

**SCIENCE  
COMMUNICATION  
STARTER KIT**

Dylan Bailey, MS, RD  
i-fsgfuj~:::Elr frghtr  
Well Done Nutrition, LLC





**WHAT FOOD FUTURE?**


SOCIETY FOR NUTRITION EDUCATION AND BEHAVIOR  
**2020 ANNUAL CONFERENCE**  
JULY 20-24 | LIVE AT SNEB.ORG


1


**WHAT THIS KIT  
CONTAINS**


- 


The definition and application of communication sciences, and details to assess how nutrition information influences communication strategies
- 

Information on how and when to use nutrition communication strategies to influence behavior
- 

Background on when to apply appropriate theoretical frameworks to inform nutrition and health communications
- 

Tips to tailor behavior change messages based on attributes of the target population, including factors like health literacy and numeracy
- 

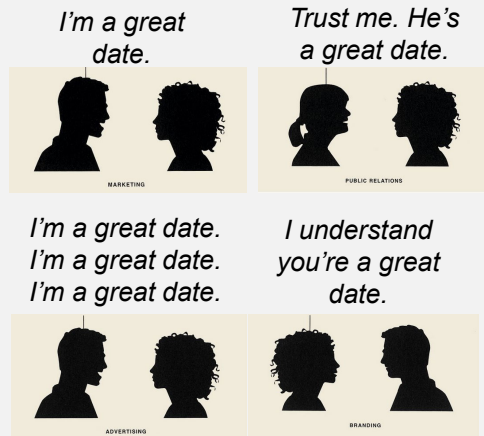
Details on how to select communication channels that are appropriate and feasible, and deliver communications campaigns that resonate with the target population
- 

Insight on how to create an evaluation plan that tests process and outcome variables and is both rigorous and feasible
- 

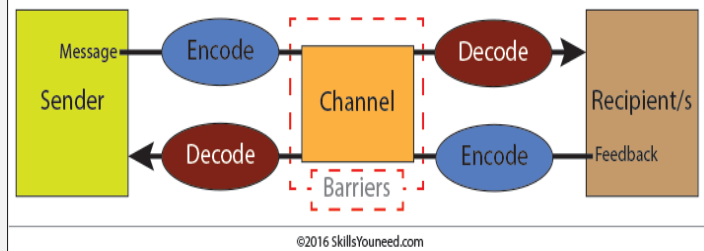
Background on the factors affecting the effective communication of nutrition research

2

## WHAT IS COMMUNICATION



### The Communication Process

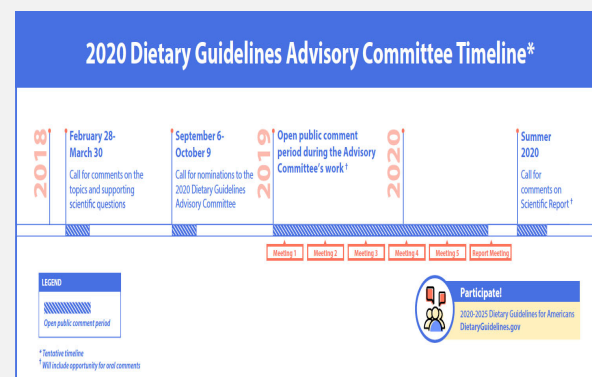


- Communication is simply the act of transferring information from one place, person or group to another. Involves a sender, the message, and the recipient.
- Public relations works to secure the endorsement from a source the target audience trusts.

3

## WHAT IS NUTRITION COMMUNICATION

- 'Nutrition communication' can be defined as the process by which nutrition knowledge is converted into dietary change.
- Dietary goals for populations and food-based dietary guidelines for individuals constitute the starting point for nutrition communication.
  - Population-based approach
  - Group-based approach
  - Individualistic approach

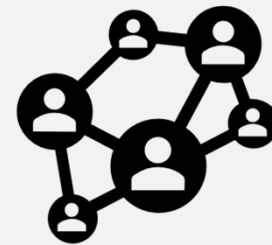
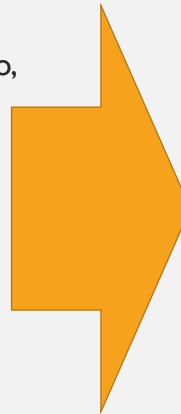


Rayner MJ. Nutrition communication from theory to practice: some future perspectives. *Forum of Nutrition*. Vol. 56. 2003.

4

## MANY APPROACHES TO CHOOSE FROM

- Population-based approach
  - Dietary Guidelines for Americans, TV, Radio, Newspaper, Internet, Printed materials, Direct mailing, Posters
- Group-based approach
  - Lectures, Demonstrations, Grocery store tours
- Individualistic approach
  - Personal contact, Home visits, Personal letters



5

## FACE-TO-FACE OR NOT?

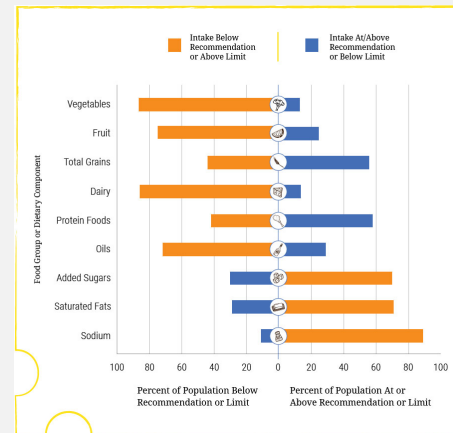
**Table 1: Some relative advantages and disadvantages of face-to-face and mass media approaches**

	Advantages	Disadvantages
Face-to-face	<ul style="list-style-type: none"> <li>• Interactive</li> <li>• Reliable</li> <li>• Provides social support</li> <li>• Allows for personalising</li> <li>• Allows for modelling</li> <li>• Appropriate sequencing easy</li> <li>• Follow-up easy</li> </ul>	<ul style="list-style-type: none"> <li>• Expensive</li> <li>• Penetration weak</li> <li>• May encourage dependency</li> <li>• May not be acceptable to many people</li> </ul>
Mass media	<ul style="list-style-type: none"> <li>• Cheap per contact</li> <li>• Large numbers reach</li> <li>• More acceptable for many people</li> <li>• May stimulate self initiated change</li> <li>• Potential for further development through modern technology</li> </ul>	<ul style="list-style-type: none"> <li>• Weak engagement of users</li> <li>• Unreliable</li> <li>• Dilution of content</li> <li>• Follow-up difficult</li> </ul>

6

## WHEN TO USE NUTRITION COMMUNICATION

- Nutrition education
  - Potential benefits of foods and food components
  - Address nutrition-related concerns: heart health, weight, cancer, etc.
- Restricting misinformation about nutrition
  - Seen when patients, clients or consumers want to take an active role in their health – people are learning to question their food and what is in it, but not all sources of information are created equal.
- Improve nutritional status
- Provide clarification on trending nutrition topics
- Empower clients and patients to make and stick with behavior change
- To ensure better use of food and nutrition resources

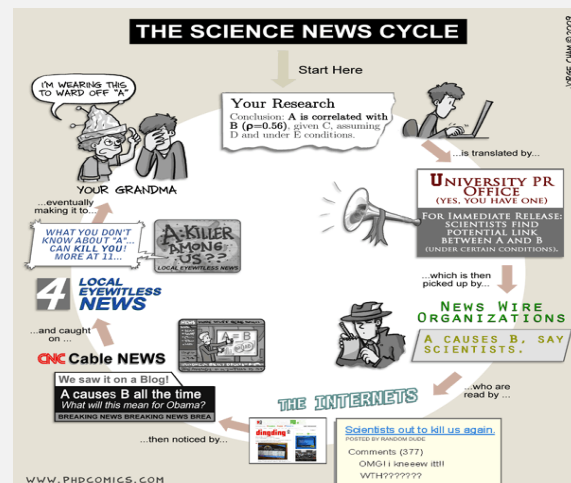
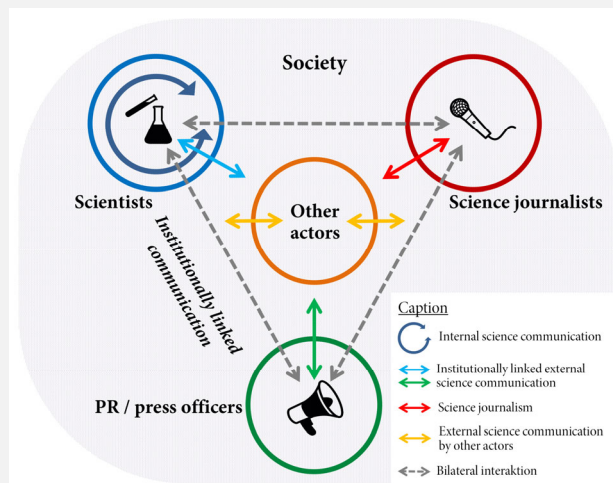


## 10 Top Trending Diets of 2019, According to Google

People in 2019 were obsessed with fasting, weight loss supplements, and a diet created by a reality TV power couple.

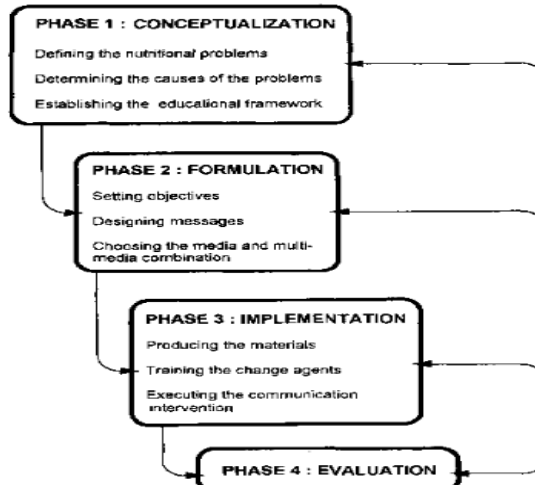
7

## WHEN TO USE NUTRITION COMMUNICATION



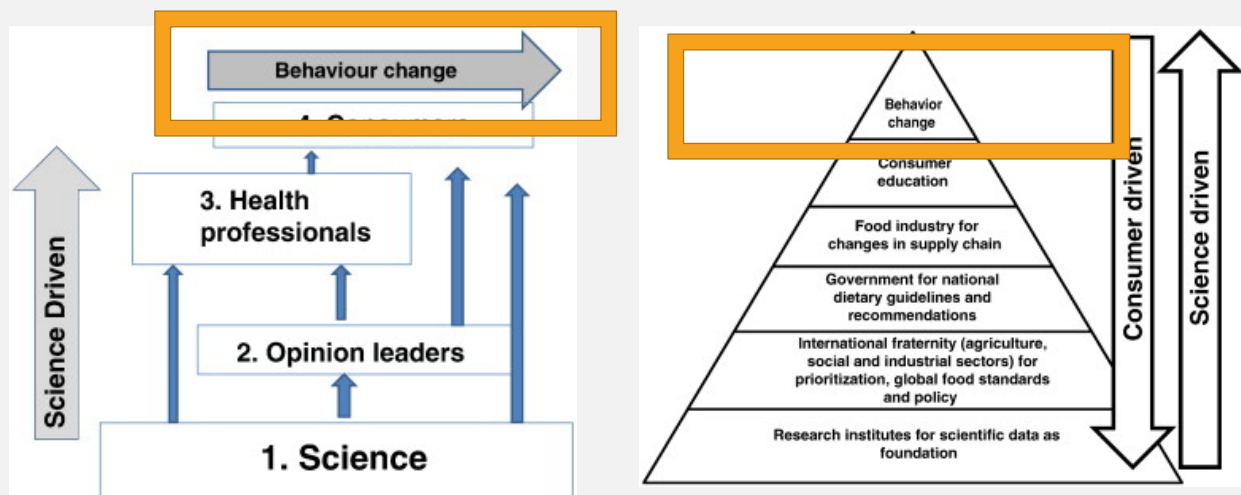
8

## NUTRITION COMMUNICATION STRATEGY



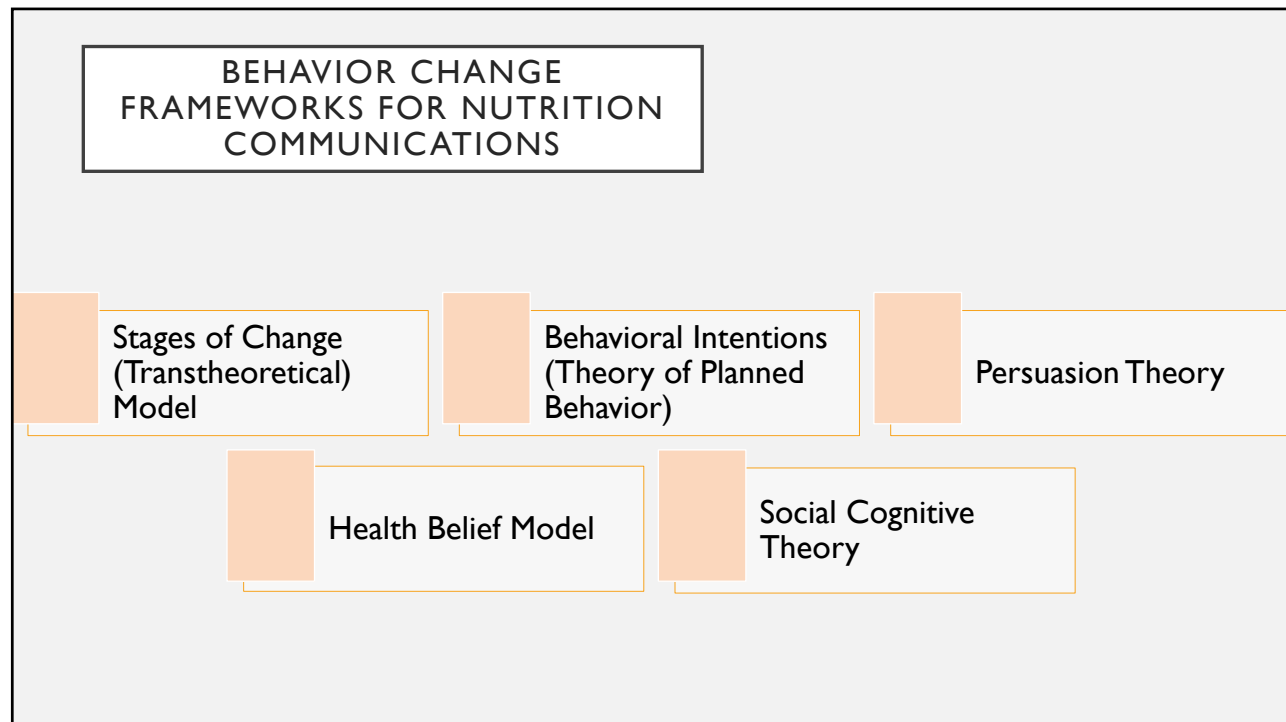
9

## NUTRITION COMMUNICATION STRATEGY



Schönfeldt HC, Hall NG. Consumer education on the health benefits of red meat—A multidisciplinary approach. *Food Research International*. 2012;47(2):152-155.

10



11

**MEMORABILITY AND ACTIONABILITY**

- **Memorability**
  - Memorability is a necessary criterion for an effective guideline because, in order for people to do a newly prescribed action, they must first remember what that recommended action is.
- **Actionability**
  - Even when remembered, there are still many cognitive and social barriers to action, and effective guideline design needs to work around these barriers. Actionability helps overcome these barriers.

Memorability	Actionability
Simplicity Ease of Visualization Chunking Embedding Triggers	Simplicity Ease of Visualization Embedding Triggers Specifying When to Act Subjective Norms

Ratner RK, Riis J. Communicating science-based recommendations with memorable and actionable guidelines. *Proc Natl Acad Sci USA*. 2014;111(Suppl 4):13634–13641.

12

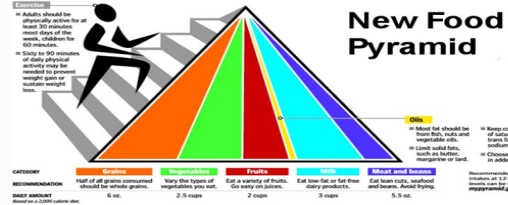
## MEMORABILITY AND ACTIONABILITY



## USA Food Guide Comparison Through the Years



- Fats, Oils, & Sweets have a surprisingly large visual portion compared to later food guides
- Specific food categories, highly descriptive



- Exercise Added to Food Guide
- Oils became smaller visual representation



- Simplified Graphic Approach
- No Exercise in graphic
- Meat & Beans change to a more generic "protein" category
- Milk became "dairy"
- Elimination of serving size in exchange for proportion compared to other items on plate

13

## MEMORABILITY AND ACTIONABILITY

## OLD LABEL

### Nutrition Facts

Serving Size 2/3 cup (55g)  
Servings Per Container About 8

#### Amount Per Serving

**Calories 230** Calories from Fat 72

#### % Daily Value\*

<b>Total Fat</b> 8g	<b>12%</b>
Saturated Fat 1g	5%
Trans Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 160mg	<b>7%</b>
<b>Total Carbohydrate</b> 37g	<b>12%</b>
Dietary Fiber 4g	16%
Sugars 1g	
<b>Protein</b> 3g	

Vitamin A	10%
Vitamin C	8%
Calcium	20%
Iron	45%

\* Percent Daily Values are based on a diet of other people's secrets.  
Your daily values may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate	Less than	300g	375g
Dietary Fiber		25g	30g

## NEW LABEL

### Nutrition Facts

1 8 servings per container  
Serving size 2/3 cup (55g)

#### 2 Amount per serving

**Calories 230**

#### % Daily Value\*

<b>Total Fat</b> 8g	<b>10%</b>
Saturated Fat 1g	5%
Trans Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 160mg	<b>7%</b>
<b>Total Carbohydrate</b> 37g	<b>13%</b>
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%

#### 4 Protein 3g

Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%

6 \* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

14

## TOOLS FOR NUTRITION COMMUNICATION - MESSAGE

- Message
  - Formulation of an idea or concept
  - There are four elements involved in designing an effective single message:
    - **Good content** - the message supports changes, beliefs or activities already present in the community.
    - **Good message** - the message is characterized by high technical quality.
    - **Good channel use** - the selected channel has a broad reach and is accessible to the audience.
    - **Good audience knowledge** - the message is relevant to, and well accepted by the audience – use of hashtags.



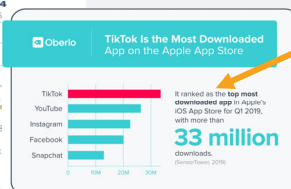
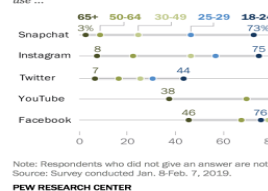
15

## TOOLS FOR NUTRITION COMMUNICATION - CHANNEL

- Channel of communication
  - Use all available channels
  - Address a single problem or behavior
  - Communicate a single well-focused message
  - Are specific and relevant to the target audience

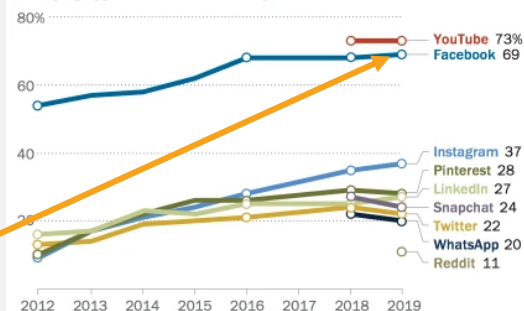
### Snapchat and Instagram are especially popular among 18- to 24-year-olds

% of U.S. adults in each age group who say they ever use ...



### Facebook, YouTube continue to be the most widely used online platforms among U.S. adults

% of U.S. adults who say they ever use the following online platforms or messaging apps online or on their cellphone



Note: Pre-2018 telephone poll data is not available for YouTube, Snapchat and WhatsApp. Comparable trend data is not available for Reddit.

Source: Survey conducted Jan. 8-Feb. 7, 2019.

PEW RESEARCH CENTER

16



## TOOLS FOR NUTRITION COMMUNICATION - CHANNEL

### Communication Channels

**Social media** — for short messages, snippets of content, graphic-heavy content, two-way communication

*Examples : Facebook, Twitter, Pinterest, Instagram*

**Print materials** — for static content, visual content, reproducible content

*Examples: handouts, brochures, posters*

**Digital content** — for dynamic content, how-to tutorials, information available on-the-go

*Examples: websites, blog posts, videos, apps*

**Mass media** — for large-scale public health campaigns

*Examples: radio, TV, newspapers, news websites*

17

## TOOLS FOR NUTRITION COMMUNICATION - MATERIAL

- Supporting Materials
  - Elements used in message transmission
  - Examples are endless...
    - Posters
    - Infographics
    - Social tiles
    - PowerPoint
    - Handouts
    - Recipe books
    - Social media post
    - Shopping guide
    - Blog

### Attention Deficit Hyperactivity Disorder | Children: BHN Nutrition Fact Sheet

A healthy diet includes foods from all the food groups. Serving regular meals can help support your child's growth.

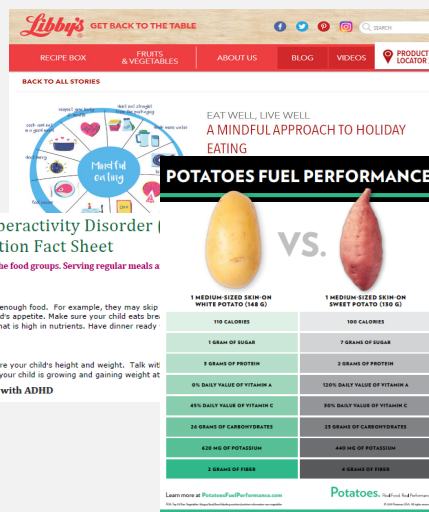
#### Calorie Needs

Your child with ADHD may not always eat enough food. For example, they may skip ADHD medications may decrease your child's appetite. Make sure your child eats from each of the food groups. Provide a lunch that is high in nutrients. Have dinner ready effects wear off.

#### Appropriate Growth Rate

Your child's doctor should regularly measure your child's height and weight. Talk with about your child's growth. They can tell if your child is growing and gaining weight at

Important Nutrients for Children with ADHD



If you believe everything you read online you should see my online dating profile.



somocards Splenda #DeBunkTheJunk

### THE STRONGEST EVIDENCE SAYS: Sucralose Does Not Affect Blood Sugar

The collective body of research shows no effect of sucralose on blood glucose control.



18

## TOOLS FOR NUTRITION COMMUNICATION - MATERIAL

**EAT RIGHT**  
**BITE BY BITE**  
National Nutrition Month®  
March 2020

### FACT OR FICTION?

National Nutrition Month® 2020 Quiz

Circle the correct answer.

1. A healthy eating style includes a limited number of foods. **FACT or FICTION?**
2. Vegetable oils are an appropriate substitute for solid fats. **FACT or FICTION?**
3. Physical activity must be done for at least 10 minutes in order for it to be considered beneficial as a form of exercise. **FACT or FICTION?**
4. Portion sizes and serving sizes are the same thing. **FACT or FICTION?**
5. It is recommended that calories from added sugars be limited to less than 10% of calories per day. **FACT or FICTION?**
6. At least half the grains eaten daily should be whole grains. **FACT or FICTION?**
7. One cup of calcium-fortified soy milk is considered one cup from the Dairy Group. **FACT or FICTION?**
8. Meals that include seafood are recommended weekly. **FACT or FICTION?**
9. Most Americans get enough dietary fiber on a daily basis. **FACT or FICTION?**
10. Everyone needs the same amount of calories, which is 2,000 calories per day. **FACT or FICTION?**

©2019 Academy of Nutrition and Dietetics. Reproduction of this handout is permitted for educational purposes. Reproduction for sales purposes is not authorized.

National Nutrition Month® 2020

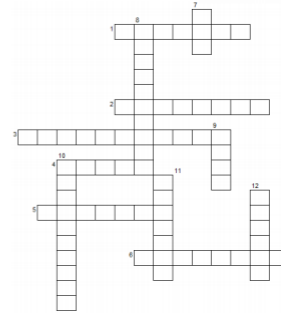
### crossword Puzzle

Across:

1. In the United States, the \_\_\_\_\_ is mainly grown in California and Florida. They might be eaten sliced, diced or mashed, like in guacamole.
2. This light colored, round bean is a main ingredient in hummus. Some people also know these beans as chickpeas.
3. When eaten raw, \_\_\_\_\_ is a crunchy white vegetable. It also looks similar to broccoli.
4. \_\_\_\_\_ cheese is pale yellow in color and a popular addition to sandwiches. It's also well-known for its large and small holes.
5. This mineral is essential for healthy bones and teeth. It's found in dairy products, some leafy green vegetables and fish with soft bones.
6. Sometimes known as the sunshine vitamin, \_\_\_\_\_ is found in fortified milk and soy beverages and some types of fatty fish.

Down:

7. Turkey and \_\_\_\_\_ are both popular choices for lunch meats and holiday dinners.
8. MyPlate recommends filling half our plates with fruits and \_\_\_\_\_.
9. This grain plays an important part in many eating styles all over the world. It may be brown or white, and is often grown in marshy areas.
10. This juicy red berry has small black seeds on the outside and a leafy green crown. They can be eaten plain or added to a variety of foods, such as cereal, waffles, smoothies and yogurt.
11. Many people like to carve this orange squash at Halloween. It can also be eaten in a variety of ways but is known for being baked into pies or made into soups.
12. This nut grows in a tear-drop shape but you may find it chopped, sliced or ground into a butter - similar to peanut butter.



**EAT RIGHT**  
**BITE BY BITE**  
National Nutrition Month®  
March 2020  
Academy of Nutrition and Dietetics

19

## DEVELOP AN ACTION PLAN

1. What is your subject of interest?
2. What is the medium of your choice? – Videos/Film, Science Art, Social Media, Writing/ Blogging, Other?
3. Establish a target audience.
4. Chose a platform to voice your action – Instagram, YouTube, Facebook etc.
5. What are the skills you are proficient in, what are the skills you need to work on, what are the resources you have access to?

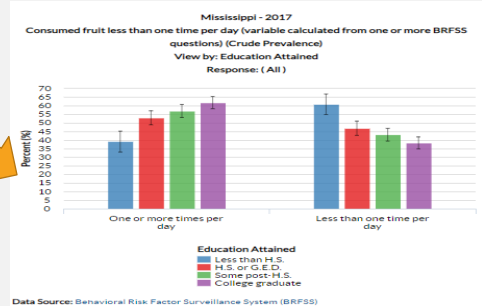
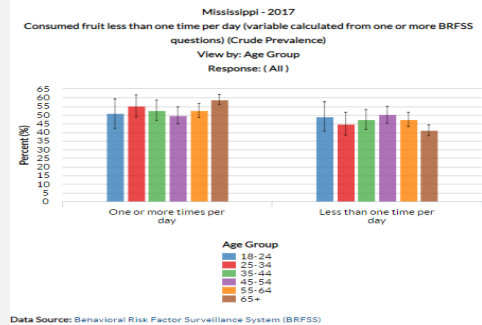
Content adapted from conference:  
Wonder Women in STEM, 2019

20

## CREATING NUTRITION EDUCATION MATERIALS THAT SUPPORT COMMUNICATION OBJECTIVES

### I. Know your audience

- To best tailor your communications materials, first define your audience with as much detail as possible.
- **What are the demographics characteristics?**
- **What is their primary language?**
- **What is their reading ability, education level and level of health literacy?**
- **Are there relevant cultural practices to keep in mind?**
- **Do they have specific nutritional or health concerns?**
- **What are barriers to behavior change?**
- **What are motivators for behavior change?**
- **Through which types of media do they receive health messages?**



21

## THE ROLE OF HEALTH LITERACY

- Most health information is not understood by the people for whom it was intended.
- A growing body of evidence is linking limited health literacy to poor health knowledge, behaviors, and outcomes.
- Addressing health literacy is increasingly seen as a way to improve preventive care and reduce health disparities.

patients with low  
**HEALTH LITERACY...**

Are more likely to visit an **EMERGENCY ROOM**

Have more **HOSPITAL STAYS**

Are less likely to follow **TREATMENT PLANS**

Have higher **MORTALITY RATES**

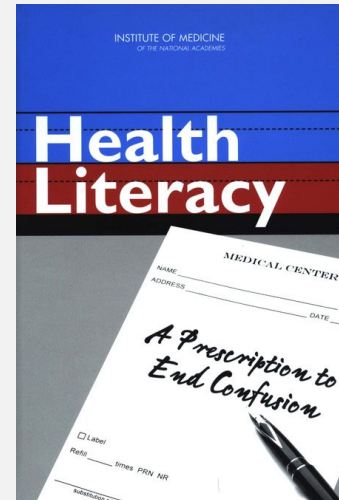
[www.cdc.gov/phpr](http://www.cdc.gov/phpr)

Kindig, DA, Panzer AM, Nielsen-Bohman, L, eds. *Health literacy: A prescription to end confusion*. National Academies Press, 2004.

22

## WHAT IS HEALTH LITERACY

- “...the degree to which individuals have the capacity to obtain, process, and understand basic health information needed to make appropriate health decisions and services needed to prevent or treat illness.”
- 90 million Americans have inadequate health literacy.
- 36% of the adult participants had basic or below basic health literacy skill - National Assessment of Adult Literacy (NAAL).



Kindig, DA, Panzer AM, Nielsen-Bohlman, L, eds. *Health literacy: A prescription to end confusion*. National Academies Press, 2004.  
 Cutilli CC, Bennett IM. Understanding the health literacy of America: results of the National Assessment of Adult Literacy. *Orthop Nurs*. 2009;28(1):27-34.

23

## WHY DOES HEALTH LITERACY MATTER FOR NUTRITION COMMUNICATIONS

- Understanding nutrition information often requires understanding complex scientific concepts.
- Patients have trouble interpreting and acting on nutrition information.
- Prevalence of nutrition-related chronic diseases and necessity for patients to be empowered to interpret and apply nutrition information.

### Your audience must understand your message to act upon it

When developing communication materials, make sure your message is clear and easy to understand through the following filters:

#### • Literacy

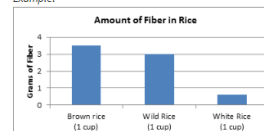
The ability to understand words and text  
 Example: Brown rice is a whole-grain food.

#### • Numeracy

The ability to understand numbers and mathematical concepts  
 Example: Cooked brown rice has 3.5 grams of fiber in a 1-cup portion.

#### • Graphicacy

The ability to understand graphs, charts, images, and diagrams  
 Example:



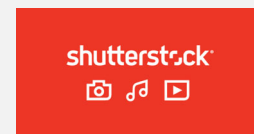
Kindig, DA, Panzer AM, Nielsen-Bohlman, L, eds. *Health literacy: A prescription to end confusion*. National Academies Press, 2004.  
 Cutilli CC, Bennett IM. Understanding the health literacy of America: results of the National Assessment of Adult Literacy. *Orthop Nurs*. 2009;28(1):27-34.

24

## ROYALTY-FREE IMAGES



flickr



25

## CREATING NUTRITION EDUCATION MATERIALS THAT SUPPORT COMMUNICATION OBJECTIVES

### 2. Tailor messages and materials to your audience



#### • Determine the best method of delivery

When choosing a delivery method, it can be helpful to consider the following three questions:

- What communication channels does my audience already use?
- What communication channels do they trust?
- What communication channels might they be most receptive to?

Consider partnering with another organization to help you reach your audience through the optimal communication channel.

- There are no more than 3-4 key messages
- Content is clear and concise
- Does not include unnecessary (or "nice to know") information
- Most important information is first
- Includes visuals to help explain the messages
- Information is segmented using headings, subheadings, and bulleted lists
- Action steps/desired behaviors for the audience are clearly stated

26

## CREATING NUTRITION EDUCATION MATERIALS THAT SUPPORT COMMUNICATION OBJECTIVES

### 3. Use plain language

- Plain language is language your audience can understand the first time they read or hear it. Plain language is written using words, sentences, and phrasing that your audience understands and feels comfortable with. No single technique defines plain language. Plain language is defined by results — it is easy to read, understand, and use.
- **Organize materials with the reader in mind**
- **Address separate audiences individually**
- **Use simple headings**
- **Use pronouns such as “you”**
- **Write in the active voice**
- **Use short sentences**
- **Include examples**
- **Choose common everyday words**
- **Use an appropriate reading level**
- **Create simple lists and tables**
- **Focus on positive actions**
- **Use visuals**
- **Test your materials**

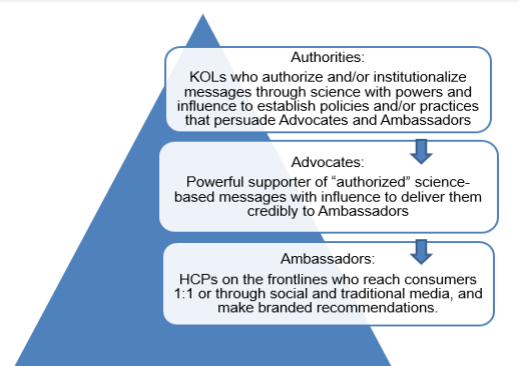
Instead of	Try
Consume	Eat or drink
Overconsume	Eat too much
Adequate	Enough
Lipids	Fat
Hypertension	High blood pressure
Cardiovascular	Heart
Mortality	Death

27

## CREATING NUTRITION EDUCATION MATERIALS THAT SUPPORT COMMUNICATION OBJECTIVES

### 4. Maximize impact through partnerships

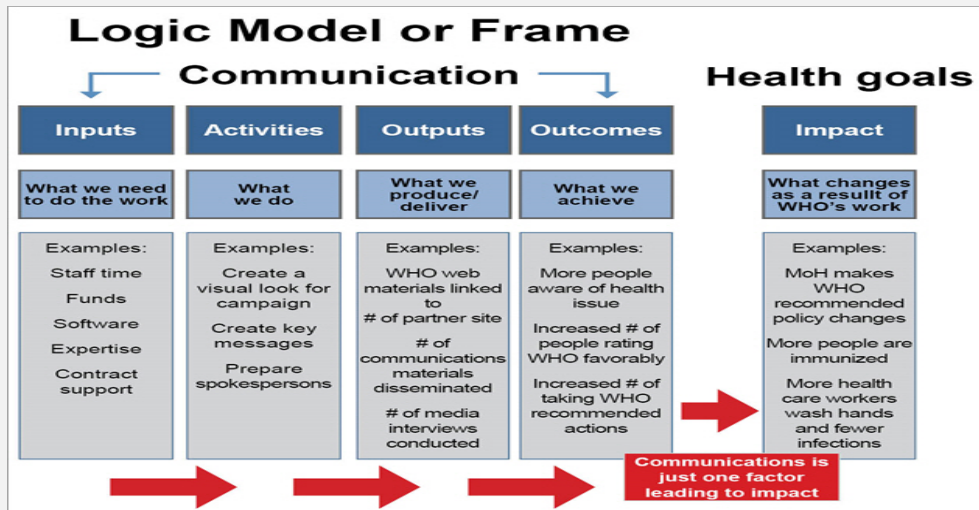
- Communication partnerships are important because they bring organizations together to communicate a shared message. By speaking with one voice on a topic, professionals and organizations can maximize their message output and increase the chances of their message getting to its intended audience.



28

## CREATING NUTRITION EDUCATION MATERIALS THAT SUPPORT COMMUNICATION OBJECTIVES

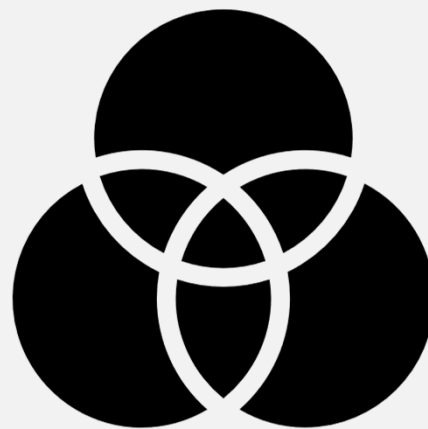
### 5. Evaluate



29

## CREATING NUTRITION EDUCATION MATERIALS THAT SUPPORT COMMUNICATION OBJECTIVES

- **Convey the big picture.**
- **Be inclusive.**
- **Encourage personalization.**
- **One size does not fit all.**
- **Empower change.**
- **Harmonize efforts.**



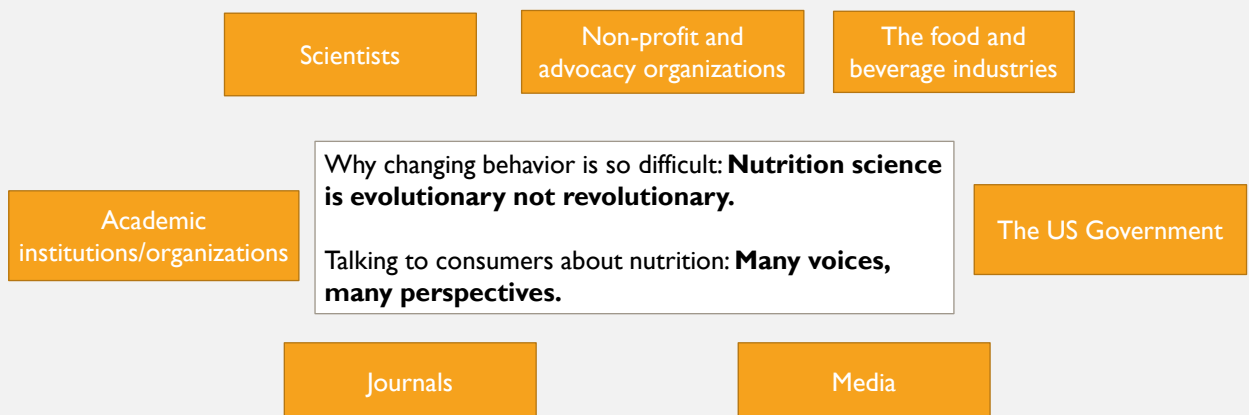
30

## CHALLENGING, HARD, MESSY, INDECISIVE...



31

## EVOLUTIONARY – WITH MANY VOICES

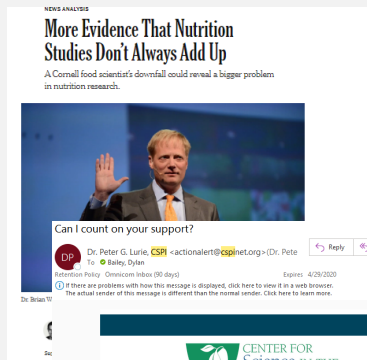


Goldberg JP, Sliwa SA. Communicating actionable nutrition messages: challenges and opportunities. *Proceedings of the Nutrition Society*. 2011;70(1):26-37.

32



## BIAS AND CONFLICTS OF INTEREST EXIST EVERYWHERE



Dx with a chronic disease, personally or a family member?  
Follow a specific eating pattern at home?

33

## PRESS RELEASES AND HEADLINES

- The power and the problem of press releases
- The media: headlines v. content

NEWS RELEASE 28-FEB-2020

High sugar diet may impair metabolic health & maternal care after pregnancy

SOCIETY FOR ENDOCRINOLOGY

NEWS RELEASE 10-JUN-2019

One change can make diet more planet friendly

Using simulation and diets of 16,000 people, scientists discover how to cut your diet's climate impact in half

AMERICAN SOCIETY FOR NUTRITION

HEALTH

**I Fooled Millions Into Thinking Chocolate Helps Weight Loss. Here's How.**



John Bohannon

5/27/15 4:23PM • Filed to: DEBUNKERY ✓



13M

527

282



34

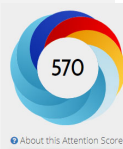
## IN MICE

NEWS RELEASE 17-JAN-2020

### America's most widely consumed oil causes genetic changes in the brain

*Soybean oil linked to metabolic and neurological changes in mice*

UNIVERSITY OF CALIFORNIA - RIVERSIDE



**Metrics**

Total Views	4,053
Pageviews	271
PDF Downloads	3,782

Since 1/1/2020

Heat for readers concerned about their most recent meal is that this study was conducted on mice, be studies do not always translate to the same results in humans.

**Twitter**

**Mihaela Bereza** @Atunci\_CoV · 4m  
Replying to @jamesheathers @justsaysinnice  
It feels good to join the murines

**justsaysinnice** @justsaysinnice  
The world's hardest working little scientist. Run by @jamesheathers  
@Scim Joined April 2019  
2 Following 72K Followers  
Not followed by anyone you're following

**justsaysinnice** @justsaysinnice · Jan 17  
Heat for readers concerned about their most recent meal is that this study was conducted on mice, be studies do not always translate to the same results in humans.

**Joe Rogan** @joerogan · Jan 17  
America's most widely consumed oil causes genetic changes in the brain  
eurekalert.org/ev/ephiq via @UCRiverside @EurekAlert

**Michael J. Caruso** @MJ\_Caruso · Jan 17  
Replying to @joerogan @UCRiverside @justsaysinnice

**570**

About this Attention Score

In the top 3% of all research outputs scored by Altmetric

Mentioned by

- 48 news outlets
- 46 blogs
- 249 posters
- 7 Facebook pages
- 3 Theorists

What is this page?

### America's most widely consumed oil causes many neurological changes

Daily Herald, 18 Jan 2020

1 hour ago Soybean oil is the most frequently used safe to eat oil in the United States, which may be because soybeans are a...

35

## WHY SO MESSY?

1. **It's not practical to run randomized trials for most big nutrition questions.**
2. **Instead, nutrition researchers have to rely on observational studies — which are rife with uncertainty.**
3. **Another difficulty: Many nutrition studies rely on (wildly imprecise) food surveys.**
4. **More complications: People and food are diverse.**
5. **Conflict of interest is a huge problem in nutrition research.**
6. **Even with all those faults, nutrition science isn't futile.**

### I asked 8 researchers why the science of nutrition is so messy. Here's what they said.

By Julia Belluz | @juliaoftoronto | julia.belluz@voxmedia.com | Updated Aug 16, 2016, 9:30am EDT

f t SHARE

**This Issue** Views 113,214 | Citations 55 | Altmetric 2326

**Viewpoint**

September 11, 2018

### The Challenge of Reforming Nutritional Epidemiologic Research

John P. A. Ioannidis, MD, DSc<sup>1</sup>

□ Author Affiliations | Article Information

JAMA. 2018;320(10):969-970. doi:10.1001/jama.2018.11025

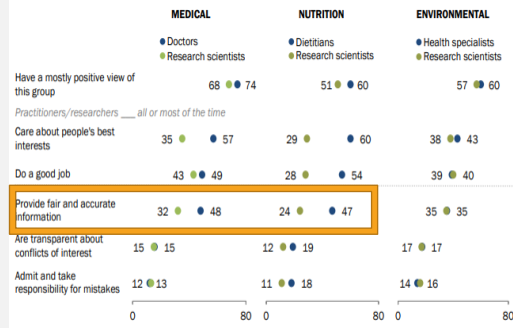
36

## IS ALL HOPE FOR COMMUNICATING NUTRITION RESEARCH LOST?

- Not a delivery mechanism for scientific messages – own views and agendas.
- Respond to the media's desire for simplicity and not reject it.
- Both want the same thing, ethical and professional obligations.
- Beneficial for the scientific community.
- Not communicating to media – using media to communicate with a variety of audiences.
- Take the time to explain research in language that journalists can understand, including all press releases that are issued.
- Work together to spread accurate messages that are reliable and return trust to nutrition science.

### Americans trust medical and food science practitioners more than researchers

% of U.S. adults who say the following about each of these groups



Note: Respondents who gave other responses or who did not give an answer are not shown. Respondents were asked whether medical doctors and dietitians care about the best interests of "their patients," whether environmental health specialists care about the best interests of "people in the community," and whether research scientists care about the best interests of "the public."

Source: Survey conducted Jan. 7-21, 2019.

"Trust and Mistrust in Americans' Views of Scientific Experts"

PEW RESEARCH CENTER

Goldberg JP, Sliwa SA. Communicating actionable nutrition messages: challenges and opportunities. *Proceedings of the Nutrition Society*. 2011;70(1):26-37.

37

## QUESTIONS TO ASK

**TABLE 1**

Key questions to assist in translating science for consumers<sup>1</sup>

- Will this communication enhance public understanding of diet and health?
- Have I put the study findings into context regarding those to whom the findings apply and the way they fit in with previous research?
- Has the study or have the findings been peer-reviewed?
- Have I disclosed the important facts about the study, including the study design and any limitations?
- Have I disclosed all key information about the study's funding?
- Have I clarified dietary risks and benefits?
- Have I communicated about the study in simple, understandable language?
- Have I met the needs of the media by responding to inquiries in a prepared and timely fashion?

Miller GD, et al. From nutrition scientist to nutrition communicator: Why you should take the leap. *The American Journal of Clinical Nutrition*. 2006;83(6):1272-1275.

38

## QUESTIONS TO ASK

### — BOX 5 — PR News Release Review Criteria

Does the news release ...

1. Adequately discuss the costs of the intervention?
2. Adequately quantify the benefits of the treatment/test/product/procedure?
3. Adequately explain/quantify the potential harms of the intervention?
4. Evaluate the quality of the evidence?
5. Commit disease-mongering (e.g., exaggeration of a condition)?
6. Identify funding sources and disclose potential conflicts of interest?
7. Compare the new approach with existing alternatives?
8. Establish the availability of the treatment/test/product/procedure?
9. Establish the true novelty of the approach?
10. Include unjustifiable, sensational language, including in the quotes of researchers?

### News Story Review Criteria

Identical to the list above, except for criterion 6 and 10:

Does the story...

6. Use independent sources and identify conflicts of interest?
10. Appear to rely solely or largely on a news release?

SOURCE: Health News Review <https://www.healthnewsreview.org/about-us/review-criteria/>

Miller GD, et al. From nutrition scientist to nutrition communicator: Why you should take the leap. *The American Journal of Clinical Nutrition*. 2006;83(6):1272-1275.

39

## TRANSLATING NUTRITION RESEARCH FOR PATIENTS, CLIENTS AND CONSUMERS

Specify the information's source and legitimacy.	Clarify the audience(s) to whom results apply.	Distinguish between correlation and causation.	Quantify the true size of the benefits (or harms) of the intervention or exposure of interest.	Identify strengths and limitations, including potential biases.
Reputable peer-reviewed journals and major scientific and professional health or medical organizations typically are sound sources. Findings presented at professional conferences may be solid, but aren't yet peer-reviewed and should be identified as preliminary.	Results of cell and animal studies aren't guaranteed to translate to free-living human subjects, and results of human studies in specific populations (for example, young, overweight men with diabetes) may not apply to other populations.	Epidemiologic (ie, observational) studies aren't designed to support cause-and-effect conclusions as randomized controlled trials are. Avoid language suggesting a cause-and-effect relationship the study design doesn't warrant. This can help prevent audiences from overestimating a study's meaning.	It may be accurate to say that a particular behavior intervention led to a three-fold increase in weight loss compared with the control (relative difference). But it may be less impressive if the difference between the groups was a 3-lb vs a 1-lb loss (absolute difference).	Strengths and limitations often are outlined in the discussion section of a research article. As discussed earlier, these include things such as sample size or adjustment for other (confounding) variables that could influence results.

40

## TRANSLATING NUTRITION RESEARCH FOR PATIENTS, CLIENTS AND CONSUMERS

Interpret results from a neutral point of view	Put findings in the context of the broader literature	Stay within a comfort level of expertise.
Personal ideology, ethnicity, or political orientation can lead to promoting or downplaying research results that are more or less consistent, respectively, with one's views. Health professionals need to guard against a natural tendency to reduce cognitive dissonance, whereby one disregards information incompatible with an existing perception.	Population recommendations are derived from a body of evidence, and single studies rarely stand alone as conclusive. Explain how a new study fits with previous work. If results are contrary to what the weight of the literature shows, offer a possible explanation (for example, poor adherence to the intervention) and evaluate the significance of the different results	If the topic is less familiar, consult or refer to a more knowledgeable source. Avoiding an uncertain or weak response can help preserve professional credibility.

41

## COUNTERING NUTRITION MISINFORMATION - DIETITIANS

- Keep tips consistent, positive, short, and simple.
- Avoid speaking in nutrition jargon.
- Be careful when using buzzwords the consumers might relate with but imprecisely understand.
- React continually to misinformation, but do not be an alarmist. If you constantly proclaim danger about food, people will soon believe that nothing is really dangerous.
- Debates about inconclusive research findings should be minimized.
- Stay inside your area of expertise.
- Emphasize improvement, not perfection.
- Make the benefit to the consumer clear.
- Be specific; describe an action (eg, "eat more broccoli").
- Show how all foods fit into a healthful lifestyle. Do not perpetuate the "good foods/bad foods" myth.
- Do not make unrealistic promises; describe realistic outcomes.
- Provide examples of foods and activities that reflect the lifestyle, preferences, and culture of your audience.

Food Marketing Institute. The Dietary Guideline Alliance. Reaching Consumers with Meaningful Health Messages. 1996 (Available at: <http://www.fmi.org/consumer/laay/>. Accessed March 1, 2020.)

42



## PROFESSIONAL DEVELOPMENT OPPORTUNITIES

### General SciComm Training

ComSciCon  
Sci Comm Camp  
Science Talk Conference  
Inclusive SciComm Symposium

### SciComm Writing

Natl. Assoc. Sci. Writers  
NPR Scicomms  
Massive Science Consortium  
SAI Stories in Science

### Entrepreneurship Training

Student Entrepreneur Program  
Chaifetz Center for Entrep.  
Global Student Entrepreneur Award  
NSF Innovation Corps

### SciComm Media Training

Jackson Wild Media Lab  
HASTAC Fellowship  
Imagine Science Films  
Int. Wildlife Film Fest Lab  
AAS Mass Media Fellowship

Content adapted from conference:  
Wonder Women in STEM, 2019

45

## RECOMMENDED ACCOUNTS

### • Twitter

- @PhutureDoctors
- @heysciencesam
- @Also\_Ascientist
- @geniuslabgear
- @SusannaLHarris
- @jenheemstra
- @ComSciCon
- @ScienceTalkOrg

### • Instagram

- @andytherd
- @the.nanotechgirl
- @the\_daily\_biologist
- @the.hormone.dietitian
- @science.sam
- @prasha\_dutra
- @beyond.the.ivory.tower
- @jessihoffman\_phd
- @rogernutritionist
- @scientist\_rhi
- @onemorebite.nutrition

Content adapted from conference:  
Wonder Women in STEM, 2019

46

## NUTRITION COMMUNICATION – A TOOL IN THE TOOLBOX

