



Research conducted by:



On behalf of:

**PRODUCE FOR BETTER HEALTH
FOUNDATION:**

PBH Foundation - Cluster Analysis

2012 Report: Canned Vegetables

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Research Objectives

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- The main objectives of this series of reports are:
 - *To understand those distinct segments within the consumer market for various “forms” of fruits and vegetables based on demographic, attitudinal and behavioral characteristics;*
 - *To identify potential marketing opportunities to target these distinct segments.*

Research Methodology

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- The statistical technique of Cluster Analysis was used to classify the consumer market into distinct segments or clusters;
- Cluster Analysis is an exploratory data analysis tool for organizing observed data into meaningful segments based on combinations of independent variables, which maximizes the similarity of cases within each cluster while maximizing the dissimilarity between groups that are initially unknown;
- For the purposes of this analysis, the following type of Cluster Analysis was performed: *Hierarchical Cluster Analysis using Ward's Method, applying Squared Euclidean Distance*;
- The data set on which the analysis was run comprised of 1,300 consumer respondents;
- 81 independent variables were tested.



Summary of Key Findings and Observations

Summary of Key Findings and Observations

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- Canned vegetables are extremely popular.
 - *Only 4% of consumers never have canned vegetables available in their homes and two in five (41%) **always** have it available*

- Five (5) clusters define the canned vegetables consumer market, and the size of these clusters varies from 10% to 31% *[ranked below in order of availability of canned vegetables, from highest to lowest]*.
 1. *“Older Less Educateds” 31% of total consumer market)*
 2. *“Northeastern Veggie Lovers” (10% of total consumer market)*
 3. *“Wealthy Healthies” (13% of total consumer market)*
 4. *“Older Homemakers” (31% of total consumer market)*
 5. *“Lower Income Anti-Veggies” (15% of total consumer market)*

Summary of Key Findings and Observations

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- There are several key demographic characteristics that help define the clusters. These can help in targeting consumers within each cluster.
 - *Ethnicity,*
 - *Age,*
 - *Work Status,*
 - *Income.*

- The consumption of canned vegetables is somewhat correlated to the consumption of vegetables in general and is primarily driven by convenience.

- The key communication channels are supermarket displays, supermarket flyers/ads, TV ads and TV news segments as well as the Internet. These key channels do not differ significantly in their importance by cluster. As such, a more mass communications approach can be considered. Since most purchases for canned vegetables are weekly, frequency will be critical.

Summary of Key Findings and Observations

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- In terms of reach, certain clusters may represent especially attractive targets:
 - “*Wealthy Healthies*” (third most likely to have canned vegetables in their homes, highest income, most likely to cite healthy as a key purchase factor, most likely to complain that vegetables are time consuming to purchase and prepare);
 - “*Older Homemakers*” (tied as the largest consumer segment, second least likely to have canned vegetables always available, least price-sensitive and the least likely to be enticed by other foods).
- Key media for the campaign appear to be supermarket displays, TV and magazines as these are the most likely to be self-reported by consumers as the primary ways by which they learned of the campaign.

Clustering Overview

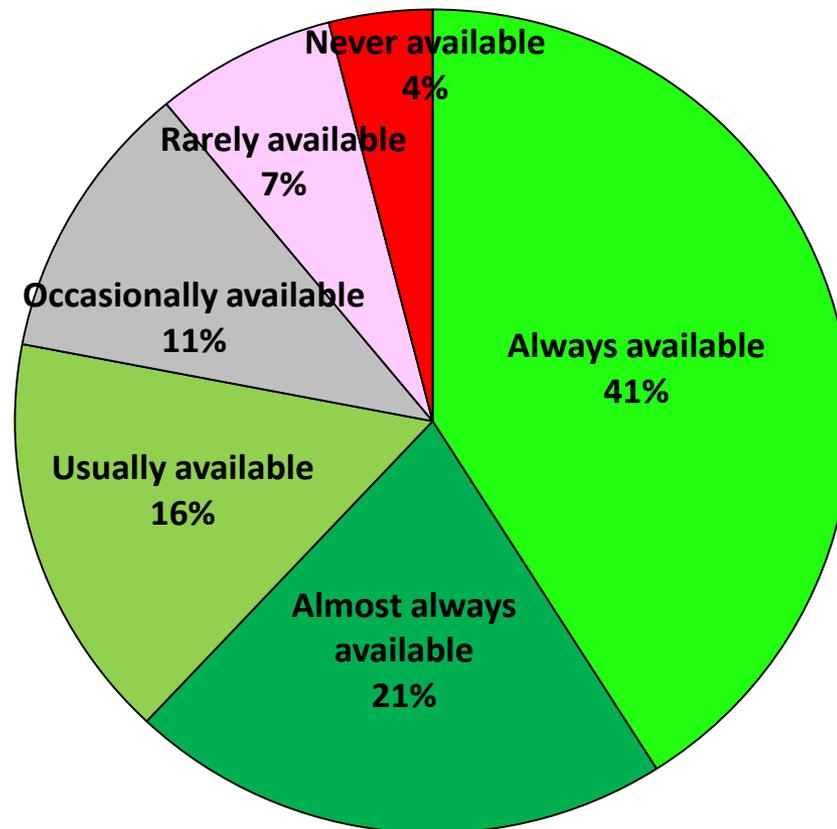


The focus of the cluster analysis has been on the availability of canned vegetables in the home

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- Only 4% of consumers never have canned vegetables available in their homes.

Canned Vegetables - % Share of Market based on Availability in the Home



n=1,300

- Cluster analysis revealed that 32 of the 81 independent variables tested significantly and differentiated segments with the consumer market regarding canned vegetables. These different clusters can be grouped based on those having a higher differentiating value (primary cluster drivers) and a lower differentiating value (secondary cluster drivers) based on their strength in predicting the cluster in question:

Primary Cluster Drivers

- *Ethnicity, Age, Work Status, Income;*
- *Consumption occasions;*
- *Barriers to including fruits and vegetables in meals and snacks;*
- *Daily consumption of all forms of vegetables.*

Secondary Cluster Drivers

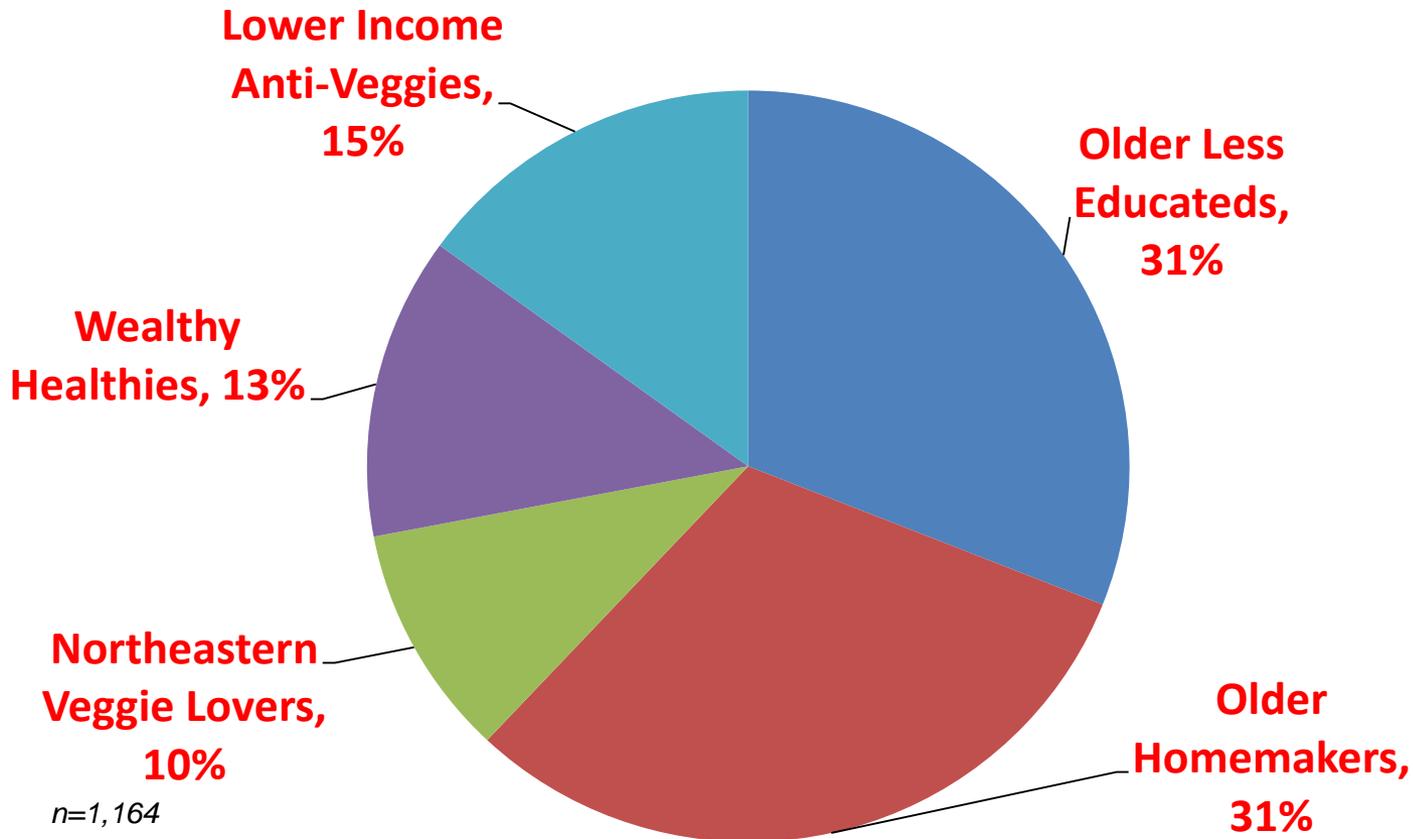
- *Education, Region;*
- *Motivations for eating vegetables.*

Cluster analysis produced 5 clusters for canned vegetables

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➤ The size of the clusters range from 10% to 31%.

Canned Vegetables – Distribution of Consumers by Cluster

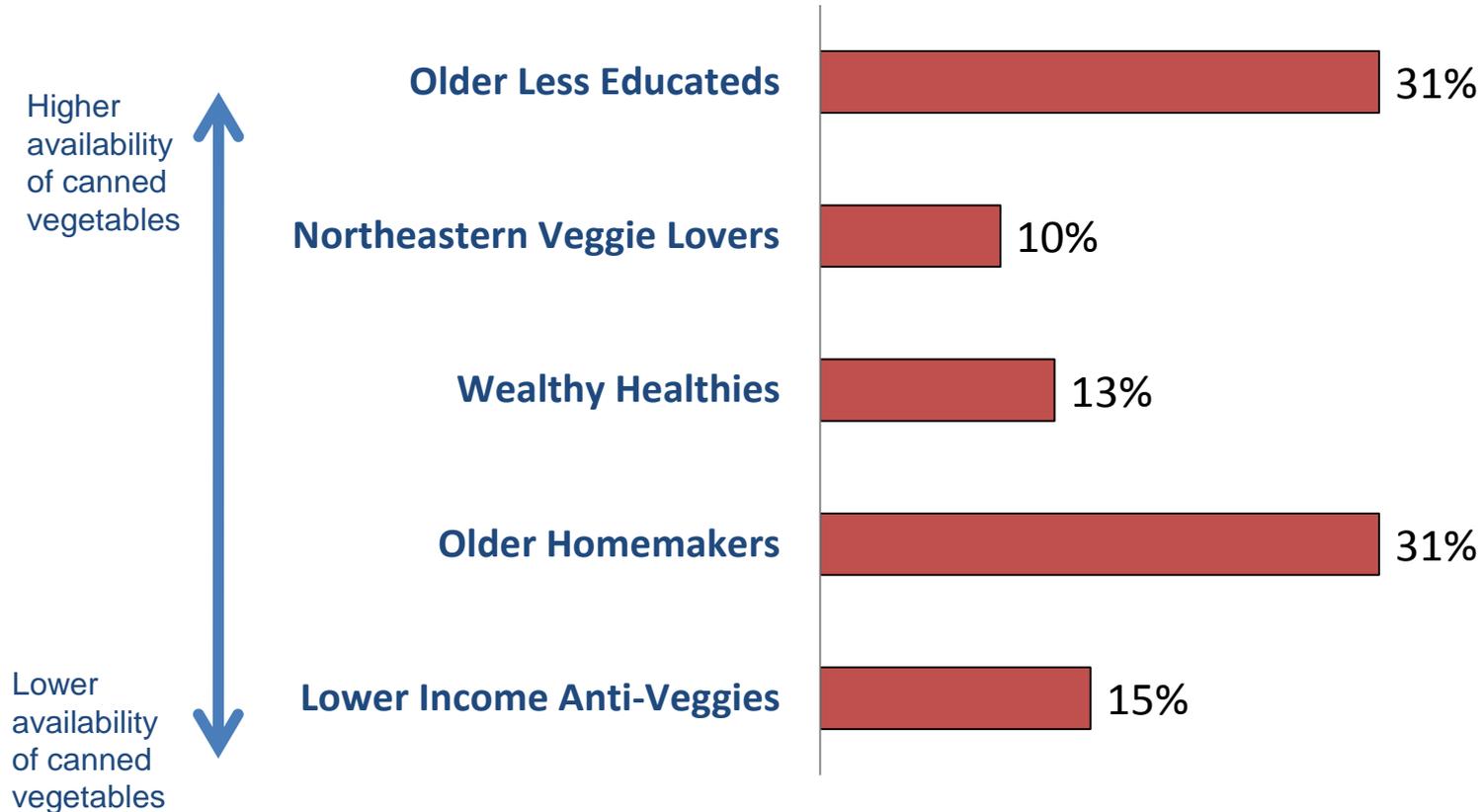


The clusters can be ordered in terms of availability of canned vegetables in the home

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➤ Each cluster will be profiled in the next section of this report in the order below.

Ranked Order of Clusters by Availability of Canned Vegetables in the Home





Cluster Profile:
“Older Less Educateds”

Profile Summary: “Older Less Educateds”

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- The “**Older Less Educateds**” cluster represents consumers who are most likely to have canned vegetables in their homes;
- They represent 31% of the total consumer market – tied as the largest segment;
- Compared to an average consumer, they are:
 - **The least educated;**
 - **Most likely to be White/Caucasian;**
 - **More likely to be older.**
- They are the least likely to cite freshness as a top factor when shopping for fruits and vegetables and the most likely to agree that there is not a good range of fruits and vegetables available in restaurants.

Cluster 1 – “Older Less Educateds” (31% of the consumer market)

Always/Almost always has canned vegetables available	49% (vs. 41% for all); 29% almost always available (vs. 21% for all)
Tied for third highest daily consumption of cups of vegetables	0.9 cups of vegetables per day (vs. 0.9 cups for all)
<u>Key Characteristics</u>	
Least educated, most likely to be White/Caucasian, more likely to be a little older	31% only completed high school (vs. 24% for all) 91% are White/Caucasian (vs. 81% for all) Average age is 48 (vs. 45 for all)
Least likely to cite freshness as a top 3 factor when shopping for fruits and vegetables	51% cited freshness (vs. 62% for all)
Most likely to believe that consuming fruits and vegetables may be beneficial for preventing heart disease	77% believe in heart disease (vs. 69% for all)
Most likely to agree that there is not a good range of fruits and vegetables available in restaurants	48% agree (vs. 36% for all)

Key Purchase Behaviors: “Older Less Educateds”

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- The key benefits of canned vegetables for “**Older Less Educateds**” are:
 - *Quick to prepare (83% citing this benefit),*
 - *Easy to use (76% citing this benefit),*
 - *Keep well (73% citing this benefit).*

- They buy their canned vegetables weekly.
 - *Daily (2%)*
 - **Weekly (51%)**
 - *Monthly (41%)*

- They are buying slightly more compared to last year.
 - *11% buying more canned vegetables in the past 3 months compared to 1 year earlier, 80% the same, 9% less*

- They waste about the same as average.
 - *66% do not throw any of their canned vegetables out (vs. 70% for all)*

Key Purchase Behaviors: “Older Less Educateds” (cont’d)

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- They buy their canned vegetables primarily at the grocery store.
 - *Grocery store (87%)*
 - *Supercenter (Wal-mart, Super Target, Meijer) (64%)*
 - *Club stores (BJ’s, Sam’s, Costco) (9%)*

- Intercept them in the supermarket, on TV and online:
 - *Supermarket: 85% would at least scan a sign on a supermarket display and 89% a supermarket flyer/newspaper ad;*
 - *TV: 83% would at least listen to a television commercial regarding a type of food that they might enjoy and 86% to a television news segment;*
 - *Online: 77% ranked the Internet in their Top 3 places to go to obtain information about how to get themselves or their family to eat more fruits and vegetables (46% ranked it #1).*

Key Purchase Behaviors: “Older Less Educateds” (cont’d)

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- They have average familiarity with the Fruits & Veggies – More Matters campaign...
 - *54% stated that they had never seen or heard about it (vs. 52% for all)*

- ...and less likely to be motivated by it, including to buy.
 - *27% were motivated (vs. 35% for all)*
 - *35% stated they were more likely to buy a product after seeing the “More Matters” logo (vs. 44% for all)*

- The top 3 ways they self-report learning about the campaign are:
 - *Supermarket display (47%),*
 - *TV (31%),*
 - *Magazines (25%).*



Cluster Profile:
“Northeastern Veggie Lovers”

Profile Summary: “*Northeastern Veggie Lovers*”

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- The “*Northeastern Veggie Lovers*” cluster represents consumers who are the second most likely to have canned vegetables in their homes;
- They represent 10% of the total consumer market – the smallest segment;
- Compared to an average consumer, they are:
 - *More likely to be younger;*
 - *Most likely to be working full-time outside the home;*
 - *Most likely to live in the North East.*
- They consume the most vegetables overall and are the most likely to eat vegetables daily at the dinner table and to find them appetizing;
- They are the least likely to complain that vegetables are time consuming to purchase and prepare, that they forget to buy them or that they go bad before they can eat them.

Cluster 3 – “Northeastern Veggie Lovers” (10% of consumer market)

Always/Almost always has canned vegetables available	47% (vs. 41% for all); 29% almost always available (vs. 21% for all)
Highest daily consumption of cups of vegetables	1.9 cups of vegetables per day (vs. 0.9 cups for all)
<u>Key Characteristics</u>	
More likely to be younger, most likely to be working full-time, most likely to live in the North East	Average age of 40 (vs. 45% for all) 66% work full-time (vs. 31% for all) 43% live in the North East (vs. 22% for all)
Most likely to eat vegetables daily at the dinner table	80% eat them daily at the dinner table (vs. 63% for all)
Least likely to complain that members of their family have different fruit and vegetable likes and dislikes	34% cite family members (vs. 50% for all)
Most likely to find vegetables appetizing	92% disagree that vegetables are not appetizing (vs. 65% for all)
Least likely to complain that vegetables are time consuming to purchase and prepare, that they forget to buy them or that they go bad before they can eat them	81% disagree they are time consuming (vs. 52% for all) 92% disagree that they forget to buy them (vs. 62% for all) 64% disagree that they go bad (vs. 38% for all)

Key Purchase Behaviors: “Northeastern Veggie Lovers”

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- The key benefits of canned vegetables for “Northeastern Veggie Lovers” are:
 - *Easy to use (76% citing this benefit),*
 - *Keep well (72% citing this benefit),*
 - *Quick to prepare (70% citing this benefit).*

- They buy their canned vegetables weekly.
 - *Daily (2%)*
 - **Weekly (47%)**
 - *Monthly (40%)*

- They are buying less compared to last year.
 - *13% buying more canned vegetables in the past 3 months compared to 1 year earlier, 70% the same, 17% less*

- They waste an average amount.
 - *66% do not throw any of their canned vegetables out, compared to 70% for all.*

Key Purchase Behaviors: “Northeastern Veggie Lovers” (cont’d)

24

- They buy their canned vegetables primarily at the grocery store.
 - *Grocery store (89%)*
 - *Supercenter (Wal-mart, Super Target, Meijer) (68%)*
 - *Club stores (BJ’s, Sam’s, Costco) (26%)*

- Intercept them in the supermarket, on TV and online:
 - *Supermarket: 88% would at least scan a sign on a supermarket display and 89% a supermarket flyer/newspaper ad;*
 - *TV: 87% would at least listen to a television commercial regarding a type of food that they might enjoy and 89% to a television news segment;*
 - *Online: 81% ranked the Internet in their Top 3 places to go to obtain information about how to get themselves or their family to eat more fruits and vegetables (61% ranked it #1).*

Key Purchase Behaviors: “Northeastern Veggie Lovers” (cont’d)

25

- They are less familiar with the Fruits & Veggies – More Matters campaign...
 - *39% stated that they had never seen or heard about it (vs. 52% for all)*

- ...but are more likely to be motivated by it, including to buy.
 - *52% were motivated (vs. 35% for all)*
 - *53% stated they were more likely to buy a product after seeing the “More Matters” logo (vs. 44% for all)*

- The top 3 ways they self-report learning about the campaign are:
 - *Magazines (31%),*
 - *Supermarket displays (30%),*
 - *TV (24%).*



Cluster Profile:
“Wealthy Healthies”

Profile Summary: “*Wealthy Healthies*”

27

- The “*Wealthy Healthies*” cluster represents consumers who are the third most likely to have canned vegetables in their homes;
- They represent 13% of the total consumer market;
- Compared to an average consumer, they:
 - *Have the highest income;*
 - *Are the most educated;*
 - *Are the least likely to be White/Caucasian and the most likely to be Asian/Pacific Islander.*
- They are the most likely to cite healthy as an important factor when shopping for fruits and vegetables;
- They are also the most likely to complain that vegetables are time consuming to purchase and prepare.

Cluster 4 – “Wealthy Healthies” (13% of the consumer market)

Always/Almost always has canned vegetables available	38% (vs. 41% for all); 27% almost always available (vs. 21% for all)
Second highest daily consumption of cups of vegetables	1.2 cups of vegetables per day (vs. 0.9 cups for all)
<u>Key Characteristics</u>	
Highest income, most educated, least likely to be White/Caucasian and most likely to be Asian/Pacific Islander	48% earn \$75k or more (vs. 28% for all) 21% have completed graduate work (vs. 10% for all) 65% are White/Caucasian (vs. 81% for all), 13% are Asian/Pacific Islander (vs. 5% for all)
Most likely to rank healthy in their top 3 factors when shopping for fruits and vegetables	47% rank healthy (vs. 33% for all)
Most likely to eat vegetables daily in their car and in a restaurant	16% eat them daily in their car (vs. 3% for all) 23% eat them daily in a restaurant (vs. 5% for all)
Least likely to cite taste as a top reason why they themselves eat fruits and vegetables	34% cited taste (vs. 51% for all)
Most likely to complain that quality fruits and vegetables are not available in local stores and that vegetables are time consuming to purchase and prepare	47% agree regarding availability (vs. 21% for all) 49% agree regarding time consuming vs. 21% for all)
Most likely to forget to buy fruits and vegetables	36% forget (vs. 16% for all)

Key Purchase Behaviors: “Wealthy Healthies”

29

- The key benefits of canned vegetables for “*Wealthy Healthies*” are:
 - *Quick to prepare (80% citing this benefit),*
 - *Easy to use (74% citing this benefit),*
 - *Keep well (65% citing this benefit).*

- They buy their canned vegetables weekly.
 - *Daily (0%)*
 - ***Weekly (52%)***
 - *Monthly (41%)*

- They are buying more compared to last year.
 - *15% buying more canned vegetables in the past 3 months compared to 1 year earlier, 74% the same, 11% less*

- They waste an average amount.
 - *67% do not throw any of their canned vegetables out (vs. 70% for all)*

Key Purchase Behaviors: “Wealthy Healthies” (cont’d)

30

- They buy their canned vegetables primarily at a grocery store.
 - *Grocery store (83%)*
 - *Supercenter (Wal-mart, Super Target, Meijer) (70%)*
 - *Club stores (BJ’s, Sam’s, Costco) (20%)*

- Intercept them in the supermarket, on TV or the radio, on social media and online:
 - *Supermarket: 86% would at least scan a sign on a supermarket display and 86% a supermarket flyer/newspaper ad;*
 - *TV: 87% would at least listen to a television commercial regarding a type of food that they might enjoy and 82% to a television news segment;*
 - *Online: 64% ranked the Internet in their Top 3 places to go to obtain information about how to get themselves or their family to eat more fruits and vegetables (40% ranked it #1).*

Key Purchase Behaviors: “Wealthy Healthies”(cont’d)

31

- They are less familiar with the Fruits & Veggies – More Matters campaign...
 - *43% stated that they had never seen or heard about it (vs. 52% for all)*

- ...but are more likely to be motivated by it, including to buy.
 - *50% were motivated (vs. 35% for all)*
 - *51% stated they were more likely to buy a product after seeing the “More Matters” logo (vs. 44% for all)*

- The top 3 ways they self-report learning about the campaign are:
 - *Internet (31%),*
 - *Food package (30%),*
 - *TV/Magazines (28%).*



Cluster Profile:
“Older Homemakers”

Profile Summary: “Older Homemakers”

33

- The “**Older Homemakers**” cluster represents consumers who are the second least likely to have canned vegetables in their homes;
- They represent 31% of the total consumer market – tied as the largest segment;
- Compared to an average consumer, they:
 - **Are the oldest;**
 - **Least likely to be working outside the home.**
- They are the least price sensitive and the least likely to be enticed by other foods.

Cluster 2 – “Older Homemakers” (31% of the consumer market)

Always/Almost always has canned vegetables available	40% (vs. 41% for all); 12% almost always available (vs. 21% for all)
Tied for third highest daily consumption of cups of vegetables	<i>0.9 cups of vegetables per day (vs. 0.9 cups for all)</i>
<u>Key Characteristics</u>	
Oldest, least likely to be working outside the home	<i>Average age of 49 (vs. 45 for all) 65% do not work outside the home (vs. 51% for all)</i>
Least likely to complain that there is not a good range of fruits and vegetables available in restaurants	<i>54% disagree (vs. 35% for all)</i>
Least price sensitive	<i>57% disagree that vegetables are too expensive (vs. 33% for all)</i>
Least likely to be enticed by other foods	<i>57% disagree that they are enticed by other foods (vs. 34% for all)</i>

Key Purchase Behaviors: “Older Homemakers”

35

- The key benefits of canned vegetables for “**Older Homemakers**” are:
 - *Easy to use (74% citing this benefit),*
 - *Quick to prepare (73% citing this benefit),*
 - *Keep well (73% citing this benefit).*

- They buy their canned vegetables monthly.
 - *Daily (1%)*
 - *Weekly (43%)*
 - ***Monthly (49%)***

- They are buying about the same compared to last year.
 - *9% buying more canned vegetables in the past 3 months compared to 1 year earlier, 81% the same, 10% less*

- They waste less than average.
 - *80% do not throw any of their canned vegetables out (vs. 70% for all)*

Key Purchase Behaviors: “Older Homemakers” (cont’d)

36

- They buy their canned vegetables primarily at a grocery store.
 - *Grocery store (87%)*
 - *Supercenter (Wal-mart, Super Target, Meijer) (67%)*
 - *Club stores (BJ’s, Sam’s, Costco) (15%)*

- Intercept them in the supermarket, on TV or the radio, on social media and online:
 - *Supermarket: 84% would at least scan a sign on a supermarket display and 87% a supermarket flyer/newspaper ad;*
 - *TV: 79% would at least listen to a television commercial regarding a type of food that they might enjoy and 85% to a television news segment;*
 - *Online: 73% ranked the Internet in their Top 3 places to go to obtain information about how to get themselves or their family to eat more fruits and vegetables (44% ranked it #1).*

Key Purchase Behaviors: “Older Homemakers” (cont’d)

37

- They are a little less familiar with the Fruits & Veggies – More Matters campaign...
 - *56% stated that they had never seen or heard about it (vs. 52% for all)*
- ...and a little less likely to be motivated by it, but slightly more likely to buy.
 - *32% were motivated (vs. 35% for all)*
 - *49% stated they were more likely to buy a product after seeing the “More Matters” logo (vs. 44% for all)*
- The top 3 ways they self-report learning about the campaign are:
 - *Supermarket display (46%),*
 - *TV (28%),*
 - *Ads (22%).*



Cluster Profile:
“Lower Income Anti-Veggies”

Profile Summary: “*Lower Income Anti-Veggies*”

39

- The “*Lower Income Anti-Veggies*” cluster represents consumers who are the least likely to have canned vegetables in their homes;
- They represent 15% of the total consumer market;
- Compared to an average consumer, they:
 - *Have the lowest income;*
 - *Are the most likely to work part-time.*
- They are the least likely to shop for fruits and vegetables based on their healthiness and are the least likely to find vegetables appetizing.

Cluster 5 - “Lower Income Anti-Veggies” (15% of the consumer market)

Always/Almost always has canned vegetables available	23% (vs. 41% for all); 20% almost always available (vs. 21% for all)
Lowest daily consumption of cups of vegetables	0.5 cups of vegetables per day (vs. 0.9 cups for all)
<u>Key Characteristics</u>	
Lowest income, most likely to work part-time	24% earn less than \$25k (vs. 16% for all) 24% work part-time (vs. 18% for all)
Least likely to rank healthy in their top 3 factors when shopping for fruits and vegetables	21% rank healthy (vs. 33% for all)
Least likely to eat vegetables daily at the dinner table	20% eat them daily at the dinner table (vs. 63% for all)
Most likely to find vegetables not appetizing and to forget to buy them	46% find vegetables not appetizing (vs. 17% for all) 36% forget to buy them (vs. 16% for all)

Key Purchase Behaviors: “Lower Income Anti-Veggies”

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- The key benefits of canned vegetables for “Lower Income Anti-Veggies” are:
 - *Easy to use (70% citing this benefit),*
 - *Quick to prepare (68% citing this benefit),*
 - *Cost (67% citing this benefit).*

- They buy their canned vegetables monthly.
 - *Daily (0%)*
 - *Weekly (36%)*
 - ***Monthly (47%)***

- They are buying less compared to last year.
 - *11% buying more canned vegetables in the past 3 months compared to 1 year earlier, 75% the same, 14% less*

- They waste about an average amount.
 - *65% do not throw any of their canned vegetables out (vs. 70% for all)*

Key Purchase Behaviors: “Lower Income Anti-Veggies”(cont’d)

42

- They buy their canned vegetables primarily at the grocery store.
 - *Grocery store (77%)*
 - *Supercenter (Wal-mart, Super Target, Meijer) (56%)*
 - *Club stores (BJ’s, Sam’s, Costco) (11%)*

- Intercept them in the supermarket, on TV and online:
 - *Supermarket: 84% would at least scan a sign on a supermarket display and 86% a supermarket flyer/newspaper ad;*
 - *TV: 86% would at least listen to a television commercial regarding a type of food that they might enjoy and 87% to a television news segment;*
 - *Online:76% ranked the Internet in their Top 3 places to go to obtain information about how to get themselves or their family to eat more fruits and vegetables (52% ranked it #1).*

Key Purchase Behaviors: “Lower Income Anti-Veggies” (cont’d)

43

- They are less familiar with the Fruits & Veggies – More Matters campaign...
 - *59% stated that they had never seen or heard about it (vs. 52% for all)*

- ...are less motivated by it, including to buy.
 - *27% were motivated (vs. 35% for all)*
 - *31% stated they were more likely to buy a product after seeing the “More Matters” logo (vs. 44% for all)*

- The top 3 ways they self-report learning about the campaign are:
 - *TV (34%),*
 - *Supermarket display (32%),*
 - *Magazines (27%).*