Annals of Nutrition & Metabolism

Ann Nutr Metab 2009;54(suppl 1):25–32
DOI: 10.1159/000220824

Published online: July 30, 2009

Consumer Perception and Insights on Fats and Fatty Acids: Knowledge on the Quality of Diet Fat

Connie Diekman[a] Kim Malcolm[b]

[a]University Nutrition, Washington University in St. Louis, St. Louis, Mo., USA; [b]Millward Brown, Warwick, UK

Key Words
Consumer knowledge · Dietary fat · Fatty acids · Healthy diets · Population attitudes

Abstract
Background: Research indicates that consumers do not understand dietary fat, either the importance of the quality or the quantity of fats needed for health. Previous consumer surveys suggest the priority placed on fat in various nutrition communications (i.e., low fat or reduction in fats) has contributed to this confusion. ***Methods:*** This consumer study was carried out in 16 countries in two waves, investigating in total 6,426 subjects. The survey was conducted by phone, internet and face-to-face interviews, depending on the acceptable method for the population. Participants, aged 18–70 years, were the main family shopper. ***Results:*** Knowledge about fat is conflicted, including which fats have health benefits; 59% of respondents think fat should be avoided, 65% think a low-fat diet is a healthy diet and 38% claim to avoid foods containing fat. Respondents were aware of different types of fats but did not know which ones were healthier. Omegas have the greatest level of recognition but at the same time many people do not realize they are fats. ***Conclusions:*** Around half of consumers do not know whether fats are good or bad, meaning they do not know what to eat.

Introduction

Research indicates that consumers do not understand basic information about dietary fat (e.g. good and bad fats) and consumer survey findings suggest the priority placed on dietary fat in various nutrition communications (i.e., low fat or reduction in fats) has contributed to misunderstandings about the inclusion of fat in a healthful eating plan. Consumers are cutting out more visible fats (often rich sources of essential fatty acids), such as margarine, mayonnaise and oil-based dressings, and are consuming a lot of hidden fats (primarily saturated fatty acids), such as high-fat dairy foods, cookies, pastries and excess meat.

Consumer surveys also show that fat consistently ranks at the top of the list of consumer nutrition concerns. The Food Marketing Institute's annual trends survey showed in 1996 that 60% of shoppers were more concerned about the fat content of foods than any other nutritional component/issue [1]. The 2008 Food and Health Survey of the International Food Information Council found that 70% of those surveyed were concerned with the amount of fat they consume, a percentage that is consistent with 2007 at 71% and 2006 at 66% [2]. A recent survey, published in the *Journal of the American Dietetic Association* and conducted for the American Heart Association by Cogent Research, found that 62% of Ameri-

KARGER

Fax +41 61 306 12 34
E-Mail karger@karger.ch
www.karger.com

0250–6807/09/0545–0025$26.00/0

Accessible online at:
www.karger.com/anm

Connie Diekman, M. Ed., RD
University Nutrition, Washington University in St. Louis
One Brookings Drive, Box 1103
St. Louis, MO 63130-4899 (USA)
Tel. +1 314 935 4439, Fax +1 314 935 8935, E-Mail connie_diekman@wustl.edu

Table 1. Characteristics of the study population: wave 1, studied between November and December 2007

	B	CZ	Ger	Gre	Fr	NL	PL	Sp	Swe	UK	EU	USA	Dev	Bra	Ind	Mex	TK	SA	Emer	All
Total, n:	200	200	200	202	200	200	202	200	200	200	2,004	200	2,204	200	200	200	210	200	1,010	3,214
Survey method:	P	P+C	P	P+C	P	P	P+C	P	P	P		P+C		P+C	F2F	F2F	F2F	F2F		
Chief shopper; personally buys items from supermarkets and shops for household, %																				
Almost all the time	82	75	62	68	79	90	83	89	72	75	76	82	79	67	54	66	69	73	63	71
Half/more than half the time	18	25	38	32	20	10	17	11	28	26	24	19	21	34	46	34	31	27	37	29
Less than half the time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Age, %																				
18–34 years	15	21	19	37	19	15	14	15	23	26	20	12	16	35	47	52	31	51	43	29
35–54 years	52	38	49	38	52	45	51	60	47	49	50	53	51	46	39	37	57	30	42	46
55+ years	31	41	33	25	27	41	35	23	28	27	30	37	33	21	13	10	11	21	15	24
Sex, %																				
Female	75	84	74	80	75	74	86	80	67	74	77	78	77	50	92	52	82	99	73	75
Marital status, %																				
Married or living with partner	75	68	70	68	67	71	75	75	61	54	68	70	68	58	72	60	87	41	65	67
Single[1]	25	33	31	32	33	29	25	25	39	45	32	30	31	42	28	39	13	59	35	33
Paid work, %																				
≥30 h/week	43	49	42	41	54	29	39	54	64	52	47	54	50	36	13	31	13	37	25	38
8–29 h/week	18	5	13	7	9	32	11	8	12	16	13	7	10	15	11	16	6	17	13	11
<8 h/week	35	42	44	36	37	36	43	37	23	30	38	37	37	49	75	33	80	46	59	48
Children living in household in any of these age groups, %																				
0–5 years	34	37	34	52	41	32	35	38	38	39	37	34	35	52	54	58	29	97	55	48
6–10 years	41	48	34	62	48	36	45	52	42	44	44	39	42	64	49	50	42	97	54	50
11–16 years	56	52	84	90	85	82	56	72	77	73	74	81	77	89	52	39	60	48	54	61
17–18 years	32	46	25	27	27	12	14	12	15	22	22	23	22	16	47	17	22	51	31	26

B = Belgium; CZ = Czech Republic; Ger = Germany; Fr = France; NL = The Netherlands; PL = Poland; Sp = Spain; Swe = Sweden; UK = United Kingdom; EU = Europe; USA = United States of America; Dev = average of developed countries; Bra = Brazil; Ind = Indonesia; Mex = Mexico; TK = Turkey; SA = South Africa; Emer = average of emerging countries; P = interview by phone; P+C = interview by phone; computer aided; F2F = face-to-face interview.

[1] Includes divorced, separated and widowed.

cans aged 18–65 years were concerned about the amount of fat they consume [3]. One change in recent surveys is an increased recognition of the role of trans fats in overall health, but the level of recognition of healthy fats continues to be low. The Soy Food Association of North America has found similar trends in terms of awareness of trans fat with 89% of those surveyed in their 2008 Consumer Attitudes about Nutrition Survey viewing trans fats as somewhat or very unhealthy [4]. Clearly, Western populations of all ages interpret recommendations to reduce dietary fat intake to mean the elimination of all higher-fat foods, which is likely to be a major obstacle in achieving recommended dietary intakes of unsaturated fatty acids.

This survey was conducted by Millward Brown to determine the degree of consumer knowledge and confusion about nutrition, with emphasis on the role of fats and the importance of fat quality, in 16 countries worldwide.

Methods

This study was carried out in 16 countries and was conducted in two periods. Details of the study populations can be found in tables 1 and 2. The first wave was conducted by phone and through face-to-face interviews, and took place between November and December 2007. During the first wave, the goal was to gather topline information so questions focused on what types of fats had people heard of, could they identify saturated fats, essential fats, the omegas, for example, and did they believe there were good and bad fats. The second wave was conducted through the internet and face-to-face questions during the months of August and September of 2008. The questions during this wave sought more information about fats by asking questions related to overall nutrition, role of fats, what foods are needed for health and what foods provide these types of fats. The two waves consisted of 160 different questions.

Study subjects were the families' main shoppers, defined as those who for more than half of the time personally buy items for their households. Sample size was approximately 200 subjects per country per wave for a total of just over 6,400 main shoppers surveyed. The samples set quotas by ages in order to reflect the overall population but ranged from 18 to 70 years of age. Gender

Table 2. Characteristics of the study population: wave 2, studied between August 2008 and September 2008

	B	CZ	Ger	Gre	Fr	NL	PL	Sp	Swe	UK	EU	USA	Dev	Bra	Ind	Mex	TK	SA	Emer	All
Total, n:	200	200	200	201	200	200	200	200	200	200	2,001	200	2,201	200	200	203	200	208	1,011	3,212
Survey method:	I	I	I	I	I	I	I	I	I	I		I		I	F2F	F2F	F2F	F2F		
Chief shopper; personally buys items from supermarkets and shops for household, %																				
Almost all the time	77	73	85	76	80	82	74	79	70	80	80	82	81	81	56	53	54	59	63	72
Half/more than half the time	24	27	15	24	20	19	26	21	30	21	20	18	19	20	44	46	46	41	37	28
Less than half the time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Age, %																				
18–34 years	34	35	27	41	34	31	39	28	32	33	32	39	35	46	48	38	25	31	42	39
35–54 years	44	38	44	43	42	44	42	43	40	40	42	41	42	35	40	39	45	58	41	41
55+ years	23	27	29	16	24	25	20	28	28	27	26	20	23	19	12	22	30	11	17	20
Sex, %																				
Female	70	70	75	69	65	70	60	75	70	67	69	59	64	74	75	49	60	75	69	67
Marital status, %																				
Married or living with partner	67	57	66	54	71	68	46	73	64	64	64	56	60	60	78	69	49	84	70	65
Single[1]	32	43	34	39	28	32	53	27	36	36	35	45	39	40	23	31	52	16	30	35
Paid work, %																				
≥30 h/week	35	62	48	75	66	44	61	69	57	44	56	56	56	69	24	32	44	25	40	48
8–29 h/week	14	13	18	12	8	25	13	9	11	17	14	11	12	12	12	17	14	2	12	12
<8 h/week	51	25	35	13	26	31	27	23	33	40	31	34	32	19	65	51	43	73	48	40
Children living in household in any of these age groups, %																				
0–4 years	14	19	14	14	16	14	9	12	16	20	14	24	19	23	54	28	19	16	34	26
5–9 years	17	12	18	11	20	16	10	12	18	12	15	18	16	18	43	34	27	17	30	23
10–12 years	12	5	6	4	9	7	7	7	5	9	7	8	8	10	27	16	26	16	19	13
13–15 years	11	10	10	4	6	5	9	13	14	7	9	9	9	10	23	13	25	14	17	13
16–17 years	5	12	7	7	11	7	8	8	9	3	7	6	6	5	17	12	18	10	12	9

B = Belgium; CZ = Czech Republic; Ger = Germany; Fr = France; NL = The Netherlands; PL = Poland; Sp = Spain; Swe = Sweden; UK = United Kingdom; EU = Europe; USA = United States of America; Dev = average of developed countries; Bra = Brazil; Ind = Indonesia; Mex = Mexico; TK = Turkey; SA = South Africa; Emer = average of emerging countries; I = internet; F2F = face-to-face interview.

[1] Includes divorced, separated and widowed.

quotas did not reflect the gender distributions of the various countries since chief shoppers are predominantly females. The male/female distribution ranged from a low of 14% males to 100% females in the first wave and from 25% males to 75% females in the second wave. The gender ranges were also different within countries from wave 1 to wave 2.

The interview method was based on techniques most familiar to the country with face-to-face interviewing more often used in emerging countries and telephone or internet in developed countries. Data analysis was weighted to reflect population size of the countries surveyed so that when comparing countries, the numbers reflected the differences in country size (table 3). In addition, data were presented on the basis of global averages but were also clustered to allow comparison amongst developed and emerging countries.

Topic areas included the role of fat in the diet, clarity of messages about fat, health benefits of fat both in terms of quantity and quality, knowledge of types of fats including trans fats, saturated fats, omega–3 and omega–6, and other unsaturated fats, food sources of all types of fats and the connection of fat to body weight.

Results

Contradictory Information

When consumers in wave 2 (n = 3,212) were surveyed about the information provided by governments, experts, food companies and the media related to fats and their role in a healthful diet, the global average indicated that 57% of consumers were confused, and 64% reported that they felt information provided was contradictory. In comparing responses from developed versus emerging countries, the levels of confusion are high in both but the developed countries do show a lower level of confusion with 51% on average indicating confusion. The role of fats in a healthful eating plan is a message that generates much confusion in emerging countries with 63% of respondents indicating that they felt information about fats was contradictory. When looking at individual countries, the level of confusion ranges from 43% in Germany to

Table 3. Overview of weight factors: global average and cluster averages have been weighted according to population size

Global average	Weight factor, %	Cluster of developed countries	Weight factor, %	Cluster of emerging countries	Weight factor, %
Belgium	0.82	Belgium	1.63	Brazil	28.95
Brazil	14.38	Czech Republic	1.59	Indonesia	36.04
Czech Republic	0.80	France	9.80	Mexico	16.58
France	4.93	Germany	12.63	South Africa	7.45
Germany	6.36	Greece	1.71	Turkey	10.98
Greece	0.86	The Netherlands	2.52		
Indonesia	17.91	Poland	5.86		
Mexico	8.24	Spain	6.95		
The Netherlands	1.27	Sweden	1.41		
Poland	2.95	United Kingdom	9.31		
South Africa	3.70	USA	46.60		
Spain	3.49				
Sweden	0.71				
Turkey	5.46				
United Kingdom	4.68				
USA	23.44				

59% in Greece but in emerging countries the degree of confusion about fat is higher, ranging from 61% in Brazil to 73% in Turkey (table 4).

Role of Fat

Confusion about fat messaging is certainly evident but an additional concern is that on average 52% of those surveyed in wave 2 (n = 3,212) do not know which fats have health benefits. The question also reflected the differences in awareness among developed and emerging countries. A smaller percentage, 45%, in developed countries indicated lack of knowledge, but 58% of those in emerging countries expressed lack of knowledge about the health benefits of fats. One of the main areas of confusion seems to be related to whether fats belong in a healthful eating plan. The question posed to those surveyed in wave 2 was whether they agree or disagree that a low-fat diet is a healthful diet. The global average indicated that 65% of those questioned agree that low fat is healthy but 38% of those questioned claim to avoid fat. A follow-up question about what percentage of daily calories consumed were from fat showed that only 1 in 5 (22%) indicated that 15–30% of daily calories need to come from fat. In addition, 60% reported that less than 14% of daily calories were the appropriate level for fat intake.

Table 4. Percentage of people, surveyed in wave 2 (n = 3,212), agreeing with certain statements (percentages are separated for global average, for the clusters and for each country)

	Agreement with statements, %	
	Contradictory information leaves me confused about fats	Government, experts, food companies and media give contradictory messages about fats
Global average	57	64
Developed average	51	64
Emerging average	63	64
Greece	59	63
United Kingdom	57	63
Czech Republic	54	45
Belgium	54	52
United States	53	69
Spain	51	64
Sweden	50	63
France	48	56
Poland	46	61
The Netherlands	44	51
Germany	43	63
Turkey	73	78
South Africa	70	64
Indonesia	62	60
Mexico	62	61
Brazil	61	67

Table 5. Percentage of people, surveyed in wave 1 (n = 3,214), who think that certain types of fat are generally bad, neither bad or good, or good for their health (results presented for cluster of developing and emerging countries)

Type of fat	Developing average				Emerging average			
	bad	neither bad or good	good	do not know	bad	neither bad or good	good	do not know
Omega–3	3	3	77	17	2	4	63	31
Omega–6	6	4	53	37	2	2	38	57
Essential fat	15	5	56	24	5	4	16	76
Monounsaturated fat	26	6	33	34	9	5	9	76
Polyunsaturated fat	28	7	40	25	12	7	10	72
Trans fat	49	4	7	40	13	3	5	79
Saturated fat	67	6	9	17	30	7	10	54

When delving deeper into what people consider important in their eating plans, the responses from developed and emerging countries followed a similar pattern. Vitamins are mentioned as the main thing in food that people need for health followed by protein, fiber, minerals, carbohydrates, salt and then fat. The global average indicated that while 95% of respondents knew that vitamins were needed for a healthy diet, only 41% indicated fat was needed.

Types of Fat

While people are confused about the role of fat in a healthful eating plan, when it comes to recognizing different types of fats, the level of awareness shifted. In wave 1 (n = 3,214), omega–3 fatty acids had the best level of recognition, with 80% of consumers globally indicating they had heard of them, followed by saturated fats at 71%. This question, however, again pointed out the difference between developed and emerging countries in terms of awareness of the types of fats. In developed countries, 65–89% of those surveyed indicated familiarity with the different types of fats, but in emerging countries the highest level of recognition was for omega–3 fatty acids at 74%. After that, the level of recognition dropped to a range of 26% for trans fats to 53% for saturated fats.

Recognition of the types of fats is a first step in choosing healthier fats; the next step is knowing which fats are better choices. Wave 1 (table 5) showed that beyond omega–3 and saturated fat, around half of those surveyed indicated they did not know which fats were better choices, with emerging countries showing larger percentages of 'don't knows'. Recognition of whether saturated and unsaturated fats were good or bad varied by country, and developed countries once again showed higher levels of recognition than emerging countries. When asked to identify if saturated fats were good or bad, the global average found that 48% indicated saturated fats were bad but 67% of those in developed countries reported saturated fats were bad versus only 30% of those in emerging countries. Just as significant was the fact that 54% of those in emerging countries did not know whether they were good or bad. Responses for polyunsaturated fats showed a wider variation from developed countries to emerging countries with 40% of those in developed countries knowing they are good and only 10% in emerging countries, for a global average of 25%.

When asked whether essential fats are good or bad, the global average percentage in wave 1 indicated that 50% of those surveyed did not know. In developed countries only 24% did not know, but 76% of those in emerging countries did not know (table 5). In developed countries, the range of 'don't knows' for essential fats varied from 10% in the US to 61% in the Czech Republic. On a global level, 77% of those questioned in wave 1 knew that omega–3 fatty acids are good for them. Emerging countries did not have as high a level of awareness, but almost two thirds (63%) of those surveyed in emerging countries knew they were good food choices (table 5). At the same time, the global average percentage knowing that omega–6 fat is good was only 46%. While respondents in wave 1 knew omega–3 fatty acids were good choices, just over 50% of those surveyed in wave 2 knew that omega–3 and omega–6 were fats. Once again the

trend of emerging countries falling behind the developed countries in terms of knowledge held true with only 46% of respondents in emerging countries recognizing omega–3 and –6 as fats versus 61% in developed countries.

Fat in the Diet

In wave 2, respondents were also asked to identify sources of fats. Those surveyed were provided a list of foods and asked to identify those they felt were among the main providers of fat. As main sources of essential fats, respondents indicated olive oil and salmon in both the developed and emerging countries. After the first two foods, there were variations in the ranking of the foods (table 6).

Assessing the level of understanding about fat was the basis of two questions. In wave 2, the topic was approached from the angle 'what can fat do to the body?'. The question provided a list of positive functions of fat along with a list of negative associations including weight gain, clogging of arteries, raising cholesterol and cause of cancer. Since respondents could indicate positive and negative responses, the percentages do not add up to 100. Lumping all negative connections together for the global study population resulted in a 94% indication of a connection between fat and these negative outcomes. Saturated fats had a 72% association with negative factors, essential fats had a 15% connection to negative factors and omega–3 and –6 had a 7% association. When it comes to the positive associations, which ranged from 'helps cell growth' to 'keeps skin healthy', omega–3 and –6 had a 79% association and fat had only a 45% association. In wave 1, understanding was assessed by asking respondents which fatty food was better for them. The outcome showed that more than 50% believe butter is better for health than margarine. In addition, the responses from the developed and emerging countries were almost identical with 51% of those in developed countries and 56% of those in emerging countries responding positively. Finally, in wave 2, respondents were asked to what extent they agreed or disagreed with certain statements. In response to a question related to interpretation of food and nutrition messages those surveyed were asked: 'Given all of the information about food I no longer know what to eat and what to avoid' and the response was consistent in the developed and emerging countries with 43% of those in developed countries and 45% of those in emerging countries agreeing with this statement.

Table 6. Percentage of responses of the surveyed population in wave 2 on the question 'Do you know where to find essential fats?'[1]

Type of food	All respondents in wave 2 (n = 3,212)	Developed average (n = 2,201)	Emerging average (n = 1,011)
Olive oil	32	33	31
Salmon	31	31	31
Avocados	29	26	32
Walnuts	28	29	28
Sunflower oil	24	24	23
Seeds	24	22	27
Sardines	24	23	25
Soybean oil	22	25	20
Rapeseed oil	20	19	21
Cheese	16	12	20
Butter	11	10	13
Margarine	9	7	11
Chicken with skin	8	9	7
Chocolate	8	5	12
Mayonnaise	7	6	9
Biscuit	6	4	8
Bacon	5	6	4
Cakes/pastries	5	4	7

[1] Respondents were asked to indicate all foods in the list which they thought would apply.

Discussion

This study, similar to many others, supports the level of confusion that consumers have related to healthy eating and in particular fats. Outcomes of this study are similar to those of other organizations. The Soyfoods Association found in their 2008 Consumer Attitudes Study that 52% of consumers felt that information about health and nutrition is confusing [5].

Ascertaining the level of understanding of fat, both in terms of quality and quantity in the diet, is a complicated issue, so development of the survey questions was challenging, especially given that the goal was to have questions easily understood by the consumer. Another factor that complicates the outcomes of the survey is the variety of methods used for data gathering. Using the method appropriate for different countries ensures better data but comparing data from the internet, face-to-face and phone interviews can be viewed as less scientific than desired. Another limiting factor of the study is that Asia is somewhat underrepresented given its large population.

The number of people surveyed makes this study one of the largest (if not the largest) global studies published

on the topic of fat, making the information gained a good indicator of population attitudes, knowledge and behaviors associated with fat choices and consumption. The results provide a current perspective on attitudes since the survey was conducted within the last year and the most recent wave within the last 6 months. The global perspective of this survey also gives a broader picture of the overriding confusion related to fat. While the study shows differences for developed and emerging countries, the consensus is that most people do not understand the role of fats, what types of fats are healthier and how much fat is needed for health. In addition, the survey tool was designed to ensure that fats were viewed in the context of an overall eating plan so that respondents would not view fat as carrying more nutritional value or as a nutrient to avoid. To ensure accuracy of answers, questions were worded in ways that consumers would understand, so scientific terminology was avoided. Putting the questions into consumer friendly language further ensures that answers are an accurate reflection of knowledge and attitudes.

Finally, while varying data gathering techniques might be viewed as unfair for comparison of outcomes, tailoring the methods to the countries ensures better responses. Gathering information about food knowledge and preferences is a process that requires openness and comfort that the information provided will not be judged as good or bad. Utilizing face-to-face interviews, the internet or phone interviews ensured a broader sample from all of the countries. In countries where the internet was used, participants were chosen very carefully to ensure that those included were not there due to self-selection.

It is clear that people feel there is a lot of contradictory information about fats resulting in confusion about which fats are acceptable, especially when it comes to health benefits. Less than two thirds of those surveyed have heard of many of the different types of fats and one half of those questioned does not know whether a fat is good for them or not. This level of confusion generally results in consumers sticking with food choices they are comfortable with, even if they are not sure if those choices are healthful. Recognition of the types of fats is a first step in choosing healthier fats, the next step is knowing which fats are better choices, and the survey found that beyond omega–3 and saturated fat around half of those surveyed indicated they did not know which fats were better choices. In agreement with the Food and Health Survey of the International Food Information Council [2], when consumers find nutrition and health information confusing rather than trying to sort out the information, they continue using the foods they currently enjoy, no matter what the health implications. Another survey also found the same level of confusion about fat. The Soyfoods Association of North America surveyed Americans about their knowledge and attitudes towards fat and found that 36% of those surveyed felt saturated fats were healthier than trans fats and only 17% thought trans fats were better. That survey found that 66% of those questioned felt omega–3 fatty acids were somewhat or very healthy. The next closest fat was polyunsaturated fats at 29% [5].

As noted earlier, the current survey found that awareness of omegas was high but when asked to identify what omegas were, only one third of those surveyed knew they were essential fats and about one half did not realize they were fats at all. The implication of this outcome is that consumers are hearing some terms related to fat but the information being presented does not convey a usable message nor does it convey a complete message. The impact of this is failure to consume appropriate amounts of healthful fats on a regular basis.

One of the biggest outcomes of the survey was the large number of people who had a negative association with fat. More than 90% of those surveyed associated something negative with fat. This response is similar to responses in surveys conducted by other studies. The 2008 Food and Health Survey of the International Food Information Council Foundation found that the perceived healthfulness of fat ranged from a high of 37% for unsaturated fats to 4% for saturated fats [2]. Failure to connect fat in a positive way with overall health is likely an outcome of messages that have focused on fat and weight, and fat and heart disease. This survey would seem to indicate that those messages carried an all-or-none message and not a message about the proper types or amounts of fats.

While most people associated all fats with negative health implications, 72% of those surveyed did associate negative implications with saturated fats. This inability to associate fat with positive health benefits, and to view it as a nutrient to avoid, has an impact on what fats people choose, how much fat they are willing to consume and potentially on their nutritional intake, a fact supported by the number of individuals who responded that butter was healthier than margarine. Given the saturated fat content of butter, the identified failure to understand the difference between butter and margarine and how reduction of butter intake can impact overall health is a message for better public health campaigns about fats and their role in health.

For health professionals, the lack of knowledge about fat is a concern but how that lack of knowledge impacts purchasing and usage habits is a much bigger public health issue. The fact that consumers cannot recognize foods like cheese, chocolate, bacon, pastries and many other foods as contributors of fat in the diet is a very basic indication that education about healthful eating is lacking. Not only are consumers failing to make the right fat choices to consume the healthier fats, they are also potentially including foods that are high sources of fat, and in many cases saturated fat, without thinking about the impact on the overall diet.

Health care providers need to educate themselves so they can help consumers learn about fat, its role in a healthful eating plan, what types of fat to consume and how much is appropriate. If health care providers are not able to help consumers make changes in their knowledge about and consumption of healthful fats, they need to collaborate with nutrition professionals who can provide these services. Dietary guidelines worldwide focus on the inclusion of fat, identification of the types of fats needed for health and the types of fats that should be limited in order to maintain a healthy cardiovascular system. From the outcomes of this survey it appears consumers do not understand the guidelines about fat, and helping them learn more will promote their health, reduce disease risks and improve global health.

Disclosure Statement

Kim Malcolm works for Millward Brown who performed the research described in this paper on a contract base for Unilever.

As a Steering Committee member of the International Expert Meeting Connie Diekman received compensation from Unilever through an unrestricted educational grant. Her section of the paper was written without a conflict of interest.

References

1 Food Marketing Institute: Trends in the United States. Consumer Attitudes and the Supermarket. Washington, Food Marketing Institute, 1996.
2 International Food Information Council Foundation: Food & Health Survey: Consumer Attitudes toward Food, Nutrition & Health. Washington, International Food Information Council, 2008. http://ific.org/research/foodandhealthsurvey.cfm.
3 American Dietetic Association: 2008 Nutrition Trends Survey. Chicago, American Dietetic Association, 2008.
4 Eckel RH, Kris-Etherton P, Lichtenstein AH, Wylie-Rosett J, Groom A, Stitzel K, Yin-Piazza S: Americans awareness, knowledge, and behaviors regarding fats: 2006–2007. J Am Diet Assoc 2009;109:288–302.
5 Soyfoods Association of North America: Consumer Attitudes about Nutrition, 2008. www.soyconnection.com/health_nutrition (accessed March 23, 2009).