Survey of Registered Dietitians:
Better Understanding Challenges of Increasing Fruit and Vegetable Consumption

September 2019
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BETTER UNDERSTANDING CHALLENGES OF INCREASING FRUIT AND VEGETABLE CONSUMPTION

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BACKGROUND

The disease fighting characteristics associated with a diet rich in fruits and vegetables has been well established by decades of nutritional studies and research. However, according to the Centers for Disease Control, only one in 10 Americans eat enough fruits and vegetables each day. Barriers to consumption have also been researched and examined over the years in an effort to remove or overcome them. There has been increasing concern, however, that some messaging, marketing tactics and media reports may have created a relatively new consumption barrier — fears about the safety of fruits and vegetables. Concerns about a “fear barrier” impacting consumption had been anecdotal until substantiated by peer reviewed studies published in 2014 and 2016.

In a study published in September 2016 in Nutrition Today, researchers at the Illinois Institute of Technology’s (IIT) Center for Nutrition Research surveyed 510 low income consumers in the greater Chicago area to learn more about what terms and information about fruits and vegetables may influence their shopping intentions. Among the key findings, messaging which claims certain fruits and vegetables have “higher” pesticide residues results in low income shoppers reporting that they would be less likely to purchase any fruits and vegetables — organic or conventional.

Researchers at the John Hopkins Center for a Livable Future conducted a similar study which was published in the journal Culture, Agriculture, Food and Environment in December 2014. These researchers conducted one-on-one interviews with study participants in the Baltimore area to learn more about the way food is understood within consumers’ definitions of “healthy.” The researchers stated that they explored this topic among consumers living in an underserved, low-income neighborhood because “this group is particularly important demographically given the disparate burden of diet-related diseases they carry and the frequency of diet-related messages they receive.”


2. “Low Income Shoppers and Fruits and Vegetables: What Do They Think?” Huang, Yancui MS; Edirisinghe, Indika PhD; Burton-Freeman, Britt M. PhD, MS, Nutrition Today, September/October 2016 - Volume 51 - Issue 5 - p 242–250

Specific to produce and pesticide residues, the researchers included the following excerpt in their paper:

“Some participants acknowledged that they hear competing health messages about foods which might conflict with other health benefits of the food, such as nutritional value. One participant described health messages about the importance of eating apples being contradicted by other messages warning of the effects of pesticides.”

Among the study conclusions: “Given the potential impact of competing messages about healthy eating, it is important that those who want to improve production techniques and those who want to improve nutrition cooperate to create consistent messaging about healthy eating.”

While both academic papers showed the potential impact of a “fear barrier” on consumption, the Alliance for Food and Farming (AFF) wanted to learn more from the nutrition community about their real-life experiences related to improving eating patterns. Therefore, in September 2019, the AFF fielded a survey with the objective to better understand the challenges faced by registered dietitians (RDs) and nutritionists to increase consumption of fruits and vegetables in the daily diets of their clients and consumers.

Our goal is to share these results with the nutrition community and engage in further dialogue about how we can work together to break down consumption barriers with a specific focus on alleviating safety fears.

SURVEY RESULTS

Strong Consensus and Agreement

As anticipated, there was close to unanimous agreement about the importance of eating fruits and vegetables with 99% of RDs stating it was extremely or very important to eat enough each day. The RDs were also provided with a list of statements and asked if they agreed or disagreed. The statement showed significant consensus among RDs about produce safety and consumption. These statements included:

- It is important that consumers know that conventionally-grown fruits and vegetables are safe to eat because not all consumers feel they can afford organically-grown produce. 95% agreement.
- Fear-based messaging regarding pesticide residues has a negative impact on consumers because it causes concerns about whether conventionally-grown fruits and vegetables are safe to eat. 94% agreement.
- Consumers should eat more fruits and vegetables every day, whether it’s organic or conventionally-grown. Both are safe and can be eaten with confidence. 93% agreement.
- Activist messaging about pesticide residues has the most negative impact on lower-income consumers who may or may not be able to afford organic fruits and vegetables. 76% agreement.
When compared to the other statements which had close to unanimous agreement, there was a drop in overall agreement with the final statement. However, 76% represents two-thirds of the respondents and is significant. This statement also had the highest amount of respondents stating they were “unsure” which may correlate to respondent’s reaction to “most negative impact on low-income consumers.” They may have felt, for example, that other audiences are equally impacted.

Identifying Barriers

As previous surveys had found when asked about consumption barriers, the survey showed that 69% of RDs cited “cost/too expensive/financial constraints” when asked in an open-ended question about the biggest challenge in promoting a healthful diet to consumers. Interestingly, the second most cited challenge (21%) was “lack of knowledge/misinformation.” Some examples given by the RDs included confusion when it comes to the benefits of organics, contradictory diet-related advice and being unaware of the nutritional value of produce. This was followed by responses more traditionally found when asking about consumption barriers including lack of preparation time (19%) taste preferences (17%), convenience (15%) and limited access to these healthy foods (13%).

There was again overwhelming consensus among RDs about the importance of factors impacting if consumers eat enough fruits and vegetables. Convenience (98%), Preparation skills (91%), Taste (96%) and cost (100%) were key and important factors affecting consumption.

However, a majority of RDs (63%) also agreed that food safety concerns about fruits and vegetables were impacting consumers eating patterns.

When asked specifically to identify the biggest food safety concerns among consumers in an open-ended question, “pesticides/chemicals/GMOs” and “bacterial/fungal contamination such as E.coli and Salmonella” were the most frequently cited. Since the science and government sampling data repeatedly show that residues “pose no food safety concern,” these open-ended survey responses underscore how misinformation may be impacting public health efforts to improve diets.

What Encourages/Discourages Consumption

The survey also included identifying which positive messages may help encourage consumption. These included:

- Government dietary recommendations which encourage consumers to fill half their plate with fruits and vegetables – 95% responded this encourages consumption.
- Studies showing reduced risk of illness/disease, like cancer, heart disease and diabetes, associated with eating a diet rich in fruits and vegetables – 95% responded this encourages consumption.
We then showed RDs infographics used by the AFF to help educate consumers about produce safety and safe practices. Eighty-one percent of RDs stated that this infographic based upon the AFF’s pesticide residue calculator encouraged consumption.

And, 91% of RDs stating this washing information based on recommendations from the Federal Food and Drug Administration (FDA) encouraged consumption.

Conversely survey respondents were also asked to consider how negative food safety information impacts consumers and consumption: These included:

- The “dirty dozen” list of fruits and vegetables, 81% responded this discourages consumption.
- News reports of foodborne illness outbreaks, 87% responded this discourages consumption.
- Labeling of genetically modified crops/GMOs, 64% responded this discourages consumption.

As we did with AFF infographics, we also showed RDs infographics used by activist groups to promote one farming method over another. This newly released infographic, which includes inaccurate and misleading content, resulted in almost unanimous agreement (95%) that this discourages consumption.


An infographic showing the “dirty dozen” list, which has been discredited by peer reviewed science, led 88% to state that this discourages consumption.

Credibility of Information Sources on Food Safety:

The AFF asked RDs who they found to be credible sources of information about residues on fruits and vegetables. And the top response and almost unanimous answer was each other. Ninety-Nine percent of RDs said other RDs/nutritionists were credible information sources. This was followed by academia/scientists at 97%, U.S. Department of Agriculture at 94%, FDA at 93% Environmental Protection Agency at 92% and farmers at 87%. Interestingly, produce trade associations were found to be much more credible (78%) than activist or environmental groups (63%) when it comes to information about pesticide residues.

Conclusions:

It is clear that there is substantial agreement about the importance and benefits of eating more fruits and vegetables every day as well as what information encourages consumption. However, there is also substantial, and at times, close to unanimous agreement among RDs that misinformation and fear-based messaging often promoted by activist groups may discourage consumption and negatively impact their efforts to improve diets.

RDs also accurately identified sources of credible information, which included government agencies who set the stringent safety standards for pesticide use and residues as well as conduct regular sampling of fruits and vegetables to ensure farmers are complying with those standards. Their reliance on their own community, university scientists and government agencies for information on residues is appropriate and reflects their science-based approach.

As previous survey work and peer-reviewed research has shown, sharing accurate, science based information with consumers that counterbalances and corrects fear-based messaging, provides reassurance about produce safety and communicates the benefits of increased produce consumption has become an important and necessary part of public health efforts to improve diets.
Recent AFF Consumer Survey Results/ Reassuring Messages About Produce Safety (2016):

RDs and nutritionists may find the results of an AFF consumer survey conducted in late 2016 useful in their efforts to improve diets. The AFF sought input from consumers to learn what information would help them in making fact-based decisions about the food they eat and serve their families. In this research project, information from national health experts, toxicologists and government agencies was shared with consumers. After reviewing factual information from credible sources, consumer confidence increased significantly over baseline levels, with 87% of consumers stating they had a favorable opinion of organic produce and 80% stating they had a favorable opinion of conventionally grown. The research results showed that the information presented to consumers made a positive difference in their perception of the safety of all produce and helped alleviate fear as a potential barrier to consumption.

Complete research results can be found in the “Facts, Not Fears” section of safefruitsandvegetables.com.

ABOUT THE SURVEY:

A total of 175 registered dietitians responded to the web survey. All the survey participants had over 10 years experience as a registered dietitian and 97% stated they work directly with consumers — the majority in the medical/health care field.