STATE *of the* PLATE

2010 Study on America's Consumption of Fruits & Vegetables

PRODUCE FOR BETTER HEALTH FOUNDATION

About Produce for Better Health Foundation

Produce for Better Health Foundation (PBH) is a non-profit 501 (c) (3) fruit and vegetable education foundation. Since 1991, PBH has worked to motivate people to eat more fruits and vegetables to improve public health. PBH achieves success through industry and government collaboration, first with the 5 A Day program and now with the Fruits & Veggies—More Matters® public health initiative. Fruits & Veggies—More Matters is the nation's largest public-private, fruit and vegetable nutrition education initiative, with Fruit and Vegetable Nutrition Coordinators in each state, territory, and the military. To learn more, visit www.pbhfoundation.org and www.FruitsAndVeggiesMoreMatters.org.

PBH is also a member and co-chair with Centers for Disease Control & Prevention (CDC) of the National Fruit & Vegetable Alliance (NFVA), consisting of government agencies, non-profit organizations, and industry working to collaboratively and synergistically achieve increased nationwide access and demand for all forms of fruits and vegetables for improved public health. To learn more, visit www.NFVA.org.

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STATE *of the* PLATE

2010 Study on America's Consumption of Fruits & Vegetables

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I. Executive Summary

While most Americans realize that eating fruits and vegetables is important to a healthy diet, under-consumption continues to be a problem. Efforts have been underway nationally for nearly 20 years to promote fruits and vegetables through supermarkets, on packaging, and in local communities. Efforts have strengthened over the last five years to assure that fruits and vegetables are available where people eat. A combination of both fruit and vegetable availability and messaging will be critical to increase America's consumption of fruits and vegetables.

After extensive consumer research, Produce for Better Health Foundation (PBH), Centers for Disease Control & Prevention (CDC), and other national partners launched a new call to action, Fruits & Veggies—More Matters, in March 2007. The Fruits & Veggies—More Matters campaign replaced the 5 A Day program that had existed nationally since 1991 as the rallying cry to deliver the benefits of fruits and vegetables to consumers in a way that was designed to change and sustain their behavior over the long term. Fruits & Veggies—More Matters was developed with moms, gatekeepers to their family's meals, as the primary target audience. Generation X (Gen X) moms were chosen as a subset for PBH's targeted efforts.

In early 2010, PBH commissioned consumer research through The NPD Group to examine trends in fruit and vegetable consumption among Americans (See Appendix A). Trends were examined by age, gender, and life cycle. The percent of individual groups that were achieving their recommended number of cups of fruits and vegetables daily were identified. In addition, trends in meal occasion, types of fruits and vegetables, and in-home vs. away-from-home eating habits were examined.

Several groups have increased their fruit consumption by at least 5% since 2004. These include children ages 2-12, males 18-34, and females 18-54.

Also in January 2010, PBH developed and fielded a customized online survey, commissioned through OnResearch, which included 1000 Gen X moms (those born between 1965 and 1979) with children under the age of 18 living at home (See Appendix A). This survey included several questions that have been tracked annually since the initial baseline survey was conducted in early February 2007. In 2010, a sample of 300 Generation Y moms (those born between 1980 and 1990) with children under the age of 18 living at home was added for comparative purposes, because many of the Fruits & Veggies—More Matters campaign messages are targeted at mothers with younger children. An understanding of Gen Y moms and how they compared to Gen X moms was desired since Gen X mothers and their children are aging.

Key findings and recommendations from this report are found on the next three pages.

A. Overall Consumption

- The average person consumes 1.8 cups of fruits and vegetables per day or about 660 cups annually. Vegetables account for 60% of this average, while fruit represents 40%.
- Per capita fruit and vegetable consumption (in cups) has remained fairly stable overall during the past 5 years (fruit +2%, vegetables -2% in 2009 as compared to consumption in 2004). Berries, apple juice, and bananas have all shown growth since 2004.
- Several groups have increased their fruit consumption by at least 5% since 2004. These include children ages 2-12, males 18-34, and females 18-54.
- Older adults are eating fewer fruits and vegetables compared to just 5 years ago. Men and women aged 65 and over have decreased their intake nearly 10% vs. 2004 levels.

B. Achievement Levels

- Only 6% of individuals achieve their recommended target for vegetables; 8% achieve their recommended target for fruit in an average day.
- Vegetable achievement levels (vs. targeted levels) follow a standard bell-shaped curve, with half of individuals consuming between 40-70% of their target. The picture is less favorable for fruit, however, as two-thirds don't even consume half of their recommended number of cups of fruit.
- Children under the age of 12 and females 55 and older are most likely to achieve their fruit target. Males ages 55 and older, teens, and children under the age of 6 are most likely to achieve their vegetable target.

C. Moms

- The economic downturn's negative impact on moms' attitudes and behavior related to the consumption of fruits and vegetables that was identified in 2009 appears to have diminished in 2010. In 2010, moms' attitudes and behavior recovered to levels seen in 2008, indicating a return to positive momentum among mothers to increase fruit and vegetable consumption among family members.
- Gen X moms continue to be highly motivated to increase their own and their family's consumption of fruits and vegetables and also reported a higher consumption of fruits and vegetables in 2010 compared to 2009. Gen Y moms reported a slightly higher consumption of fruits and a slightly lower consumption of vegetables and are slightly less likely to feel that it is important to include fruits and vegetables in family meals.

- Most Gen X moms believe that their families eat too little fruit and too few vegetables. Gen Y moms are slightly more likely to believe their families already consume too many fruits and vegetables.
- Gen Y moms are slightly less knowledgeable about the amount of fruits and vegetables needed daily as well as their benefits.
- While both groups of moms are generally price-sensitive, Gen Y moms are more likely to identify cost as a barrier to consumption.
- When thinking of their favorite fruit or vegetable, about half of all moms tend to be bargain hunters. Gen X moms are more likely to purchase based on convenience; they are willing to pay a premium if a store is conveniently located near their home or workplace.

- When asked why they purchase fresh, frozen, canned, 100% juice, or dried fruits and vegetables, moms reported that fresh fruits and vegetables and 100% fruit or vegetable juice are mainly purchased for nutrition and family preference, while canned, frozen, or dried fruit are purchased mainly for convenience, cost, and longer shelf life.
- It appears that Gen X moms may be feeling more equipped and more confident in their ability to serve fruits and vegetables to their families.

While both groups of moms are generally price-sensitive, Gen Y moms are more likely to identify cost as a barrier to consumption.

- There has been a steady increase since 2007 in Gen X moms reporting the ease of getting their family to eat fruit at restaurants and quick-service establishments.
- Gen X moms report the main barriers to increasing their family's fruit and vegetable consumption are primarily different family preferences, the need for new preparation ideas, and limited fruit and vegetable choices available in restaurants. Gen Y moms were significantly more likely than Gen X moms to state that vegetables are too expensive.
- The most successful approaches reported by moms for increasing their family's fruit and vegetable consumption include setting out a fruit bowl; having vegetables cut up and ready to eat in the refrigerator; involving children in selecting, growing, or preparing fruits and vegetables; and hiding them in other foods.
- Gen X moms were most likely to consult the Internet for information on how to get their family to eat more fruits and vegetables. The Internet is also the preferred source for Gen Y moms but to a lesser degree—these moms are more likely to consult individuals such as their healthcare provider, dietitians, or family members.

D. Fruits & Veggies—More Matters

- Among Gen X moms, total "definite" awareness of the Fruits & Veggies—More Matters campaign grew from 12% in 2007 prior to the campaign launch to 18% in 2010.
- In 2010, forty-five percent of mothers said they were more likely to purchase a product with the Fruits & Veggies—More Matters logo on it, up 5% since 2009.
- Of the Gen X moms who were aware of the Fruits & Veggies—More Matters logo, 38% in 2010 said it motivates them to help their family eat more fruits and vegetables, up from 23% in 2007. This motivational level was consistent among both Gen X and Gen Y moms.
- Of those moms who were aware of the Fruits & Veggies—More Matters logo, 74% said that if they saw the Fruits & Veggies—More Matters logo on a product it would mean that the product was healthy, 66% said it meant that the food was nutritious, and 55% said that it provides a serving of fruit and/or vegetable.

E. Recommendations

- Repeated messaging and education is necessary to maintain the momentum of increased fruit and vegetable consumption for men and women under age 45. Continuing to stress the convenient options for many fruits and vegetables should resonate well with their busy lifestyles.

- Programs that target adults 45 and older would benefit from incorporating the Fruits & Veggies—More Matters message to stall the recent decline in consumption.

- Continue to emphasize that consumption of all forms of fruits and vegetables, including canned, frozen, dried, and 100% juice, in addition to fresh, helps meet daily recommended goals.

- Marketers should incorporate more fruits and vegetables into convenient fresh and frozen meal solutions to help drive increased intake for all age groups.

- Gen Y moms would benefit from more nutrition education: they tend to struggle more than their older Gen X counterparts.

- The value of eating more fruits and vegetables needs to be communicated based on the different needs of each group of moms. Gen X moms are more likely to respond to preventative benefits (against heart disease, etc.), while Gen Y moms are drawn to messages regarding the "energy-boosting" benefits of fruits and vegetables.

- Cost-saving tips and other ways to overcome pricing hurdles will likely resonate especially well with Gen Y moms.

- Both Gen X and Gen Y moms believe it is their role to increase the consumption of fruits and vegetables by their families. Reinforcing this message and providing advice, tools, and successful tips to help them increase their family's fruit and vegetable consumption will assure moms that they are not alone and are doing a good job.

- The Internet remains the most effective medium of communication with Gen X and Gen Y moms: driving traffic to the Fruits & Veggies—More Matters website as well as additional content on that website should help increase awareness and positive brand associations.

- Continued use of the Fruits & Veggies—More Matters logo on qualifying products will help identify which products are most healthy and will encourage product purchase among mothers.

- The Fruits & Veggies—More Matters logo motivates mothers to feed their family fruits and vegetables; its continued use at point of sale and in the media will be a motivational reminder to do so.

In summary, data indicates that younger adults (<45) are hearing the Fruits & Veggies—More Matters message and are incorporating more fruit in their diet, as well as the diets of their younger children (<12). They're currently acting on this message in terms of their fruit behavior, but not necessarily translating it into action for their vegetable behavior. This trend represents positive momentum for the Fruits & Veggies—More Matters campaign, whose primary target has been Gen X moms. More work needs to be done, however, with those groups not specifically targeted by the Fruits & Veggies—More Matters campaign, including adults age 65 and older, who are not yet heeding the message.

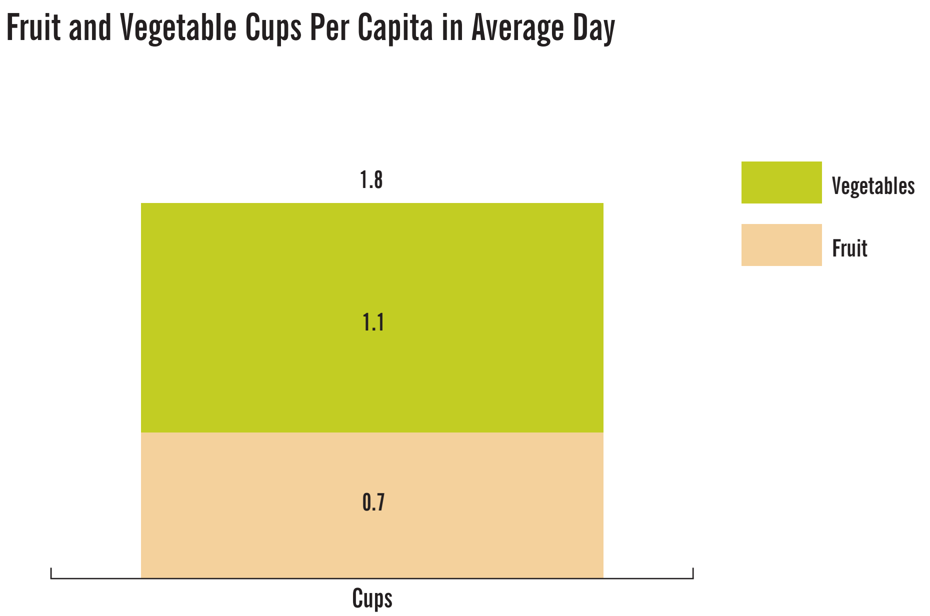
Both Gen X and Gen Y moms are highly motivated to increase their own and their family's consumption of fruits and vegetables. While the recession had a dampening effect on Gen X moms' attitudes and behavior regarding healthy eating in 2009, by 2010 that effect had begun to subside. Providing support for moms through the FruitsAndVeggiesMoreMatters.org website and through continuous Fruits & Veggies—More Matters reminders at point of purchase; on packaging; in schools and throughout community services, including physicians' offices, WIC nutrition education, farmers' markets, and food stamp nutrition education, will continue to prove effective at increasing fruit and vegetable consumption.

II. Fruit & Vegetable Consumption Trends

Consumers need to increase their intake of fruits and vegetables, and efforts need to be focused on achieving this change in behavior, especially among children. This is the responsibility of not only parents, but also those who have the ability to influence dietary choices, including health professionals, educators, supermarkets, restaurants, growers, chefs, schools, educators, and policy makers.

Chart 1:
The average person consumes just under 2 cups of fruits and vegetables in a typical day. Vegetables account for 60% of this amount, with fruit at 40%.

Source: The NPD Group/Nutrient Intake Database



Fruit and Vegetable Cups Per Capita Over Time

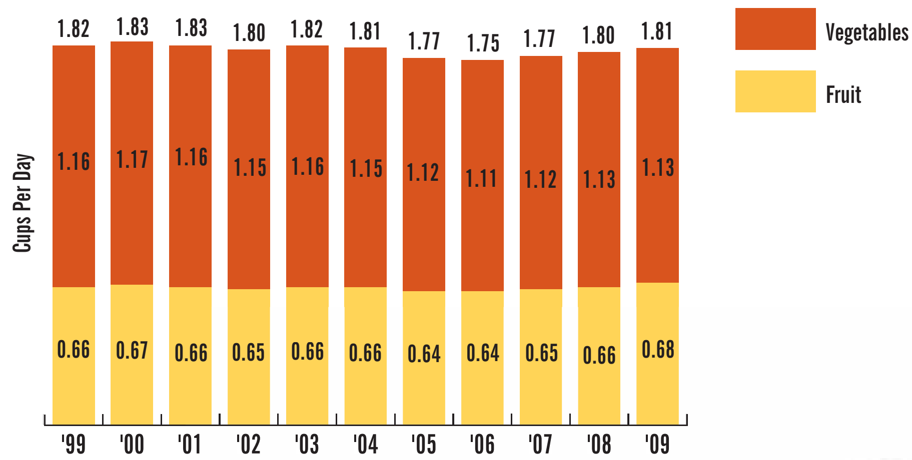


Chart 2:
Fruit and vegetable consumption has remained quite stable over time at just under 2 cups per person per day across the total population.

Source: The NPD Group/Nutrient Intake Database

As of February, 2009, the average person consumed slightly less than 2 cups of fruits and vegetables, combined, in a typical day. Vegetables accounted for 60% of this average, with fruit at 40% (Chart 1). This translates to just over 400 cups of vegetables and roughly 250 cups of fruit per year for the average person (See Appendix B). Fruit and vegetable consumption has remained quite stable at just under 2 cups per person per day across the total population since 1999 (Chart 2).

As of 2009, the average person consumed just over 400 cups of vegetables and 250 cups of fruit per year.

Adult males aged 55+ consumed the most total fruits and vegetables, just over 2 cups per day. This average was driven by slightly higher vegetable intake (as well as fruit for males aged 55+) (Chart 3). In terms of annual cups per capita, adult males aged 55+ consumed the most vegetables and fruit, more than 800 total cups per year (See Appendix B).

The good news is that children ages 2-12 were consuming more fruits and vegetables in 2009 vs. 2004. Children ages 2-5 have shown double-digit gains for fruit. Teens are consuming fewer cups, however, especially of vegetables (Chart 4).

In terms of vegetables, males aged 45 and older were consuming fewer cups in 2009 vs. 2004, especially those 65 and older. Vegetable consumption among younger males (18-44) was stable or slightly higher during this time. Females aged 55+ were also consuming fewer vegetables. Consumption among those aged 18-44 remained stable, up slightly during this time (See Appendix B).

In terms of fruit, males aged 18-34 consumed more in the past decade (9% more vs. 2004 and 17% more vs. 1999). However, males aged 45-54 and 65 and older were consuming less fruit. Females aged 18-54 consumed almost 10% more fruit in 2009 vs. 2004; however, those aged 65 and older consumed about 10% less fruit.

Who's consuming MORE fruit?

- ▲ Children, ages 2-5 and 6-12
- ▲ Males, ages 18-34
- ▲ Females, ages 18-54
- ▲ Individuals in households with/in:
  - Incomes <$20K
  - 3 or 5 members
  - Homemaker, ages 25-54
  - Homemaker employed (especially part time)
  - Homemaker without college education
  - White- or blue-collar head
  - African Americans or Asians
  - East and West North Central census regions
  - Life cycle: singles, dual-income/no kids, working parents, single parents

Who's consuming LESS fruit?

- ▼ Males, ages 45-54
- ▼ Females, age 65+
- ▼ Individuals in households with/in:
  - Homemaker, age 65+
  - New England census region
  - Life cycle: seniors, those age 75+

Who's consuming MORE vegetables?

- ▲ Individuals in households with/in:
  - Incomes <$10K
  - 3 members
  - Hispanics or Asians
  - Mid-Atlantic census region

Who's consuming FEWER vegetables?

- ▼ Teens, ages 13-17
- ▼ Males, age 65+
- ▼ Females, age 55+
- ▼ Individuals in households with/in :
  - Incomes>$30K
  - 2 members
  - Homemaker, age 55+
  - Retired head of household
  - West South Central, Mountain census regions
  - Life cycles: empty nesters, seniors, those age 75+

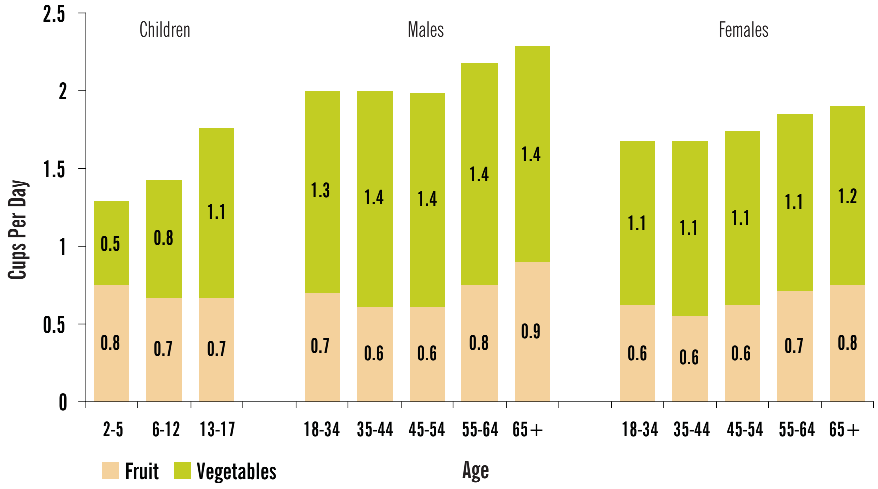
Source: The NPD Group/Nutrient Intake Database, 2009 vs. 2004

Chart 3:

Adult males aged 55+ consume the most total fruits and vegetables, just over 2 cups per day.

Source: The NPD Group/Nutrient Intake Database

Fruit and Vegetable Cups Per Capita by Target Group in Average Day



Children's Annual Cups Per Capita Over Time

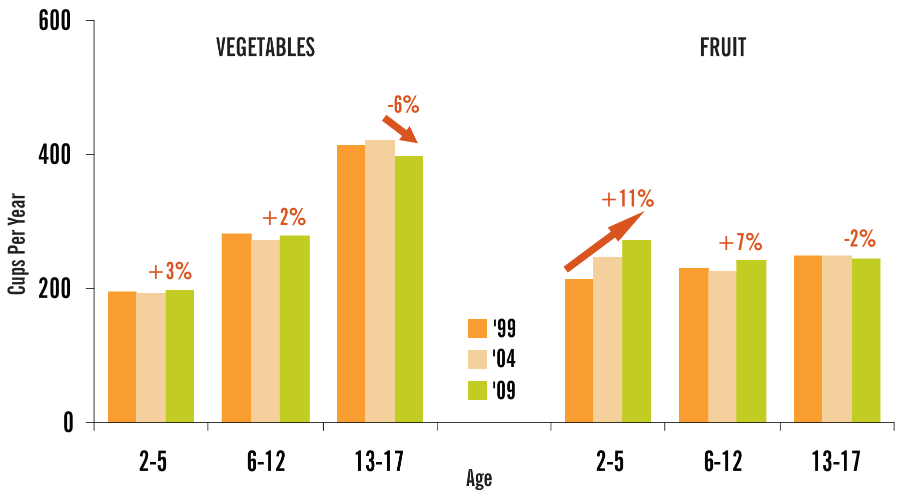


Chart 4:

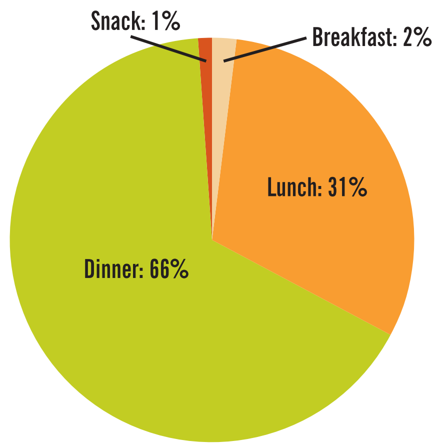
Children ages 2-12 consumed more fruits and vegetables in 2009 vs. 2004. Children ages 2-5 have shown double-digit gains for fruit. Teens are consuming fewer cups, however, especially for vegetables.

Source: The NPD Group/Nutrient Intake Database

Two-thirds of all vegetables are eaten at dinner, but this meal has also been most responsible for vegetables' decline. Gains in vegetable consumption have been posted at breakfast and snack time, though the amount consumed on these occasions is small (Chart 5). Fruit, however, is eaten throughout the day and has gained popularity at lunch, dinner, and snack occasions in 2009 vs. 2004. Breakfast has shown a slight rebound from a low in 2006 (Chart 6).

When Are VEGETABLES Eaten?

% of Cups

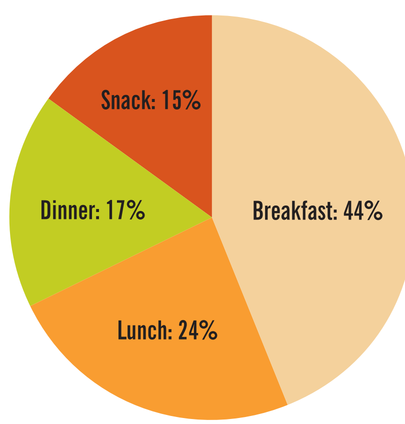


Source: The NPD Group/Nutrient Intake Database

Two-thirds of all vegetables are consumed at dinner. Fruit is consumed more evenly throughout the day.

When Is FRUIT Eaten?

% of Cups



Source: The NPD Group/Nutrient Intake Database

Chart 5:

Two-thirds of all vegetables are eaten at dinner, but this meal has also been most responsible for vegetables' decline. Though a smaller behavior, gains have been posted at breakfast and snack.

Source: The NPD Group/Nutrient Intake Database

Annual VEGETABLE Cups Per Capita

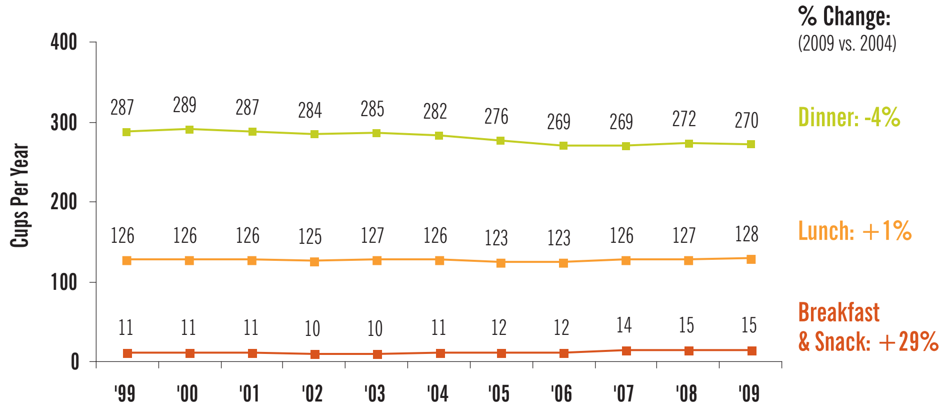
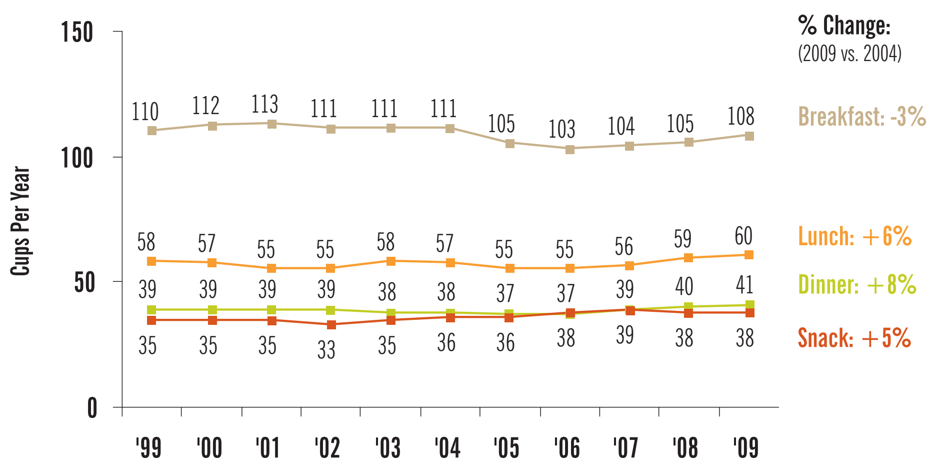


Chart 6:

Fruit is eaten throughout the day and has gained popularity at lunch, dinner, and snack occasions vs. 2004. Breakfast has shown a slight rebound from its lowest consumption amount in 2006.

Source: The NPD Group/Nutrient Intake Database

Annual FRUIT Cups Per Capita



According to the Dietary Guidelines and consistent with the new Fruits & Veggies—More Matters campaign, all forms of fruits and vegetables, including canned, frozen, dried, 100% juice, and fresh count toward the recommended level of intake. Fresh fruits and vegetables, however, are the most consumed. Juice accounts for almost 40% of all cups of fruit consumed. Canned and frozen each account for roughly 10% of all vegetable intake (Chart 7). From 1999 to 2009, fresh vegetables lost 2% of share to frozen vegetables, but otherwise shares for the various forms of vegetables have remained fairly stable over time. Shares for the various forms of fruit have also remained quite stable over the past decade. Fresh fruit consumption has risen steadily since 2002; frozen vegetables have posted modest gains (as has frozen fruit in 2009). A drop in fruit juice consumption has occurred, likely as a result of the low-carbohydrate diet craze. This drop has stabilized, though not increased, juice consumption. Though not shown, annual in-home consumption of dried fruit was 6 cups in 2009, up 2% from 2004. Annual in-home consumption of dried or mixed vegetables, including beans and instant potatoes was 15 cups in 2009, down 2% from 2004 (Chart 8).

Changes in Fruit and Vegetable Consumption, 2009 vs. 2004

FRUIT

▲ Growing:

- +3% Berries
- +2% Apple Juice
- +2% Banana
- +1% Watermelon
- +1% Grapes

▼ Declining:

- -9% Orange Juice
- -2% Other Melon
- -1% Grapefruit
- -1% Grapefruit Juice

VEGETABLES

▲ Growing:

- +2% Frozen Dinner/ Entree
- +2% Mixed/Combo Vegetables
- +1% Pizza

▼ Declining:

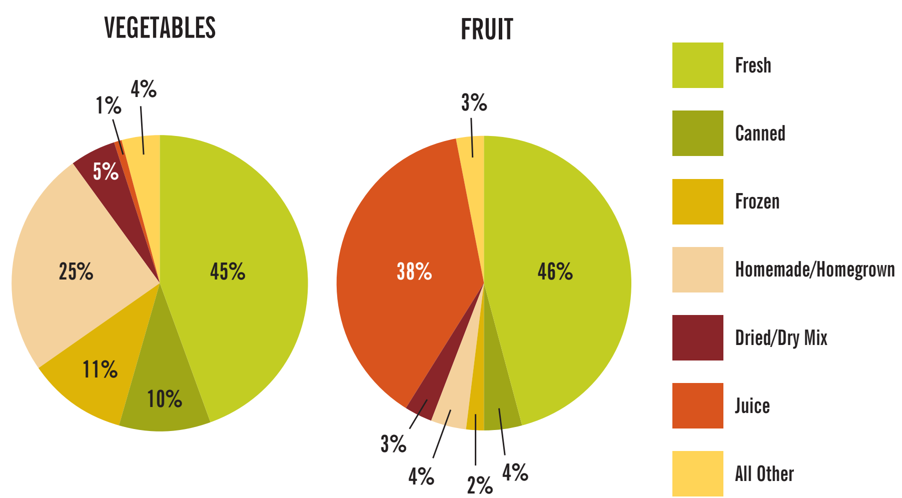
- -6% Potato
- -4% Italian Dishes
- -2% Corn
- -2% Soup
- -1% Stew
- -1% Peas

Source: The NPD Group/Nutrient Intake Database

Chart 7: Fresh dominates for both fruits and vegetables. Juice accounts for almost 40% of all cups of fruit consumed. Canned and frozen each account for roughly 10% of all vegetable intake.

Source: The NPD Group/Nutrient Intake Database

Forms of Fruits and Vegetables Consumed In-Home

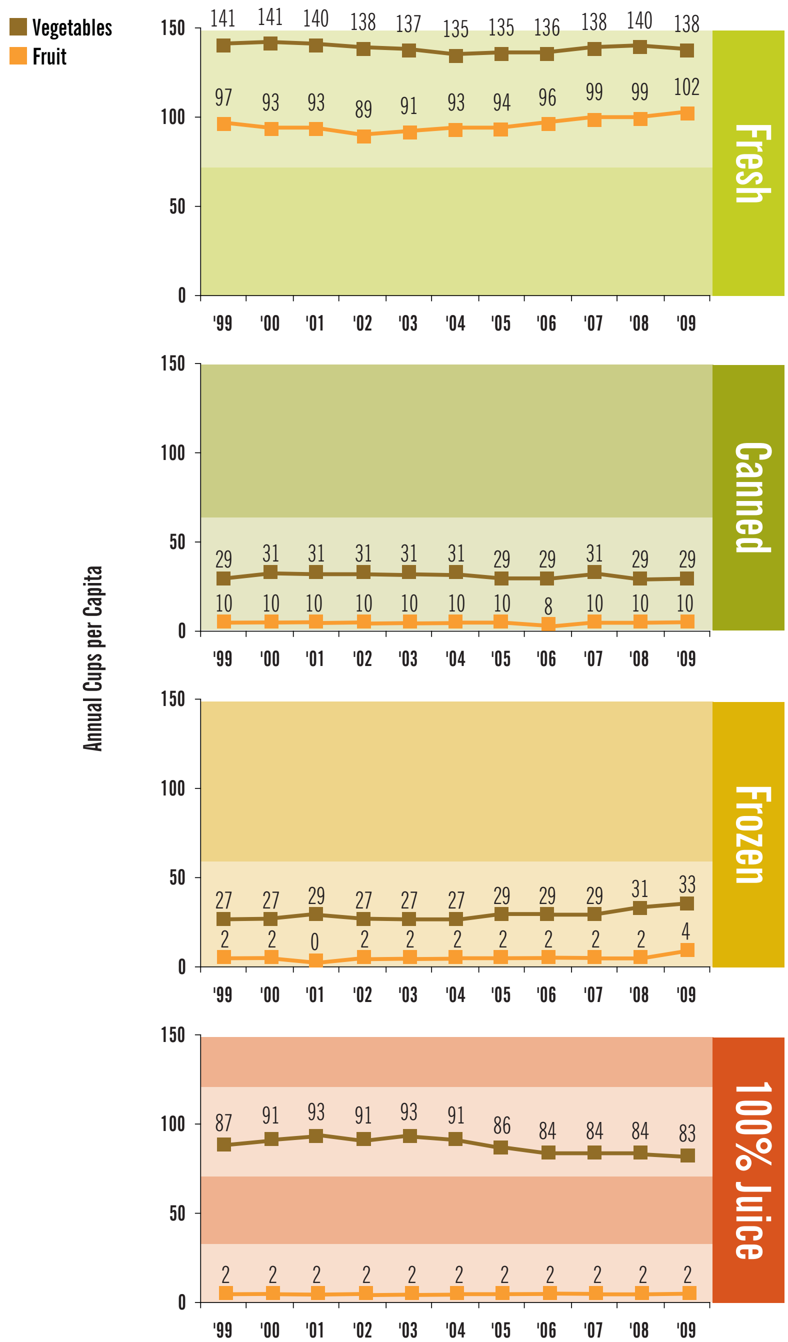


Note: Homemade includes homemade vegetable dishes; Dried/Dry Mix includes potato mixes.

Chart 8:

Fresh fruit consumption has risen steadily since 2002. Frozen vegetables have posted modest gains (as did frozen fruit in 2009). Fruit juice's earlier drop has stabilized.

Trends in In-Home Fruit vs. Vegetable Consumption by Form



Source: The NPD Group/Nutrient Intake Database

Achievement of Recommended Targets for Fruits & Vegetables

Federal fruit and vegetable recommendations, in the form of the Dietary Guidelines, include consuming a sufficient amount of fruits and vegetables while staying within energy needs. Two cups of fruit and 2½ cups of vegetables per day are recommended for a reference 2,000-calorie intake, with higher or lower amounts depending on the calorie level (See Appendix C).

Most Americans consume anywhere from 30% to 80% of their recommended number of vegetables in a typical day. Only 6.4% of the population achieves their target for vegetable consumption in an average day (Chart 9). Only 8% of children, 7% of adult males, and 5% of adult females achieve their targeted goals.

The picture is less favorable for fruit. Two out of 10 individuals don't consume even 10% of their recommended amount; two thirds don't even consume 50% of their target. Just 7.6% achieve their fruit target in a typical day (Chart 10). Of note, children are most likely to achieve their recommended amount of fruit: 12% do so compared with only 7% of adult females and 5% of adult males. In fact, 19% of children ages 2-5 achieve their fruit target (Chart 11). Keep in mind, however, that the consumption targets are lower for younger children (See Appendix C).

Just 1% of adults (and 2% of children) meet both their fruit and vegetable targets!

Chart 9:
Most Americans consume anywhere from 30% to 80% of their recommended number of vegetables in a typical day. Just 6% achieve their target in an average day.

Source: The NPD Group/Nutrient Intake Database

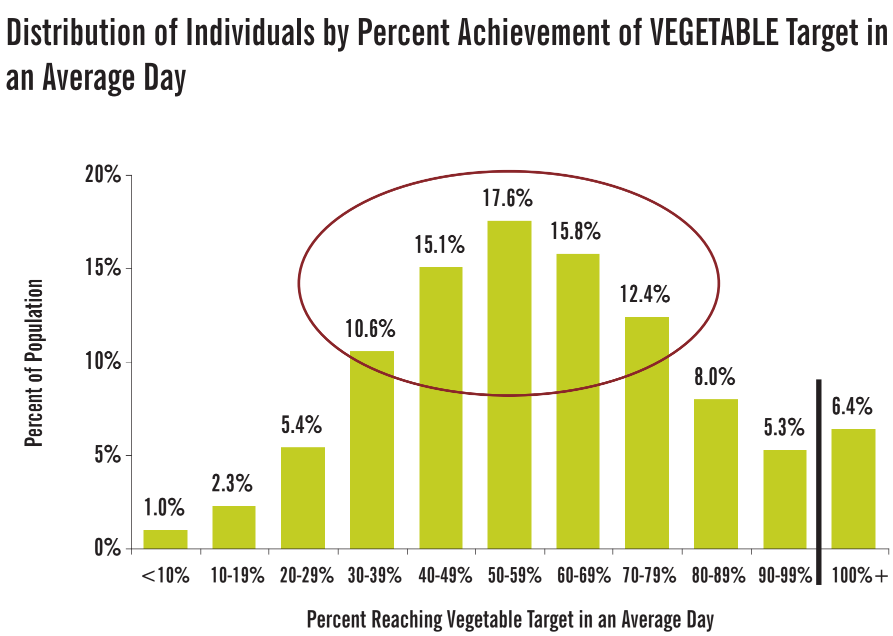
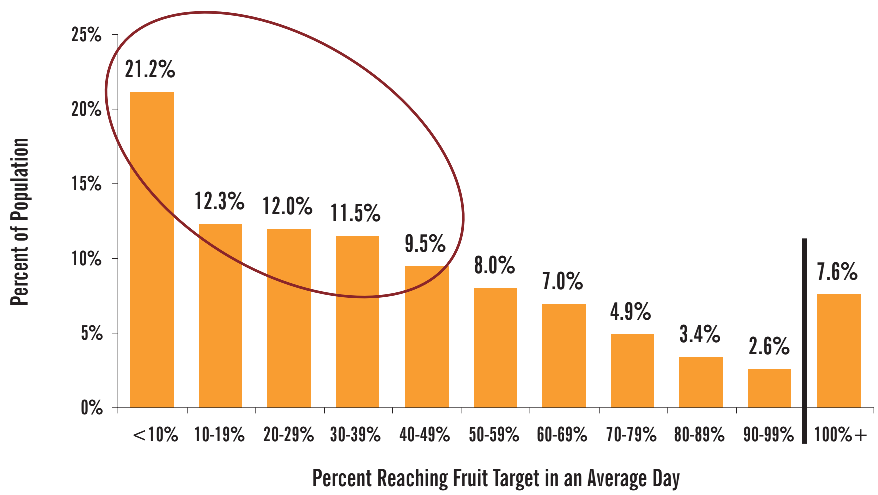


Chart 10:

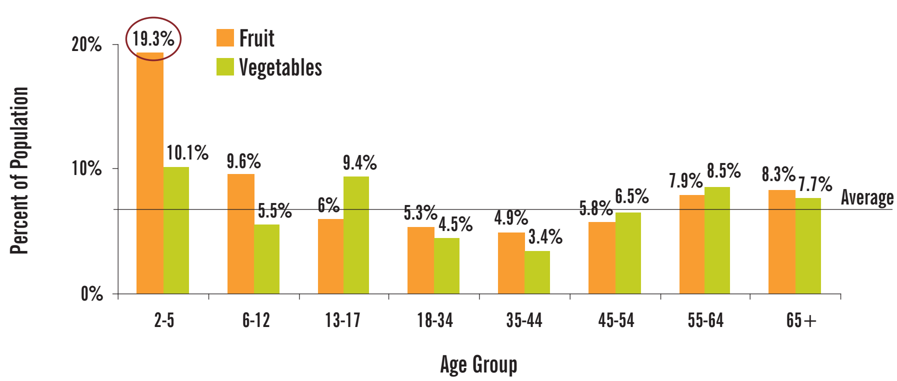
The picture is less favorable for fruit: 2 out of 10 individuals don't consume even 10% of their recommended target. Two-thirds don't even consume 50% of their target. Just 8% achieve their fruit target in a typical day.

Source: The NPD Group/Nutrient Intake Database

Distribution of Individuals by Percent Achievement of FRUIT Target in an Average Day



Age Groups Achieving the Recommended Number of Cups of Fruits and Vegetables in an Average Day



Average = 7.6% achieve fruit target, 6.4% achieve vegetable target.

Chart 11:

Only 6 - 8% of individuals achieve the recommended number of vegetables and fruits (respectively) in an average day. Of young children ages 2 - 5, 20% achieve their fruit target, but their targets are lower than older age groups.

Source: The NPD Group/Nutrient Intake Database

In terms of life stage, households with seniors are slightly more likely to achieve their fruit and vegetable targets; roughly 1 out of 10 individuals do so. Singles and households with two incomes and no children are least likely to reach their recommended amount; roughly 1 in 20 individuals do so. On average, 7% of working parents, single parents, traditional families, and empty nesters achieve their recommended cups of fruits and vegetables. Employment of the female head in a household does not appear to have a significant impact on the achievement of fruit and vegetable consumption targets among the individuals in the household.

Favorite Family FRUIT, as Reported by Moms

Gen X Moms:		Gen Y Moms:	
Apples	32%	Apples	28%
Bananas	22%	Bananas	23%
Strawberries	12%	Strawberries	11%
Grapes	8%	Oranges	9%
Oranges	7%	Pineapple	5%
Pineapple	4%	Grapes	5%
Peaches/Nectarines	3%	Peaches/Nectarines	4%
Pears	2%	Watermelon	3%
Watermelon	2%	Berries	2%
Berries	2%	Pears	2%
Clementines/Tangerines	2%	Clementines/Tangerines	2%
Grapefruit	1%	Kiwi	1%
Mango	1%	Canned Fruit	1%
Kiwi	1%	Fresh	1%
Melon	1%	Mango	1%
Apple Sauce	1%	Melon	1%
Canned	<1%	Cherries	1%
Fresh	<1%	Grapefruit	<1%
Cherries	<1%	Apple Sauce	<1%

Source: PBH Gen X Mom 2010 Survey, by OnResearch

Of individuals who achieve their vegetable target, they consume 1.1 more cups of vegetables per day (and 0.3 more cups of fruit) vs. non-achievers. This achievement is also driven by use of vegetables at dinner, as well as lunch; eating them "as is" as opposed to as an ingredient; and sourcing them from home and eating them during the weekday. Those individuals who achieve their fruit target consume 1.5 more cups of fruit per day (and 0.2 more cups of vegetables) vs. non-achievers. Their achievement is driven by eating more fruit at all eating occasions, especially at breakfast and lunch. They are also more likely to eat fruit "as is" as opposed to as an ingredient, they eat more during the weekday, and source them almost exclusively from home.

Favorite Family VEGETABLE, as Reported by Moms

Gen X Moms:		Gen Y Moms:	
Broccoli	19%	Carrots	18%
Corn	17%	Corn	17%
Green Beans	14%	Green Beans	15%
Carrots	13%	Broccoli	12%
Potatoes	6%	Potatoes	6%
Peas	4%	Salad/Lettuce	5%
Salad/Lettuce	4%	Peas	3%
Spinach	4%	Spinach	3%
Tomatoes	4%	Tomatoes	3%
Cucumber	3%	Cucumber	3%
Beans (General, Lima)	2%	Beans (General, Lima)	2%
Asparagus	2%	Canned	2%
Celery	2%	Mushrooms	2%
Peppers	1%	Celery	1%
Cauliflower	1%	Asparagus	1%
Cabbage	1%	Peppers	1%
Canned	<1%	Cauliflower	1%
Squash	<1%	Squash	1%
Fresh	<1%	Fresh	<1%
Sweet Potatoes	<1%	Cabbage	<1%
Mushrooms	<1%	Sweet Potatoes	<1%

Source: PBH Gen X Mom 2010 Survey, by OnResearch

Gen Y moms are slightly less knowledgeable than Gen X moms about the amount of fruits and vegetables needed daily, as well as their benefits.

III. Moms

As gatekeepers to their family's meals, moms have a critical role to play in any effort to increase fruit and vegetable consumption. PBH focuses many of its activities on a subset of moms, Gen X moms. These moms were chosen, in part, because they are especially involved in their family's health and are concerned with disease prevention and holistic health. They actively seek information, especially regarding family health and well-being. For comparison purposes, three hundred Gen Y moms were added in 2010, to help understand differences when communicating in the future to these younger mothers.

For several metrics relating to the consumption of and attitudes towards fruits and vegetables, the most significant predictor was a mom's level of physical activity—the more physically active a mom, the more likely she and her family were to perceive fruits and vegetables as important and to consume more. Consumption was positively correlated to household income and employment status.

A. Attitudes

Most Gen X moms believe that their families eat too little fruit and too few vegetables. Gen Y moms are slightly more likely to believe their families already consume too many fruits and vegetables (Chart 12). Gen Y moms report eating more fruits and fewer vegetables than Gen X moms. However, Gen Y moms believe their recommended amounts of fruits and vegetables are less than they really are. Unlike Gen Y moms, Gen X moms know that their consumption levels should be higher.

Gen X moms continue to believe over time that it is their responsibility to include fruits and vegetables in their family's meals. Most agree that they would like to be able to include a greater variety of fruits and vegetables at meal time (Chart 13). When asked about their interest in knowing how to prepare fruits and vegetables in new ways, there was a significant decrease in 2010 vs. 2009. There was also an increase in 2010 in the number who felt they knew how to prepare fruits and vegetables in different ways. Finally, over time more Gen X moms felt they had the support they needed to include fruits and vegetables in family meals and snacks (Chart 13). These responses are a good indication that moms may be feeling more equipped and more confident in their ability to serve fruits and vegetables to their families.

Gen Y mom responses to questions found in Chart 13 did not differ significantly from Gen X moms, other than in two areas, as noted in Chart 14. Gen Y moms were less likely to feel it was important to include fruits and vegetables in their family's meals and snacks; they were also less likely to want to include a greater variety of fruits and vegetables in their family's meals.

Chart 12: Gen Y moms are slightly more likely to believe their families already consume too many fruits and vegetables.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

Gen X vs. Gen Y Moms: Perception of Family's Consumption of Fruits and Vegetables

Which of these statements best represents your family's eating habits for each of the following? (Include fresh, canned, frozen, dried, and 100% juice)

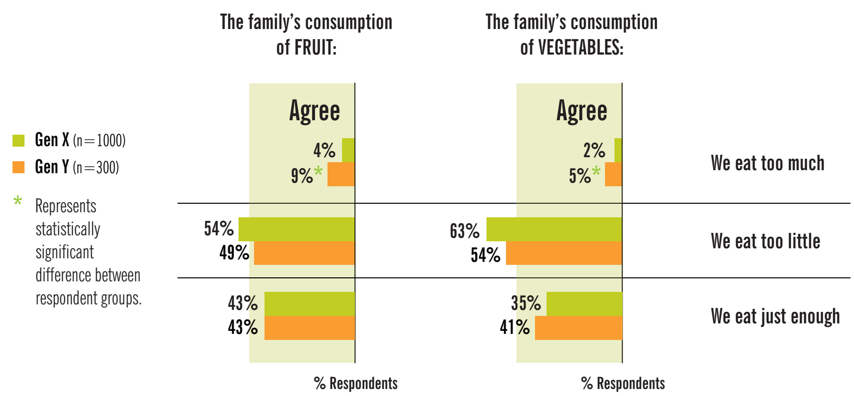


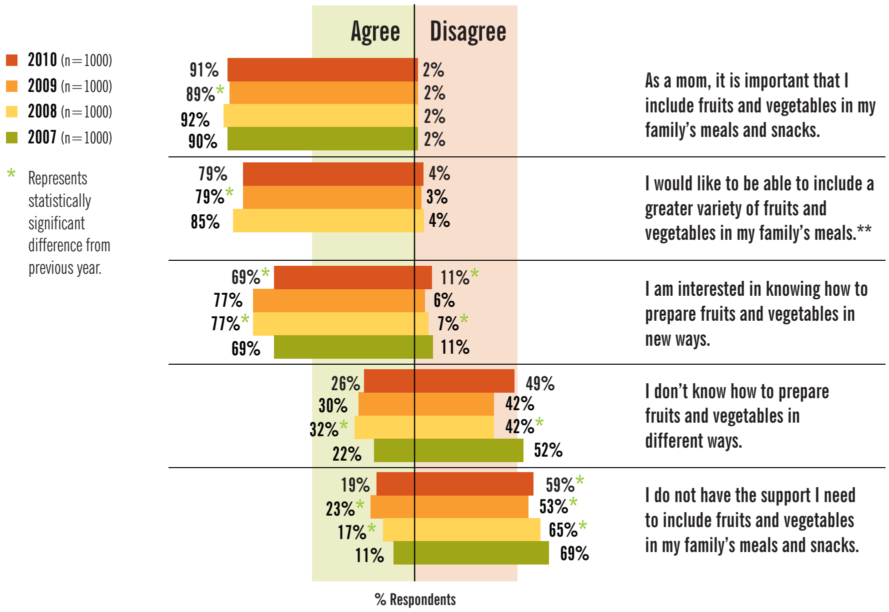
Chart 13:

Gen X moms believe fruits and vegetables are important but would like to include greater variety.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

Gen X Moms' Beliefs and Social Support About Adding More Fruits and Vegetables, 2007 - 2010

Please rate your level of agreement or disagreement with the following statements:

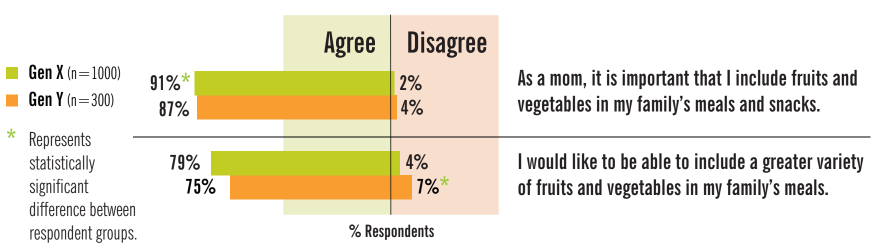


**Question not included as an option for 2007.

Note: Responses do not equal 100% because mid-point in 5-point Likert Scale was omitted.

Gen X vs. Gen Y Moms: Differences in Beliefs and Social Support About Adding More Fruits and Vegetables, 2010

Please rate your level of agreement or disagreement with the following statements:



Note: Responses do not equal 100% because mid-point in 5-point Likert Scale was omitted.

Chart 14:

Among Gen Y moms, single moms are less likely to feel it is their role to include fruits and vegetables in their family's meals, while those who are less physically active receive less support from their husbands.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

B. Purchasing Behavior

In terms of purchasing behavior, 35% of Gen Y moms reported buying more fruit and 33% reported buying more vegetables in the past three months than one year earlier. Only 6% reported buying less fruit and 4% reported buying fewer vegetables; the rest reported purchasing about the same amounts of each (59% for fruit, 63% for vegetables) compared to the previous year. Gen X moms reported buying more fruit (26%) and more vegetables (24%) in the past three months compared to one year earlier. Only 8% reported buying less fruit and 5% reported buying fewer vegetables, while 66% reported purchasing the same amount of fruit and 71% reported the same amount of vegetables as in the previous year.

Fresh fruit was the most frequently purchased form of fruit, with 78% of Gen X moms and 68% of Gen Y moms purchasing them weekly. Next, 100% juice was purchased most frequently, with 51% of Gen X moms and 57% of Gen Y moms purchasing them weekly. Not surprisingly, because of the ability to buy and store in bulk, canned fruit was purchased next most frequently, followed by frozen fruit and then dried fruit. The least likely item to be purchased at all was dried fruit, with 19% of Gen X moms and 29% of Gen Y moms claiming to have never purchased them at all.

Fresh vegetables were the most frequently purchased form of vegetable, with 77% of Gen X moms and 61% of Gen Y moms purchasing them weekly. Frozen vegetables were the next most frequently purchased form of vegetable, followed by canned, 100% vegetable juice, and then dried vegetables. Among Gen X moms, 55% report never purchasing dried vegetables compared to 49% of Gen Y moms, and 28% of both Gen X & Gen Y moms reported never purchasing 100% vegetable juice.

When asked why they purchase fresh, frozen, canned, dried, or 100% fruit juice, moms reported that fresh fruit and 100% fruit juice are mainly purchased for nutrition and family preference, while canned, frozen, or dried fruit are purchased mainly for convenience, cost, and longer shelf life (Chart 15).

Similarly, when asked why they purchase various forms of vegetables, moms indicated that fresh vegetables and 100% vegetable juice are purchased mainly for nutrition and family preference, while frozen, canned, or dried vegetables were also purchased mainly for convenience, cost, and longer shelf life (Chart 16).

There has been a slow, but steady increase in fruit availability in the home since 2007 and a similar but less pronounced increase in vegetables over this same time period. In 2010, 84% of Gen X moms said that fruit was generally available in their home; 84% said that vegetables were generally available. More specifically, 80% had fresh fruit, 71% had juice, 49% had canned, 31% had frozen, and 30% had dried fruit in their home. In 2010, 75% of Gen X moms reported having frozen vegetables available in the home, followed by 74% for fresh, 67% canned, 26% vegetable juice, and 12% having dried vegetables available. Gen Y moms were significantly less likely to include fresh and dried fruits and frozen vegetables compared to Gen X moms.

In January 2010, 35% of Gen Y moms and 26% of Gen X moms reported buying more fruit in the past three months than one year earlier; 33% of Gen Y moms and 24% of Gen X moms reported buying more vegetables.

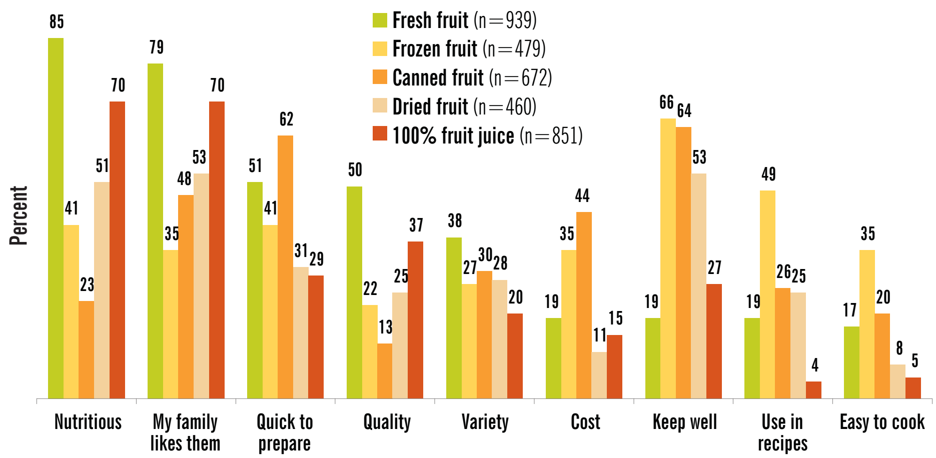
Chart 15:

Fresh fruit and 100% fruit juice are mainly purchased for nutrition and family preference. Other forms are purchased mainly for convenience and longer shelf life.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

Gen X Moms' Reasons for Purchasing Various Forms of FRUIT, 2010

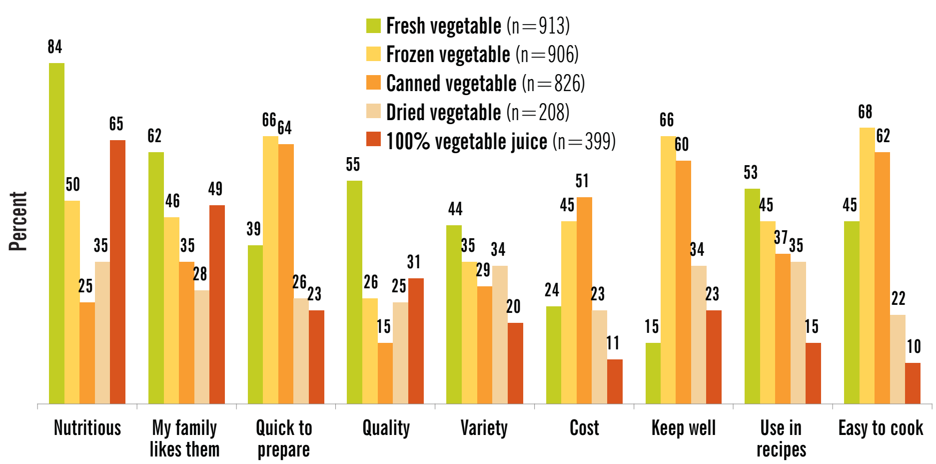
Why do you purchase (various forms of) fruit? (Please select all that apply)



Note: The number of respondents will vary, as this question was only asked of those respondents who reported keeping the form of fruit in question available in their homes.

Gen X Moms' Reasons for Purchasing Various Forms of VEGETABLES, 2010

Why do you purchase (various forms of) vegetables? (Please select all that apply)



Note: The number of respondents will vary, as this question was only asked of those respondents who reported keeping the form of vegetable in question available in their homes.

Chart 16:

Fresh vegetables and vegetable juice are mainly purchased for nutrition and family preference. Other forms are mainly purchased for convenience and longer shelf life.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

C. Eating Out

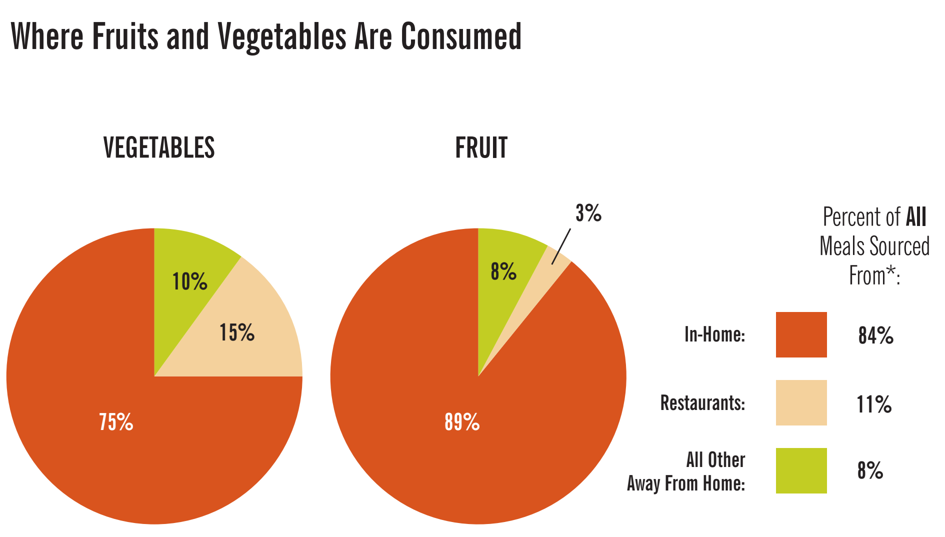
NPD data suggests that fruits and vegetables are primarily consumed in the home, with 75% of vegetables and 89% of fruit consumed there. Restaurants account for 15% of all vegetables consumed, but only 3% of fruit. Eating fruit is an under-developed behavior at restaurants (Chart 17). Vegetable consumption has remained stable in the home since 2004; the softening has been at restaurants and other away-from-home outlets. Fruit consumption has increased modestly in the home and there has been a slight upturn at restaurants (Chart 18).

Of particular note, when Gen X moms have been asked about how easy it is for them to get their family to eat fruits or vegetables at various times, there has been a steady increase in moms reporting the ease of getting their family to eat fruit at restaurants and quick-service establishments (Chart 19). For vegetables, moms' ability to get their family to eat them at quick service restaurants has steadily increased over time, although there was a significant decrease in their reported ability to do so at full-service restaurants in 2010. This may be due, in part, to families eating out less at full-service restaurants during the economic downturn, and turning instead to quick service establishments, where some chains are beginning to add healthier fruit and vegetable options to their menu.

There has been a steady increase in Gen X moms reporting it easy to get their family to eat fruits and vegetables at quick-service establishments.

Chart 17:
Fruits and vegetables are predominately consumed in the home. Restaurants account for 15% of all vegetables consumed, but only 3% of fruit.

Source: The NPD Group/Nutrient Intake Database



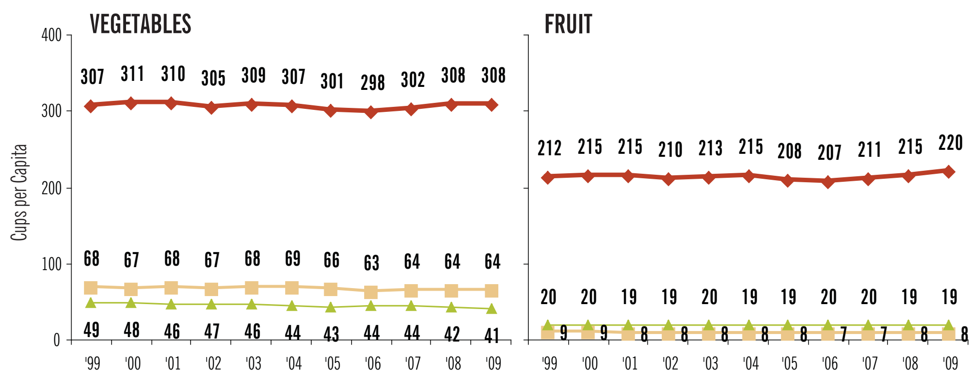
*Summary can be >100% because a meal could include items sourced from both in home and away from home.

Chart 18:

Vegetable consumption has remained stable in the home vs. 2004 . . . some softening has occurred at restaurants and other away-from-home outlets. Fruit consumption has increased modestly in the home, with a slight upturn at restaurants.

Source: The NPD Group/Nutrient Intake Database

Trend in In-Home/Away-From-Home Consumption of Fruits vs. Vegetables - Annual Cups Per Capita



Percent Change in 2009 vs. 2004:

	VEGETABLES	FRUIT
In-Home:	nc	2%
Restaurants:	-7%	10%
All Other Away From Home:	-7%	-4%

Gen X Moms' Ease in Increasing Their Family's Consumption of Fruits and Vegetables Throughout the Day

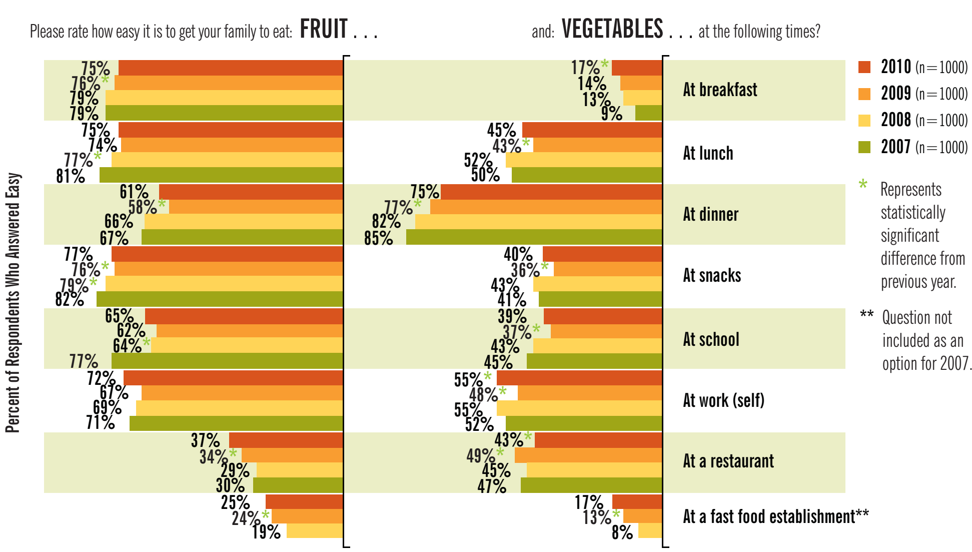


Chart 19:

Gen X moms consistently identify similar opportunities for their families' consumption of fruits and vegetables, with increased opportunities in fast food establishments.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

Also noteworthy is that Gen Y moms were significantly more likely than Gen X moms to report ease in getting their family to eat fruit at both restaurants and quick service establishments (Chart 20). This change in quick service outlets is likely due to the increased availability in recent years of apple slices or crinkles in children's meals in major quick service restaurant chains. Since Gen Y mothers have younger children than Gen X moms (mean age of 5 vs. 8), they may take advantage of these restaurant offerings more than moms with older children.

Despite these notable advances in restaurants, adding fruit and vegetable items to the menu provides significant opportunities for increased consumption. In fact, moms report that there is not a good range of fruits and vegetables available in restaurants, which creates difficulty for them when trying to get their family to eat more fruits and vegetables (Chart 21).

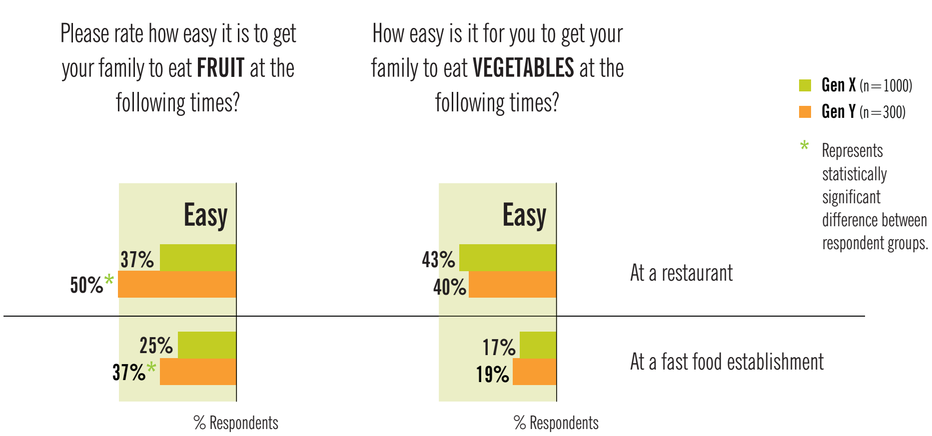
D. Barriers to Fruit and Vegetable Consumption

The main barriers to consuming more fruits and vegetables are consistent for both Gen X and Gen Y moms, as shown in Chart 21. These barriers are primarily differing family preferences, the need for new preparation ideas, and the lack of fruit and vegetable options for increased consumption in restaurants. Of note, Gen Y moms were significantly more likely than Gen X moms to state that vegetables are too expensive; this is probably due to the younger age of Gen Y moms and therefore younger, less financially established households.

In previous years, Gen X moms had indicated that they did not have the support they needed to include fruits and vegetables in their family's meals and snacks (Chart 22). In 2010, to better understand what kind of "support" moms were lacking, an open-ended question was added, asking what type of support they would need to be able to include more fruits and vegetables in their family's meals and snacks. For Gen X moms, spousal or family support was reported by 30% as something they don't receive, followed by dislike of the food by family members. For Gen Y moms, financial support or cost reduction was the support 29% of them felt they needed, followed by spousal or family support (Chart 22). This difference, again, is likely due to a younger, less financially established household.

Chart 20: Gen Y moms find it easier to get their family to eat fruit when eating out.

Gen X vs. Gen Y Moms: Ease in Getting Their Family to Eat Fruits and Vegetables When Eating Out



Source: PBH Gen X Mom 2010 Survey, by OnResearch

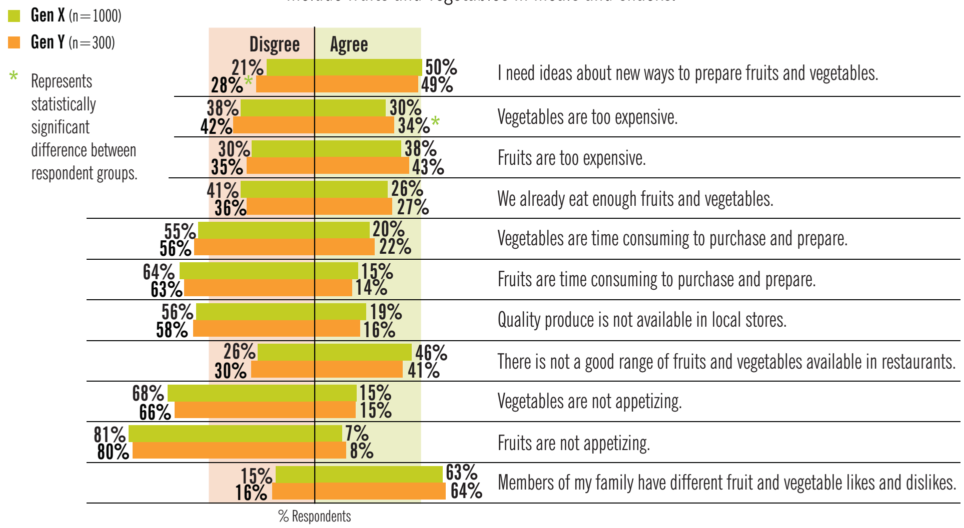
Chart 21:

The main barriers to increased fruit and vegetable consumption are consistent for both Gen X and Gen Y Moms: differing family preferences and the need for new preparation ideas.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

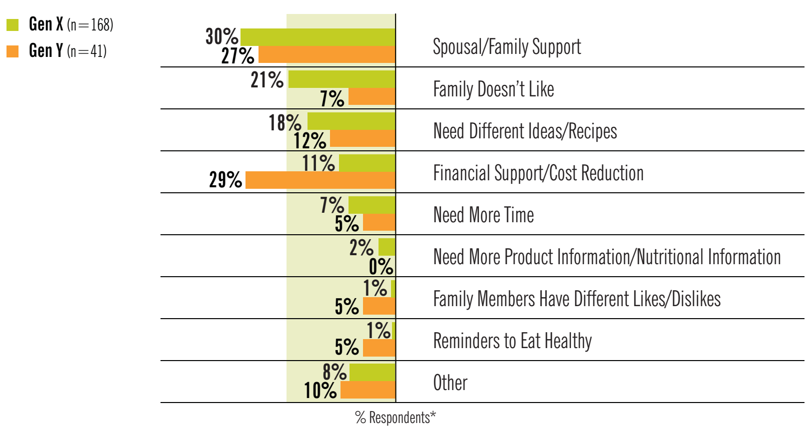
Gen X vs. Gen Y Moms: Barriers to Increased Fruit and Vegetable Consumption

Please indicate your level of agreement in relation to how difficult each is for you to include fruits and vegetables in meals and snacks.



Gen X vs. Gen Y Moms: Desired Support Needed

What type of support don't you receive that you need to be able to include fruits and vegetables in your family's meals and snacks?



*Only asked to those who responded "yes" in previous question: I do not have the support I need to include more fruits and vegetables in my family's meals and snacks.

Chart 22:

Gen Y moms are much more likely to identify a need for financial support than their Gen X counterparts.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

In an effort to determine if these mothers were shopping for convenience or price, a scenario was given to them regarding the purchase of their favorite fruit or vegetable. Convenience shoppers were defined as those who were likely to pay a premium (25% or 50%) to purchase their favorite fruit/vegetable at a store located close to their home or workplace and were unlikely to travel (15 or 30 minutes further away) for a discount (25% or 50%). Bargain shoppers were defined as those who were likely to travel (15 or 30 minutes further away) in order to obtain a discount (25% or 50%) on their favorite fruit/vegetable and were unlikely to pay a premium (25% or 50%) to purchase at a store conveniently located near their home or workplace. Hybrid shoppers were defined as all other shoppers. When thinking of their favorite fruit or vegetable, about half of all moms tend to be bargain shoppers (Chart 23), but Gen X moms were more likely to purchase based on convenience; they were willing to pay a premium if a store was located close to their home or workplace. Gen Y moms were less price-sensitive, however, when it came to fruits and vegetables for their children; they were willing to pay more for something their children like.

The 5 A Day for Better Health campaign, and now the Fruits & Veggies—More Matters campaign that has replaced it, has provided mothers with various suggested approaches to encourage their family's consumption of fruits and vegetables. Moms have tried several of these different approaches, as noted in Chart 24. However, mothers who have tried these approaches report varying levels of success. For example, 57% of moms report trying to serve a new vegetable or vegetable recipe and encourage their child to taste it, but only 30% who did this found it successful at increasing consumption among family members. On the other hand, only 37% of moms have involved their children in growing fruits and vegetables, but these mothers report a higher degree of success (53%) with this approach at increasing fruit and vegetable consumption among family members. Overall, the approaches most successful include setting out a fruit bowl; having vegetables cut up and ready to eat in the refrigerator; involving children in selecting, growing, or preparing fruits and vegetables; and hiding them in other foods.

Though not shown here, success was largely correlated to the level of physical activity of the mom—more physically active moms were more likely to report higher success rates. Also, full-time working Gen X moms tend to be more successful than their counterparts who were either unemployed or working part time.

Finally, Gen Y moms were slightly less likely than Gen X moms to have tried the approaches noted in Chart 24, but those who did reported slightly greater success rates than Gen X moms.

Chart 23:
When thinking of their favorite fruit or vegetable, about half of all moms tend to be bargain shoppers. Gen X moms are more likely to purchase based on convenience; they are willing to pay a premium if a store is located close to their home or workplace.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

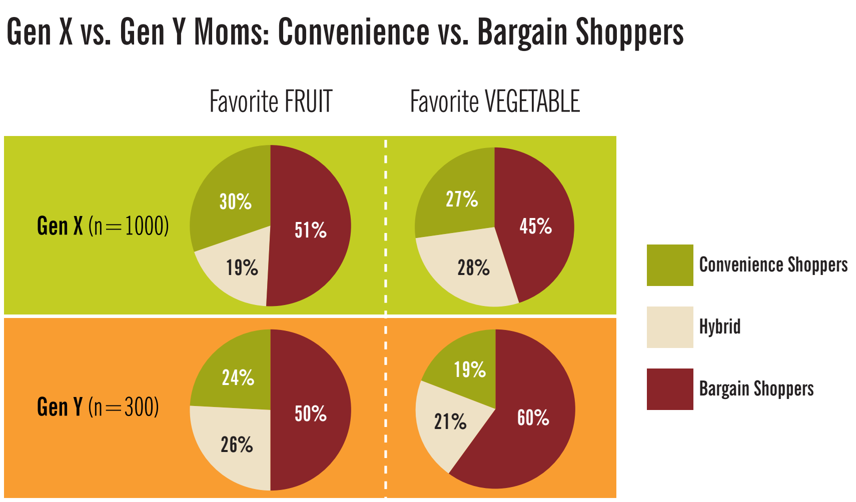


Chart 24:

Gen X moms have tried several different approaches to encourage their family's consumption of fruits and vegetables, with varying levels of success.

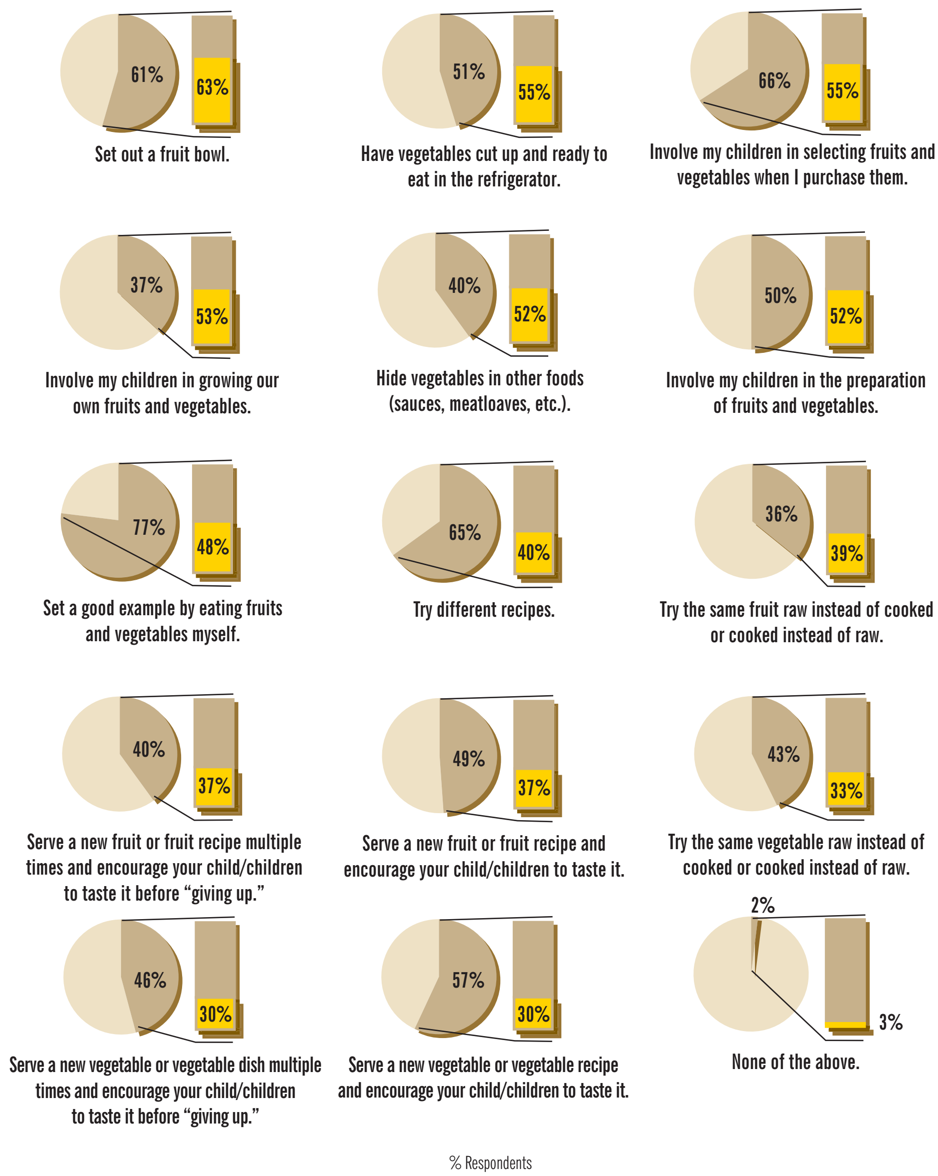
Gen X Moms' Approaches to Increasing Their Family's Fruit and Vegetable Consumption

Q1: Which of the following approaches **have you tried** to encourage your family to eat more fruits and vegetables?

➥ Q2: For each of the following approaches <u>that you have tried</u> to encourage your family to eat more fruits and vegetables, **how successful have they been**?

Have Tried

Have Tried & Found Very Successful



Source: PBH Gen X Mom 2010 Survey, by OnResearch

E. Perceived Benefits of Fruit and Vegetable Consumption

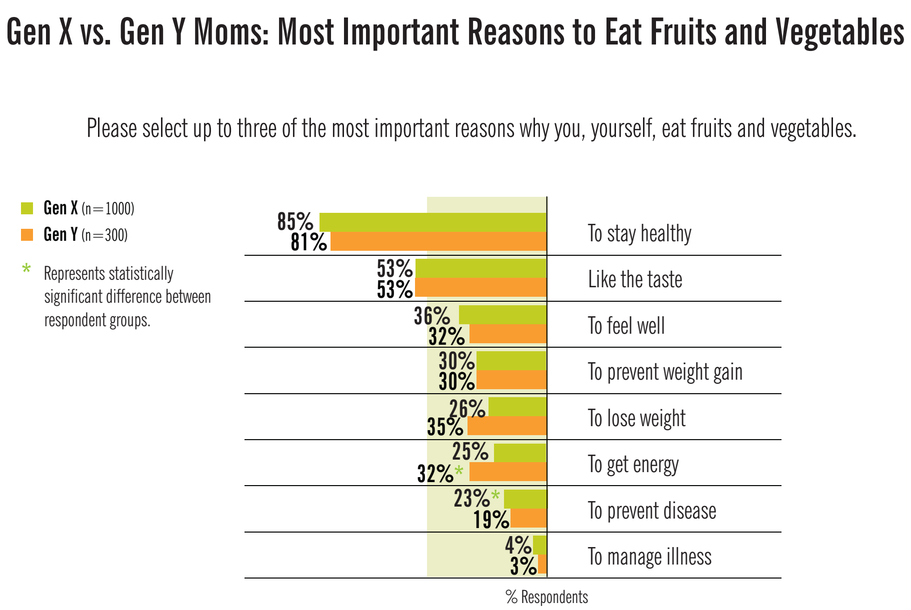
Both Gen X and Gen Y moms cite health as the top reason they personally eat fruits and vegetables. However, Gen Y moms are more likely to report "to get energy" while Gen X moms are more likely to report "to prevent disease" (Chart 25).

The preventative benefits relating to heart disease and high blood pressure are more likely to be correctly cited by Gen X moms, while Gen Y moms are more likely than Gen X moms to cite that fruits and vegetables help prevent measles (Chart 26). Almost 90% of all mothers recognize the important role that fruits and vegetables play in preventing weight gain, overweight, and obesity.

When asked which components of fruits and vegetables they believe provide health benefits, vitamins, antioxidants, fiber, minerals, and water were cited, in descending order. Gen X moms were significantly more likely to site the health benefits of antioxidants in fruits and vegetables vs. Gen Y moms, while Gen Y moms significantly more often cited protein as providing health benefits vs. their older counterparts. While mentioned as a source of protein, vegetables are best known for vitamins, antioxidants, fiber, and minerals – and less so for protein (Chart 27).

When communicating the benefits of eating more fruits and vegetables, Gen X moms are more likely to respond to preventative benefits (against heart disease, etc.), while Gen Y moms are drawn to a message regarding the "energy-boosting" effects of fruits and vegetables.

Chart 25:
Both Gen X and Gen Y moms cite health as the top reason they personally eat fruits and vegetables.



Source: PBH Gen X Mom 2010 Survey, by OnResearch

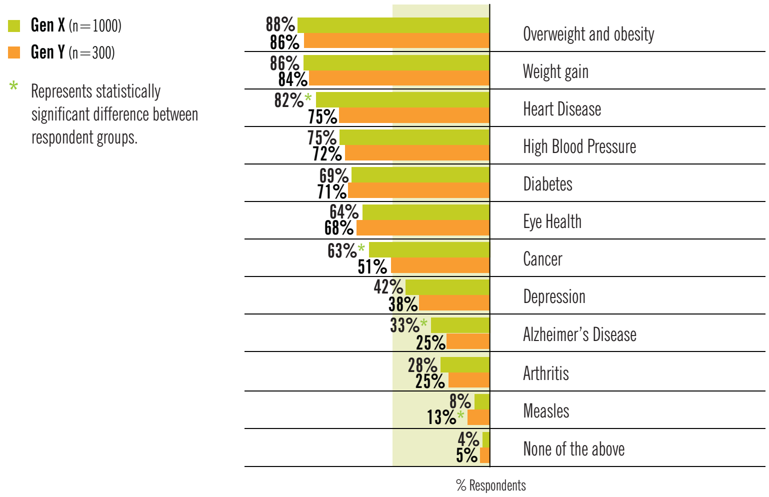
Chart 26:

The preventative benefits associated with fruit and vegetable consumption are less likely to be identified by Gen Y moms.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

Gen X vs. Gen Y Moms: Health Benefits of Fruits and Vegetables

Which of the following do you believe consuming fruits and vegetables may be beneficial for preventing?



Gen X vs. Gen Y Moms: Components of Fruits and Vegetables That Provide Benefits

Which of the following components of fruits and vegetables do you believe may provide health benefits?

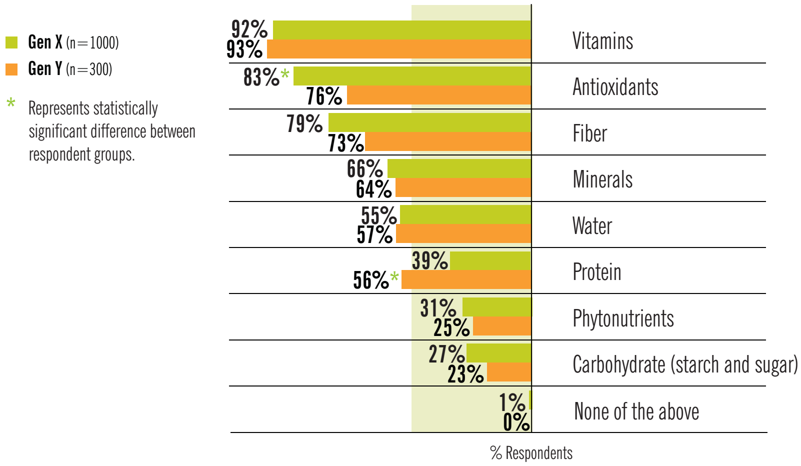


Chart 27:

Beneficial compounds in fruits and vegetables are most often correctly identified by Gen X moms.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

F. Sources of Information

When asked where they would go to obtain information about how to get their family to eat more fruits and vegetables, Gen X moms were most likely to consult the Internet and less likely this year to consult nutritionists, supermarkets, and newspapers (Chart 28). The Internet is also the preferred source for Gen Y moms but to a lesser degree—these moms are more likely to consult individuals such as their healthcare provider, dietitians, or family members. (Chart 29)

Demographics of Internet Users

Total Adults	**79%**
Men	79%
Women	79%
Race/Ethnicity	
White, Non-Hispanic	80%
Black, Non-Hispanic	71%
Hispanic (English-speaking)	82%
Age	
18-29	95%
30-49	87%
50-64	78%
65+	42%
Household Income	
Less than $30,000/year	63%
$30,000-$49,999	84%
$50,000-$74,000	89%
$75,000+	95%
Educational Attainment	
Less Than High School	52%
High School	67%
Some College	90%
College+	96%

Source: The Pew Research Center's Internet & American Life Project, April 29 - May 30, 2010 Tracking Survey. N= 2,252 adults, 18 and older, including 744 cell phone interviews. Interviews were conducted in English. Margin of error ±2%.

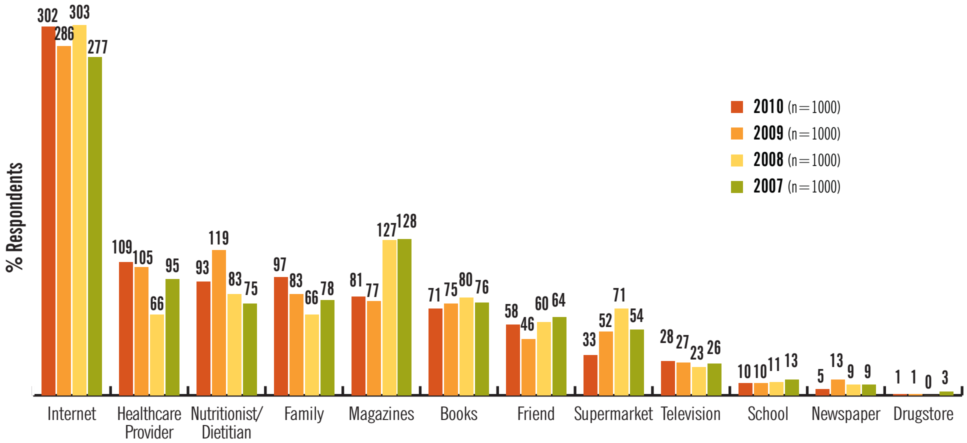
Chart 28:

Gen X moms, by far, are most likely to consult the Internet and less likely to consult nutritionists, supermarkets, and newspapers.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

Gen X Moms' Source of Information (Mindshare Scores*)

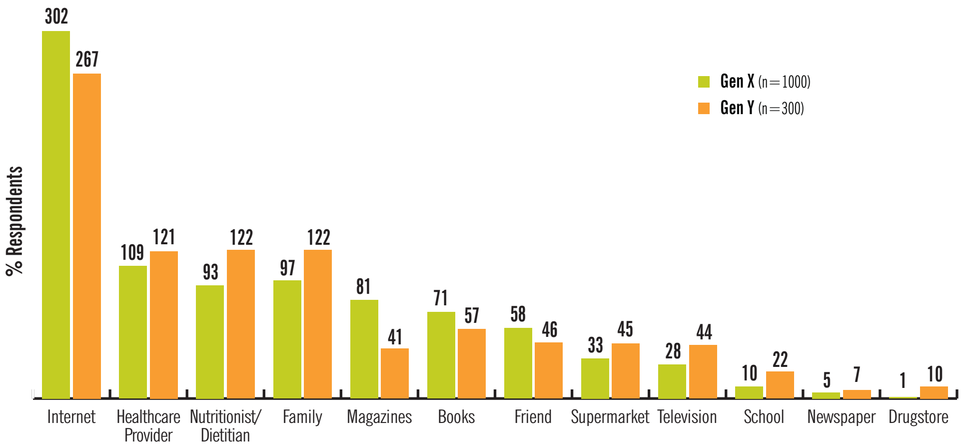
If you wanted information about how to get your family to eat more fruits and vegetables, where would you go to obtain it? (Please rank your top 3 choices) For Example: 1 = First choice, 2 = Second choice, 3 = Third choice



*Additive score where each first mention garners five points, each second mention garners three points, and each third mention garners a single point.

Gen X vs. Gen Y Moms: Differences in Source of Information (Mindshare Scores*)

If you wanted information about how to get your family to eat more fruits and vegetables, where would you go to obtain it? (Please rank your top 3 choices) For Example: 1 = First choice, 2 = Second choice, 3 = Third choice



*Additive score where each first mention garners five points, each second mention garners three points, and each third mention garners a single point.

Chart 29:

The Internet is also the preferred source for Gen Y moms but to a lesser degree. These moms are more likely to consult individuals.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

Forty percent of moms reported being unsure or needing help to better plan their grocery shopping and identified that online menus which included shopping lists would be most helpful.

When mothers were asked how they knew what was their recommended amount of fruits and vegetables to consume, more than half of them cited that it was their personal estimate or a guess. MyPyramid, however, remains the most popular source of information regarding recommended intake for 22% of Gen X moms and 19% of Gen Y moms. Printed materials, such as magazines, newspapers, or books were the next most popular source of information for Gen X moms, while school was a much higher rated source of information for Gen Y moms (Chart 30).

The Internet is the most popular source for recipes for both Gen X and Gen Y moms. Gen X moms were significantly more likely to use cookbooks (74% Gen X vs. 66% Gen Y), and the younger Gen Y mothers were significantly more likely to turn to friends and family for recipes (69% for Gen Y vs. 62% for Gen X). The websites that mothers used to seek out recipes on the Internet varied only slightly between these age groups, as shown in Chart 31. Of those surveyed, 40% of moms reported being unsure or needing help to better plan their grocery shopping and identified that online menus which included shopping lists would be most helpful.

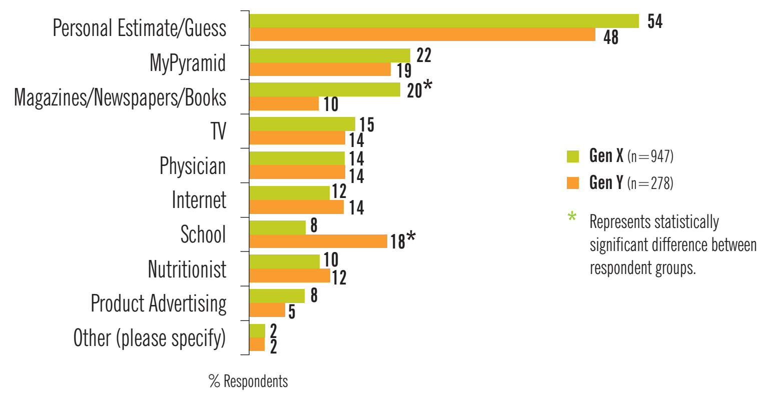
Chart 30:

Gen X moms are more likely to rely on print publications while Gen Y moms rely on schools as a source for determining their daily recommended intake of fruits and vegetables.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

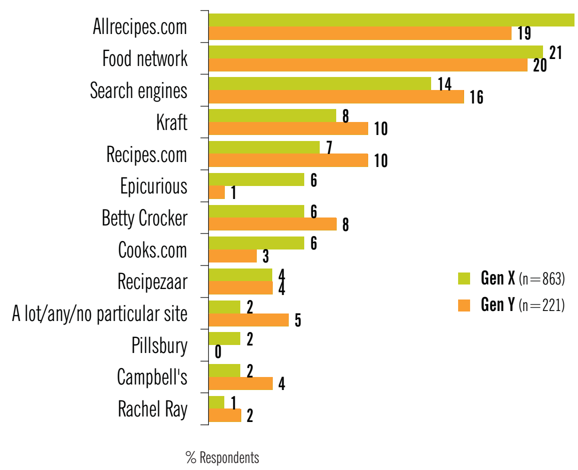
Gen X vs. Gen Y Moms: Sources of Recommended Intake

Where did you receive information about the recommended amounts for you?



Gen X vs. Gen Y Moms: Websites Visited

What websites do you normally visit to find recipes?*



*Only asked of those respondents who selected "Internet" as a place they go to find recipes.

Chart 31:

Moms seek out recipes on a wide variety of websites.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

Of those surveyed, 45% of Gen X moms and 47% of Gen Y moms report that they are more likely to purchase a product with the Fruits & Veggies—More Matters logo on it.

IV. Fruits & Veggies—More Matters

Fruits & Veggies—More Matters was launched in March of 2007 with the support of many stakeholders (See Appendix D). This section describes awareness of the Fruits & Veggies—More Matters brand, its purchasing and motivational impact, how consumers became aware of the campaign, and opinions about the campaign's website.

A. Awareness

Among Gen X moms, total "definite" awareness of the Fruits & Veggies—More Matters campaign, having seen or heard about it often or very often, grew from 12% in 2007 prior to the campaign launch to 18% in 2010 (Chart 32). Total "possible awareness" of Fruits & Veggies—More Matters, including those who "may have" heard about it or seen it, went from 34% in 2007 to 44% in 2010. The higher scores in both definite awareness and possible awareness in 2008, with a noticeable decline in 2009, is likely due to the negative impact of the economy which took a lot of focus off healthy eating altogether. People were also shopping less frequently and were therefore less exposed to one of the primary places where they could learn about the campaign, and they were shopping in larger "discount" stores that were not promoting Fruits & Veggies—More Matters as much as other supermarkets. Also, the relatively high awareness of the campaign two months prior to the March launch is likely a combination of some retailers and growers/processors including the logo in-store and on-package, since licensing use of the Fruits & Veggies—More Matters logo to prepare for the launch started in mid-2006. Of course, there are also those who are convinced they've seen it but have not.

B. Purchasing Impact

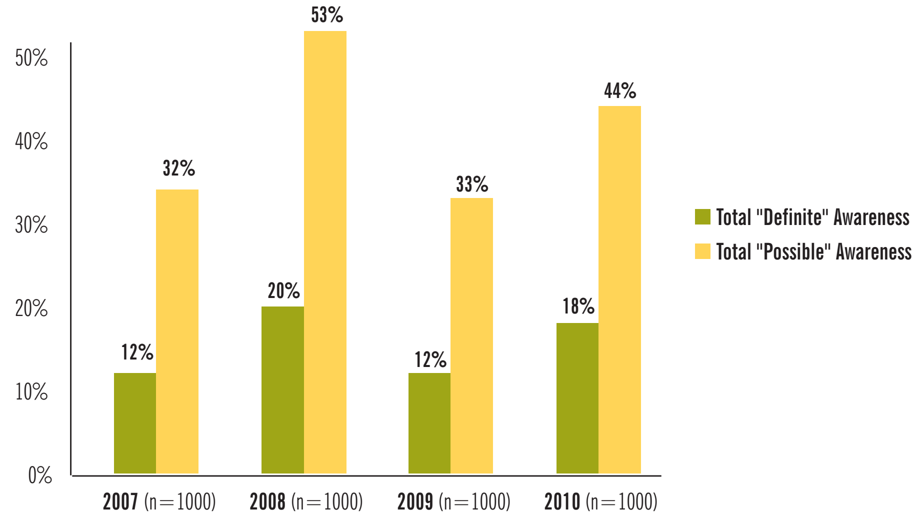
When all Gen X mothers in the annual survey were asked how seeing the Fruits & Veggies—More Matters brand logo affects their decision to purchase a product, 45% said they were more likely to purchase the product vs. 40% when this question was first asked in 2009 (Chart 33). In the 2010 survey, the response from Gen Y moms was even slightly higher, at 47%, indicating they were more likely to purchase the product, vs. 45% of the Gen X moms.

Chart 32:
Awareness of the brand logo is slightly higher among Gen X moms over time.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

Gen X Moms' Awareness of the Fruit & Veggies—More Matters Logo

Which of the following statements best describes your level of familiarity with Fruits & Veggies—More Matters?



Gen X Moms' Likelihood of Purchasing a Product Carrying the Fruits & Veggies—More Matters Logo

How does seeing the Fruits & Veggies—More Matters logo affect your decision to purchase a product?

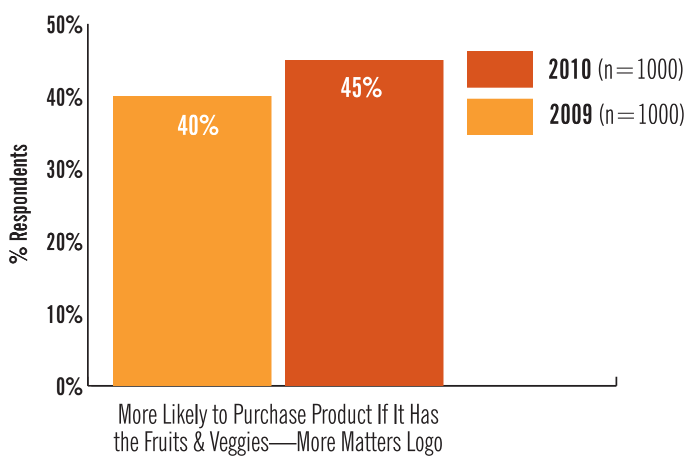


Chart 33:
Seeing the brand logo on a product positively impacts product-purchasing decisions.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

C. Familiarity with Fruits & Veggies—More Matters

Mothers who were familiar with the Fruits & Veggies—More Matters campaign largely learned of it through supermarkets, TV, food packages, the Internet, and schools (Chart 34). Supermarket promotions, the logo on qualifying food packages, and the Internet have been strong pushes since the launch of the campaign. This is consistent with the annual Fruits & Veggies—More Matters ad impressions generated by supermarkets (Chart 35); the cumulative number of products carrying the Fruits & Veggies—More Matters logo (Chart 36); the number of websites that link to FruitsAndVeggiesMoreMatters.org (Chart 37); and the number of impressions generated through PBH education materials (Chart 38, also see www.pbhcatalog.org). The high score for TV ads is likely due to some advertising that fruit/vegetable processors were doing at the time of the survey (Campbell's and Green Giant), although the Fruits & Veggies—More Matters brand logo was not used in these ads. In the 2010 moms' survey, of those Gen Y moms who had definitely seen or heard about the campaign, 23% of them said they learned about it through their health-care provider vs. only 7% of Gen X moms. There weren't any other significant differences between Gen X and Gen Y Moms and how they became familiar with the Fruits & Veggies—More Matters brand message.

Gen Y moms were more likely than Gen X moms to hear about Fruits & Veggies—More Matters through health care providers.

Chart 34: Supermarkets remain the main vehicle for disseminating the brand message.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

How Gen X Moms Have Become Familiar with the Fruits & Veggies—More Matters Logo

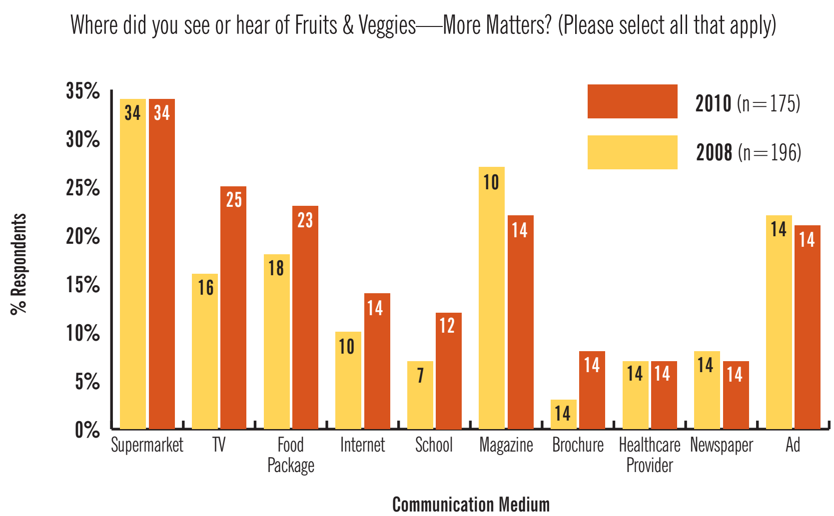
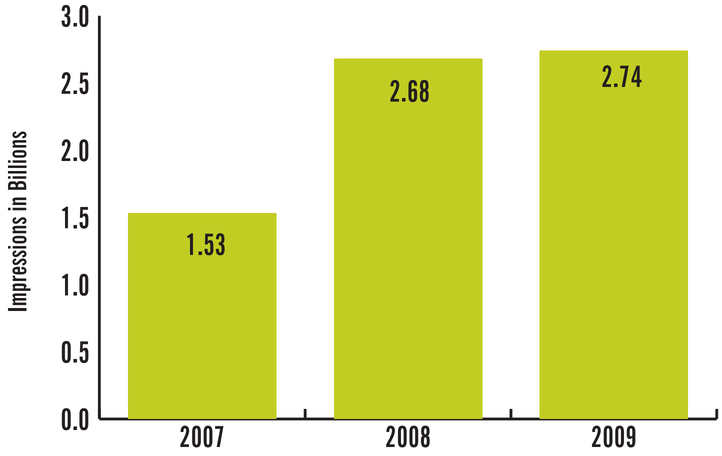


Chart 35: Retail consumer ad impressions for the brand have grown over time.

Source: Leemis Reports

Fruits & Veggies—More Matters Retail Consumer Ad Impressions



Number of Fruits & Veggies—More Matters Approved Labels

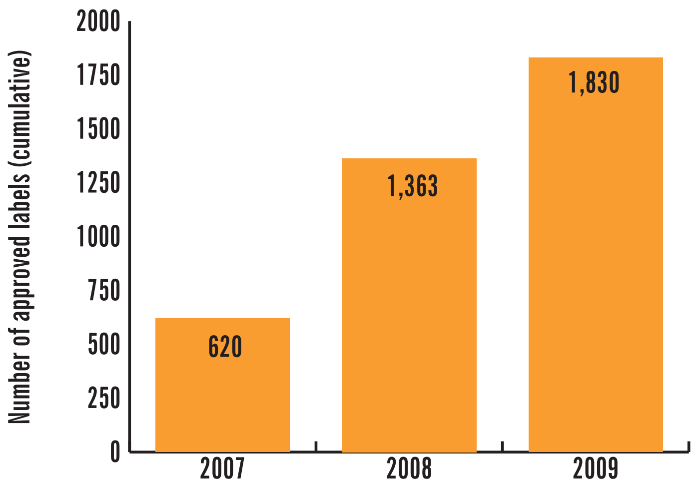


Chart 36: The number of products approved to carry the brand logo nearly tripled between 2007 and 2009.

Source: Produce for Better Health Foundation

Site referrals to www.FruitsAndVeggiesMoreMatters.org

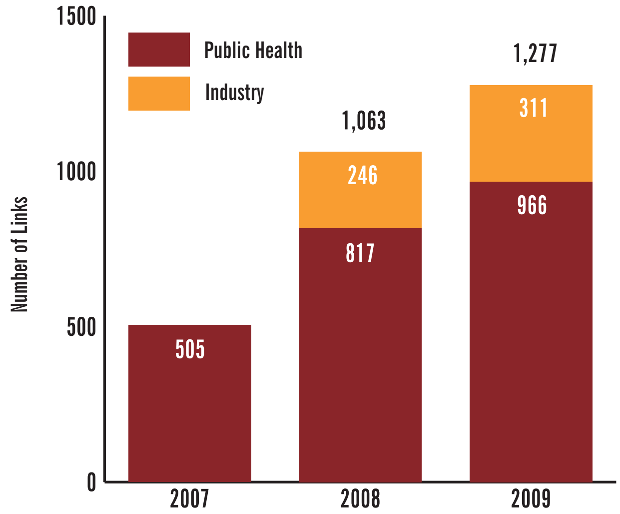


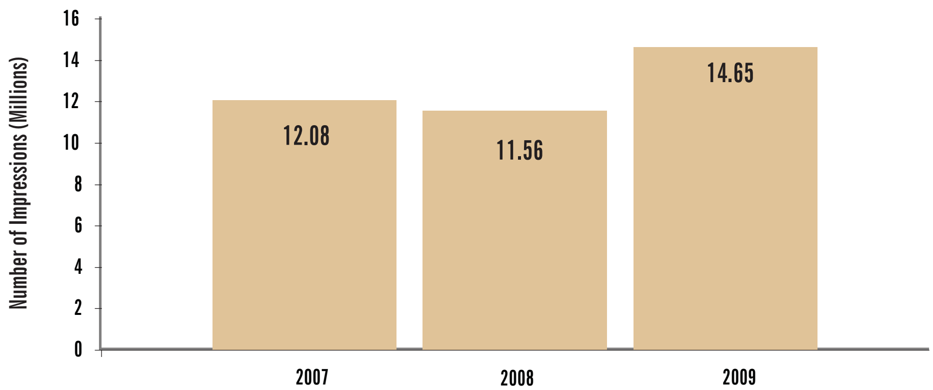
Chart 37: The number of web-sites that link to the brand website has grown significantly over time.

Source: Produce for Better Health Foundation

Chart 38: PBH fruit and vegetable education materials reach millions of consum-ers each year.

Source: Produce for Better Health Foundation

PBH Education Material Impressions

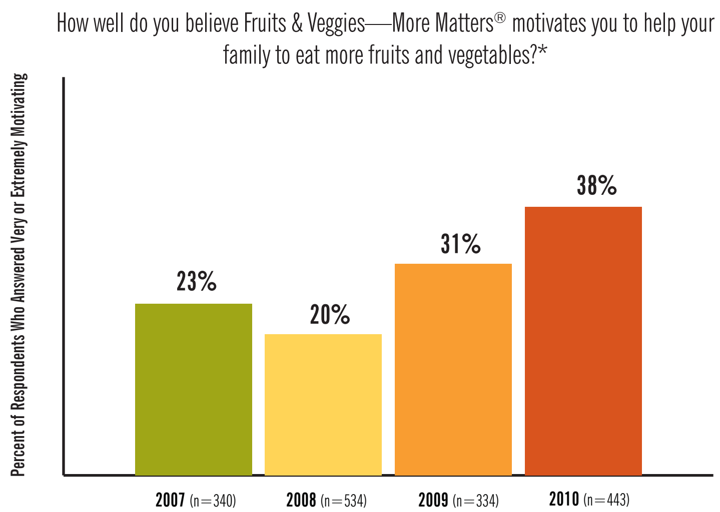


D. **Motivational Impact**

Of those Gen X moms who were aware of the Fruits & Veggies—More Matters logo, 23% reported in 2007 that it motivated them to help their family eat more fruits and vegetables; this number increased to 38% in 2010 (Chart 39). This motivational level was consistent among Gen X and Gen Y moms in the 2010 survey. In 2010, when Gen X moms were asked what use of the Fruits & Veggies—More Matters logo on a product means to them, they said that it means it is healthy (74%), nutritious (66%), and provides a serving of fruit and/or vegetables (55%). This compares to 2009 when Gen X moms said seeing the Fruits & Veggies—More Matters logo on a product meant that the product was healthy (69%), nutritious (56%), and provides a serving of fruits and/or vegetables (63%).

Gen X moms report that seeing the Fruits & Veggies—More Matters logo on a product means that it is healthy (74%) and nutritious (66%).

How Well Fruits & Veggies—More Matters Motivates Moms



*Asked only of those who were aware of the logo.

Chart 39:
The brand increasingly motivates Gen X moms over time.

Source: PBH Gen X Mom 2010 Survey, by OnResearch

E. Website

In the 2010 survey, 9% of those who were aware of Fruits & Veggies—More Matters had also visited the FruitsAndVeggiesMoreMatters.org website; this is up from 5% in 2009 and 1% in 2008. The growth in average number of unique visitors per month to the Fruits & Veggies—More Matters website (Chart 40) has also grown during this period of time. While a small sample size in 2010, 58% reported finding all of the information they were looking for; 42% reported finding some of the information they were looking for.

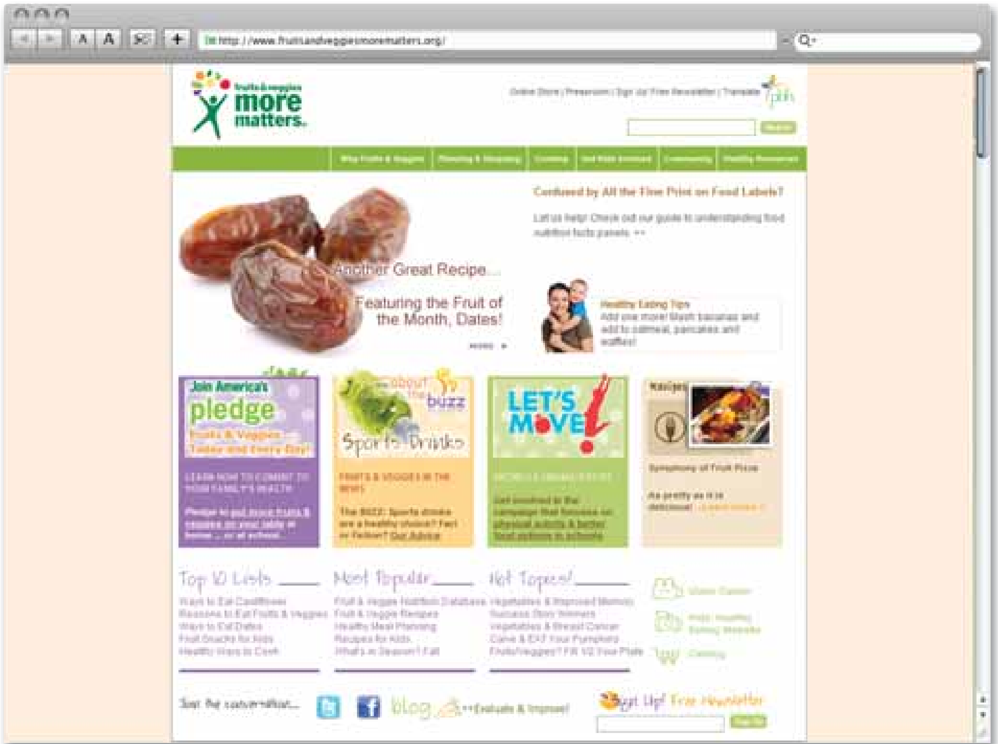
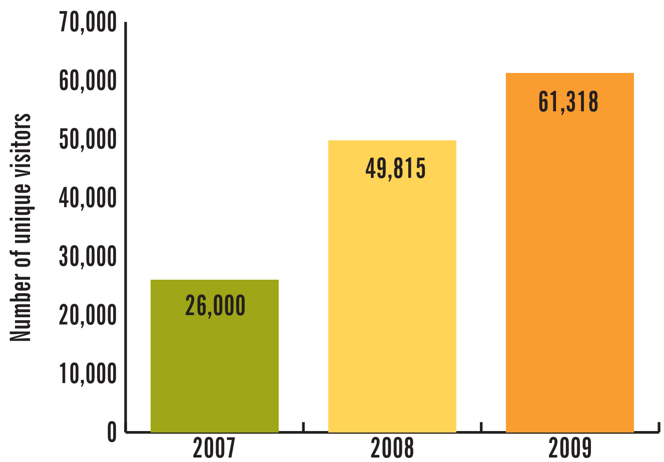


Chart 40: Average number of monthly unique visitors to the brand website has more than doubled between 2007 and 2009.

Source: Produce for Better Health Foundation

Average Number of Unique Visitors Per Month to FruitsAndVeggiesMoreMatters.org



V. Appendix

Appendix A: Methodology

The NPD Group: The NPD Group analyzed consumer consumption patterns of fruits and vegetables to compare data collected for Produce for Better Health Foundation in 2004 in order to evaluate the state of Americans' diets in relation to fruits and vegetables. This report is based on National Eating Trends (NET) data collected from a panel of participants for the year ending February 2009 by The NPD Group. NET data has been collected continuously, with no change in methodology, since 1980.

Participants report all foods and beverages consumed in the home or away from home by all family members for a two-week period of time. There were 2,000 households who reported, with data collected for approximately 5,000 individuals. These households were comprised of 500 single and 1,500 family households. Participant selection was balanced within the four-way census region and on key U.S. census demographic variables including household income, household size, and age/education/employment of female head.

Two-week reporting periods of respondents were staggered throughout the year to account for seasonal variation. Approximately 40 households begin their two-week reporting period each Monday. Data measurement is an eating occasion, and actual volume consumed is not measured. From this information, a consumption database is developed. A nutrient intake database is created by merging the eating frequencies from NPD's consumption database with U.S. Department of Agriculture nutrient composition and serving sizes via a mapping and linking program developed by The NPD Group.

The measurement used in this study was cups or cup equivalents. For example, a "cup" was equal to 1 cup of fresh, canned, or frozen fruit or vegetable; 1 cup of 100% fruit or vegetable juice; 2 cups raw leafy vegetables; 1 cup cooked dry peas or beans; and ½ cup dried fruit. Fruits and vegetables consumed "as is" were analyzed as well as those used as an additive or ingredient to other dishes. Note, this study excludes French fries, hash browns/fried potatoes, potato chips, sauerkraut, ketchup, green olives, and pickles/relish.

Appendix A (continued): **Methodology**

OnResearch Inc.: OnResearch analyzed consumer attitudes and behavior related to the consumption of fruits and vegetables among moms and their families. Annual data collected for Produce for Better Health Foundation since 2006 were used. This 2010 State of the Plate report is based on data collected from an online panel of participants for the period of January 15-29, 2010, with some data from previous annual surveys.

For this annual survey, online panelists are recruited via email and online marketing using an "invitation-only" recruitment methodology to invite pre-validated individuals to participate in the panel. These panelists are given an incentive (a cash reward) to complete the online survey.

Participation in the survey by the same respondents year over year is very low (<5%).

Data are collected from a random sample of 1,300 moms, comprised of 1,000 Gen X mothers (those born between 1965 and 1979) and 300 Gen Y moms (those born between 1980 and 1990). Survey data are statistically accurate within +/-3.1%, 19 times out of 20. The addition of Gen Y moms to the panel was first introduced in 2010. Participant selection was also based on having at least one child under the age of 18 living at home. Data for Gen X moms were balanced by household income.

Methodology

Source: PBH Gen X Mom 2010 Survey, by OnResearch

METHODOLOGY					
WAVE:	ROUND 5 (2010)	ROUND 4 (2009)	ROUND 3 (2008)	ROUND 2 (2007)	ROUND 1 (2006)
Survey Type	Online survey conducted via an online panel	Online survey conducted via an online panel	Online survey conducted via an online panel	Online survey conducted via an online panel	Online survey conducted via an online panel
Fielding Period	January 15 – 29, 2010	January 16 – 22, 2009	January 18 – 22, 2008	February 2 – 9, 2007	October 3 – 5, 2006
Sample Size	n = 1300	n = 1000	n = 1000	n = 1000	n = 550
Confidence Level (within year)	3.1% (19/20 times)	3.1% (19/20 times)	3.1% (19/20 times)	3.1% (19/20 times)	4.2% (19/20 times)
Media Materials Used	Logo: Fruits & Veggies—More Matters® (3 versions)	Logo: Fruits & Veggies—More Matters® (3 versions)	Logos: Fruits & Veggies—More Matters® 5-9 A Day	Logos: Fruits & Veggies—More Matters® 5-9 A Day	None
RESPONDENT CRITERIA					
Geography	Residents of the United States	Residents of the United States	Residents of the United States	Residents of the United States	Residents of the United States
Gender	Women only	Women only	Women only	Women only	Women only
Age	"Generation X" - born between 1965 and 1979; "Generation Y" – born between 1980 and 1990	"Generation X" - born between 1965 and 1979	"Generation X" - born between 1965 and 1979	"Generation X" - born between 1965 and 1981	"Generation X" - born between 1965 and 1981
Additional Criteria	Must have children under the age of 18 living at home	Must have children under the age of 18 living at home	Must have children under the age of 18 living at home	Must have children under the age of 18 living at home	Must have children under the age of 18 living at home

Respondent Profile

Source: PBH Gen X Mom 2010 Survey, by OnResearch

	2010		2009	2008	2007	2006
	Gen X %	Gen Y %	%	%	%	%
MARITAL STATUS						
Married/Living with someone	90	68	92	87	87	NA
Single	4	29	3	5	5	NA
Separated/Divorced	5	4	5	8	8	NA
Widowed	<1	--	<1	<1	<1	NA
SPOUSE'S EDUCATION						
Did not finish high school	2	6	2	2	1	NA
High school graduate	16	27	16	10	11	NA
Some college	20	29	25	24	23	NA
College graduate	36	26	31	35	37	NA
Some graduate work	3	3	4	6	4	NA
Completed graduate work	20	7	19	20	20	NA
Trade/vocational school	3	3	3	4	4	NA
WORK OUTSIDE THE HOME						
No	43	57	38	29	31	NA
Yes, Part-time	22	19	22	21	21	NA
Yes, Full-time	35	24	41	50	48	NA
ETHNICITY						
White/Caucasian	82	65	84	84	83	81
Black/African American	5	12	4	4	5	7
Hispanic/Latino	7	14	5	4	4	6
Asian/Pacific Islander	5	6	6	6	6	5
Other	1	2	1	2	2	2
GENDER						
Female	100	100	100	100	100	100
AGE						
20 - 23	NA	26	NA	NA	NA	NA
24 - 29	NA	74	<1	3	12	16
30 - 34	31	NA	31	27	35	35
35 - 41	51	NA	55	71	54	49
42 - 44	18	NA	13	NA	NA	NA
HHI						
Less than $25K	4	30	4	4	3	2
$25K - $50K	12	39	12	12	14	20
$50K - $75K	22	19	22	22	22	26
$75K - $100K	25	8	25	25	26	22
$100K - $150K	25	3	24	25	22	21
$150K or more	13	1	14	13	12	9
OWN EDUCATION						
Did not finish high school	1	4	1	<1	1	<1
High school graduate	12	25	16	6	7	5
Some college	25	41	25	23	20	25
College graduate	37	19	36	41	43	41
Some graduate work	5	3	5	6	7	8
Completed graduate work	17	6	15	22	20	17
Trade/vocational school	3	3	3	3	3	3

	2010	
	Gen X	Gen Y
CHILDREN		
Mean Age	8	5

Appendix B: **Fruit and Vegetable Consumption for Various Age Groups**

Chart 41: Fruit and Vegetable Consumption Among Children: Average Cups Per Person Per Day

Source: The NPD Group/Nutrient Intake Database

Servings (Cups) per Avg. Day	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	% Chg '09 vs '04
TOTAL INDIVIDUALS												
Cups of Vegetables per Day	1.16	1.17	1.16	1.15	1.16	1.15	1.12	1.11	1.12	1.13	1.13	-2%
Cups of Fruit per Day	0.66	0.67	0.66	0.65	0.66	0.66	0.64	0.64	0.65	0.66	0.68	2%
Total Fruit/Veg Cups per Day	**1.82**	**1.83**	**1.82**	**1.80**	**1.82**	**1.81**	**1.77**	**1.75**	**1.77**	**1.80**	**1.81**	**0%**
TOTAL CHILDREN												
Cups of Vegetables per Day	0.81	0.81	0.80	0.80	0.82	0.80	0.78	0.79	0.79	0.80	0.80	0%
Cups of Fruit per Day	0.63	0.64	0.64	0.62	0.65	0.65	0.63	0.64	0.66	0.67	0.69	6%
Total Fruit/Veg Cups per Day	**1.44**	**1.45**	**1.44**	**1.42**	**1.47**	**1.45**	**1.41**	**1.42**	**1.45**	**1.47**	**1.49**	**3%**
<6 YRS OLD												
Cups of Vegetables per Day	0.53	0.54	0.53	0.53	0.53	0.53	0.53	0.52	0.53	0.54	0.54	3%
Cups of Fruit per Day	0.58	0.61	0.62	0.62	0.68	0.67	0.62	0.64	0.68	0.69	0.75	11%
Total Fruit/Veg Cups per Day	**1.12**	**1.15**	**1.15**	**1.15**	**1.21**	**1.20**	**1.15**	**1.16**	**1.20**	**1.23**	**1.29**	**7%**
6-12 YRS OLD												
Cups of Vegetables per Day	0.77	0.76	0.74	0.76	0.77	0.75	0.74	0.75	0.75	0.76	0.76	2%
Cups of Fruit per Day	0.63	0.61	0.59	0.58	0.62	0.62	0.59	0.60	0.64	0.67	0.67	7%
Total Fruit/Veg Cups per Day	**1.40**	**1.37**	**1.33**	**1.33**	**1.39**	**1.37**	**1.34**	**1.35**	**1.39**	**1.43**	**1.43**	**5%**
13-17 YRS OLD												
Cups of Vegetables per Day	1.13	1.15	1.15	1.13	1.15	1.16	1.12	1.12	1.11	1.11	1.09	-6%
Cups of Fruit per Day	0.68	0.73	0.73	0.69	0.69	0.68	0.69	0.68	0.67	0.66	0.67	-2%
Total Fruit/Veg Cups per Day	**1.81**	**1.88**	**1.89**	**1.82**	**1.84**	**1.84**	**1.80**	**1.80**	**1.78**	**1.77**	**1.76**	**-4%**

Chart 42: Fruit and Vegetable Consumption Among Adult Males: Average Cups Per Person Per Day

Source: The NPD Group/Nutrient Intake Database

Servings (Cups) per Avg. Day	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	% Chg '09 vs '04
ADULT MALES												
Cups of Vegetables per Day	1.43	1.44	1.43	1.41	1.41	1.41	1.38	1.35	1.36	1.38	1.37	-3%
Cups of Fruit per Day	0.71	0.72	0.71	0.70	0.70	0.71	0.69	0.69	0.68	0.69	0.71	0%
Total Fruit/Veg Cups per Day	**2.14**	**2.15**	**2.15**	**2.10**	**2.11**	**2.12**	**2.07**	**2.04**	**2.04**	**2.07**	**2.08**	**-2%**
MALES 18-34 YRS OLD												
Cups of Vegetables per Day	1.34	1.35	1.34	1.29	1.30	1.28	1.23	1.22	1.26	1.30	1.30	1%
Cups of Fruit per Day	0.60	0.59	0.63	0.61	0.63	0.65	0.63	0.61	0.60	0.66	0.70	9%
Total Fruit/Veg Cups per Day	**1.94**	**1.94**	**1.97**	**1.89**	**1.93**	**1.93**	**1.86**	**1.83**	**1.86**	**1.96**	**2.00**	**4%**
MALES 35-44 YRS OLD												
Cups of Vegetables per Day	1.41	1.39	1.39	1.40	1.40	1.36	1.34	1.31	1.32	1.39	1.39	2%
Cups of Fruit per Day	0.57	0.59	0.58	0.56	0.60	0.60	0.56	0.56	0.59	0.62	0.61	1%
Total Fruit/Veg Cups per Day	**1.98**	**1.98**	**1.97**	**1.97**	**2.00**	**1.97**	**1.90**	**1.88**	**1.91**	**2.00**	**2.00**	**2%**
MALES 45-54 YRS OLD												
Cups of Vegetables per Day	1.44	1.47	1.46	1.42	1.43	1.43	1.40	1.36	1.36	1.38	1.37	-4%
Cups of Fruit per Day	0.67	0.66	0.64	0.65	0.69	0.69	0.64	0.63	0.62	0.60	0.61	-12%
Total Fruit/Veg Cups per Day	**2.11**	**2.14**	**2.09**	**2.07**	**2.12**	**2.12**	**2.04**	**1.99**	**1.98**	**1.98**	**1.98**	**-7%**
MALES 55-64 YRS OLD												
Cups of Vegetables per Day	1.53	1.52	1.49	1.44	1.46	1.49	1.49	1.43	1.42	1.43	1.43	-4%
Cups of Fruit per Day	0.81	0.80	0.79	0.76	0.73	0.72	0.71	0.70	0.71	0.72	0.75	5%
Total Fruit/Veg Cups per Day	**2.34**	**2.32**	**2.28**	**2.20**	**2.19**	**2.21**	**2.19**	**2.13**	**2.13**	**2.15**	**2.19**	**-1%**
MALES 65+ YRS OLD												
Cups of Vegetables per Day	1.51	1.49	1.52	1.51	1.49	1.53	1.51	1.46	1.47	1.44	1.39	-9%
Cups of Fruit per Day	1.03	1.01	1.00	1.00	0.93	0.94	0.97	0.97	0.94	0.92	0.90	-4%
Total Fruit/Veg Cups per Day	**2.54**	**2.51**	**2.53**	**2.51**	**2.42**	**2.47**	**2.49**	**2.44**	**2.41**	**2.36**	**2.29**	**-7%**

Chart 43: Fruit and Vegetable Consumption Among Adult Females: Average Cups Per Person Per Day

Source: The NPD Group/Nutrient Intake Database

Servings (Cups) per Avg. Day	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	% Chg '09 vs '04
ADULT FEMALES												
Cups of Vegetables per Day	1.16	1.15	1.14	1.14	1.15	1.14	1.12	1.10	1.11	1.12	1.11	-3%
Cups of Fruit per Day	0.64	0.64	0.64	0.63	0.63	0.63	0.61	0.61	0.62	0.64	0.65	2%
Total Fruit/Veg Cups per Day	**1.80**	**1.79**	**1.78**	**1.77**	**1.78**	**1.78**	**1.73**	**1.71**	**1.74**	**1.75**	**1.76**	**-1%**
FEMALES 18-34 YRS OLD												
Cups of Vegetables per Day	1.05	1.05	1.06	1.06	1.08	1.05	1.00	1.01	1.04	1.05	1.06	1%
Cups of Fruit per Day	0.53	0.52	0.54	0.56	0.58	0.57	0.53	0.52	0.55	0.61	0.62	9%
Total Fruit/Veg Cups per Day	**1.58**	**1.57**	**1.60**	**1.62**	**1.66**	**1.62**	**1.54**	**1.53**	**1.59**	**1.66**	**1.68**	**4%**
FEMALES 35-44 YRS OLD												
Cups of Vegetables per Day	1.14	1.13	1.12	1.12	1.13	1.10	1.07	1.07	1.10	1.13	1.12	2%
Cups of Fruit per Day	0.53	0.52	0.51	0.51	0.53	0.52	0.49	0.51	0.55	0.55	0.56	7%
Total Fruit/Veg Cups per Day	**1.67**	**1.65**	**1.63**	**1.63**	**1.67**	**1.62**	**1.56**	**1.58**	**1.65**	**1.68**	**1.68**	**4%**
FEMALES 45-54 YRS OLD												
Cups of Vegetables per Day	1.18	1.16	1.15	1.13	1.14	1.15	1.13	1.11	1.09	1.13	1.12	-2%
Cups of Fruit per Day	0.63	0.60	0.58	0.57	0.57	0.58	0.58	0.58	0.58	0.58	0.62	8%
Total Fruit/Veg Cups per Day	**1.80**	**1.76**	**1.73**	**1.70**	**1.71**	**1.72**	**1.71**	**1.69**	**1.67**	**1.70**	**1.75**	**1%**
FEMALES 55-64 YRS OLD												
Cups of Vegetables per Day	1.23	1.23	1.21	1.20	1.20	1.21	1.19	1.17	1.15	1.14	1.14	-6%
Cups of Fruit per Day	0.72	0.74	0.75	0.72	0.70	0.70	0.68	0.68	0.68	0.70	0.71	2%
Total Fruit/Veg Cups per Day	**1.95**	**1.97**	**1.95**	**1.92**	**1.90**	**1.91**	**1.88**	**1.84**	**1.83**	**1.83**	**1.85**	**-3%**
FEMALES 65+ YRS OLD												
Cups of Vegetables per Day	1.26	1.25	1.22	1.21	1.24	1.25	1.24	1.22	1.21	1.18	1.15	-8%
Cups of Fruit per Day	0.93	0.92	0.88	0.87	0.84	0.84	0.83	0.81	0.83	0.79	0.75	-11%
Total Fruit/Veg Cups per Day	**2.19**	**2.17**	**2.11**	**2.08**	**2.07**	**2.10**	**2.07**	**2.03**	**2.04**	**1.97**	**1.90**	**-9%**

Appendix B (continued): **Fruit and Vegetable Consumption for Various Age Groups**

Chart 44: Fruit and Vegetable Consumption Among Children: Annual Cups Per Capita

Source: The NPD Group/Nutrient Intake Database

Annual Servings (Cups) per Capita	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	% Chg '09 vs '04
TOTAL INDIVIDUALS												
Cups of Vegetables Annually	423	426	424	420	423	420	410	405	409	414	413	-2%
Cups of Fruit Annually	242	244	242	237	242	242	234	234	238	243	247	2%
Total Fruit/Veg Cups Annually	**665**	**669**	**666**	**657**	**665**	**662**	**645**	**639**	**647**	**657**	**660**	**0%**
TOTAL CHILDREN												
Cups of Vegetables Annually	295	296	292	293	298	291	285	288	289	292	292	0%
Cups of Fruit Annually	231	234	232	226	239	238	229	232	240	246	252	6%
Total Fruit/Veg Cups Annually	**525**	**530**	**524**	**519**	**537**	**529**	**514**	**520**	**529**	**538**	**544**	**3%**
< 6 YRS OLD												
Cups of Vegetables Annually	195	197	195	194	192	192	192	190	192	196	198	3%
Cups of Fruit Annually	213	222	225	225	249	246	228	235	247	254	272	11%
Total Fruit/Veg Cups Annually	**408**	**419**	**420**	**419**	**441**	**438**	**419**	**425**	**440**	**450**	**471**	**7%**
6-12 YRS OLD												
Cups of Vegetables Annually	281	278	271	277	283	273	271	275	275	277	279	2%
Cups of Fruit Annually	230	221	214	210	225	226	216	218	233	244	243	7%
Total Fruit/Veg Cups Annually	**511**	**499**	**486**	**487**	**508**	**499**	**487**	**493**	**508**	**521**	**522**	**5%**
13-17 YRS OLD												
Cups of Vegetables Annually	413	420	421	412	420	422	408	408	406	406	397	-6%
Cups of Fruit Annually	249	265	268	251	250	250	250	249	244	241	245	-2%
Total Fruit/Veg Cups Annually	**662**	**685**	**688**	**664**	**670**	**672**	**658**	**658**	**650**	**647**	**643**	**-4%**

Chart 45: Fruit and Vegetable Consumption Among Adult Males: Annual Cups Per Capita

Source: The NPD Group/Nutrient Intake Database

Annual Servings (Cups) per Capita	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	% Chg '09 vs '04
ADULT MALES												
Cups of Vegetables Annually	524	525	524	514	514	514	504	492	495	504	501	-3%
Cups of Fruit Annually	259	261	261	254	257	259	251	251	250	253	258	0%
Total Fruit/Veg Cups Annually	**783**	**786**	**785**	**768**	**771**	**773**	**755**	**743**	**745**	**757**	**758**	**-2%**
MALES 18-34 YRS OLD												
Cups of Vegetables Annually	489	491	490	470	475	468	449	446	461	474	473	1%
Cups of Fruit Annually	220	217	230	221	229	237	229	223	218	242	257	9%
Total Fruit/Veg Cups Annually	**709**	**708**	**720**	**690**	**704**	**704**	**678**	**668**	**678**	**717**	**731**	**4%**
MALES 35-44 YRS OLD												
Cups of Vegetables Annually	514	507	506	513	512	498	488	479	482	506	509	2%
Cups of Fruit Annually	209	216	212	205	219	220	206	206	215	225	222	1%
Total Fruit/Veg Cups Annually	**723**	**723**	**718**	**718**	**731**	**718**	**694**	**685**	**697**	**731**	**731**	**2%**
MALES 45-54 YRS OLD												
Cups of Vegetables Annually	527	538	531	518	520	522	511	497	496	505	500	-4%
Cups of Fruit Annually	245	241	233	236	253	250	233	231	227	218	221	-12%
Total Fruit/Veg Cups Annually	**771**	**779**	**764**	**755**	**773**	**773**	**744**	**728**	**723**	**723**	**721**	**-7%**
MALES 55-64 YRS OLD												
Cups of Vegetables Annually	560	557	543	527	534	546	543	522	517	522	523	-4%
Cups of Fruit Annually	295	292	288	277	265	263	258	257	261	264	274	5%
Total Fruit/Veg Cups Annually	**855**	**848**	**832**	**804**	**799**	**808**	**801**	**779**	**777**	**786**	**798**	**-1%**
MALES 65+ YRS OLD												
Cups of Vegetables Annually	553	545	555	551	543	558	552	535	536	526	509	-9%
Cups of Fruit Annually	376	370	367	366	340	342	356	355	345	334	327	-4%
Total Fruit/Veg Cups Annually	**929**	**915**	**922**	**916**	**884**	**900**	**908**	**889**	**880**	**860**	**836**	**-7%**

Chart 46: Fruit and Vegetable Consumption Among Adult Females: Annual Cups Per Capita

Source: The NPD Group/Nutrient Intake Database

Annual Servings (Cups) per Capita	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	% Chg '09 vs '04
ADULT FEMALES												
Cups of Vegetables Annually	422	421	418	415	419	417	408	403	406	408	406	-3%
Cups of Fruit Annually	233	234	233	230	231	231	223	221	228	232	236	2%
Total Fruit/Veg Cups Annually	**656**	**655**	**651**	**645**	**650**	**648**	**631**	**624**	**634**	**640**	**642**	**-1%**
FEMALES 18-34 YRS OLD												
Cups of Vegetables Annually	384	382	387	388	393	384	366	368	379	383	387	1%
Cups of Fruit Annually	192	191	198	204	213	208	194	190	201	221	227	9%
Total Fruit/Veg Cups Annually	**576**	**573**	**585**	**593**	**606**	**591**	**561**	**558**	**579**	**604**	**614**	**4%**
FEMALES 35-44 YRS OLD												
Cups of Vegetables Annually	416	412	408	410	413	402	391	391	402	411	410	2%
Cups of Fruit Annually	192	191	188	185	195	192	180	184	201	202	205	7%
Total Fruit/Veg Cups Annually	**609**	**603**	**596**	**596**	**608**	**593**	**571**	**575**	**603**	**613**	**614**	**4%**
FEMALES 45-54 YRS OLD												
Cups of Vegetables Annually	430	423	418	413	416	418	411	404	400	411	410	-2%
Cups of Fruit Annually	228	220	212	209	209	211	213	213	211	212	227	8%
Total Fruit/Veg Cups Annually	**658**	**643**	**630**	**622**	**625**	**629**	**624**	**617**	**611**	**622**	**638**	**1%**
FEMALES 55-64 YRS OLD												
Cups of Vegetables Annually	448	448	441	438	438	441	436	426	421	415	415	-6%
Cups of Fruit Annually	262	270	273	262	257	256	249	247	247	254	260	2%
Total Fruit/Veg Cups Annually	**710**	**718**	**714**	**700**	**695**	**698**	**685**	**673**	**669**	**669**	**675**	**-3%**
FEMALES 65+ YRS OLD												
Cups of Vegetables Annually	461	457	447	443	451	457	453	443	443	432	419	-8%
Cups of Fruit Annually	339	336	322	318	306	308	303	297	302	288	274	-11%
Total Fruit/Veg Cups Annually	**800**	**794**	**769**	**760**	**757**	**765**	**755**	**740**	**745**	**720**	**693**	**-9%**

Appendix C:
Fruit and Vegetable Recommendations from *Dietary Guidelines for Americans, 2005*

Chart 47: The recommended number of cups of fruits and vegetables per day varies by age, gender, and activity level. For example, the target for a moderately active 40-year-old female is 2 cups of fruit and 3 cups of vegetables.

Dietary Guideline Recommendations

Activity Level	Age	Fruits (cups)	Veggies (cups)
WOMEN			
Less Active	19-30	1 1/2	2 1/2
	31-50	1 1/2	2 1/2
	51+	1 1/2	2
Moderately Active	19-50	2	3
	51+	1 1/2	2 1/2
Active	19-50	2	3
	51+	2	3

Activity Level	Age	Fruits (cups)	Veggies (cups)
MEN			
Less Active	19-50	2	3 1/2
	51+	2	3
Moderately Active	19-30	2	3 1/2
	31+	2	3 1/2
Active	19-30	2 1/2	4
	31-51	2 1/2	4
	51+	2 1/2	3 1/2

Activity Level	Age	Fruits (cups)	Veggies (cups)
GIRLS			
Less Active	2-3	1	1
	4-8	1	1 1/2
	9-13	1 1/2	2
	14-18	1 1/2	2 1/2
Moderately Active	2-3	1	1 1/2
	4-8	1 1/2	2
	9-13	1 1/2	2 1/2
	14-18	2	2 1/2
Active	2-3	1	1 1/2
	4-8	1 1/2	2 1/2
	9-13	1 1/2	3
	14-18	2	3

Activity Level	Age	Fruits (cups)	Veggies (cups)
BOYS			
Less Active	2-3	1	1
	4-8	1	1 1/2
	9-13	1 1/2	2 1/2
	14-18	2	3
Moderately Active	2-3	1	1 1/2
	4-8	1 1/2	2
	9-13	1 1/2	3
	14-18	2	3 1/2
Active	2-3	1	1 1/2
	4-8	1 1/2	2 1/2
	9-13	2	3 1/2
	14-18	2 1/2	4

Less Active = <30 minutes/day
Moderately Active = 30-60 minutes/day
Active = >60 minutes/day

The NPD study utilizes the guidelines for a moderate level of activity.

Appendix D:
About Fruits & Veggies—More Matters

Recommendations for fruit and vegetable intake have increased due to research suggesting numerous potential benefits of fruit and vegetable consumption to prevent chronic diseases.[1-6] The increased importance of fruit and vegetable consumption is illustrated by the inclusion of fruits and vegetables in the *Dietary Guidelines for Americans, 2005* [7] as one of the "food groups to encourage" and in updated recommendations for fruit and vegetable intake in MyPyramid,[8] ranging from 2-6½ cups (4-13 servings) per day. This change represented an increase for most people from the previous recommendation of 5-9 servings a day.

The 5 A Day for Better Health Program (5 A Day) was a state-wide social marketing program begun by the California Department of Health Services in 1988 to promote increased fruit and vegetable consumption. The national 5 A Day program began in 1991 as a public-private partnership between the National Cancer Institute (NCI) and Produce for Better Health Foundation (PBH). As lead health authority, NCI determined health statements and nutrient criteria for products which could carry the brand logo, and PBH coordinated private-sector activities. In 2005, NCI transferred lead health authority to the Centers for Disease Control and Prevention (CDC).

Since the inception of 5 A Day, awareness of recommendations for fruit and vegetable consumption has increased. In 1991, 8% of individuals reported being aware that fruit and vegetable intake should be at least 5 servings a day.[9] In 2004, that percentage had increased to 40%.[10] However, this heightened awareness has not translated into behavior change. Between 1994 and 2005, the proportion of adults eating 5 or more servings of fruits and vegetables per day remained virtually unchanged (24.6% vs. 25.0%, respectively)[11,12] with an estimated decrease of 0.22 servings per day among adults.[12]

In light of new dietary recommendations, PBH, CDC, and other partners recognized the need to establish a new identity for 5 A Day with the ability to sustain itself into the future, generate a brand that would provide an emotional or inspirational connection with consumers, and transfer 5 A Day equity—increased awareness of fruit and vegetable recommendations and the network for promoting consumption—to a new program identity, which is now Fruits & Veggies—More Matters®.

The Fruits & Veggies—More Matters brand was developed based on comprehensive formative research with consumers. While specifically developed with mothers as the primary target audience, the Fruits & Veggies—More Matters message tested well with men, women, and people of different ages, incomes, and ethnicities. Mothers preferred a nurturing tone rather than a preaching, frightening, or bullying one. The most effective approach in motivating mothers was to be their ally, sending a message that promotes their responsibility as family caretaker. The Fruits & Veggies—More Matters brand appeals to mothers' sense of responsibility to take care of their family in a strong, simple, and positive manner. Mothers feel they can help their families eat more fruits and vegetables when they know that various forms (frozen, canned, dried, 100% juice, and fresh) all help meet daily fruit and vegetable requirements. For time-starved mothers, providing simple serving suggestions, tips, and recipes was also identified as important.

Ultimately the Fruits & Veggies—More Matters slogan and graphic are seen as positive reminders to eat more fruits and vegetables by the broader consumer audience. It reminds them of the known health benefits of consuming fruits and vegetables and encourages them to eat more.

Replacing 5 A Day, Fruits & Veggies—More Matters was launched in March, 2007, with the support of many stakeholders, including growers, supermarket retailers, state departments, CDC, and others. PBH interfaces and licenses use of the Fruits & Veggies—More Matters logo with private-sector partners, while CDC does so with the public sector.

For more information about how you can become licensed to use the Fruits & Veggies—More Matters on qualifying products, visit www.pbhfoundation.org.

Link to www.FruitsAndVeggiesMoreMatters.org when encouraging consumers to eat more fruits and vegetables. In addition, use these other PBH resources:

1. Follow us on:

- Facebook:
  www.facebook.com/pages/Fruits-VeggiesMore-Matters/103391981984
- Twitter:
  www.twitter.com/Fruits_Veggies
- *Stem and Stalk*, our Mom's Blog:
  www.FruitsAndVeggiesMoreMatters.org/?cat=27

2. Stay informed via our "publications":

- *PBH Direct!*
  A monthly email keeping you up to date on PBH happenings. Email akissel@pbhfoundation.org.
- *Fruit & Veggie Voice*
  Our consumer e-newsletter:
  www.FruitsAndVeggiesMoreMatters.org/?page_id=89
- *Retail Matters*
  The quarterly newsletter that provides industry information to retailers and PBH donors. Email jlebrasseur@pbhfoundation.org.

3. Check our websites:

- Foundation site for "consumer intermediaries":
  www.pbhfoundation.org
- Consumer site:
  www.FruitsAndVeggiesMoreMatters.org
- Online Catalog:
  www.pbhcatalog.org
- Children's website:
  www.FoodChamps.org

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II. Fruit & Vegetable Consumption Trends

III. Moms

IV. Fruits & Veggies—More Matters

V. Appendix

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