste when limiting language is included

Of these two recommendations, which:	Food Assistance HH (362)		F&V Challenged (932)	
	Inclusive	Limiting	Inclusive	Limiting
Is more realistic	63%	37%	61%	39%
Is more encouraging of all forms	62%	38%	60%	40%
Is most affordable on current budget	63%	37%	64%	36%
Encourages decreased intake of packaged F&Vs	43%	57%	40%	60%
Increases likelihood fresh F&V would go to waste	50%	50%	43%	57%

Intake of Packaged F&V Decrease When Limiting Language is Included

- Overall, consumers are more likely to indicate decreased intake of fruits and vegetables following exposure to limiting recommendation language
- In addition, consumers felt they would be more likely to waste fresh F&V
- Consumers do perceive both inclusive and limiting language as equally realistic and affordable

Reactions to Recommendation Language	Total		Low F&V Consumers	
	Inclusive (600)	Limiting (600)	Inclusive (467)	Limiting (476)
	A	B	C	D
Realistic	3.3	3.3	3.2	3.3
Likely to use all forms	3.1	3.2 a	3.1	3.1
Likely to decrease intake of packaged F&Vs	2.2	2.5 A	2.2	2.4 C
Increases likelihood fresh F&V would go to waste	1.76	1.85 A	1.7	1.8 C
Affordability of recommendations	3.0	3.0	3.0	3.0

Q8 and 9: Please read the following recommendations regarding intake of fruits and vegetables, including beans:

Qa: How realistic are these recommendations?

Qb: How likely are you to use all forms of fruits and vegetables

Qc: How likely are you to decrease your intake of packaged fruits and vegetables that are canned, frozen, dried or 100% juice?

Qd: What sort of an impact would it have on the amount of fresh fruits and vegetables that your household would waste?

Qe: How affordable do you think it would be to follow these recommendations

Limiting Language Doesn't have a Significant Impact on Food Assistance Households

- However, limiting language does appear to have a negative impact on F&V Challenged Consumers' thoughts about consumption of packaged F&V, perhaps exacerbating their barriers to F&V purchasing and consumption
- Food Assistance Households do indicate they are more likely to use all forms of fruits and vegetables, inferring that even limiting language is a reminder to consume more F&Vs.
- Although not significant, Food Assistance Households exposed to limiting language feel their intake of packaged F&Vs would decrease

Reactions to Recommendation Language	Food Assistance HH		F&V Challenged	
	Inclusive (176)	Limiting (186)	Inclusive (451)	Limiting (481)
	A	B	E	F
Realistic	3.3	3.3	3.3	3.3
Likely to use all forms	3.1	3.3 a	3.2	3.2
Likely to decrease intake of packaged F&Vs	2.6	2.7	2.3	2.5 E
Increases likelihood fresh F&V would go to waste	1.9	2.0	1.8	1.8
Affordability of recommendations	2.9	3.0	3.0	3.0

Q 8 and 9: Please read the following recommendations regarding intake of fruits and vegetables, including beans:

Qa: How realistic are these recommendations?

Qb: How likely are you to use all forms of fruits and vegetables?

Qc: How likely are you to decrease your intake of packaged fruits and vegetables that are canned, frozen, dried or 100% juice?

Qd: What sort of an impact would it have on the amount of fresh fruits and vegetables that your household would waste?

Qe: How affordable do you think it would be to follow these recommendations?

Pre/Post Impact of Limiting vs. Inclusive Language on Perceived Healthfulness and Purchase Intent of F&V Forms

Inclusive Language More Consistently Reinforces Perceived Healthfulness of Multiple F&V Forms

- Looking at the total sample, inclusive language improves the perceived healthfulness of 100% fruit juice, frozen fruits and vegetables and canned fruits and vegetables
- Limiting language, decreases perceived healthfulness of 100% vegetable juice, and dried fruits and vegetables, with no impact on the perceived healthfulness of frozen F&V

Healthfulness of Foods	Total Rep Sample			
	Inclusive (600)		Limiting (600)	
	Pre-Exposure	Post-Exposure	Pre-Exposure	Post-Exposure
	A	B	C	D
Fresh fruits	4.7	4.7	4.6	4.6
Fresh vegetables	4.7	4.7	4.6	4.5
100% vegetable juice	4.2	4.2	4.1 D	4.0
100% fruit juice	4.1	4.2 a	4.0	4.0
Frozen vegetables	3.9	4.1 A	3.9	3.9
Frozen fruits	3.9	4.0 A	3.8	3.8
Dried fruits	3.8	3.9	3.8 D	3.6
Dried vegetables	3.7	3.8	3.7 D	3.6
Canned vegetables	3.4	3.7 A	3.4	3.6 C
Canned fruits	3.3	3.7 A	3.3	3.5 C

Q 3 and 10 (Pre + Post Exposure): Based on the advice provided in these recommendations, how healthy do you consider the following foods to be?
 1=Not Healthy at all to 5=Very Healthy

Food Assistance HH are Also More Positively Impacted by Inclusive Language

- After exposure to inclusive recommendations, Food Assistance HH rate canned F&Vs as healthier
- Additionally, limiting language recommendations yield lower healthfulness ratings for dried fruits among this vulnerable segment, possibly because the recommendations did not include dried fruits

Healthfulness of Foods	Food Assistance HH			
	Inclusive (176)		Limiting (186)	
	Pre-Exposure	Post-Exposure	Pre-Exposure	Post-Exposure
	A	B	C	D
Fresh fruits	4.6	4.5	4.5	4.5
Fresh vegetables	4.6	4.5	4.5	4.3
100% vegetable juice	4.2	4.2	4.1	4.0
100% fruit juice	4.1	4.2	4.1	4.0
Frozen vegetables	3.9	4.0	3.9	3.9
Frozen fruits	3.9	3.9	3.8	3.9
Dried fruits	3.8	3.7	3.9 D	3.7
Dried vegetables	3.6	3.7	3.8	3.7
Canned vegetables	3.5	3.7 A	3.6	3.6
Canned fruits	3.4	3.6 a	3.5	3.6

Q 3 and 10(Pre + Post Exposure): Based on the advice provided in these recommendations, how healthy do you consider the following foods to be?
1=Not Healthy at all to 5=Very Healthy

Inclusive Language More Consistently Reinforces Perceived Healthfulness of Multiple F&V Forms for Those Under-Consuming F&V

- After exposure to inclusive language, Low F&V Consumers rate frozen and canned F&V as healthier
- However, Low F&V Consumers feel that dried F&V and 100% vegetable juice are less healthy after reading limiting language. Dried and juice F&V forms were not included in limiting language, which may have caused this difference

Healthfulness of Foods	Low F&V Consumers			
	Inclusive (467)		Limiting (476)	
	Pre-Exposure	Post-Exposure	Pre-Exposure	Post-Exposure
	A	B	C	D
Fresh fruits	4.7	4.6	4.6	4.6
Fresh vegetables	4.7	4.6	4.6	4.5
100% vegetable juice	4.2	4.2	4.1 D	4.0
100% fruit juice	4.1	4.2	4.0	4.0
Frozen vegetables	3.9	4.1 A	3.9	3.9
Frozen fruits	3.9	4.0 A	3.8	3.8
Dried fruits	3.7	3.8	3.7 D	3.5
Dried vegetables	3.6	3.7	3.7 D	3.6
Canned vegetables	3.4	3.8 A	3.4	3.6 C
Canned fruits	3.3	3.7 A	3.3	3.5 C

Q 3 and 10 (Pre + Post Exposure): Based on the advice provided in these recommendations, how healthy do you consider the following foods to be?

1=Not Healthy at all to 5=Very Healthy

Inclusive Recommendations have a More Consistent Positive Effect on F&V Challenged Consumers

- F&V Challenged Consumers' perception of the healthfulness of 100% fruit juice and frozen and canned F&V increased after being exposed to inclusive language
- Perceived healthfulness of 100% fruit juice, dried fruits and vegetables declined following exposure to the limiting language

Healthfulness of Foods	F&V Challenged			
	Inclusive (451)		Limiting (481)	
	Pre-Exposure	Post-Exposure	Pre-Exposure	Post-Exposure
	A	B	C	D
Fresh fruits	4.7	4.7	4.6	4.6
Fresh vegetables	4.7	4.7	4.6	4.5
100% vegetable juice	4.3	4.3	4.1 d	4.0
100% fruit juice	4.1	4.2 a	4.1	4.0
Frozen vegetables	4.0	4.2 A	4.0	3.9
Frozen fruits	4.0	4.1 a	3.8	3.9
Dried fruits	3.8	3.9	3.8 D	3.6
Dried vegetables	3.7	3.8	3.7 d	3.6
Canned vegetables	3.6	3.9 A	3.5	3.6 C
Canned fruits	3.5	3.8 A	3.4	3.5 C

Q 3 and 10 (Pre + Post Exposure): Based on the advice provided in these recommendations, how healthy do you consider the following foods to be?
1=Not Healthy at all to 5=Very Healthy

Both Inclusive and Limiting Language Concepts Reinforce Consumers' Intent to Purchase

- Consumers in the total representative sample are more likely to indicate stronger purchase intent for 100% juice, frozen, dried and canned F&Vs after being exposed to either recommendation

Likelihood to Purchase	Total Rep Sample			
	Inclusive (600)		Limiting (600)	
	Pre-Exposure	Post-Exposure	Pre-Exposure	Post-Exposure
	A	B	C	D
Fresh fruits	4.4	4.5	4.4	4.5
Fresh vegetables	4.4	4.4	4.4	4.4
100% vegetable juice	3.1	3.4 A	3.1	3.3 C
100% fruit juice	3.8	3.9	3.7	3.7
Frozen vegetables	3.6	3.9 A	3.7	3.9 C
Frozen fruits	3.1	3.4 A	3.1	3.4 C
Dried fruits	2.9	3.1 A	2.9	3.0 C
Dried vegetables	2.5	3.0 A	2.6	2.9 C
Canned vegetables	3.4	3.7 A	3.4	3.7 C
Canned fruits	3.1	3.4 A	3.2	3.4 C

Q 4 and 11 (Pre + Post Exposure): Based on the advice in these recommendations, how likely is it that you will purchase each of the following foods the next time you go to the grocery store?

1=Definitely not purchase, 2=Probably will not purchase, 3=May or may not purchase, 4=Probably will purchase, 5=Definitely will purchase

However, Food Assistance HH Consumers' Intent to Purchase F&Vs is More Likely to be Positively Impacted by Inclusive Language than Limiting Language

- After being exposed to inclusive language, Food Assistance HH were more likely to purchase across a broader range of packaged F&V forms including 100% vegetable juice, dried vegetables and canned fruits and vegetables

Likelihood to Purchase	Food Assistance HH			
	Inclusive (176)		Limiting (186)	
	Pre-Exposure	Post-Exposure	Pre-Exposure	Post-Exposure
	A	B	C	D
Fresh fruits	4.3	4.4	4.4	4.4
Fresh vegetables	4.3	4.3	4.4	4.4
100% vegetable juice	3.4	3.7 a	3.6	3.6
100% fruit juice	4.0	4.1 D	3.9	3.9
Frozen vegetables	3.7	3.8	3.9	4.0
Frozen fruits	3.4	3.6	3.4	3.6 C
Dried fruits	3.1	3.2	3.3	3.3
Dried vegetables	2.8	3.1 A	3.1	3.3 c
Canned vegetables	3.6	3.8 A	3.6	3.8
Canned fruits	3.4	3.6 a	3.6	3.7

Q 4 and 11(Pre + Post Exposure): Based on the advice in these recommendations, how likely is it that you will purchase each of the following foods the next time you go to the grocery store?

1=Definitely not purchase, 2=Probably will not purchase, 3=May or may not purchase, 4=Probably will purchase, 5=Definitely will purchase

F&V Challenged Consumers' Intent to Purchase F&Vs is Also More Likely to be Positively Impacted by Inclusive Language than Limiting Language

- After being exposed to inclusive language, F&V Challenged Consumers were more likely to purchase across a broader range of packaged F&V forms including 100% vegetable juice, dried vegetables and canned fruits and vegetables

Likelihood to Purchase	F&V Challenged			
	Inclusive (451)		Limiting (481)	
	Pre-Exposure	Post-Exposure	Pre-Exposure	Post-Exposure
	A	B	C	D
Fresh fruits	4.4	4.5	4.4	4.4
Fresh vegetables	4.4	4.4	4.4	4.4
100% vegetable juice	3.2	3.5 A	3.3	3.4
100% fruit juice	3.9	4.0	3.7	3.7
Frozen vegetables	3.8	4.0 A	3.8	3.9 C
Frozen fruits	3.2	3.6 A	3.2	3.5 C
Dried fruits	3.0	3.2 A	3.0	3.1
Dried vegetables	2.7	3.1 A	2.7	3.0 C
Canned vegetables	3.6	3.9 A	3.6	3.8 C
Canned fruits	3.3	3.6 A	3.4	3.6 C

Q(Q 4 and 11 (Pre + Post Exposure): Based on the advice in these recommendations, how likely is it that you will purchase each of the following foods the next time you go to the grocery store?

1=Definitely not purchase, 2=Probably will not purchase, 3=May or may not purchase, 4=Probably will purchase, 5=Definitely will purchase

Both Inclusive and Limiting Language Messages Reinforce Low F&V Consumers' Intent to Purchase

- Consumers in this segment are more likely to indicate stronger purchase intent for 100% juice, frozen, dried and canned F&Vs after being exposed to either recommendation

Likelihood to Purchase	Low F&V Consumers			
	Inclusive (467)		Limiting (476)	
	Pre-Exposure	Post-Exposure	Pre-Exposure	Post-Exposure
	A	B	C	D
Fresh fruits	4.3	4.4	4.3	4.4
Fresh vegetables	4.3	4.4	4.3	4.4
100% vegetable juice	3.0	3.3 A	3.0	3.2 C
100% fruit juice	3.7	3.8	3.6	3.6
Frozen vegetables	3.6	3.9 A	3.6	3.8 C
Frozen fruits	3.0	3.4 A	2.9	3.3 C
Dried fruits	2.8	3.0 A	2.7	2.9 c
Dried vegetables	2.4	2.9 A	2.5	2.8 C
Canned vegetables	3.3	3.7 A	3.4	3.6 C
Canned fruits	3.0	3.4 A	3.1	3.4 C

Q 4 and 11 (Pre + Post Exposure): Based on the advice in these recommendations, how likely is it that you will purchase each of the following foods the next time you go to the grocery store?

1=Definitely not purchase, 2=Probably will not purchase, 3=May or may not purchase, 4=Probably will purchase, 5=Definitely will purchase