How to Speak Nutrition Series

Twisting Science Headlines

Debra K.W. Topham, MS, CNS

knowledge bank
IFT Distinguished Lecturer Series

IFT Intermountain Section
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Introduction

Americans launch their morning with a daily dose of nutrition and health quips from their radio, newspaper, or TV. Mountainous reams of university or corporate press releases followed by quotes from nutrition experts fuel the news frenzy. Each sound bite jockeys to garner the top-of-the-hour niche.

This presentation demonstrates the ease of twisting nutrition or health headlines for public attention. Imagine tomorrow's lead: Breakfast cereals really are dietary supplements in a pool of milk! To carve out a place in this frenzy, food scientists must participate with corporate teams in creating messages with IMPACT. Balanced media messages to Americans must demystify human health and optimal diets.

These food, ingredient or health messages must be masterful blends of art and science to engage the public’s attention. Interestingly, the general masses have less understanding of food and health at this time of dramatic technological and medical advances.
Agenda for Life

Live
Grow
Reproduce
Die

Do It Well!
What’s Up with Food?

- Phytochemicals
- Anti-nutrients
- Non-digestibles
- Nutrients
- Flavors & Aromas
3 oz Broiled T-Bone Steak

- Moisture: 17%
- Protein: 24%
- Fat: 57%
- Other: 2%
- Carbohydrate: 0%

- Essential Amino Acids
- CLA
- Saturated FA
- Trans-FA
- Iron
- Vit B12

©2006 Knowledge Bank
3 oz Boiled Broccoli

- Moisture: 90%
- Protein: 7%
- Fat: 1%
- OTHER: 0%
- Carbohydrate: 0%

Vitamins/ Minerals Phytochemicals = sulfurophane

Fiber
Starch
Sugars
Food Selection: What’s Important?

% Saying "Very Important"

- Convenience: 89%
- Price: 69%
- Product Safety: 71%
- Nutrition: 71%
- Taste: 89%

Source: FMI Trends, 2000
# Nutrition Messages: Consumer Interpretations

<table>
<thead>
<tr>
<th>ADA Says...</th>
<th>Consumers Say...</th>
</tr>
</thead>
<tbody>
<tr>
<td>All foods can fit into a healthful diet</td>
<td>57% - I should never eat some foods</td>
</tr>
<tr>
<td>No good/bad foods, just good/bad diets</td>
<td>77% - There are good/bad foods</td>
</tr>
</tbody>
</table>

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*ADA Nutrition Trends Survey, 2002, 2000*
breakfast cereals are dietary supplements in a pool of milk
Honey Nut Cheerios (cereal) 1 cup

YummiBears MV&M 3 bears

Flintstones Complete 1 tablet

%DV Folic Acid

0 25 50 75 100 125 150 175 200
My Type (of serving)

1 bowl = 120 kcal =

1 bowl = 120 kcal =

+ 1 bowl = 120 kcal =

360 kcal

+ 120 kcal  From 1.5 cups skim milk

480 kcal
%DV Folic Acid

Honey Nut Cheerios (cereal)
- 1 cup
- 2 cups
- 3 cups

YummiBears MV&M
- 3 bears

Flintstones Complete
- 1 tablet
%DV Vitamin A

- Honey Nut Cheerios (cereal)
  - 1c
  - 2c
  - 3c

- YummiBears MV&M
  - 3 bears

- Flintstones Complete
  - 1 tablet
Honey Nut Cheerios (cereal) 
(3 cereal + 1½ cup milk VitA +NFDM)

Unfortified Oats

Unfortified milk

YummiBears MV&M

Flintstones Complete

1 tablet

3 bears

1c 2c 3c

%DV Vitamin A
<table>
<thead>
<tr>
<th>Serving Size (gm)</th>
<th>Calories (kcal)</th>
<th>Calories from Fat</th>
<th>Total Fat (g)</th>
<th>Saturated Fat (g)</th>
<th>Cholesterol (mg)</th>
<th>Sodium (mg)</th>
<th>Carbohydrates (g)</th>
<th>Dietary Fiber (g)</th>
<th>Sugars (g)</th>
<th>Protein (g)</th>
<th>%DV (per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>426</td>
<td>930</td>
<td>510</td>
<td>57</td>
<td>27</td>
<td>150</td>
<td>1960</td>
<td>57</td>
<td>5</td>
<td>12</td>
<td>46</td>
<td></td>
</tr>
</tbody>
</table>

CLOSE TO PERFECT FOOD?
<table>
<thead>
<tr>
<th>Serving Size (gm)</th>
<th>Calories (kcal)</th>
<th>Calories from Fat</th>
<th>Total Fat (g)</th>
<th>Saturated Fat (g)</th>
<th>Cholesterol (mg)</th>
<th>Sodium (mg)</th>
<th>Carbohydrates (g)</th>
<th>%DV (per day)</th>
</tr>
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<td></td>
</tr>
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</table>

**Six Dollar Chili Cheese Burger**

Without us…. some guys would starve™

Slogan from Carl Karcher Enterprises, 2004
Vitamin A Density

34% DV

Six Dollar Chili Cheese Burger

31% DV

3 oz. boiled broccoli
Nutrition Messages: Consumer Reactions

WORRY  ANGER
HELPLESSNESS
GUILT  FEAR
Literacy

6th grade reading level
Over the last 20 years, 85-88% of adults 25 yrs old completed high school. (US Census Bureau, 2003 Report)
Figure 2. Comparison of state and national public school average reading scores, grade 8: 2003

- Dark blue indicates state/jurisdiction had higher average scale score than nation.
- Light blue indicates state/jurisdiction was not found to be significantly different from nation in average scale score.
- Light gray indicates state/jurisdiction had lower average scale score than nation.

1Department of Defense Domestic Dependent Elementary and Secondary Schools.
2Department of Defense Dependents Schools (Overseas).

# Nutrition Messages: Consumer Interpretations

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<th>ADA Says…</th>
<th>Consumers Say…</th>
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<td>Eating is an important source of pleasure</td>
<td>75% - I don’t do more to eat healthy because I don’t want to give up the foods I like</td>
</tr>
<tr>
<td>Positive messages are more effective for helping consumers achieve healthful diets</td>
<td>63% - I’m always hearing what not to eat, rather than what I should eat.</td>
</tr>
</tbody>
</table>

*ADA Nutrition Trends Survey, 2002, 2000*
1985 Coffee

2005 Mocha Coffee

305 calorie difference

45 calories
8 ounces
(with whole milk and sugar)

350 calories
16 ounces
(with steamed whole milk & mocha syrup)
Smaller portions

eat like a kindergartner
### MyPyramid Worksheet

Check how you did today and set a goal to aim for tomorrow.

| Write In Your Choices for Today | Food Group | Tip | Goal | List each food group in its food goal
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GRAINS</td>
<td>Make at least half your grains whole grains</td>
<td>6 ounce equivalents (1 ounce equivalent is about 1 slice bread, 1 cup dry cereal, or 1/2 cup rice or pasta)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>VEGETABLES</td>
<td>Try to have vegetables from several subgroups each day</td>
<td>2 1/2 cups Subgroups: Dark Green, Orange, Starchy, Dry Beans and Peas, Other Veggies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FRUITS</td>
<td>Make most choices fruit, not juice</td>
<td>2 cups</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MILK</td>
<td>Choose fat-free or low fat most often</td>
<td>3 cups (1 1/2 ounces cheese = 1 cup milk)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MEAT &amp; BEANS</td>
<td>Choose lean meat and poultry. Vary your choices—more fish, beans, peas, nuts, and seeds</td>
<td>5 1/2 ounce equivalents (1 ounce equivalent is 1 ounce meat, poultry or fish, 1 T. peanut butter, 1/2 ounce nuts, 1/4 cup dry beans or peas)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHYSICAL ACTIVITY</td>
<td>Build more physical activity into your daily routine at home and work.</td>
<td>At least 30 minutes of moderate to vigorous activity a day, 10 minutes or more at a time</td>
<td></td>
</tr>
</tbody>
</table>

How did you do today?  
- [ ] Great  
- [ ] So-So  
- [ ] Not so Great

My food goal for tomorrow is: ____________________________________________

My activity goal for tomorrow is: ________________________________________

Click directly on the 😊😊😊 emoticon (face) for more detailed dietary information.

<table>
<thead>
<tr>
<th>Dietary Guidelines Recommendations</th>
<th>Emoticon</th>
<th>Number of cup/oz. Equ. Eaten</th>
<th>Number of cup/oz. Equ. Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grain</td>
<td>😊</td>
<td>5.7 oz equivalent</td>
<td>6 oz equivalent</td>
</tr>
<tr>
<td>Vegetable</td>
<td>😊</td>
<td>2 cup equivalent</td>
<td>2.5 cup equivalent</td>
</tr>
<tr>
<td>Fruit</td>
<td>😞</td>
<td>0.8 cup equivalent</td>
<td>2 cup equivalent</td>
</tr>
<tr>
<td>Milk</td>
<td>😞</td>
<td>2 cup equivalent</td>
<td>3 cup equivalent</td>
</tr>
<tr>
<td>Meat and Beans</td>
<td>😊</td>
<td>5.2 oz equivalent</td>
<td>5.5 oz equivalent</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dietary Guidelines Recommendations</th>
<th>Emoticon</th>
<th>Amount Eaten</th>
<th>Recommendation or Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fat</td>
<td>😞</td>
<td>45.9% of total calories</td>
<td>20% to 35%</td>
</tr>
<tr>
<td>Saturated Fat</td>
<td>😞</td>
<td>14.6% of total calories</td>
<td>less than 10%</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>😊</td>
<td>258 mg</td>
<td>less than 300 mg</td>
</tr>
<tr>
<td>Sodium</td>
<td>😞</td>
<td>7406 mg</td>
<td>less than 2300 mg</td>
</tr>
<tr>
<td>Oils</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Discretionary calories (solid fats, added sugars, and alcohol)</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>
Findings: A Golden Opportunity for Health Professionals

Nutrition Sources—Those Rated “Very Valuable”

- Doctors: 92%
- Registered dietitians: 90%
- Nutritionists: 90%
- Magazines: 87%
- Nurses: 85%
- Newspapers: 82%
- TV news: 79%
- Family and friends: 69%
- Radio news: 65%
- Other non-news TV: 61%
- Internet: 61%

ADA Trends Survey 2000
Show me the human science...
Pricing Clinical Trials

1 ad (6 in X 10.5 in) run
26 weeks to 2.8M readers in Health & Fitness Directory
(Monday)  ~ $82,000

1 USA clinical trial
of 50 people to test eye supplement starts at  ~ $125,000
<table>
<thead>
<tr>
<th>Date</th>
<th>Agency</th>
<th>Fact</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 31, 2000</td>
<td>FDA/CFSAN</td>
<td>The claim states &quot;Diets containing foods that are good sources of potassium and low in sodium may reduce the risk of high blood pressure and stroke.&quot;</td>
</tr>
<tr>
<td>June 2, 2005</td>
<td>FTC</td>
<td>“…Tropicana’s claims went well beyond its [clinical] scientific support”…for “Healthy Heart” orange juice</td>
</tr>
</tbody>
</table>

FDAMA: [http://www.cfsan.fda.gov/~dms/hclm-k.html](http://www.cfsan.fda.gov/~dms/hclm-k.html)

New Nutrition Conversation

Develop Nutrition Messages and Tips with IMPACT:

Insightful
Motivating
Positive
Action-oriented
Choices
Tailored & tested

www.ific.org
Marketer’s Dream:

- Immune Fxn value of dairy
- Economics of potatoes
- Healthy Fats
- TASTES GOOD

Scientist’s Dilemma:

- Immune Fxn value of dairy
- Economics of potatoes
- Healthy Fats
- TASTES GOOD

What’s the right price?
Scientist's Dilemma:

- Immune Fxn
- Value of Dairy
- Economics of Potatoes
- Healthy Fats

Dairy Proteins

Colostrum or Whey

Is it G.R.A.S.?

Food vs. Supplement?

Who's the MKT?

"oomph" !
Scientist’s Dilemma: Immune Exp.

Immune Fxn

Test Results in Food vs. People?

Dairy Proteins

Colostrum or Whey

Price of Nutraceutical Grade Ingr?

Dosage?

20-60 mg / d Colostrum or 45 g /d Whey

MKT Price?

MKT Msg?

Structure/ Fxn

Claim: Supports Healthy Immune System

"oomph"!

oomph!!

Dairy Proteins

Nutrition Facts

Serving Size 1 oz. (34g). Amount Per Serving

Calories 100
Calories from Fat 60

Total Fat 10g 16%
Saturated Fat 5g 14%

Total Carbohydrate 14g 5%
Dietary Fiber 4g 4%

Protein 2g

Vitamin A 0%
Vitamin C 0%

Calcium 0%
Iron 2%

Niacin 8%
Phosphorus 8%

* Percent daily values are based on a 2,000 calorie diet. 

† Recommended as part of a balanced diet and exercise program or otherwise depending on your individual needs.

‡ For a complete list of ingredients, please refer to the package.

§ Other trademarks are property of the respective owners.

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Talking with the Experts

• Could the study be interpreted to say something else?
• Are there any methodological flaws in the study that should be considered when making conclusions?
• Are the study's results generalizable to other groups?
• How does this work fit with the body of research on the subject?

www.ific.org
Findings: To Consumers... LANGUAGE is Key!

• Unsuccessful Messages:
  – Foods with fat can fit: Evaluate, don’t calculate
  – Foods with fat can fit: Savor the flavor

• Successful Message:
  – Foods with fat can fit: Moderate, don’t eliminate.
IFT COMMUNICATORS
STAND UP
AND BE RECOGNIZED
Keys to Healthy Life

- Proper Nutrition
- Positive Mental Attitude
- Exercise
- Rest
- Good Genes

“Spiritual”
That's All Folks!