



HACKS TO HABITS

**UNPACKING THE RESEARCH
FOR RETAIL, FOODSERVICE &
COMMUNICATION PROFESSIONALS**

In partnership with





WENDY
REINHARDT KAPSAK, MS, RDN

PRESIDENT & CEO
PRODUCE FOR BETTER HEALTH FOUNDATION

MODERATOR & SPEAKER

OUR PURPOSE

The Produce for Better Health Foundation (PBH), a 501(c)3, is the only national non-profit organization 100% dedicated to helping people live happier, healthier lives by eating and enjoying more fruits and vegetables, in every form, each and every day.

PBH, along with its strategic partners, will elevate new fruit and vegetable consumption behaviors as a national priority – *accelerating growth and serving the public good.*



THE AWARD-WINNING HAVE A PLANT® MOVEMENT REACHES MILLIONS

The award-winning **Have A Plant® Movement** is a way to inspire lasting behavior change by tapping into the emotional connection consumers have to the fruit and vegetable eating experience.

PBH is an undeniable resource for health & wellness professionals, given its trusted third-party credibility, breadth of nutrition and behavioral research, and strong consumer, influencer and industry reach.



1 Billion
social media
impressions since the
2019 launch

2 Billion
traditional media
impressions since the 2019
launch



HOUSEKEEPING

1 CPEU available through the Commission on Dietetic Registration (CDR).

You will receive a link to the certificate of attendance, the webinar recording and PDF of the presentation within 48-72 hours.

Type your questions and/or comments into the Q&A section located at the bottom of your screen at any time during the webinar.

THANK YOU TO OUR PBH PARTNER!



TODAY'S SPEAKERS



Wendy Reinhardt Kapsak, MS, RDN

PBH President & CEO



Annette Maggi, MS, RDN, LD, FAND

PBH Retail Specialist



Amy Myrdal Miller, MS, RDN, FAND

PBH Culinary & Foodservice Specialist

EVIDENCE OF A PERVASIVE & PERSISTENT CONSUMPTION CRISIS



Approximately 9 in 10 Americans do not eat enough fruits and vegetables.¹

The amount of fruits and vegetables consumed between 2003-2004 and 2015-2016 has not changed significantly.²



The average adult consumes 0.9 cups² of the recommended 1 ½ - 2 ½ cups/day of fruit.³

Average **FRUIT** consumption was 1.0 cups/day in 2003-2004 and 0.9 cups/day in the 2015-2016 survey.



The average adult consumes 1.6 cups² of the recommended 2-4 cups/day³ of vegetables.

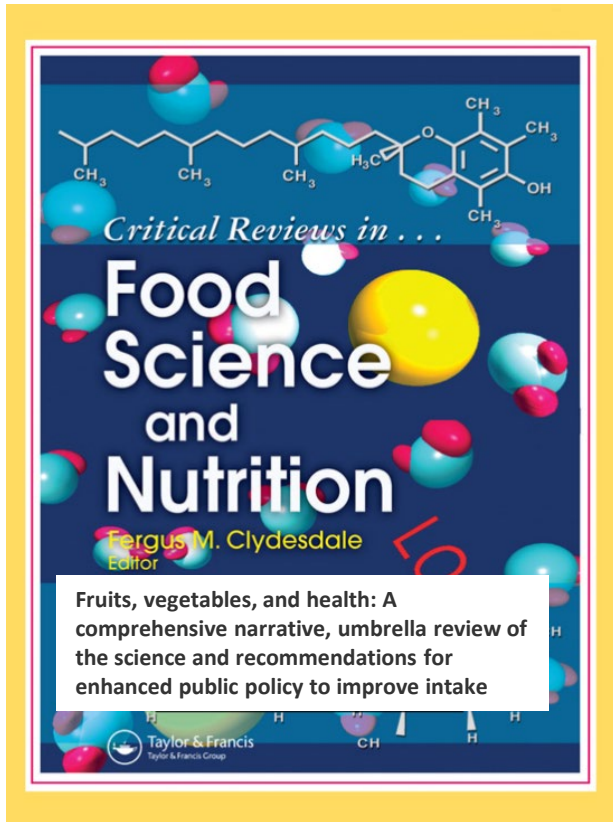
Average **VEGETABLE** consumption was 1.5 cups/day in 2003-2004 and 1.4 cups/day in the 2015-2016 survey.



REFERENCES

1. Lee-Kwan SH, Moore LV, Blanck HM, Harris DM, Galuska D. Disparities in State-Specific Adult Fruit and Vegetable Consumption — United States, 2015. *Morb Mortal Wkly Rep.* 2017;66:1241–1247.
2. Bowman SA, Clemens JC, Friday JE, Schroeder N, Shimizu M, LaComb RP, and Moshfegh AJ. Food Patterns Equivalents Intakes by Americans: What We Eat in America, NHANES 2003-2004 and 2015-2016. Food Surveys Research Group. Dietary Data Brief No. 20, November 2018.
3. U.S. Department of Agriculture and U.S. Department of Health and Human Services. *Dietary Guidelines for Americans, 2020-2025*. 9th Edition. December 2020. Available at [DietaryGuidelines.gov](https://www.dietaryguidelines.gov).

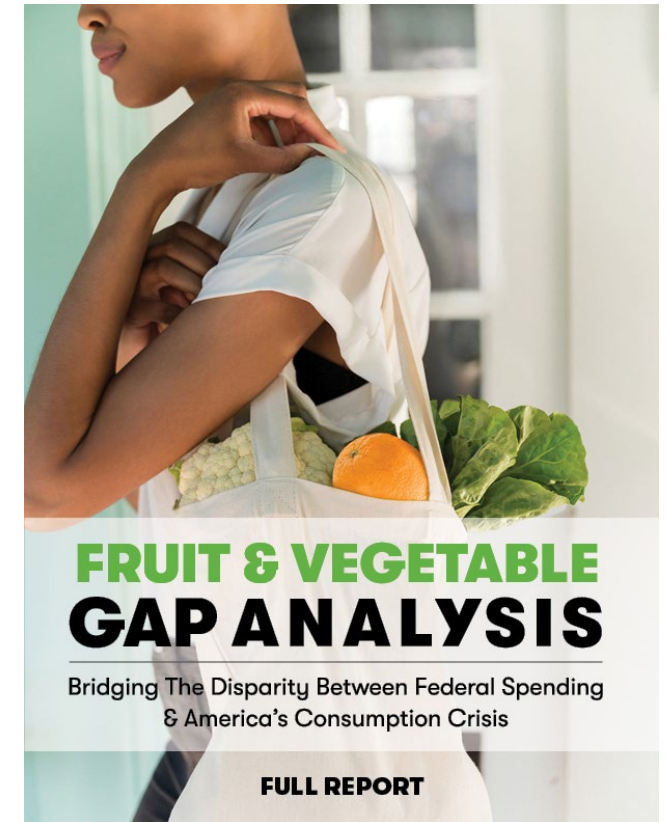
PBH DELIVERS A COMPREHENSIVE & INNOVATIVE RESEARCH PLATFORM AS WELL AS UNIQUE INSIGHTS.



Food & Nutrition Scientific Research



Consumption Data & Behavioral Insights



Data Analysis & Policy Implications

FRUIT AND VEGETABLE HABITS APPEAR TO BE ERODING



Fruit and vegetable eating occasions continue to decline.

10%
decline in overall fruit & vegetable eating occasions (since 2004)

This decline is driven by drops in vegetable & juice eating occasions.

16%
Vegetables

15%
Juice

From 2015-2020, consumption declined by 3%, indicating that the trend is worsening every year.

Many Americans only eat fruits and vegetables one time, or less, each day.

74% of people eat **FRUIT** even less often, 5.8 times/week



95% of people eat **VEGETABLES** just once a day, 7.5 times/week



Close to one-quarter of Americans do not eat any fruit.



Historically “heavy” eaters of fruits and vegetables are eating them less often.



Children 1-3 years old eat **FRUIT** most often, yet declined the most in the past 5 years.



51-70 years olds eat **VEGETABLES** second most often, yet declined the most in the past 5 years.



There is wide variability between how individuals approach and consume fruits and vegetables.

How to Make Have A Plant® A Habit: **MAKE IT EASY!**

“If you want people to do something, make it easy.”





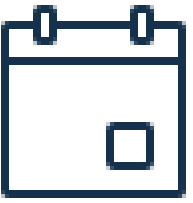










- Richard Thaler
Nobel Prize Winner, 2017



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Have we made it easy for consumers to ...

See 	Grab 	Find 	Eat immediately 	Plan and Prepare 
Keep Around 	Buy 	Get Into Their Mouth 	Get Into Their Kids' Mouths 	Swallow 
Like 	Clean 	Pack 	Remember 	Habitual 

WHAT IS A HABIT?

- Habits are automatic behaviors that we have internalized.
- A habit is not what an action is, but rather *how* you perform the action.

INGREDIENTS OF A HABIT:

1. Cue or Consistent Context (time & place)
2. Behavior (with Repetition)
3. Reward

Source: Wood, W. (2019) *Good Habits Bad Habits*, Farrar, Straus and Giroux. Pg. 25



HABITS ARE SYSTEMS.

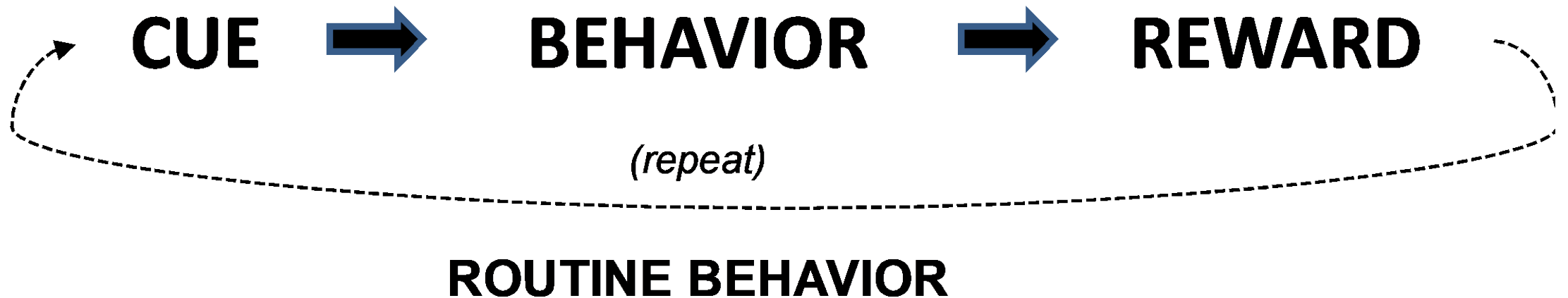
“You do not rise to the level of your goals. You fall to the level of your systems.”

- James Clear
Author of “Atomic Habits”



How are habits formed?

It's behavior (doing), but we need to know a lot about how habits work to help people create them.





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2022 PBH HACKS TO HABITS RESEARCH

*A Behavioral Research Study to
Bolster Fruit & Vegetable
Consumption*



HACKS TO HABITS

A BEHAVIORAL RESEARCH STUDY TO BOLSTER
FRUIT & VEGETABLE CONSUMPTION

INSIGHTS REPORT

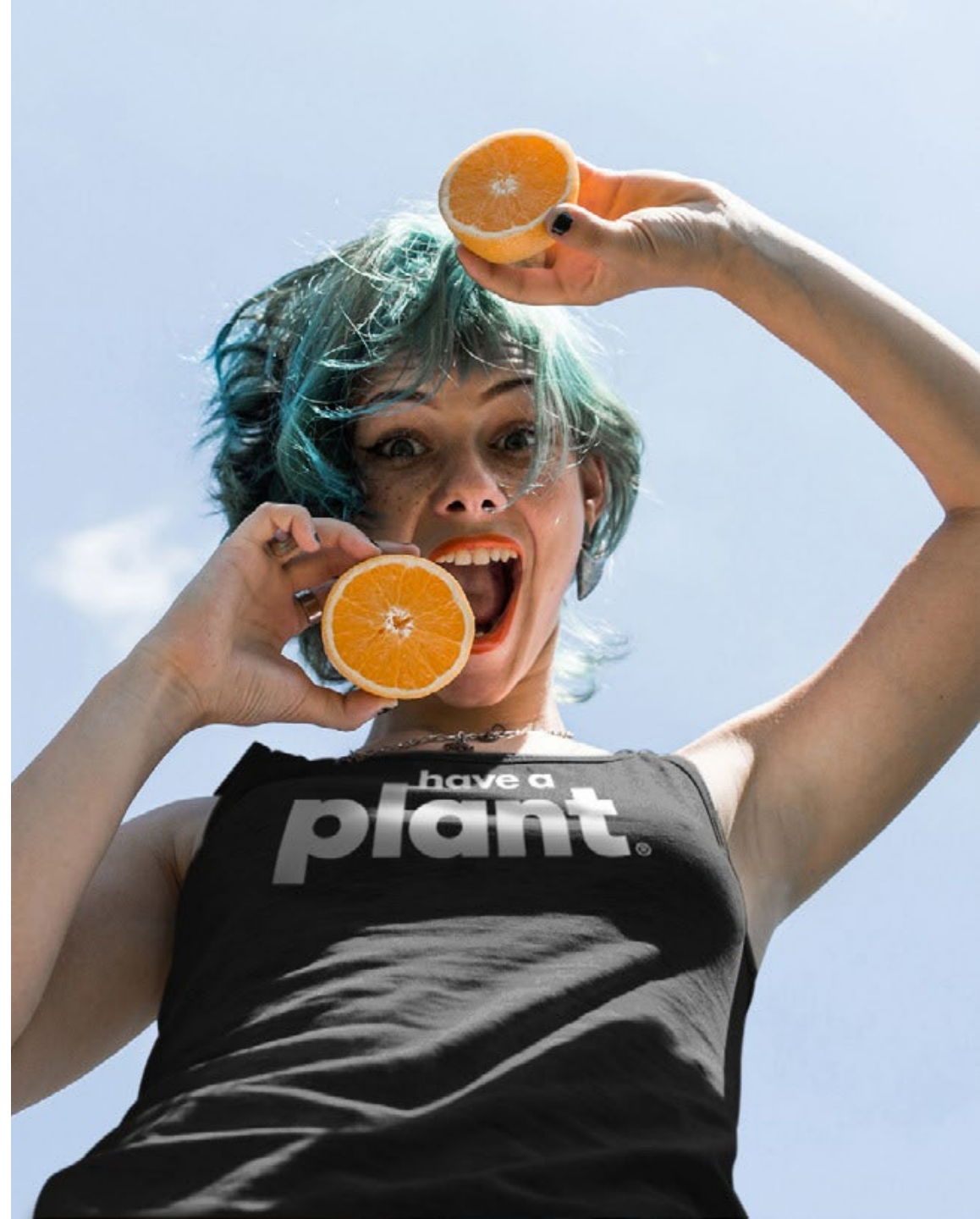




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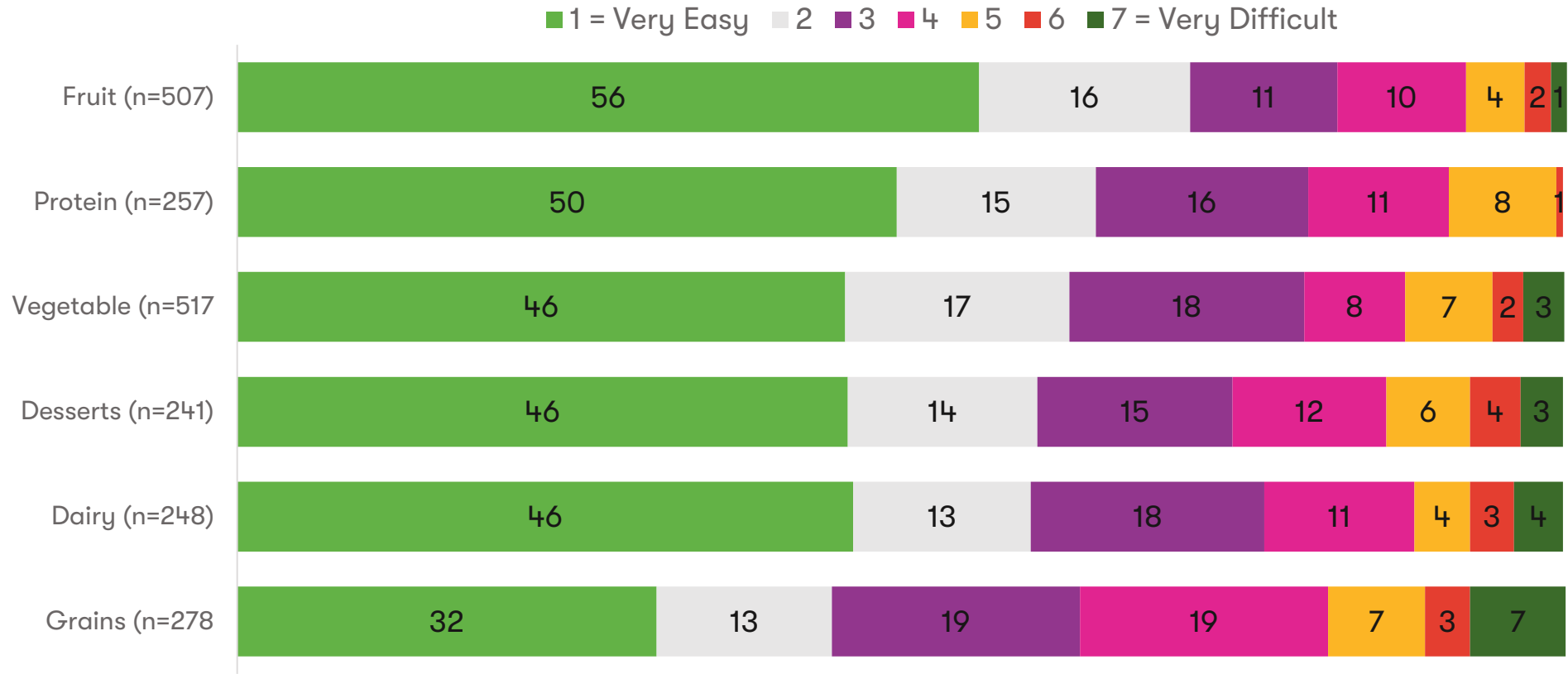
KEY FINDING #1:

**Habit opportunities for
fruits and vegetables are
very different.**



Fruits are considered the easiest of the food groups to eat or consume daily.

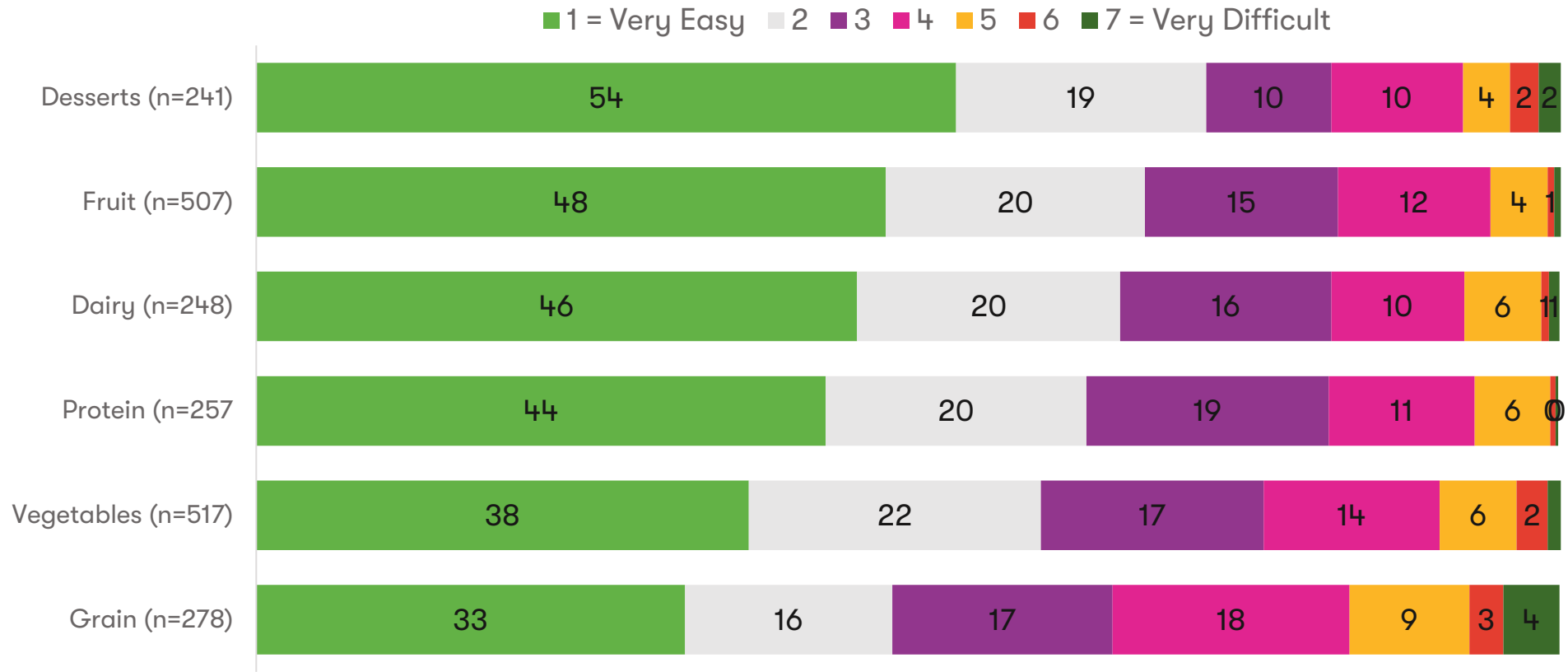
Easy or Difficult to Eat Every Day?
% Respondents



Q.E1 In your opinion, how easy is it to eat [INSERT FOOD TYPE] every day?
Source: PBH Hacks To Habits Study

Vegetables are among the most challenging food groups for consumers to make taste really good.

Easy or Difficult to Make it Taste Really Good?
% Respondents

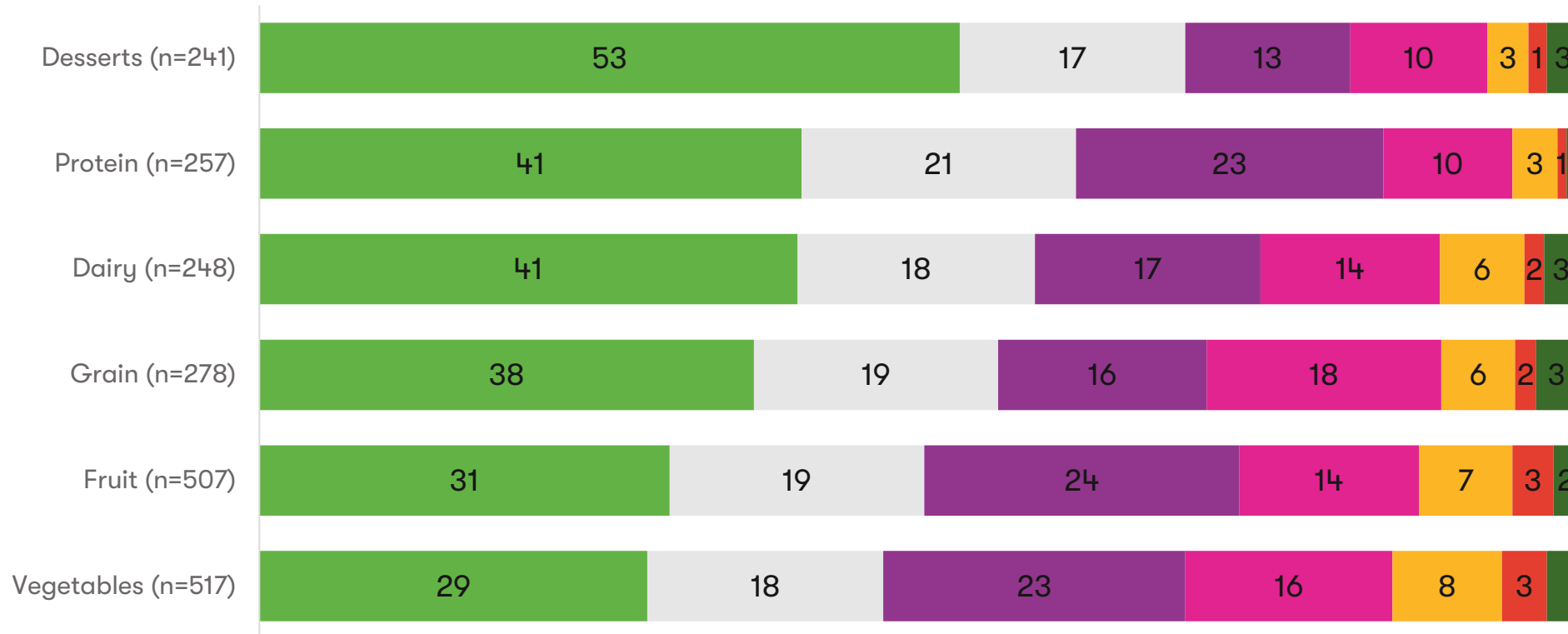


Q.E4 If you wanted to serve [INSERT FOOD TYPE], how easy, or difficult would it be for you to make it taste really good?
Source: PBH Hacks To Habits Study

Fruits and vegetables face the greatest spoilage and food waste challenges.

Easy or Difficult to Use Before Goes Bad?
% Respondents

■ 1 = Very Easy ■ 2 ■ 3 ■ 4 ■ 5 ■ 6 ■ 7 = Very Difficult



Q.E6 If you purchased [INSERT FOOD TYPE], how easy, or difficult would it be to use them before they go bad?
Source: PBH Hacks To Habits Study

RETAIL INSIGHTS & ACTIVATIONS

SEPARATE FRUITS FROM VEGETABLES IN PROMOTIONS, COMMUNICATIONS & EDUCATION.



Fruit

Promote for convenience occasions – breakfast on-the-go, snacks.

Create Pinterest board showing ways to keep handheld fruit visible in-home kitchens. Cross merchandise kitchen storage gadgets to increase program ROI.



Vegetables

Do short videos on easy ways to prep various veggies.

Add perfectly paired spice packets to fresh cut veggies.

Create produce signage program that indicates prep tips or flavoring options for veggies.

Add parents' classes for feeding kids and educate on ways to increase veggie love!

FOODSERVICE INSIGHT & ACTIONS

INSIGHT: Vegetables have a significant taste hurdle.



ACTION: What techniques and ingredients can be used to create appealing aromas, flavors, and textures in vegetables?



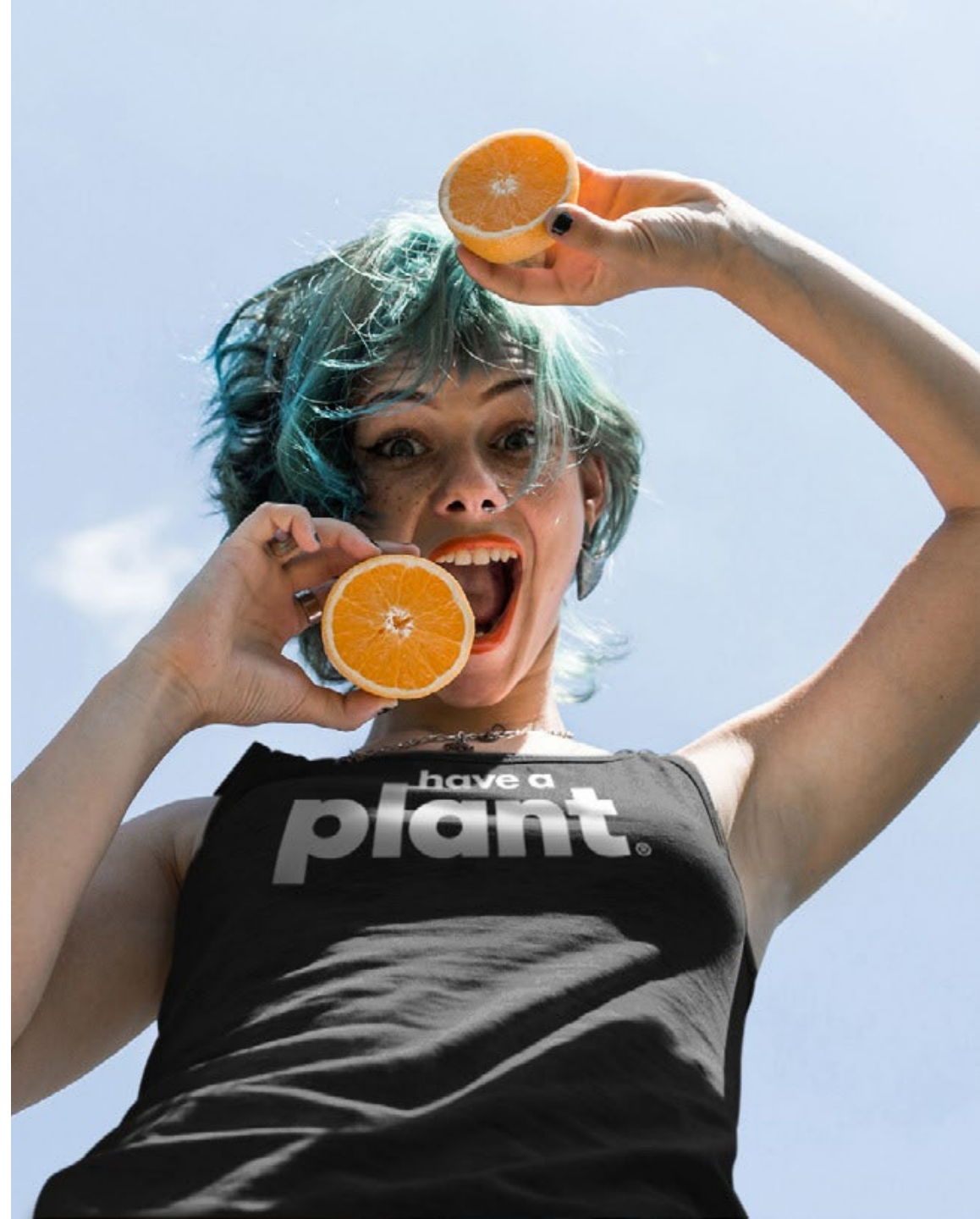
Photo Credit: Petrina Tinsley

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KEY FINDING #2:

**Fruit and vegetable habits
are context-specific,
automatic behaviors.**

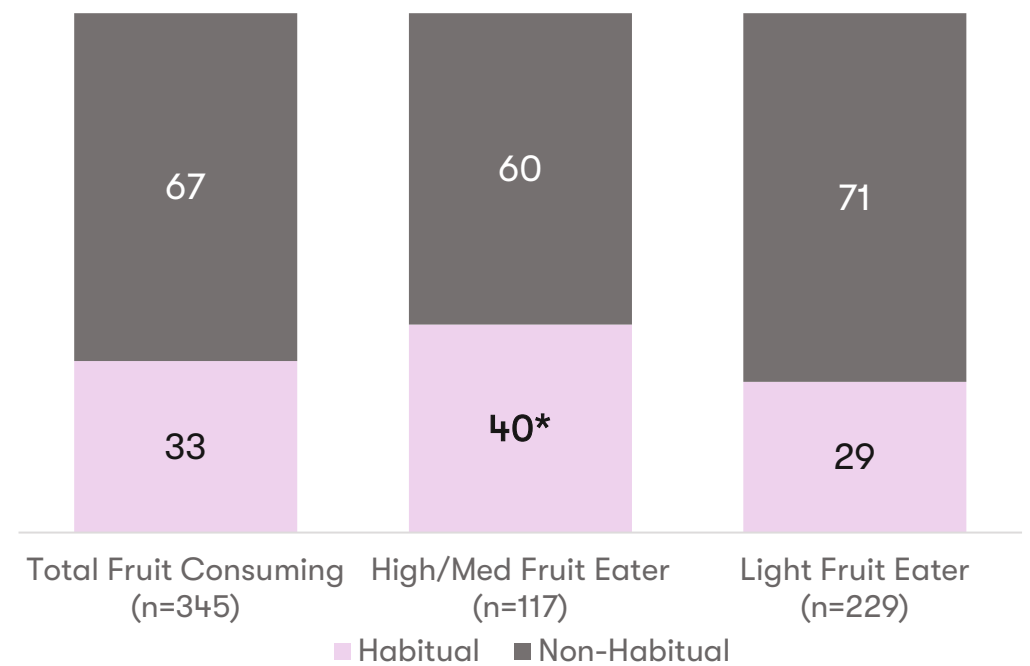
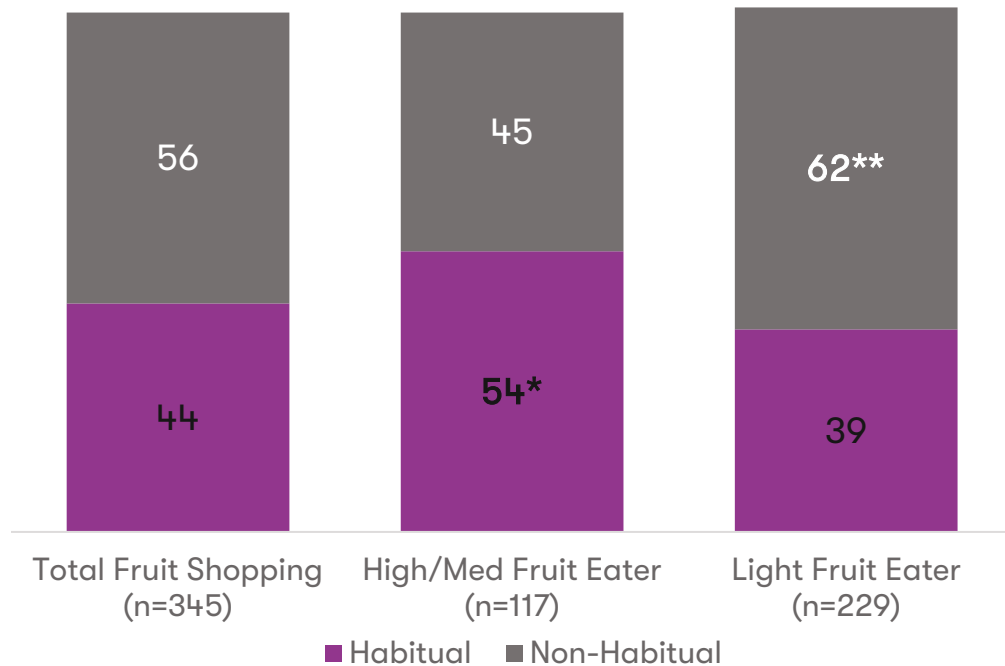


Shopping and consuming fruit automaticity is highest among high- and medium-frequency fruit eaters. Shopping automaticity is greater than consuming automaticity.

Fruit Calculated Habit Score
% of Respondents

Shopping Automaticity

Consuming Automaticity



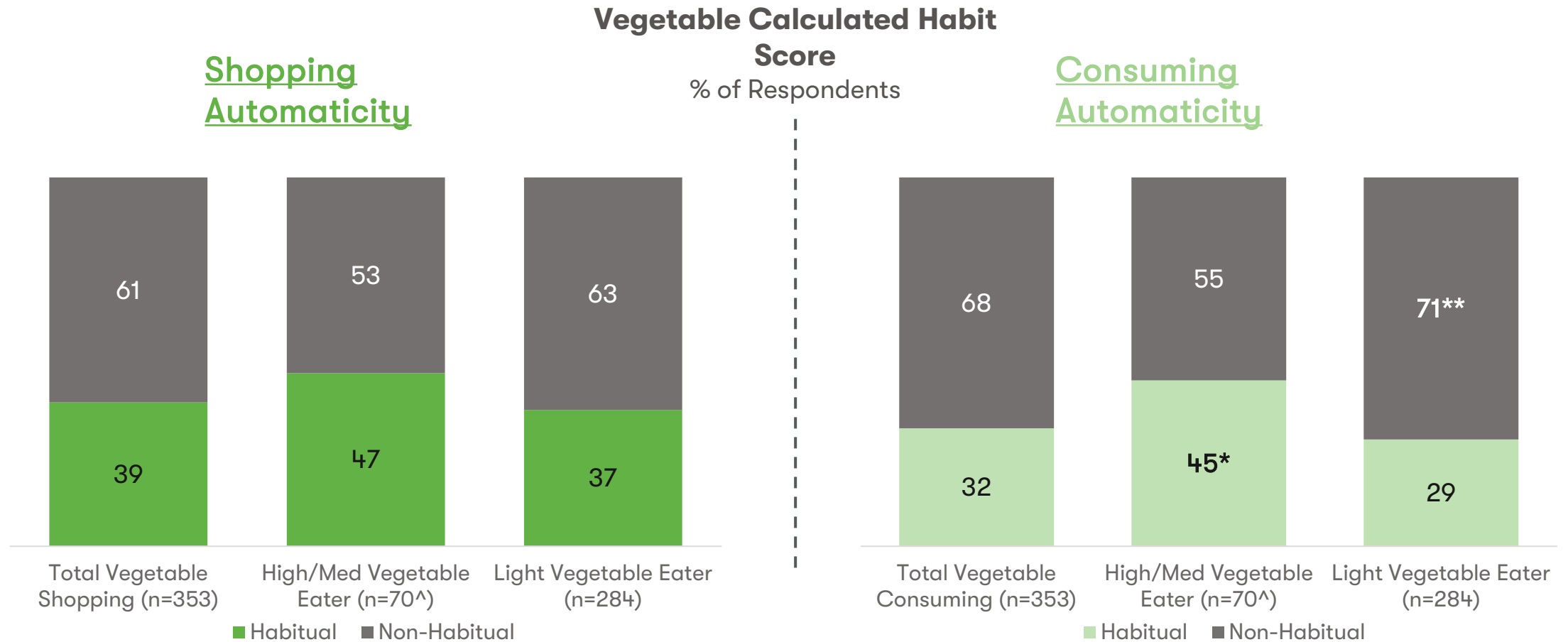
QH1-H8 Calculated Habit Score

Base: Fruit Users randomly selected to answer Automaticity QH1-8

***Bold** number indicates statistically significant; *Significant to Light Fruit Eaters; **Significant to High/Med Fruit Eaters

Source: PBH Hacks To Habits Study

High- and medium frequency vegetable eaters report higher levels of shopping and consumption automaticity. Shopping is more automatic than consuming.



QH1-H4 Calculated Habit Score

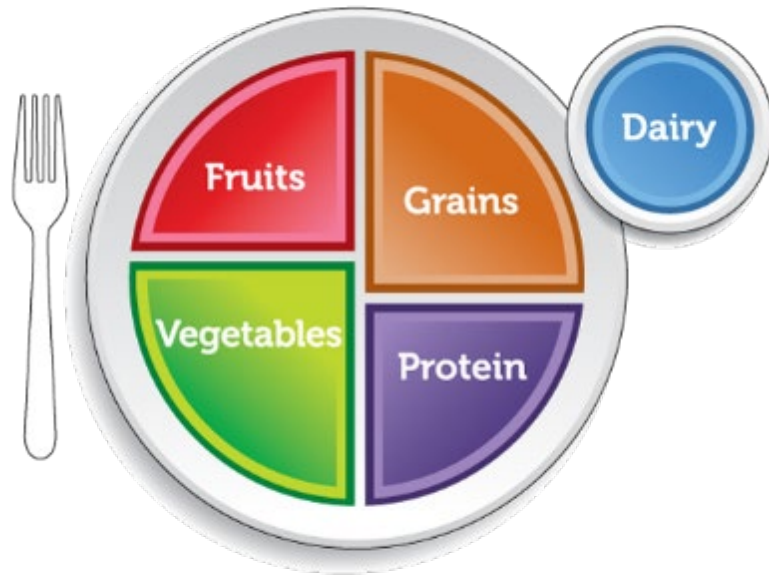
[^]Low Sample – Use Directionally; 30-75 use directionally; <30 do not release publicly

***Bold** number indicates statistically significant; *Significant to Light Vegetable Eater; **Significant to High/Med Vegetable Eater

Source: PBH Hacks To Habits Study

FOODSERVICE INSIGHT & ACTIONS

INSIGHT: High- and medium-frequency fruit and vegetable eaters demonstrate higher levels of automaticity when it comes to *consumption* compared to low frequency fruit and vegetable eaters.



ACTION: What creates automaticity in foodservice settings?

- **PRINCIPLES:** Who or what determines the use of fruits and vegetables in your foodservice operation?
- **PRODUCT MIX:** Do fruits and vegetables only appear in “healthy” menu items or are they used across all categories on your menu, from “good-for-me” to “indulgent”?
- **PORTIONS:** Do portions of fruits and vegetables make sense or should they be increased? If plate waste is a concern, should you focus instead on preparation and presentation to increase appeal and intake?
- **PROPORTIONS:** Can you increase the amount of fruits and vegetables in mixed dishes while decreasing the amount of other ingredients?

RETAIL INSIGHTS & ACTIVATIONS

IDEAS TO CREATE THE CONTEXT:

#1: Pitch retail buyers on cross-promotion of fruit with breakfast foods and dessert mixes to increase purchase.

#2: Build a business case for adding pop-ups in e-commerce that tie veggies to common main dish proteins.

#3: During January, give a daily social suggestion to add fruits or vegetables to family favorite meals such as adding veggies to burgers and sandwiches, shredding carrots or zucchini into jarred pasta sauce, or adding fruit/veg to pizza. Give suggestions that move beyond the standards, such as kale on a Reuben, thin sliced pears on a classic ham sandwich, or grilled zucchini and peppers on a burger.

#4: Suggest veggie sides as a BOGO in the RTE deli area.

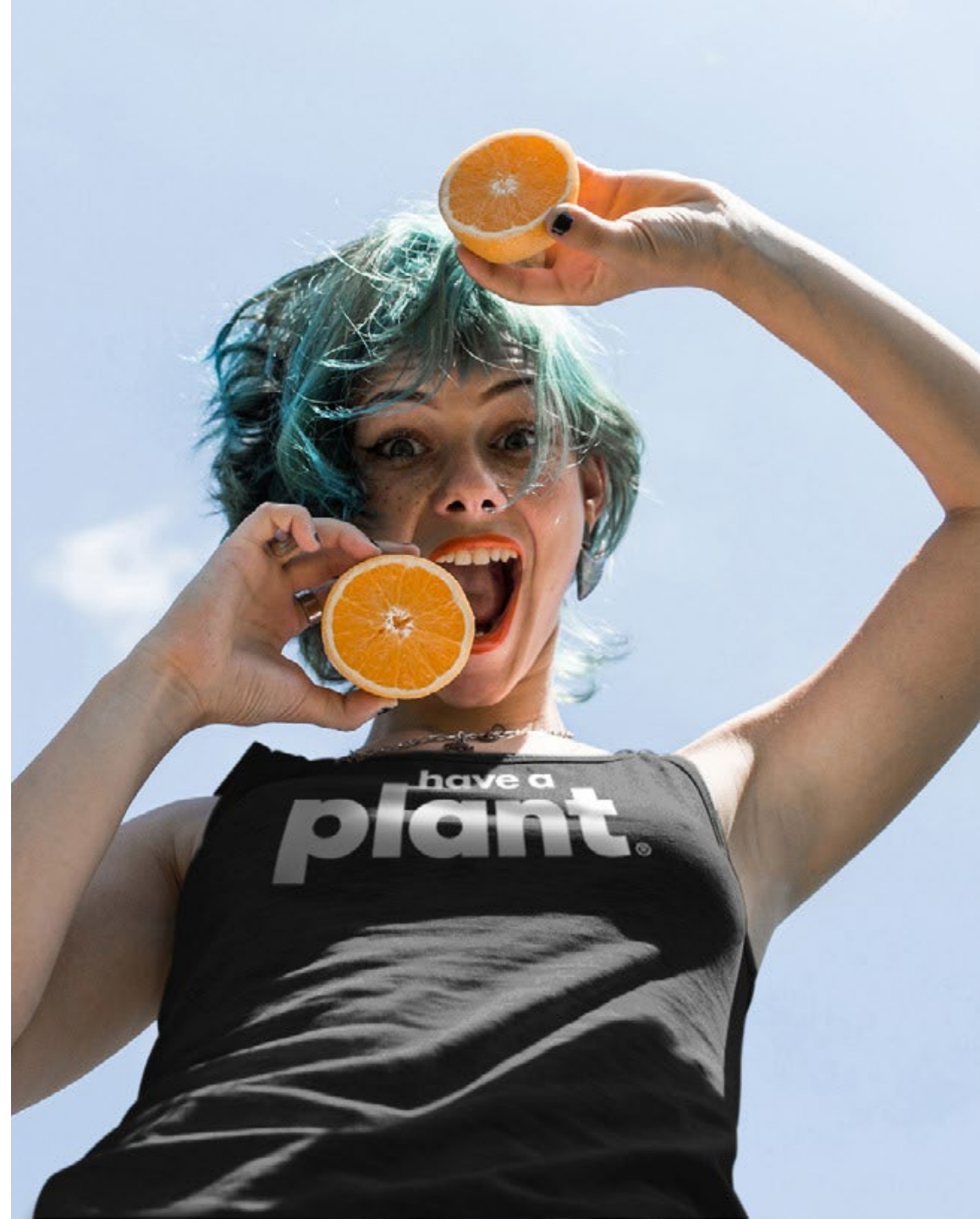
#5: Add a “search ad” for deli meats that features produce pairing variations, making it easy for shoppers to drop these items into their virtual carts.

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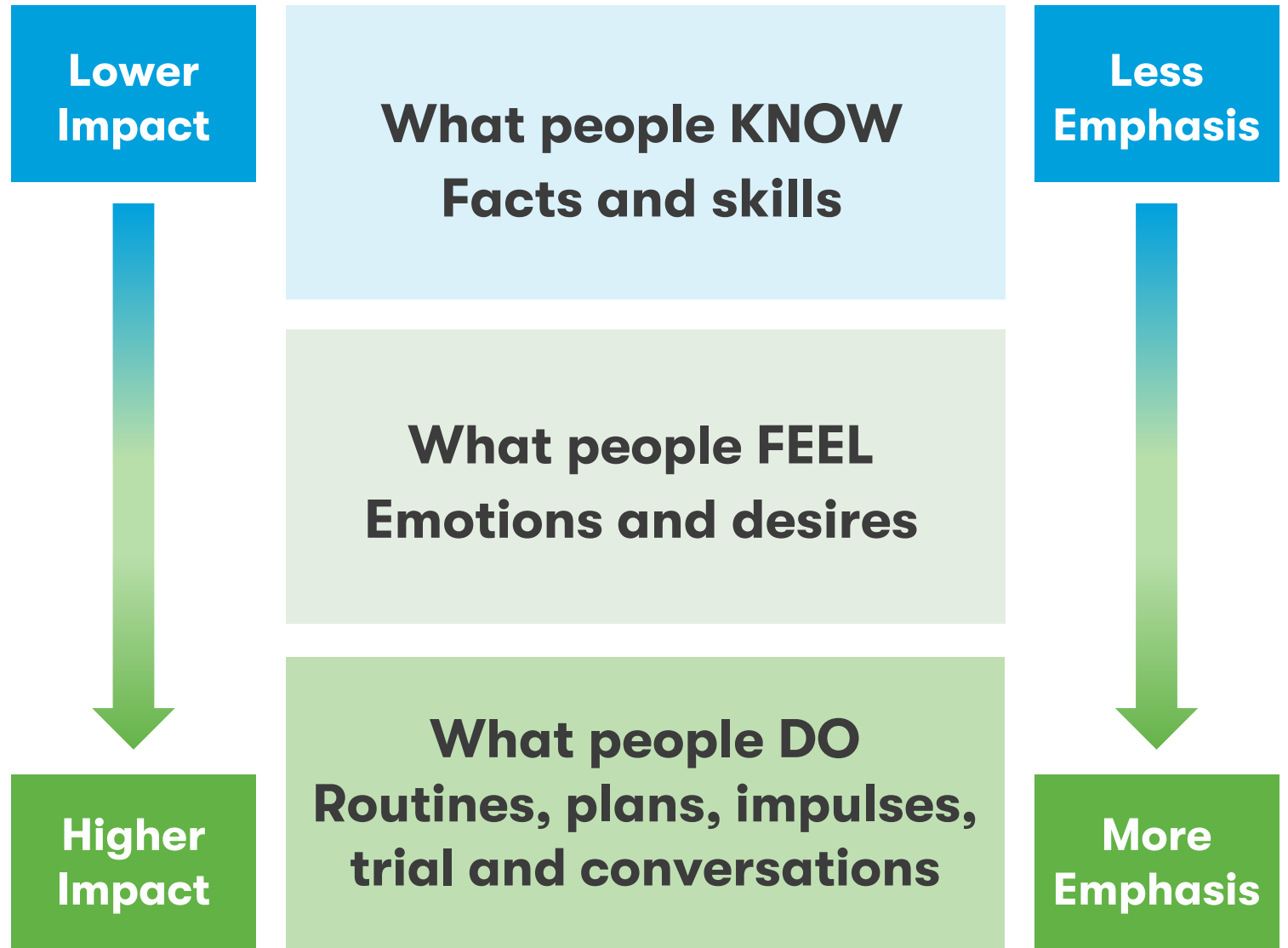
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KEY FINDING #3:

**High- and medium-
frequency consumers
have more fruit and
vegetable habits.**



Shift From KNOWING to FEELING and DOING



Habitual fruit and vegetable consumers find more enjoyment and pride when it comes to preparing and serving fruits and vegetables.

Knowledge and Feelings About Key Fruit and Vegetable Beliefs and Behaviors
% Respondents Top 3 Box - Agree

NOTE: High-frequency fruit eaters express the greatest enjoyment, pride and knowledge using fruits and vegetables.

	Total (n=1024)	Fruit Eater		Vegetable Eater	
		Habit Consumer (n=113)	Non-Habit Consumer (n=232)	Habit Consumer (n=113)	Non-Habit Consumer (n=241)
I know how to select and store fruits and vegetables for the best eating experience possible	73	92*	70	93*	66
Preparing and cooking meals with fruits and vegetables is something I enjoy doing	73	90*	66	93*	65
I feel a sense of pride when I feed my family fruits and vegetables at meals and snacks	72	88*	65	92*	64
Fruits and vegetables are expensive	50	51	48	57	48
It's hard to find vegetables that everyone in my house likes	36	44*	30	38	34
It's hard to find fruits that everyone in my house likes	29	37*	22	35	26
I don't know how to prepare fruits or vegetables in different ways	29	34	27	31	28
Unless I plan ahead, buying fruits and vegetables isn't something I typically do	28	28	27	32	28

QR5 Please tell us how much you agree or disagree with each of the following statements. Seven Point Scale

Base: Fruit and Vegetable Eaters randomly selected for Automaticity QH1-8

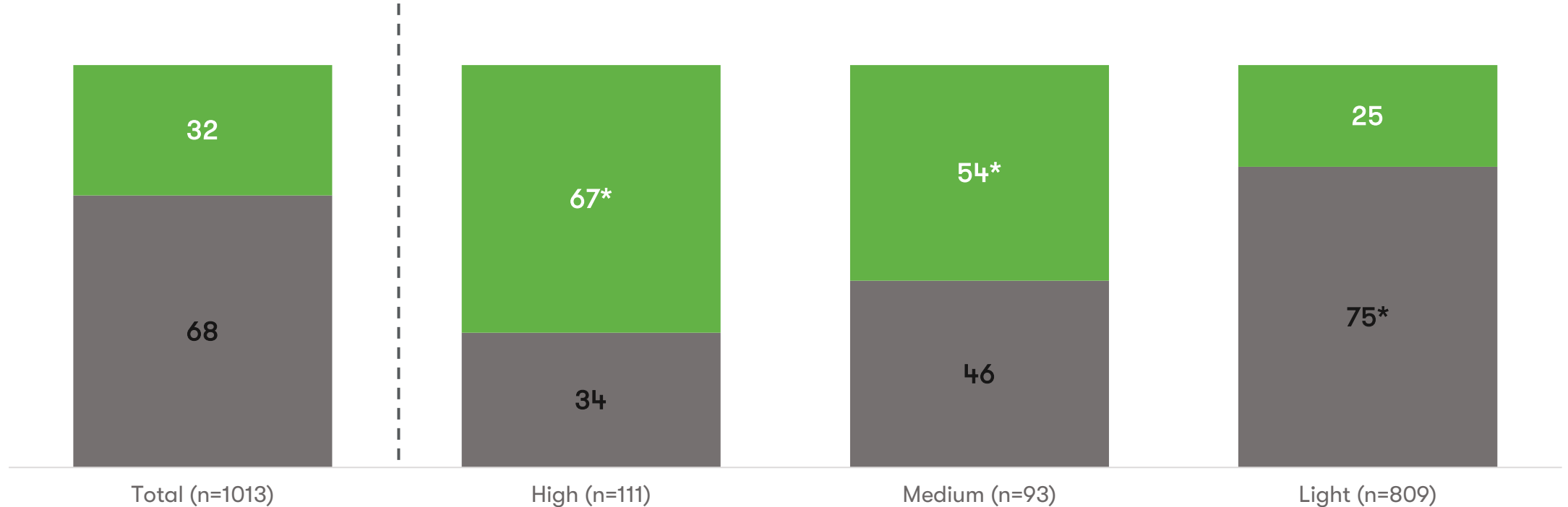
***Bold** number indicates statistically significant; *Significant to Non-Habit

Source: PBH Hacks To Habits Study

High- and medium-frequency vegetable eaters both out-eat light-frequency eaters by at least twice the volume.

Cups of Vegetables Consumed per Day
% of Respondents

■ <3 Cups ■ 3+ Cups



QC7 How many cups of vegetables would you say you eat in a typical day?

Base: Vegetable Eaters (n=1013)

***Bold** indicates statistically significant; *Significant to light; **Significant to high and medium

Source: PBH Hacks To Habits Study

RETAIL INSIGHTS & ACTIVATIONS

IDEAS TO CREATE HABITS:

#1: Promote buying a variety of types of fruits and veggies. Suggest shoppers run through the alphabet adding a new one that starts with a different letter each week. Change up the “free apple for kids” program to offer a different fruit or veg each week.

#2: Create fruit and vegetable bundles in e-commerce that would feed a family of four for a week. Include all forms. Link to recipes on how to use the various items.

#3: Develop a “Double Up” contest or promotion, encouraging shoppers to double the fruits or vegetables in a recipe. Provide example recipes to give shoppers success!

#4: Offer a calculator and/or tracker for primary shoppers to know how much fruit/veggies to buy each week.

#5: In TikTok video clips, show how to use dried, frozen, or canned fruit for consumers’ key needs – convenience, taste, affordability, and health.

#6: Develop a policy at your retailer, where shoppers gain “double points” in rewards programs for fruit and vegetable purchase. Offer employees a higher discount on fruit and vegetable purchases.

FOODSERVICE INSIGHT & ACTIONS

INSIGHT: High- and medium-frequency fruit and vegetable eaters rely more on food hacks compared to low frequency fruit eaters.



ACTION: For home cooks, convenience and usage hacks are critically important, but what hacks help drive increased use, ordering, and appeal in foodservice settings?

- Low-frequency consumers say adding vegetables to burgers and sandwiches (32%) and adding fruits and vegetables to favorite dishes, meals and snacks—such as tacos, pizza, pasta, etc. (32%)—are powerful hacks.

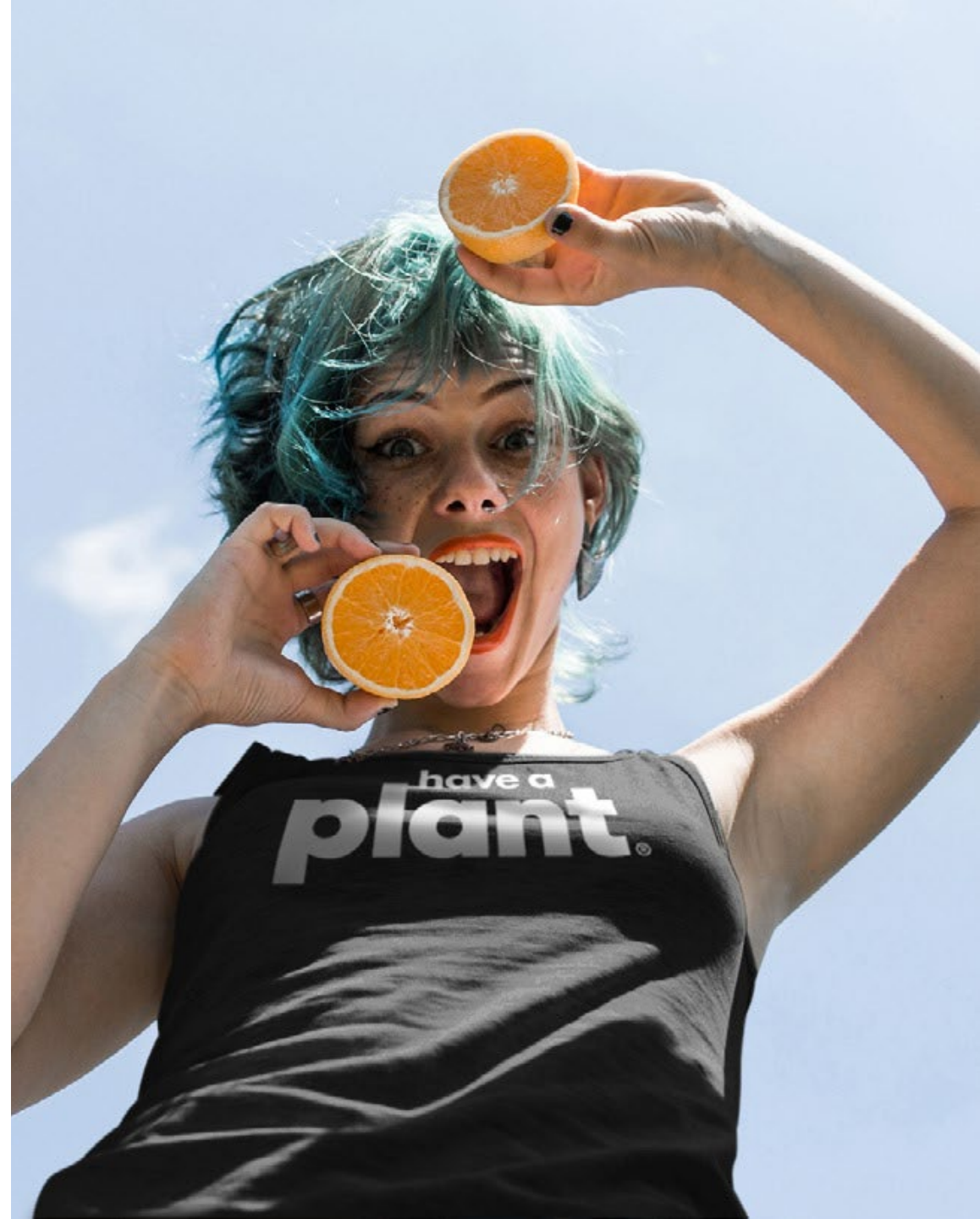


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KEY FINDING #4:

Low-frequency consumers can build fruit and vegetable habits from hacks.



High- and medium frequency fruit eaters rely more on life hacks than light eaters.

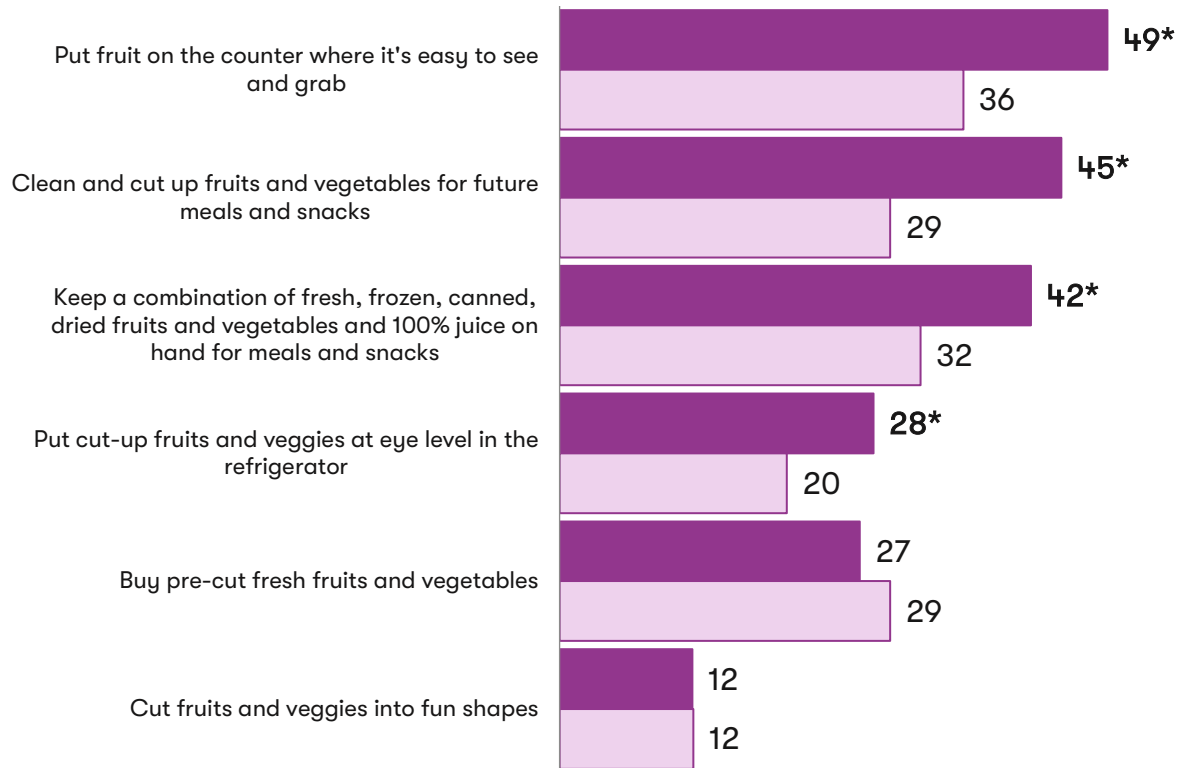
Average # of Life Hacks Used

High/Med Fruit Eaters **7**

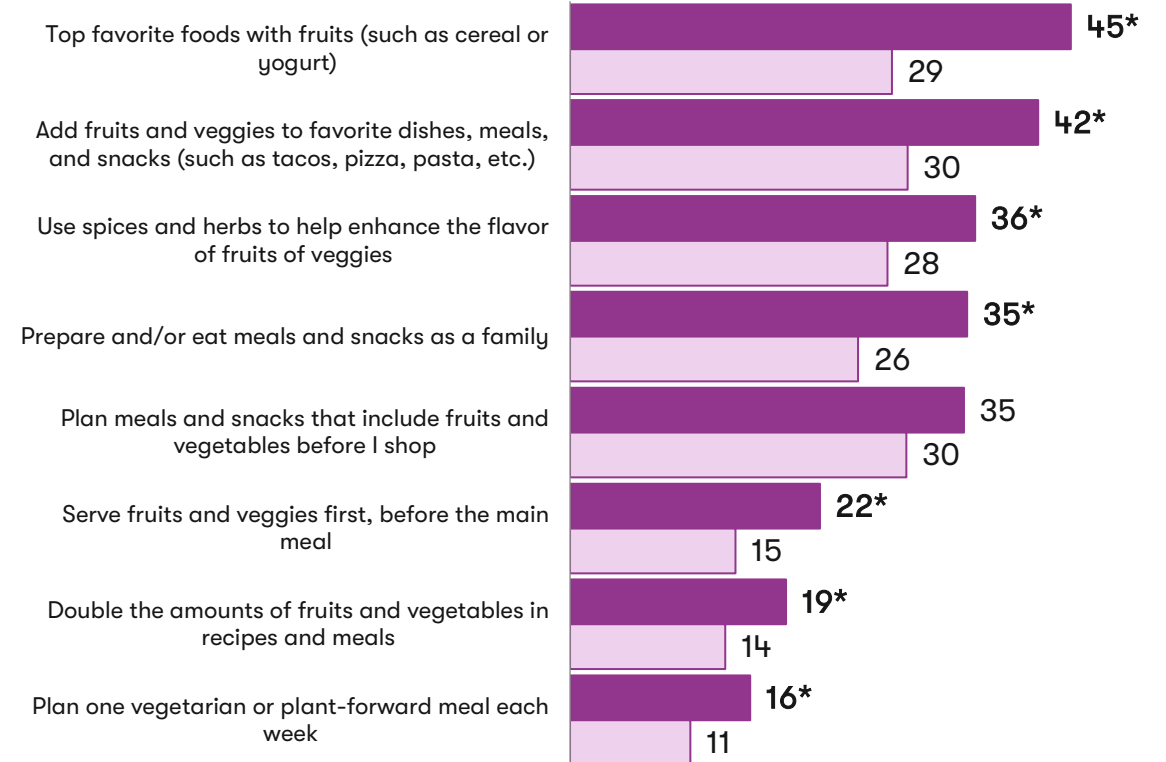
Light Fruit Eaters **4**

Life Hacks Currently Used % of Respondents

Convenience Hacks



Usage Hacks



Digital Hacks

Search out new time-saving fruit and veggie innovations (H/M=9%, L=9%)

Use apps designed to help me track how many fruits and vegetables I'm eating (H/M=6%, L=6%)

Subscribe to emails or social media alerts for fruit and veggie inspiration (H/M=6%, L=4%)

Ask a smart home appliance (i.e., Alexa, Echo) for meal or snack ideas using fruits and vegetables (H/M=5%, L=9%)

Q.T5 Below are some 'life hacks' for eating more fruit and vegetables. Which of these life hacks do you currently use?

Base: Light Fruit Eater (n=644) High/Med Fruit Eater (n=347)

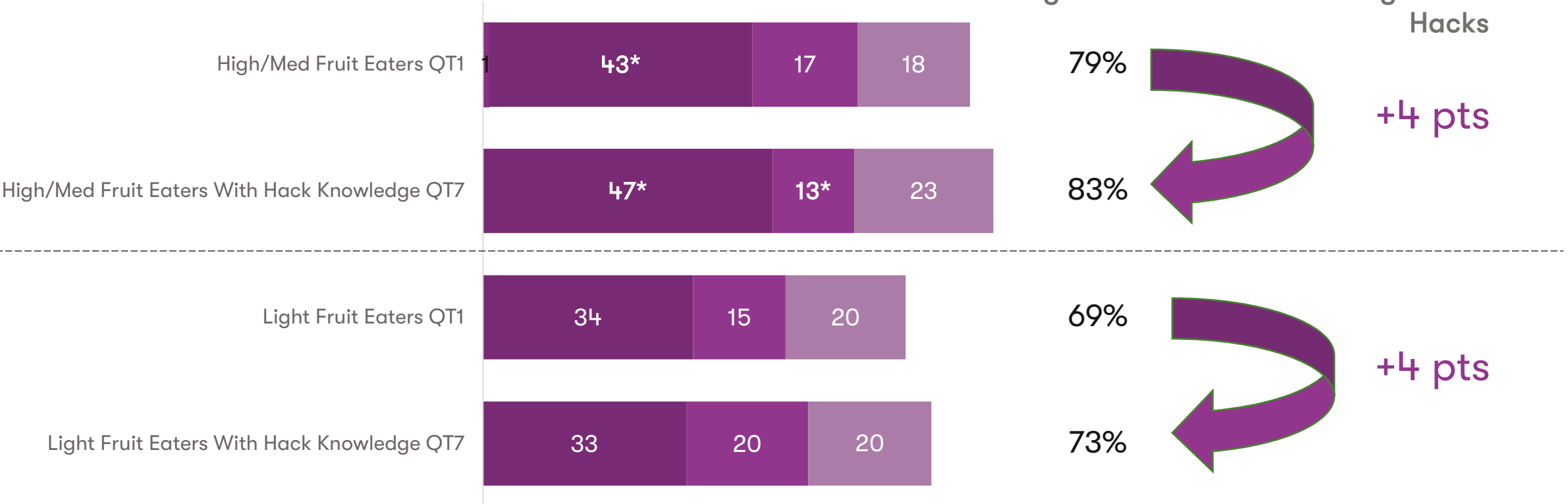
***Bold** number indicates statistically significant to light fruit users

Source: PBH Hacks To Habits Study

Knowledge of hacks increases intent to consume more fruit by 4 percentage points for all fruit eaters.

Ease of Doubling Fruit Consumption
% of Respondents Top 3 Box - Agree

■ #REF! ■ 1 = Very Easy ■ 2 ■ 3



Q.T1 How easy would it be to double your consumption of the following food categories?

Q.T7 Now that you know about these tips and tricks, how easy do you think it would be to double your or your family's consumption of the following food categories?

Base: High/Med Fruit eaters=348; Light Fruit eaters=647

Seven Point Scale: 1= Very Easy 7= Very Difficult

*Bold number indicates statistically significant to light fruit eaters

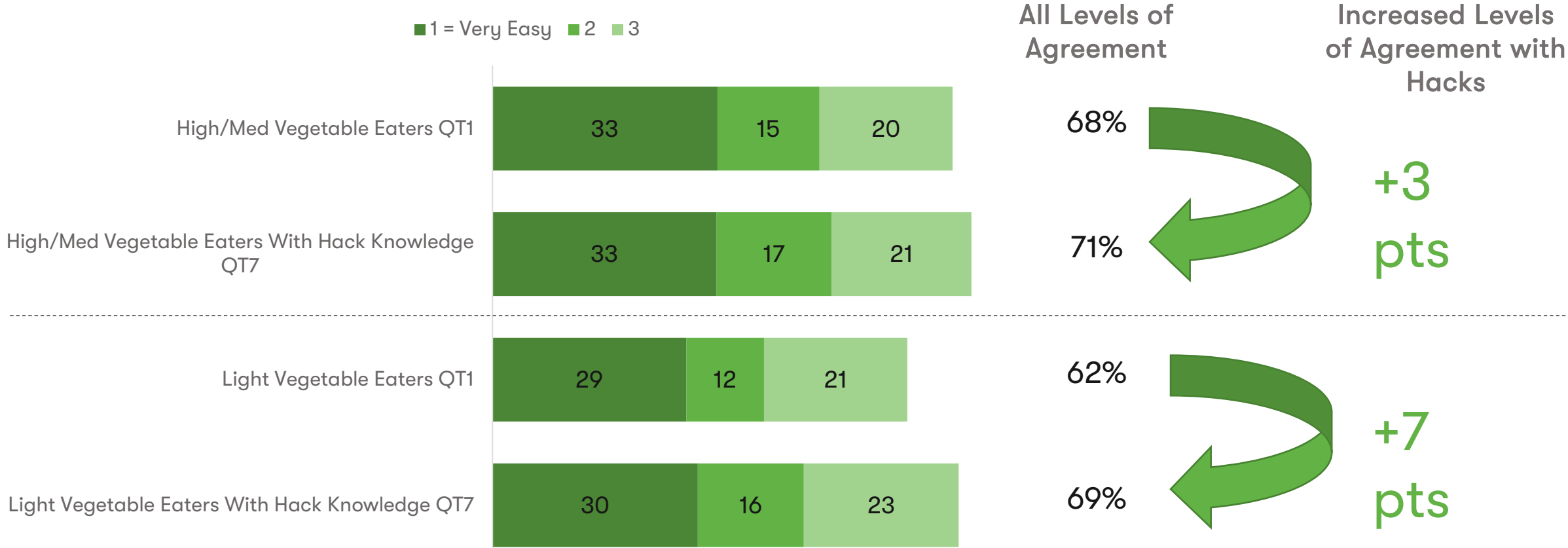
Source: PBH Hacks To Habits Study

Knowledge of hacks shows the strongest increase among light eaters to eat more vegetables.



Ease of Doubling Vegetable Consumption
% of Respondents Top 3 Box - Agree

■ 1 = Very Easy ■ 2 ■ 3



Q.T1 How easy would it be to double your consumption of the following food categories?
 Q.T7 Now that you know about these tips and tricks, how easy do you think it would be to double your or your family's consumption of the following food categories?
 Base: High/Med Vegetable Eaters=204; Light Vegetable Eaters=809
 Seven Point Scale: 1= Very Easy 7= Very Difficult
 No statistical significance reported
 Source: PBH Hacks To Habits Study

FOODSERVICE INSIGHT & ACTIONS

INSIGHT: Low frequency consumers are more likely to agree that it's hard to find vegetables that everyone in my house likes.

ACTION: What can foodservice operators do to provide a greater variety of vegetable options to ensure all family members can find a vegetable they like or love?



RETAIL INSIGHTS & ACTIVATIONS

IDEAS TO LEVERAGE HACKS:

#1: When developing recipes or doing prep demos/videos, show how different forms or a fruit or vegetable can be used in a recipe.

#2: Each week feature a fruit or vegetable, showcasing three different ways to prepare it, three different places in your stores to find it, and three different foods with which to pair it.

#3: Offer a refrigerator make-over for your shoppers, stressing fruits and veggies to keep in their respective drawers, tips for keeping produce fresh longer, and how to prep these foods in advance and store them attractively in the fridge so they are the first thing household members grab when they open the door. Showcase storage items available through your retailer as a way to increase the ROI of this program.

#4: Offer a kids' cooking class on different ways to make the same vegetable (raw, steamed, roasted, etc). Do a taste test as a part of the program, having kids rate what was their favorite version. Provide follow-up feedback to parents with links to shoppable recipes with veggies prepared that way and meals that tie well to these veg options.



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2022 PBH HACKS TO HABITS RESEARCH

*A Behavioral Research Study
to Bolster Fruit & Vegetable
Consumption*

QUESTIONS?



HACKS TO HABITS

A BEHAVIORAL RESEARCH STUDY TO BOLSTER
FRUIT & VEGETABLE CONSUMPTION

INSIGHTS REPORT



PBH QUARTERLY CONTENT CAMPAIGNS BRING THE HAVE A PLANT® MOVEMENT TO LIFE!

Inspire & Unify Messaging Through Influencer Toolkits



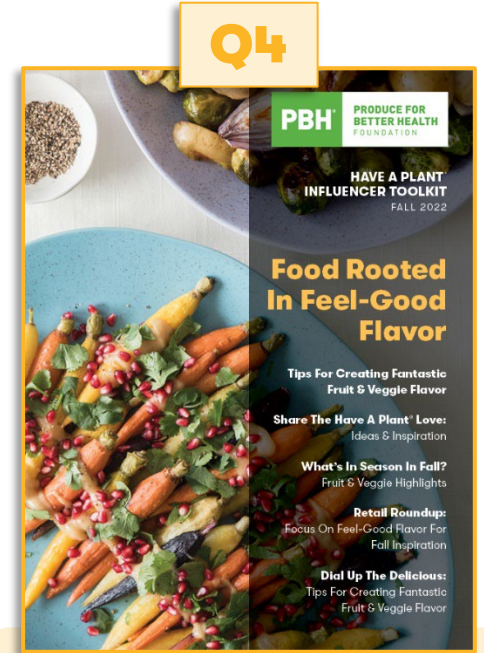
PLANT-ENTIONS



FOOD ROOTED IN A BETTER MOOD®



CELEBRATING THE ROOTS OF OUR FOOD



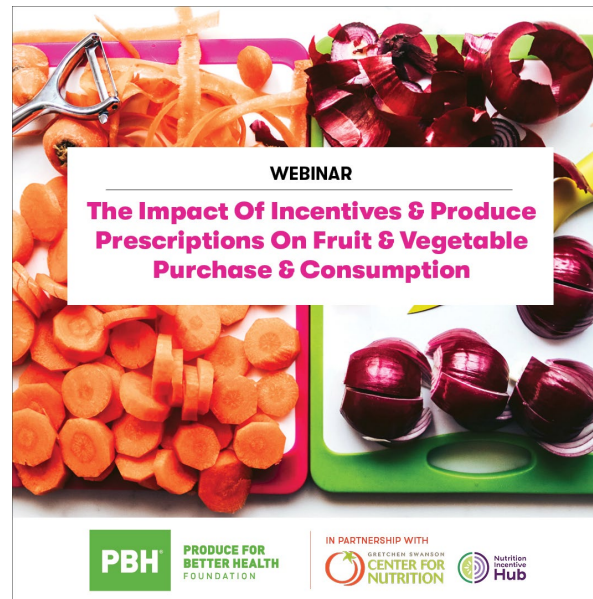
FOOD ROOTED IN FEEL-GOOD FLAVOR

Looking For Additional FREE Continuing Professional Education Opportunities?

fruitsandveggies.org/expert-professionals/webinars

Visit PBH's on-demand catalog of webinars on various fruit and vegetable topics including:

- *Power Pairings: Upgrading Snacks With California Strawberries & California Walnuts*
- *The Impact Of Incentives & Produce Prescriptions On Fruit & Vegetable Purchase & Consumption*
- *Breeding, Feeding & Leading: Innovations That Increase Food Security & Produce Consumption*
- *And Many More!*



HELP SUPPORT FRUIT & VEGGIE CONSUMPTION!

If you enjoyed today's Health & Wellness webinar and would like to support our overall mission of increasing fruit and vegetable consumption, we encourage you to make a tax-deductible donation today.

As a 501(c)3 non-profit organization, your donation helps us deliver programing, including our monthly health and wellness webinars, actionable research, future-focused education, a comprehensive digital ecosystem, and inspirational resources that helps millions discover the joy of eating fruit and vegetables each and every day. TOGETHER – with your support – we are creating happier, healthier lives!

To donate, add the Donations app to Zoom: <https://pldg.to/RiLcYw>

Or donate with your phone: Text **HAVEAPLANT** to **707070** (US only)

THANK YOU

**WE'RE GLAD
YOU'RE WITH US!**



We live at the center of
produce, partnership and passion.

