

Canadian Section AOCS Annual Meeting
Halifax NS.

Oct.3-4th.2004

Carrying the Omega-3 Message to the Consumer



Ceres Consulting



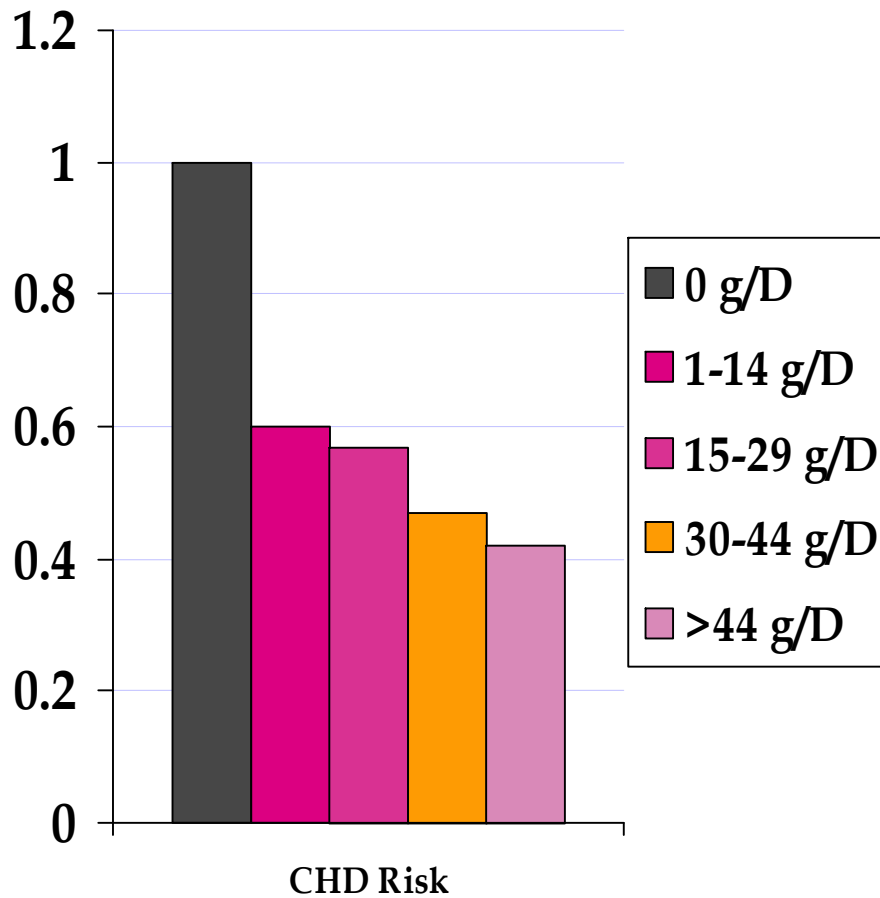
Ian Newton,
Ceres Consulting

MI and Dietary Fat Intake of Eskimos vs. Danes

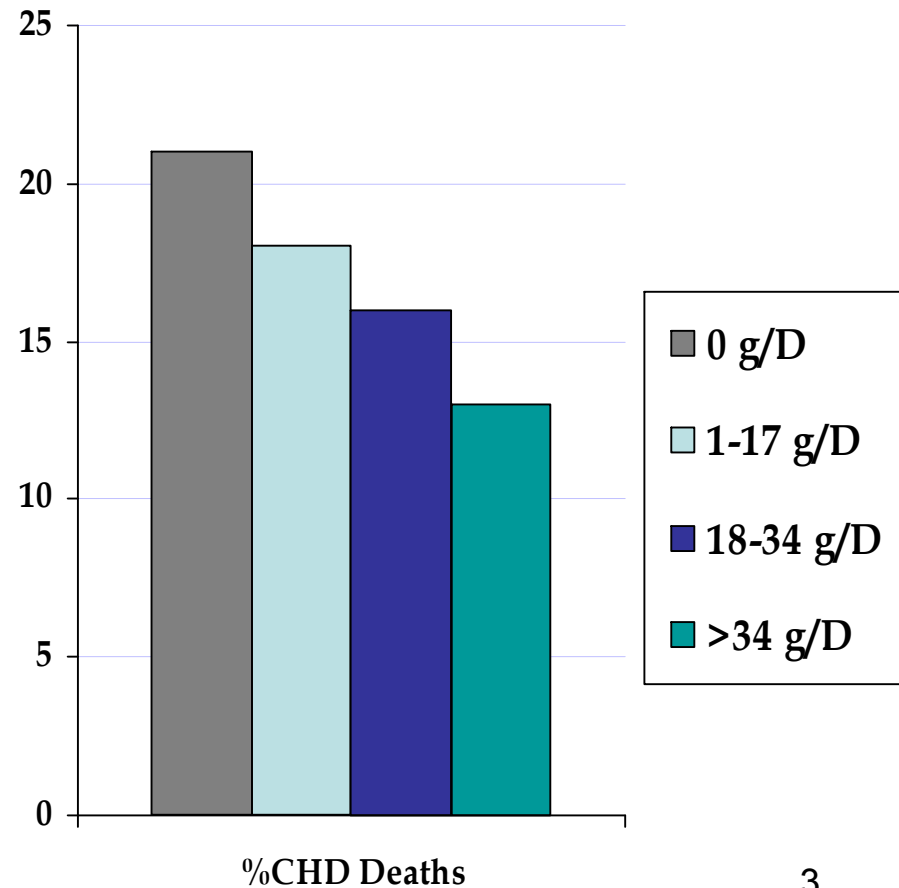
	ESKIMOS	DANES
Myocardial Infarction	3	40
Energy from fat (%)	39	42
n-6 PUFA (g/d)	5	10
n-3 PUFA (g/d)	14	3
n-3/n-6	2.8	0.3
Cholesterol (mg)	790	420

LC PUFA and CVD

(fish consumption studies)

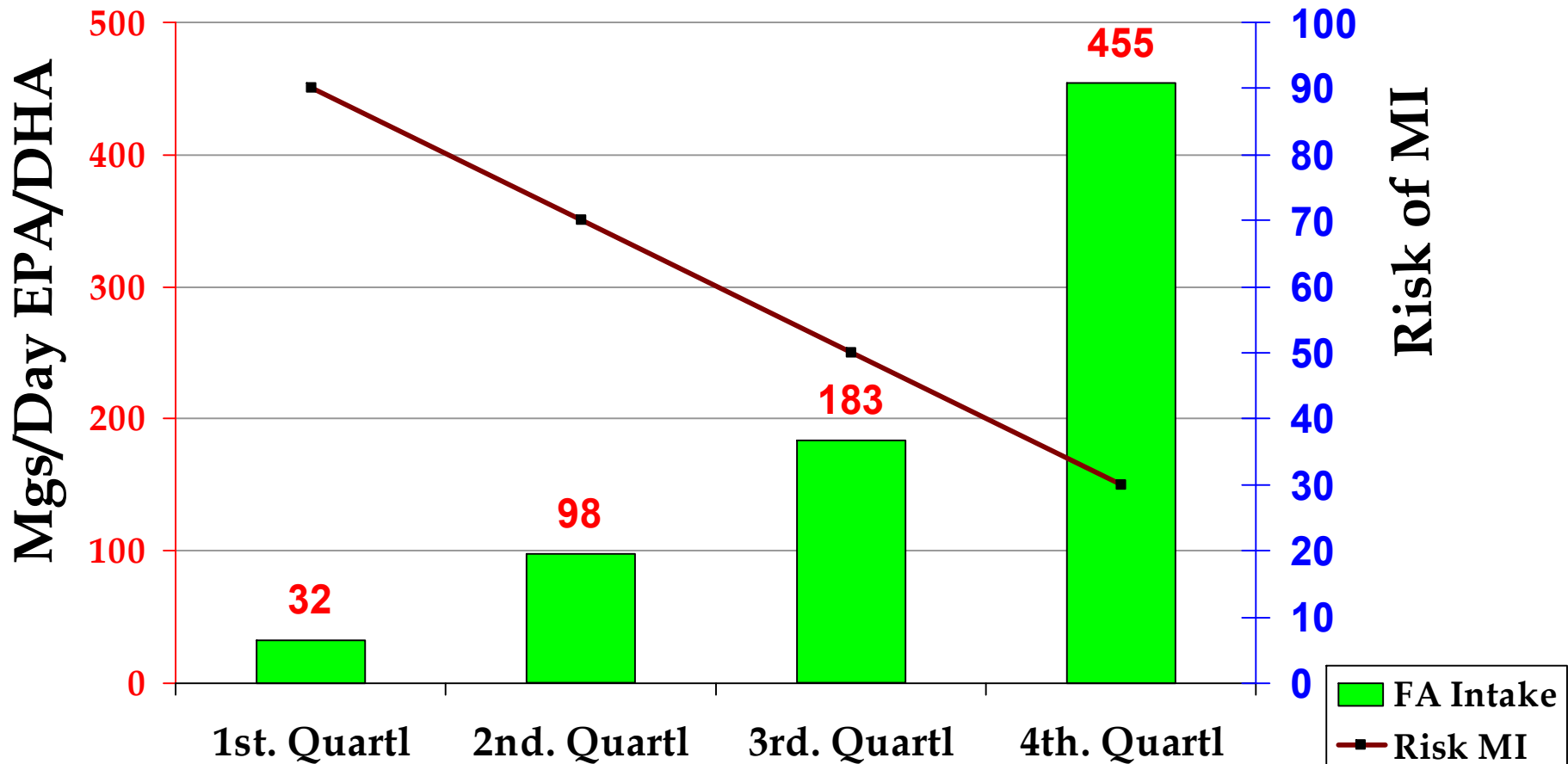


Zutphen Study: Kromhout 1985



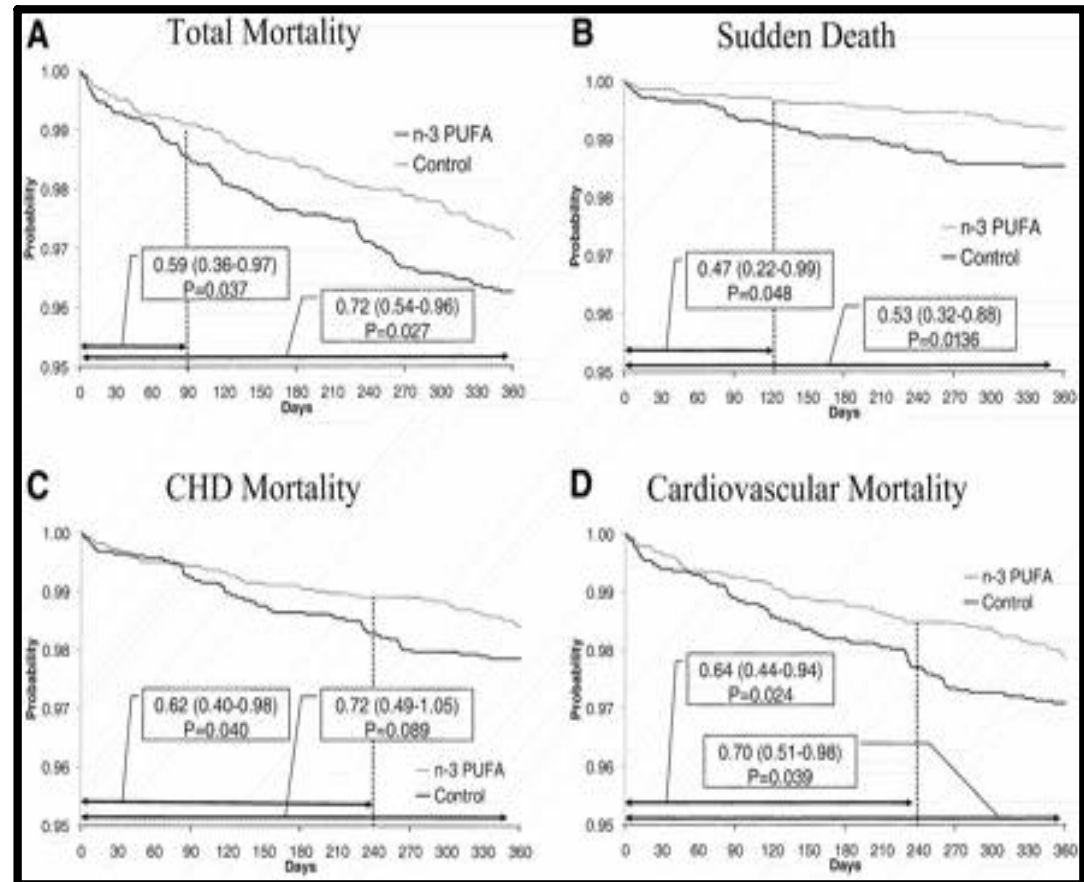
Western Elect.:Shekelle 1985

Dietary Intake of FA and Risk of Cardiac Arrest

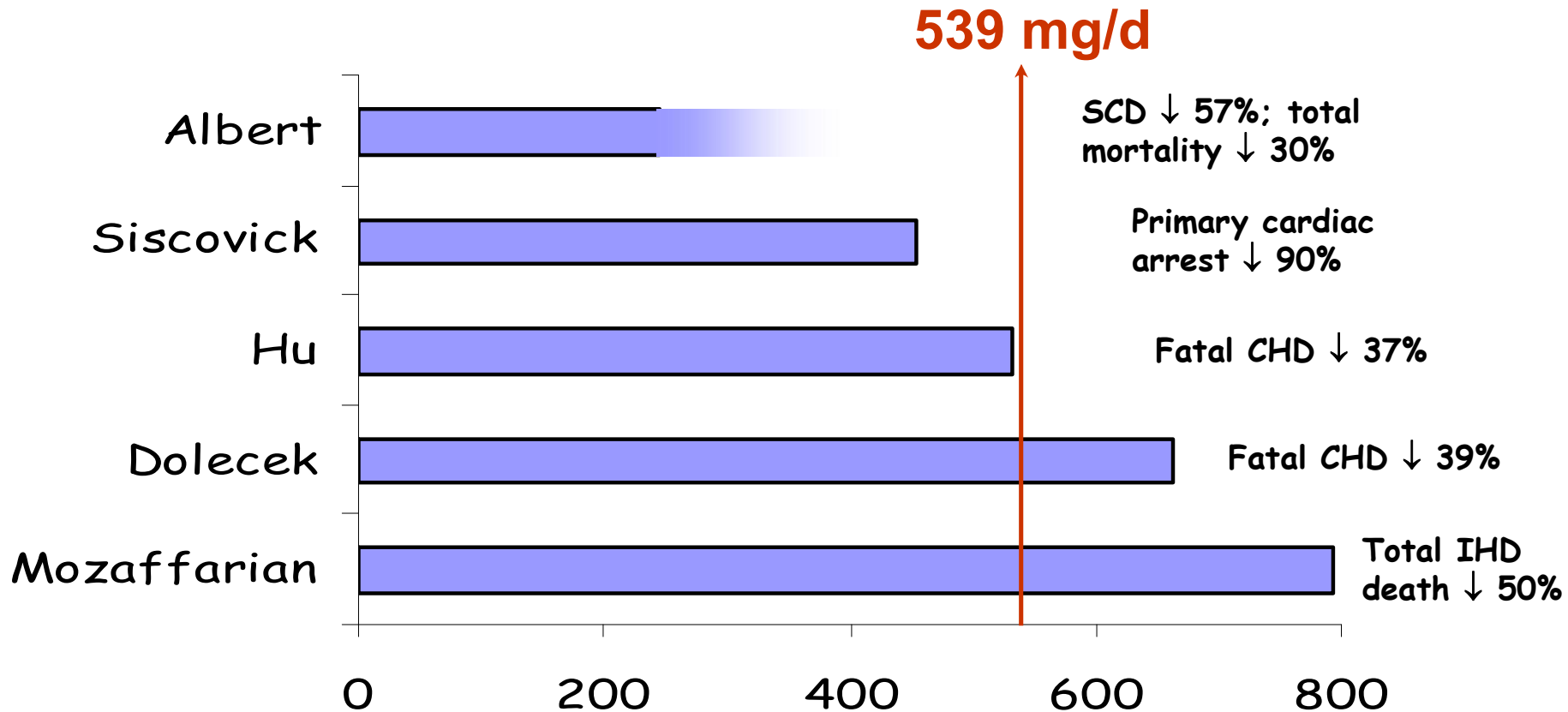


Protection Against Sudden Death, CHD Mortality and Cardiovascular Mortality by n-3 PUFA Supplementation

- A randomized clinical intervention, GISSI Prevenzione (11,323 MI patients)
- Intervention: Daily n-3 PUFA (~882 mg EPA & DHA, 1:2), or vitamin E (300 mg), or both, or control
- Follow-up: 3.5 years



EPA and DHA Intakes Associated with Lowest Risk for CHD in US Epidemiology Studies

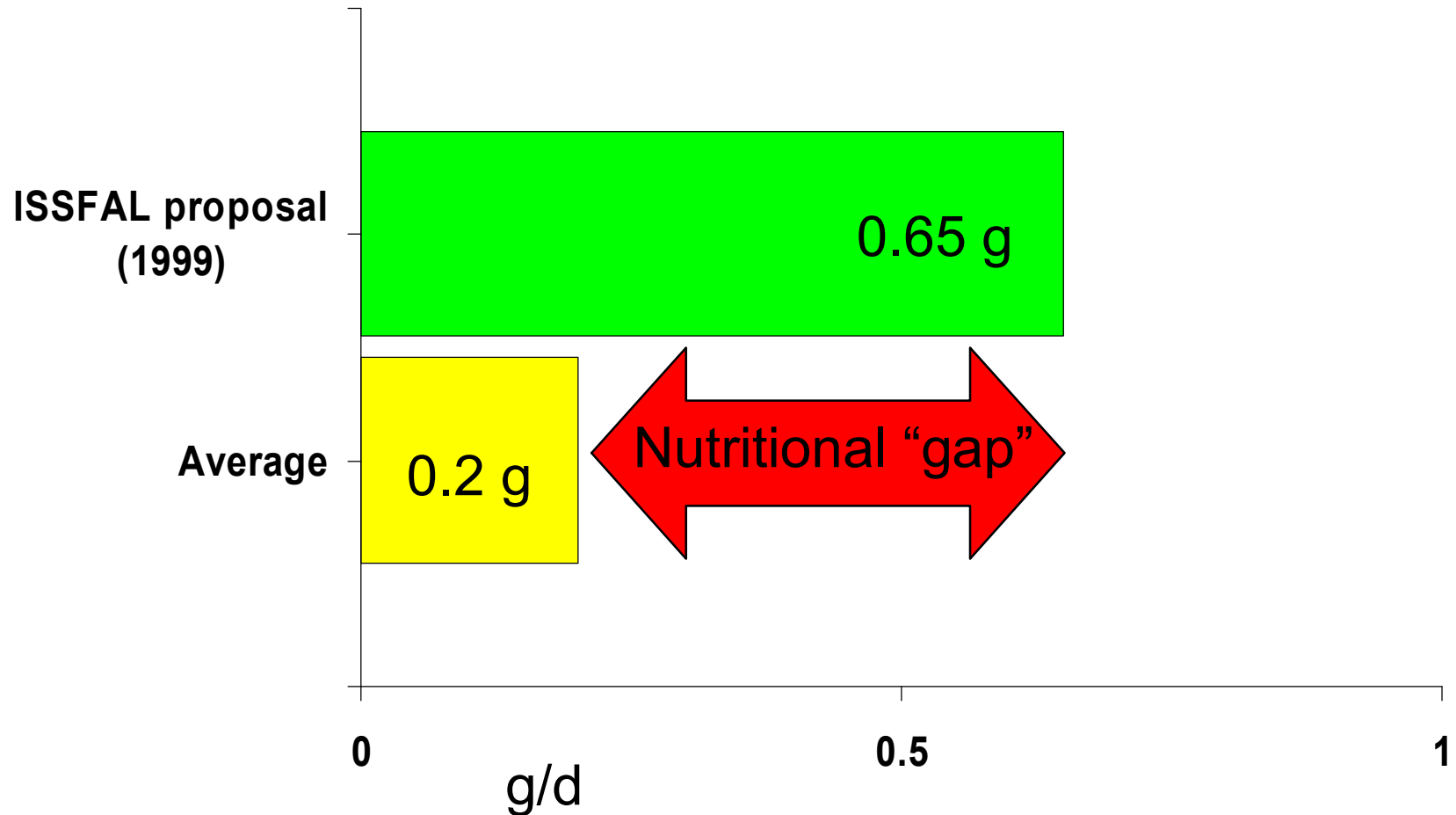


CONCLUSIONS

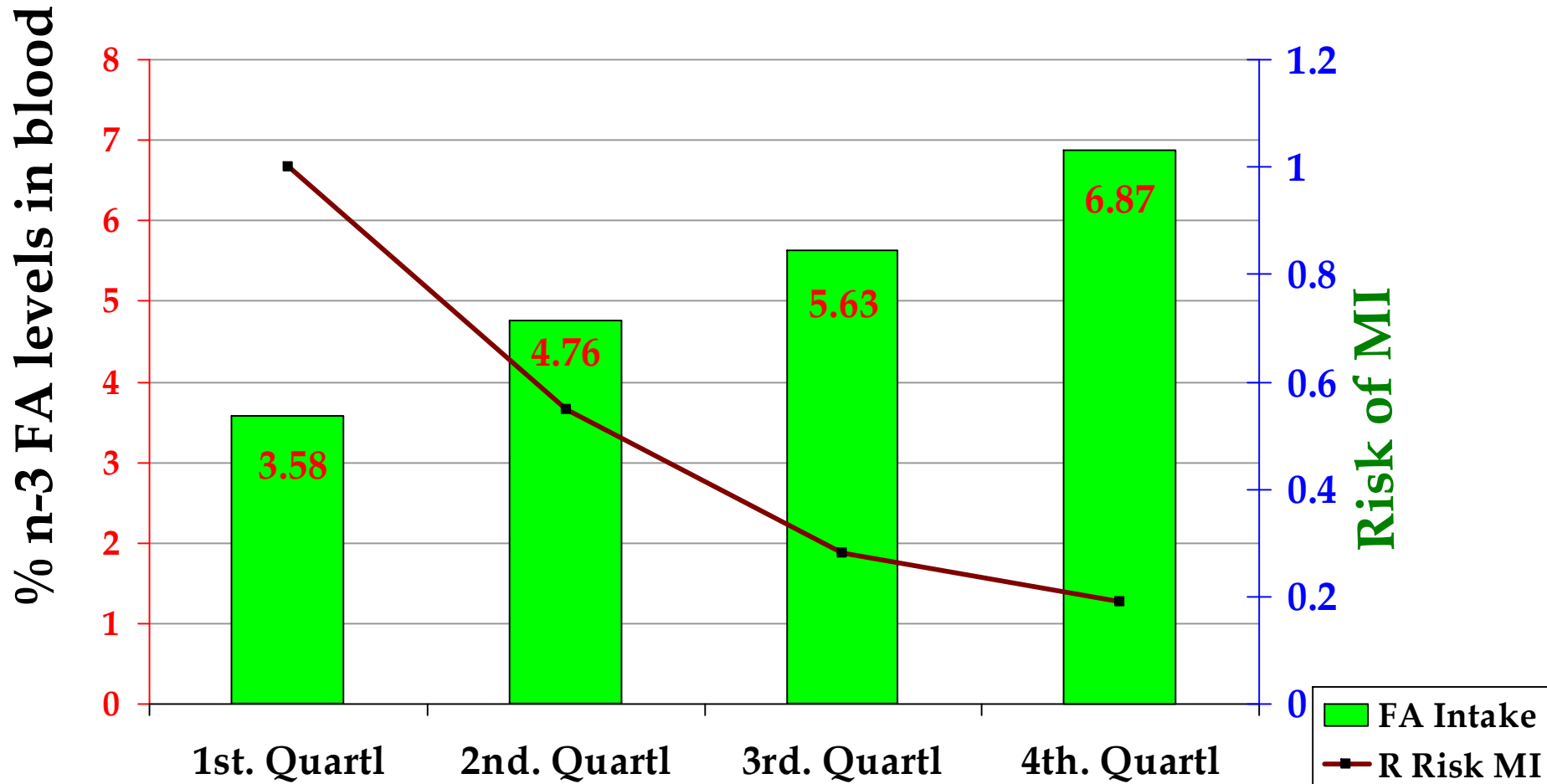
- **Solid body of epidemiological evidence in different populations showing a risk reduction of CVD**
- **Reduction of CVD mortality and overall mortality in dietary intervention studies**
- **Trend in intervention studies using pharmacological dosages in high risk patients**
- **PUFAs are considered as safe**
- **Good rationale that PUFAs have a potential to reduce the risk of CVD and/or the risk of cardiac arrhythmias**

Intake versus Recommendation

The Gap in Omega-3 LC PUFA



Blood Levels of FA and Risk of Sudden Death



LC-Omega-3 Dose and Safety

- **FDA GRAS limit: 3 g/day** (Federal Register 1997; 62(108):30751-7)
- **Omega-3 LC-PUFA can -**
 - reduce platelet aggregation
 - dilate blood vessels
 - moderate inflammation
 - *i.e. possible mechanisms for how n-3 LC-PUFA may reduce CHD risk*
- **At Omega-3 LC-PUFA intakes > 3 g/d, these properties have been said to lead to prolonged bleeding times**
 - Bleeding times still tended to be in the high-normal range
 - To date, not associated with adverse effects in numerous studies using n-3 LC-PUFA supplementation for extended periods

New Daily Recommended Intakes (DRIs) for Polyunsaturated Fatty Acids (PUFAs):

Still Strong Input from Oil Producers

PUFA	Men g/ day	Women g/ day	Pregnancy g/ day	Lactation g/ day
Linoleic Acid (n-6)	17	12	13	13
α -Linolenic Acid (n-3)	1.6	1.1	1.4	1.3
DHA/EPA	0.16	0.11	0.14	0.13

10% of omega-3 intake should be from EPA and DHA, i.e. long-chain

Global Dietary Recommendations for Omega-3 Fatty Acids

	ALA	EPA + DHA	n-6:n-3
U.S., 2002	1.2 to 1.6 g/d	Up to 10 % of ALA	
Canada, 1990	1.2 – 1.6 g/d		
U.K., 1992	1 % en	0.5 % en	
Australia, 1992	Moderate increases in plant and fish sources		
Sweden/WHO 1996	1.7-2.8g/d		
Japan, 1997			2:1

Recommendations for Omega-3 Fatty Acids

American Heart Association Dietary Guidelines, Revision 2000: A Statement for Healthcare Professionals From the Nutrition Committee of the American Heart Association

Additionally, 90 percent of the consumers we surveyed said they like the way the heart-check mark helps them identify heart-healthy products. All they need is to hear about the Association's Food Certification Program from you.



**American Heart
Association**

Products displaying the heart-check mark meet American Heart Association food criteria for saturated fat and cholesterol for healthy people over age 2.

“Because of increased evidence for the cardiovascular benefits of fish (particularly fatty fish), consumption of at least 2 fish servings per week is now recommended.”

Recommendations for Omega-3 Fatty Acids

- American Heart Association Scientific Statements:** Fish Consumption, Fish Oil, Omega-3 Fatty Acids and Cardiovascular Disease, 2002

Population	Recommendation
Patients w/o documented CHD	Eat a variety of fish (preferably oily) at least twice a week, include oils and foods rich in ALA
Patients w/ documented CHD	Consume 1 gm of EPA+DHA per day, preferably from fish, supplements could be used in consultation with a physician
Patients needing TG lowering	Two – four gm of EPA+DHA per day provided as capsule under a physician's care

Recommendations for Omega-3 Fatty Acids

American Diabetes Association, 2003

1. Two to three servings of fish per week provide dietary n-3 polyunsaturated fat and can be recommended.
2. N-3 supplements may be most beneficial in the treatment of severe hypertriglyceridemia.

Diabetes Care, 2003

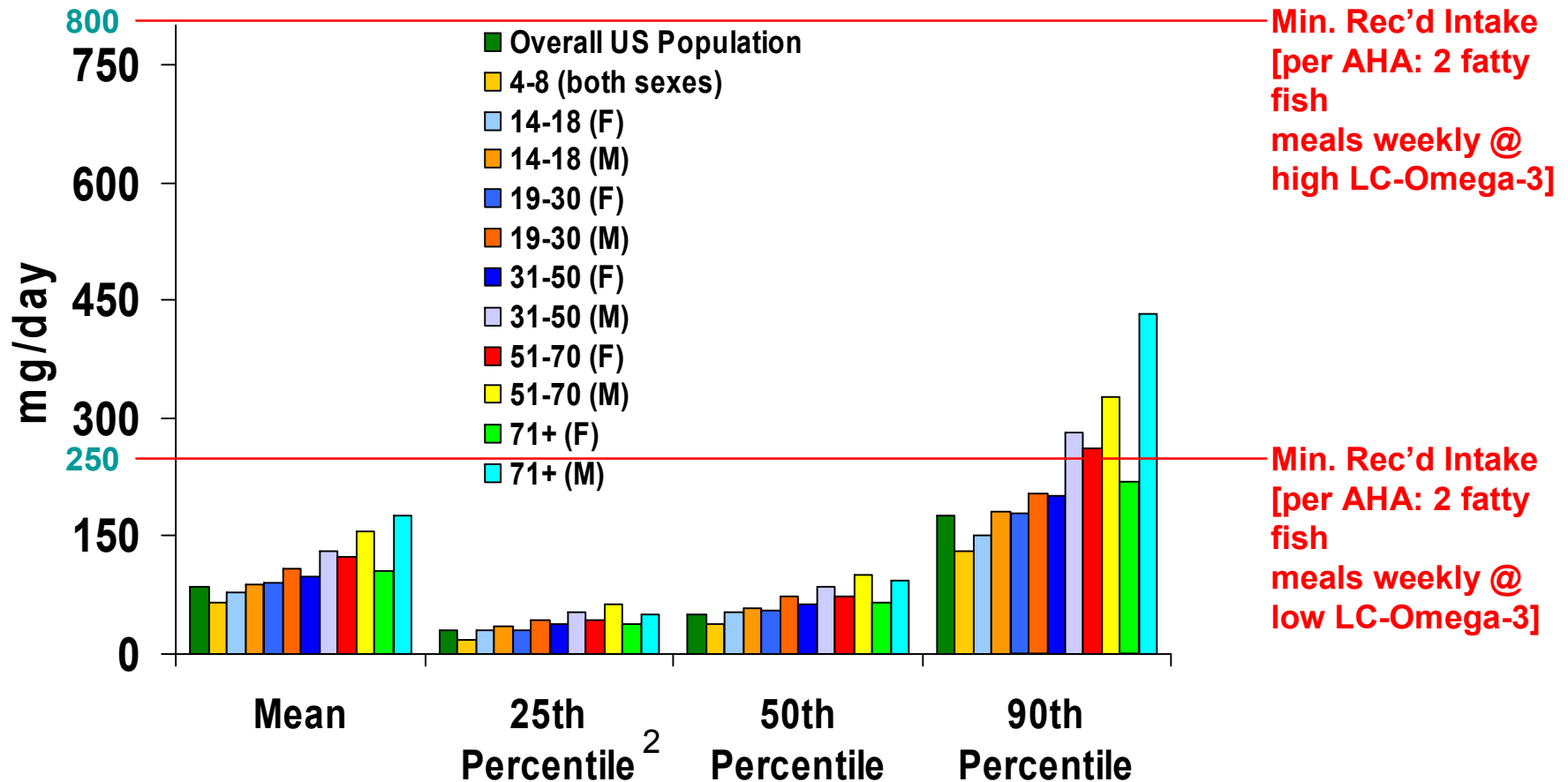
American Dietetic Assoc. (ADA) Recommendations

- Eat 2-3 fish meals per week to decrease risk of CVD

ADA position paper on Women's Health & Nutrition

- Also recommends consuming fish 2-3 times/week

Per Capita Intake Estimates of Naturally Occurring EPA + DHA¹



¹ Natural EPA + DHA levels in foods were based upon mean levels reported in the 1994, 98 and 96 CFSII Dietary Intakes.

² Percentile score is percentage of total population that an individual equals or exceeds in EPA + DHA.

Recommended Intakes of n-3 Fatty Acids

FATTY ACID	FAO/WHO 1994/1998	Germany1 2000	Canada2 1990	Nordic3 1996	UK/BNF4 1992	EANS5 1998	ISSFAL6 1999
Linoleic Acid							
(en%)	4-10	2.5*	-	2.5*	6.0	-	2-3
(g/d)	10	-	-	-	-	-	4-6
α-Linolenic acid							
(en%)	-	-	-	-	1.0	-	1.0
(g/d)	-	-	-	-	0.2**	2	2.2
EPA + DHA							
(en%)	-	-	-	-	0.5	-	0.3
(g/d)	-	-	-	-	-	0.2	0.65
n-3 PUFA							
(en%)	-	0.5	-	0.5	-	-	-
(g/d)	-	-	1.2-1.6	-	-	-	-
Ratio n-6 to n-3	5-10:1	5:1	-	-	-	-	-

ISSFAL Workshop on the Essentiality of and RDI for Omega-6 and Omega-3 Fatty Acids

1993: “Significant scientific data suggest that diets rich in long chain Omega-3 fatty acids have biological effects which contribute to lowering the risk of coronary heart disease”

New Maximum Levels of Use for Fish Oil

Category of food ¹	Proposed maximum level of use
Baked goods and baking mixes (1)	5.0 percent
Cereals (4)	4.0 percent
Cheese products (5)	5.0 percent
Condiments (8)	5.0 percent
Egg products (11)	5.0 percent
Fats and oils (12), but not in infant formula	12.0 percent
Fish products (13)	5.0 percent
Frozen dairy desserts (20)	5.0 percent
Gravies and sauces (24)	5.0 percent
Meat products (29)	5.0 percent
Milk products (31)	5.0 percent
Nut products (32)	5.0 percent
Snack foods (37)	5.0 percent
Soup mixes (40)	3.0 percent
Nonalcoholic beverages (3)	0.5 percent
Chewing gum (6)	3.0 percent
Confections and frostings (9)	5.0 percent
Dairy product analogs (10)	5.0 percent
Gelatins and puddings (22)	1.0 percent
Pastas (23)	2.0 percent
Hard candy (25)	10.0 percent
Jams and jellies (28)	7.0 percent
Plant protein products (33)	5.0 percent
Poultry products (34)	3.0 percent
Processed fruit juices (35)	1.0 percent
Processed vegetable juices (36)	1.0 percent
Soft candy (38)	4.0 percent
White granulated sugar (41)	4.0 percent
Sugar substitutes (42)	10.0 percent
Sweet sauces, toppings, and syrups (43)	5.0 percent

What Levels of EPA/DHA Should be Used for Fortification?

- AHA recommendations are approx. 500mgm EPA+DHA/day
- Omega-3 Working Gp.of CRN Health Claim petition to the FDA recommended 500mg/day, divided into four servings
=125mg per RAAC (serving)
- Other possibilities
 - Using “good source” levels of (10%) of the RDA
= 50mg/serving
 - Using “excellent source” levels (20%) of the RDA
=100mg/serving

Since a health claim is involved an efficacious dose should be utilized, therefore 100-125mg would seem to be reasonable.

FDA LC-Omega-3 Qualified Health Claim for Food

Text of New Qualified Omega-3 Claim (September 8th. 2004)

“Supportive but not conclusive research shows that consumption of EPA & DHA omega-3 fatty acids may reduce the risk of coronary heart disease. One serving of (food) provides (x) grams of EPA and DHA omega-3 fatty acids.”

Council for Responsible Nutrition - OMEGA-3 WORKING GROUP

- 1) Define voluntary minimum quality standards for Long Chain Omega-3 oils(EPA & DHA) for the North American market. Standards will include but not be limited to such areas as – Levels of oxidation, color, man made pollutants (heavy metals and PCBs) and sensory factors(taste and smell)**
- 2) Establish voluntary uniform and standard industry assays and validated analytical methods.**
- 3) Publicize the scientific data on the benefits for a variety of disease conditions to trade, media, health professionals and consumers**
- 4) Differentiate ALA from EPA/DHA**
- 5) Support regulatory initiatives for health claims/labeling**
- 6) Gain academic support/recommendations where appropriate**

Health Professionals Info

pufa
Information

Backgrounder

VOLUME 3, NUMBER 1 JANUARY 1999

Introduction to Polyunsaturated Fatty Acids

Reviewed by Norman Salem, Jr., PhD*

The 1960s were a period of rapid expansion in scientific knowledge about polyunsaturated fatty acids (PUFA) in general and omega-3 PUFA in particular. Both omega-3 and omega-6 PUFA were recognized as important components of cell membranes, as well as precursors of hormone-like compounds known as eicosanoids. Eicosanoids are involved in many important biological processes in the human body.^{1,2} Recently it has been suggested that the typical "Western" diet, which is substantially higher in omega-6 PUFA than in omega-3 PUFA, may not supply the appropriate balance of PUFA for optimal biological function.^{1,2,3}

FATTY ACIDS IN THE EVOLUTION OF THE HUMAN DIET

For millions of years, prehistoric humans existed on a diet consisting primarily of fresh fruits, leafy vegetables and animals. This eating pattern, which remained virtually unchanged over this time, provided a 1:1 ratio of omega-6 to omega-3 PUFA, and included relatively large amounts of longer-chain versions of these fatty acids.^{1,4} The prehistoric diet, which has been termed the "Diet of Evolutionary Adaptedness," is thought to be reflective of the biochemical and physiological milieu in which humans evolved.⁴ Over the past 150 years, however, there have been significant changes in the composition of the food supply of Western societies, resulting in an increase in consumption of omega-6 PUFA and a decrease in intake of omega-3 PUFA. Today, the ratio of omega-6 to omega-3 PUFA in the typical North American diet is estimated to range from 10:1 to 25:1.^{1,3,5,6}

Changes in the composition of the food supply, including the shift in the omega-6 to omega-3 PUFA ratio, can be attributed to a number of innovations in production methods for many frequently eaten foods, such as meats, eggs, fish, and oils.^{1,7} Food animals found in the wild fed

upon naturally-occurring sources of both omega-3 and omega-6 PUFA. As a result, they were leaner and their body tissues had significantly higher amounts of omega-3 PUFA. Today, however, our food animals are commercially raised on feeds that are high in omega-6 and lack omega-3 PUFA.^{1,8,9} As a result, meat and other animal products, such as eggs, contain less omega-3 PUFA. Fish raised through the practice of aquaculture also contain less omega-3 PUFA because they don't have access to marine foods that are a source of these fatty acids. Since a significant amount of fat in the modern Western diet comes from beef and dairy products, there is a greater concentration of omega-6 than omega-3 PUFA in our body tissues.

In addition, the industrial revolution introduced vegetable oil technology and popularized the use of cooking oils derived from sunflowers, safflowers, peanuts, and corn—all rich sources of the omega-6 PUFA, linoleic acid.¹ Of critical importance for infants, during the latter half of this century these vegetable oils have become the primary source of essential fats in infant formula. In contrast to human milk, typical vegetable oil-based formulas sold in the United States do not contain docosahexaenoic acid (DHA), an essential omega-3 PUFA.^{4,4}

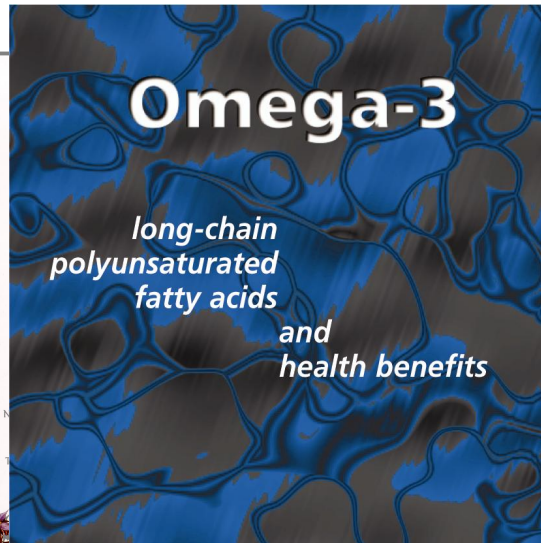
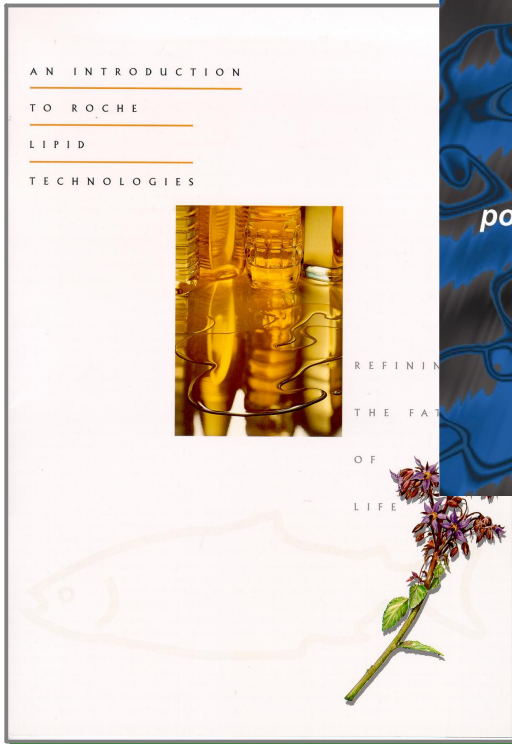
Fat Intake and Incidence of Coronary Heart Disease*

Year BC	Total Fat (%)	CHD (%)	Saturated Fat (%)	n-6 (%)	n-3 (%)
4000	~20	~0	~10	~5	~5
1000	~20	~0	~10	~5	~5
1800	~20	~0	~10	~5	~5
1900	~45	~40	~15	~10	~5
2000	~40	~35	~15	~10	~5

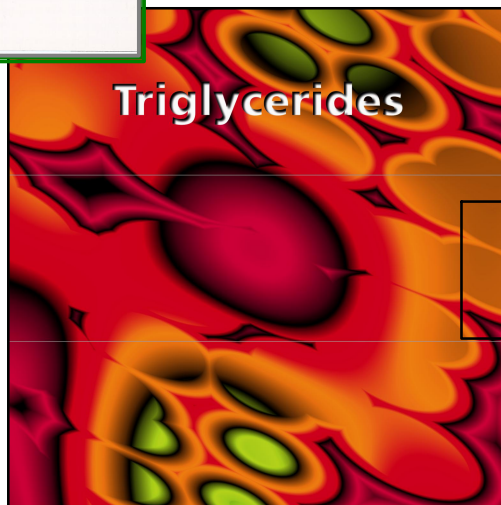
* Norman Salem, Jr., PhD is the Acting Scientific Director of the Intramural Research Program of the National Institute on Alcohol Abuse & Alcoholism at the National Institutes of Health. He is also Chief of the Laboratory of Membrane Biochemistry & Biophysics where the research focus is on the metabolism and function of n-3 fatty acids, especially docosahexaenoate, in the nervous system.

- White papers on various aspects of LC pufa
- Directed at dietitians, physicians, pharmacists, science media

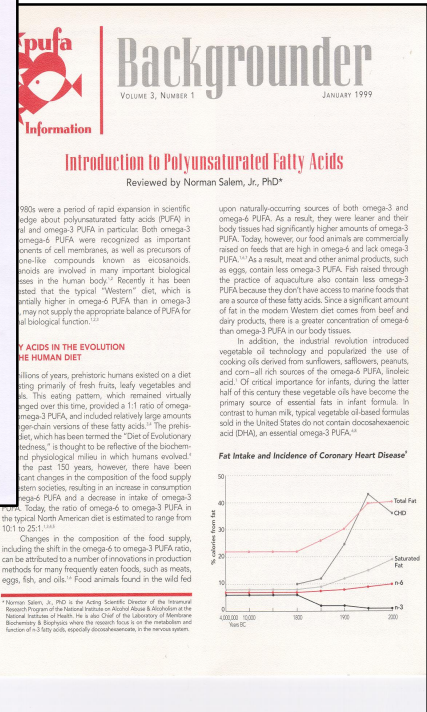
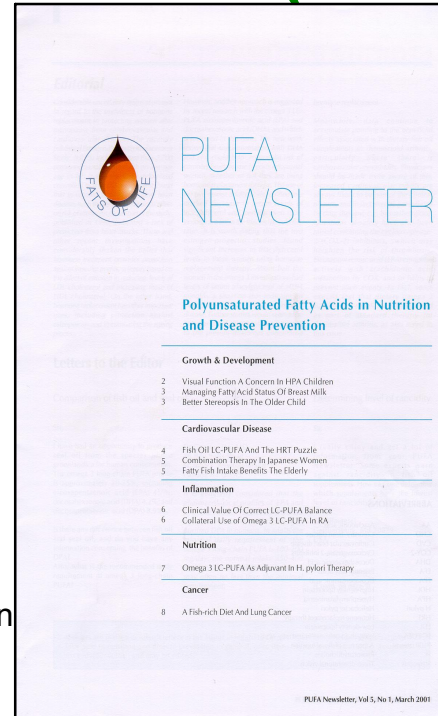
Scope of Available Literature (DSM)



Omega -3 Scientific Information
64 pages



Triglycerides Scientific
Information
36 pages



PUFA Backgrounder
8 pages

Health Professional Relations

Pharmacist/Patient Fact Sheet -

One Minute Counselors

- Pharmacist : New Recommendations for
- Omega-3 Fatty Acids
- Patient: Understanding The Good Fats

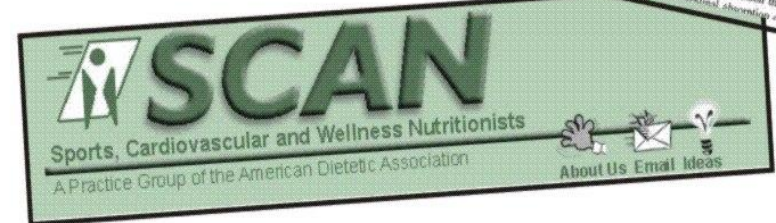
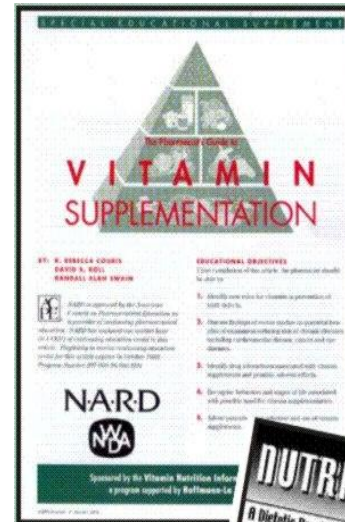
American Dietetic Association

Dietary Practice Groups - SCAN and NCC

- Nutrition in Complementary Care
 - *Sponsoring Executive Meeting*
 - *Developing articles for newsletter*

Dietitians in the New Jersey Chapter of ADA

- Sponsor Speaker(s)
- Distribute Newsletters and Studies

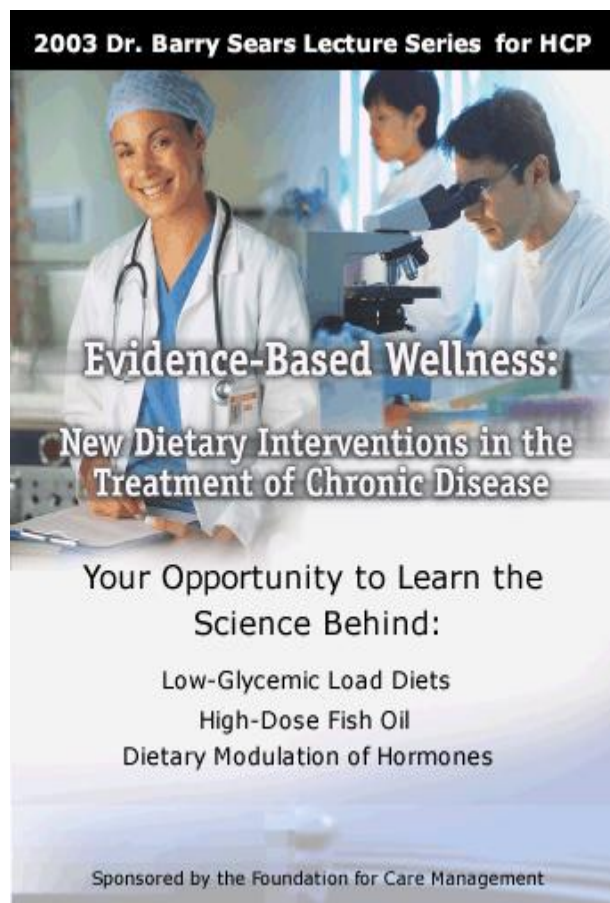


PR Opportunities

Media Coverage - 4+ Million impressions

- Nestel's research was included in a four-page spread in *Energy Times* magazine (reaching **700,000 readers**) about the benefits of fish oils. In addition, both Healthscout.com and Healthfinder.gov ran a story written by a HealthScoutNews reporter called "Fishing for a Healthy Heart?"
- Postpartum depression and the relationship discovered in Hibblen's study was included in a three-page article in *Energy Times* magazine (reaching **700,000 readers**) on the mood boosting qualities of essential fatty acids. *Health and Healing* magazine and the *Houston Chronicle* also printed pieces about countries with reduced intakes of fish and the increased presence of depression reaching more than **1.2 million readers**.
- Gesch's study on inmates and antisocial behavior was given comprehensive write-ups in the *New Scientist* magazine, *Discover* magazine and the *San Francisco Chronicle*, which together reach more than **1.7 million readers**

Dr. Barry Sears Lecture Series for Healthcare Professionals



March 8-9 Las Vegas, Nevada

April 5-12 Caribbean Cruise

May 3-4 Los Angeles, California

May 31-June 1 Houston, Texas

June 21-22 Minneapolis, Minnesota

July 12-13 Colorado Springs, Colorado

August 2-3 Seattle, Washington

September 20-21 Boston, Massachusetts

October 25-26 Atlanta, Georgia

November 15-16 Dallas, Texas?

December 6-7 Honolulu, Hawaii



Course instructors,
Dr. Barry Sears and
Dr. Stacey Bell,

D.Sc., R.D.

Advertising Messages

- Creative marketing messages are available
 - *“...LC-omega-3 added to equal amount found in a fish oil capsule”*
 - *“...now with more LC-omega-3 than a serving of canned tuna”*
 - *“...more LC-omega-3 than the leading brand”*
- **Food labels must state the amount (in mg per serving of LC-omega-3) on the front panel**
- **Customer’s product may qualify for American Heart Association “heart check” mark otherwise; would state amount (mg) of LC-omega-3 “added” subliminally connecting to heart health**

Is LC-Omega-3 good for everyone?

We all can benefit from more LC-Omega-3 in our diets, especially pregnant women. Scientific studies suggest LC-Omega-3 to be associated with longer, healthier pregnancies, higher birth weight and enhanced infant development.

Even before the start of pregnancy, the mother's diet can influence the health of her baby. Therefore, any woman who is planning to become pregnant should make sure her diet contains sufficient amounts of essential vitamins, minerals and LC-Omega-3.



Get more essential facts about LC-Omega-3.

For more information about the benefits of LC-Omega-3, visit www.nutraaccess.com.



The Essential Facts of LC-Omega-3

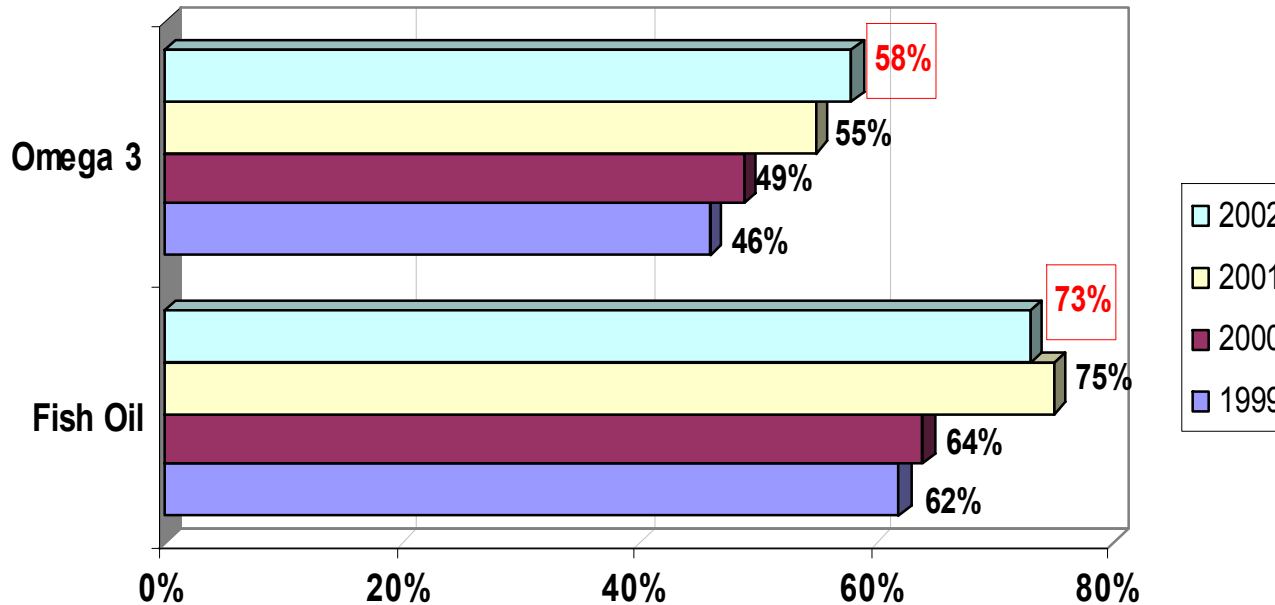


Fortify your health with nature's own heart-smart ingredient.

'Fats of Life' is a registered trademark of Roche Vitamins Inc. - Parsippany, NJ

Draft -
Consumer Stuffer

LC-PUFA Consumer Awareness



Demographics of Consumer Awareness (2002)

74% female vs 56% male

75% ages 35 to 65+

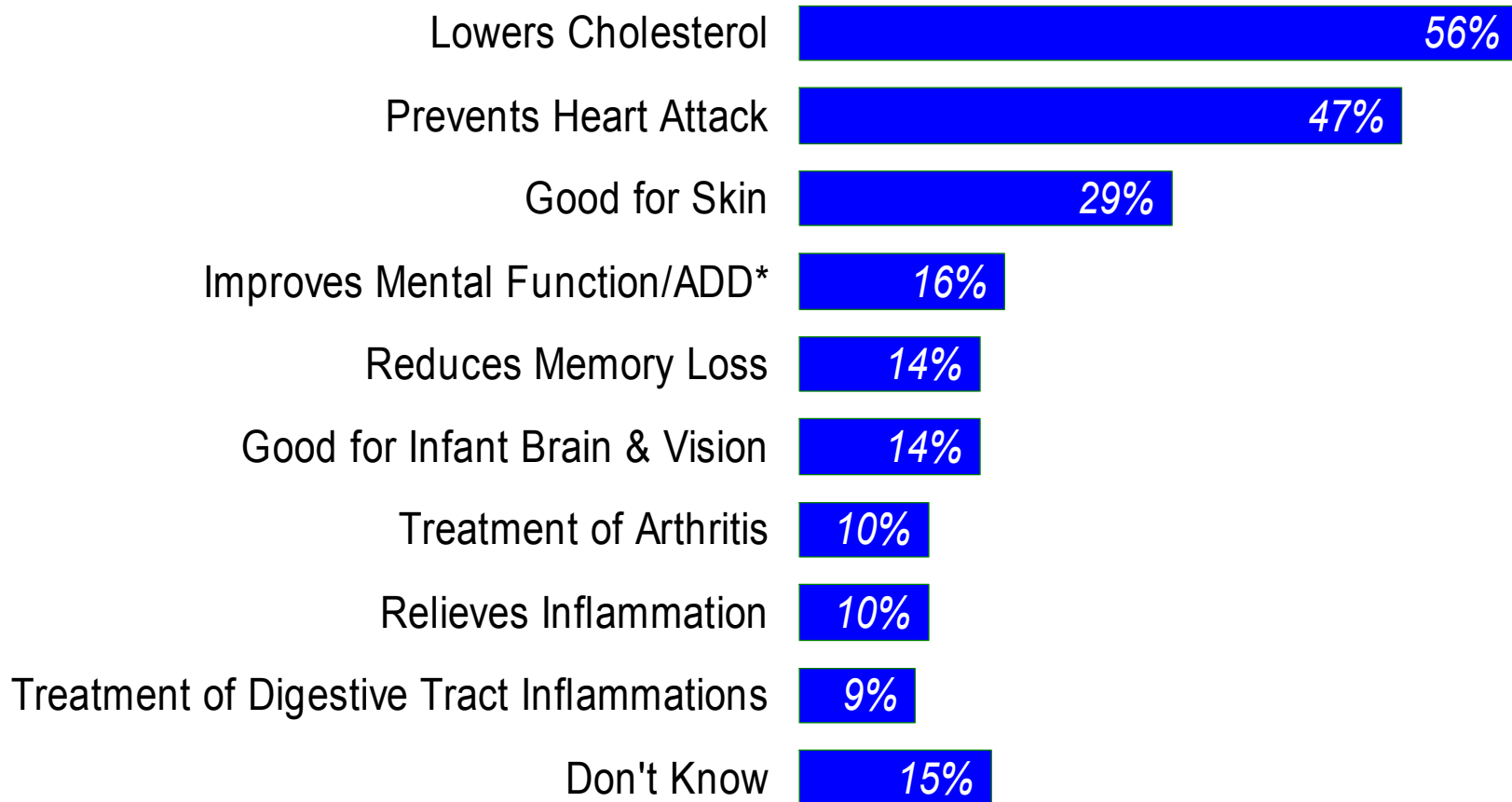
80% have incomes >\$50K

80% from West Coast; 76% from East Coast; 74% from South

84% are college grads and 72% have had some college education

Health Benefits Associated with Omega-3

(of those aware 37%)



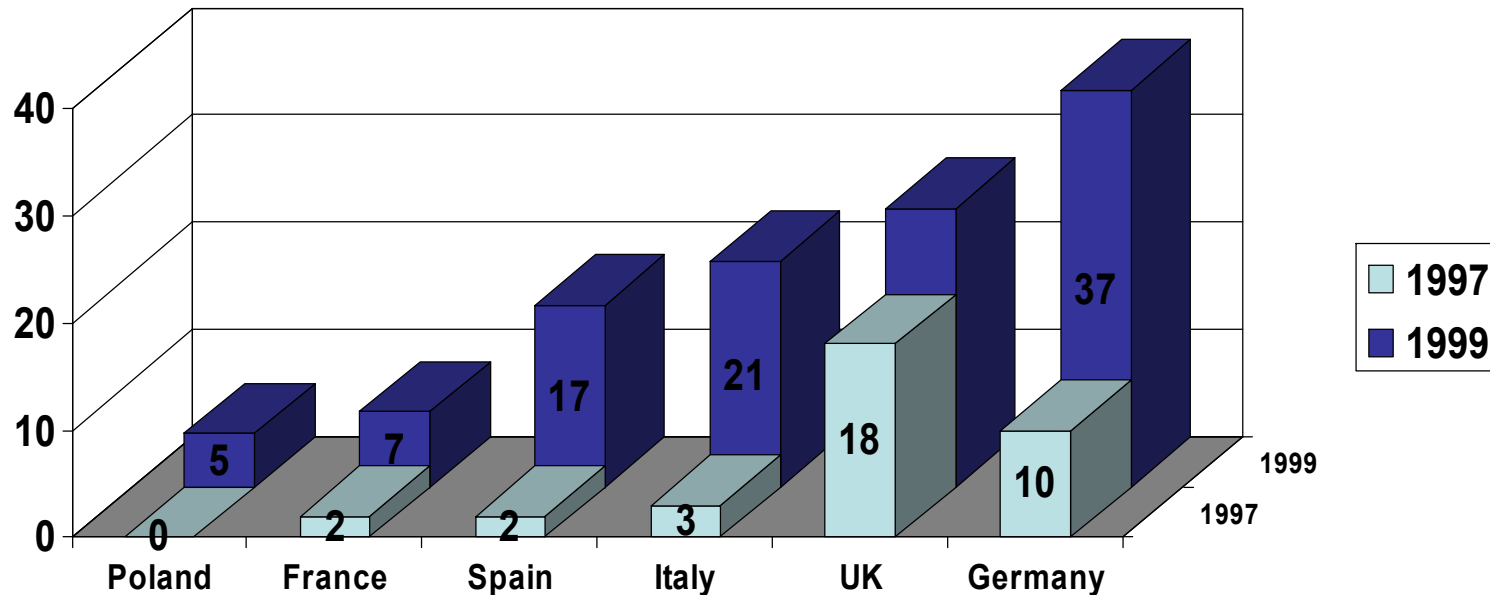
Omega-3 Awareness in European Countries

	Spain	GB	Germany	Italy	Netherlands	France
Omega-3	64 %	38 %	38 %	21 %	12 %	32 %
Fish Oil	29 %	48 %	45 %	16 %	43 %	19 %
Cod Liver Oil	45 %	78 %	72 %	36 %	60 %	66 %
PUFA	22 %	2 %	37 %	1 %	1 %	9 %
Long Chain Omega-3 PUFA	11 %	3 %	11 %	1 %	2 %	9 %
EPA	2 %	6 %	1 %	1 %	4 %	2 %
DHA	2 %	6 %	1 %	1 %	1 %	10 %

Source: IPSOS Research for DNP (2003)

Awareness Study

Have you heard of OMEGA 3, as a food ingredient

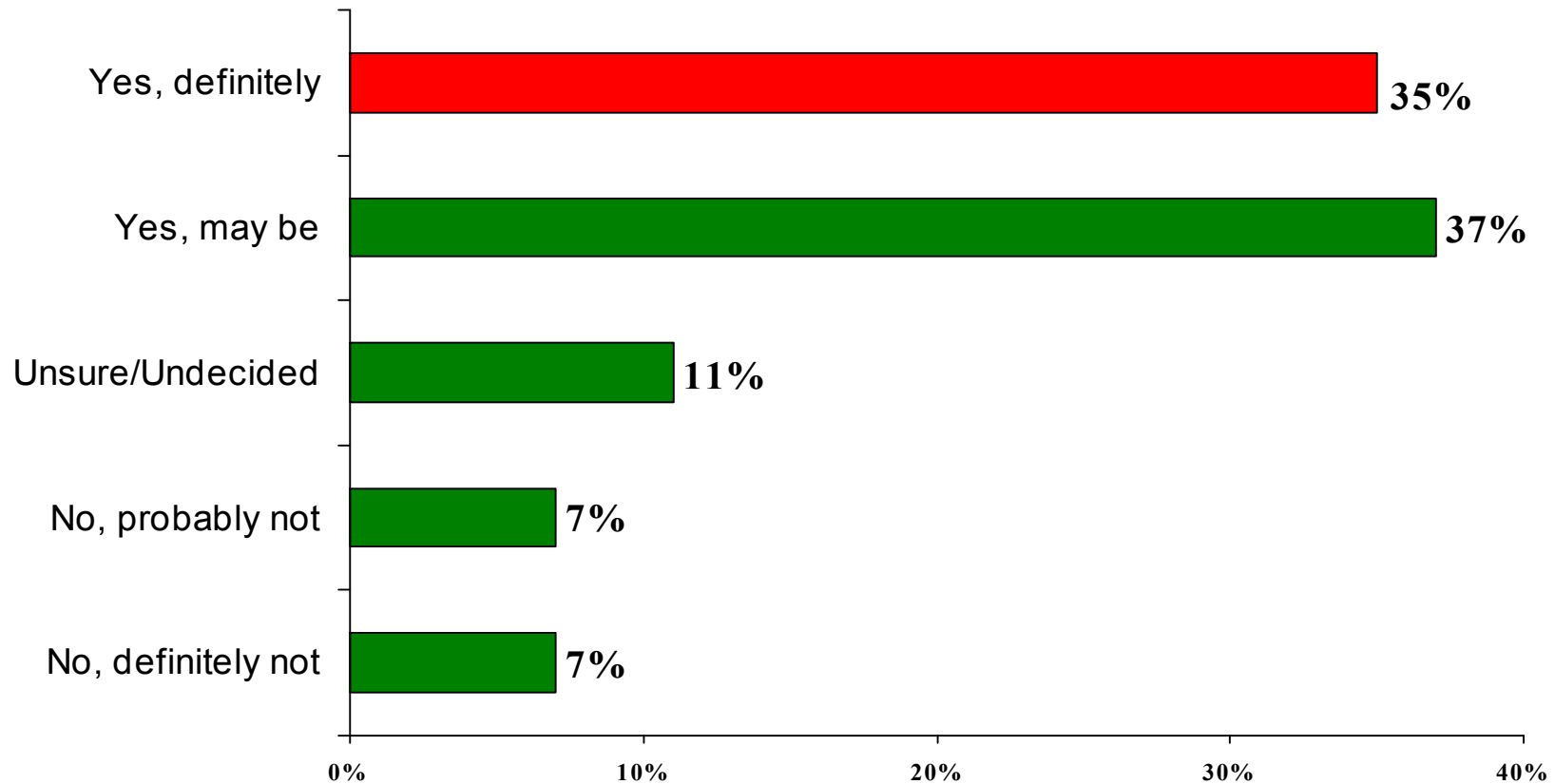


Source: Gallup 99

Consumers' Interest for Testing Food Fortified with Omega-3

	<u>Spain</u>	<u>GB</u>	<u>Germany</u>	<u>Italy</u>	<u>Netherlands</u>	<u>France</u>
Interested	35 %	37 %	31 %	32 %	46 %	39 %
Not interested	51 %	52 %	63 %	50 %	50 %	52 %
Don't know	14 %	11 %	6 %	18 %	4 %	9 %

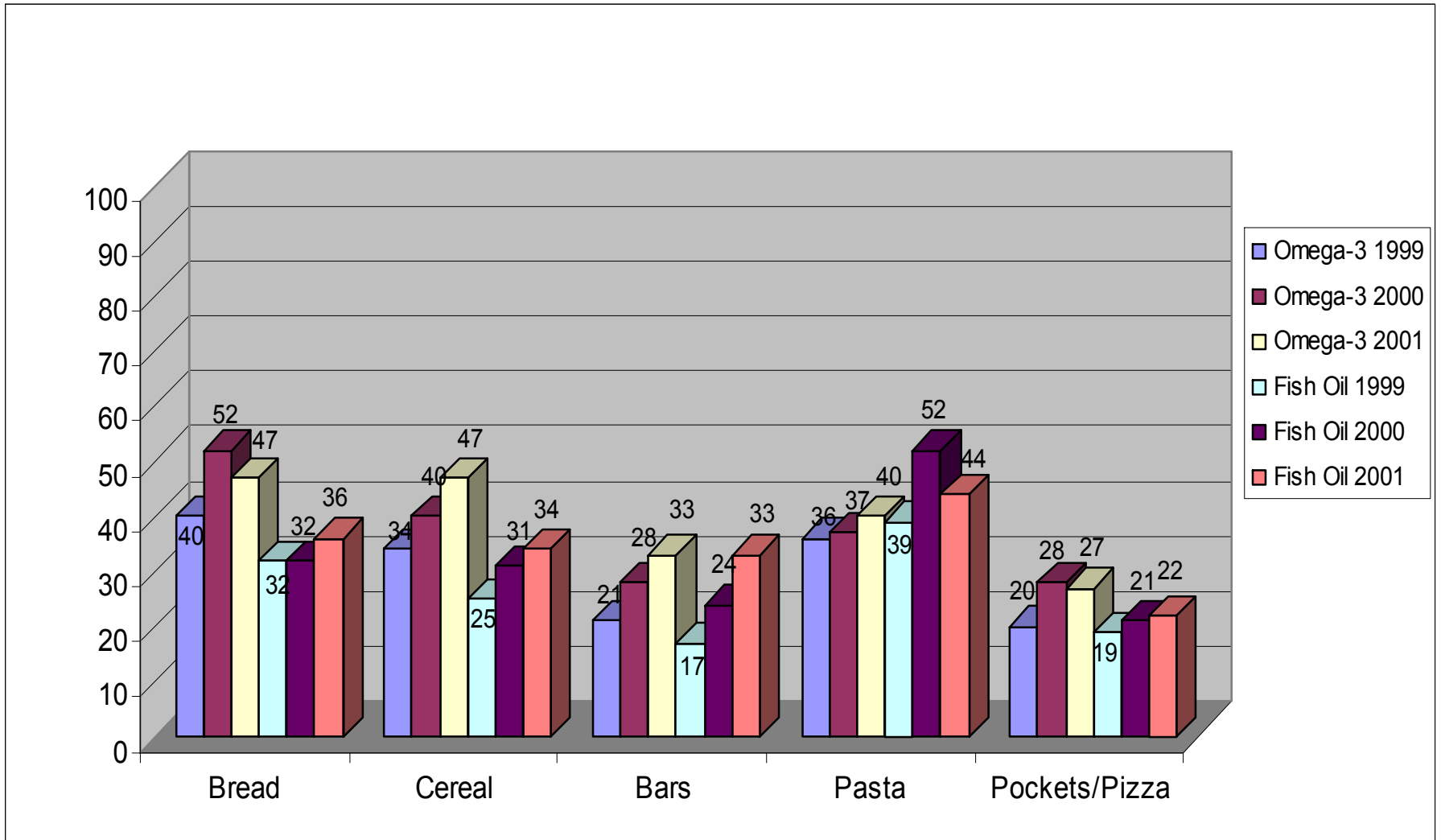
If Omega 3 was included in certain foods without a major price difference, would you buy them? (USA)



Based on those spontaneously unaware of Omega 3 - read out description of qualities

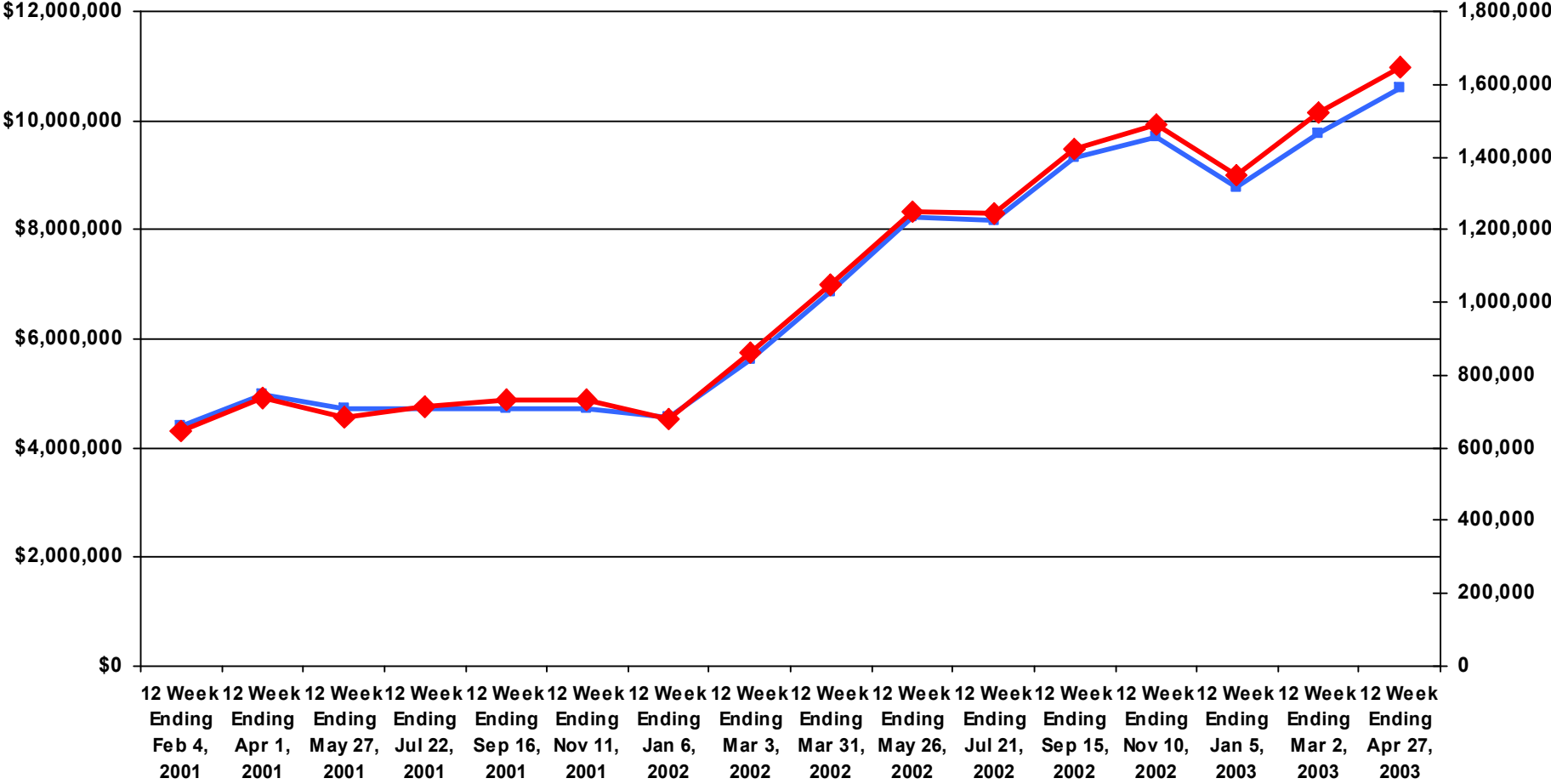
Likelihood of Trying Fortified Foods

(Grain)



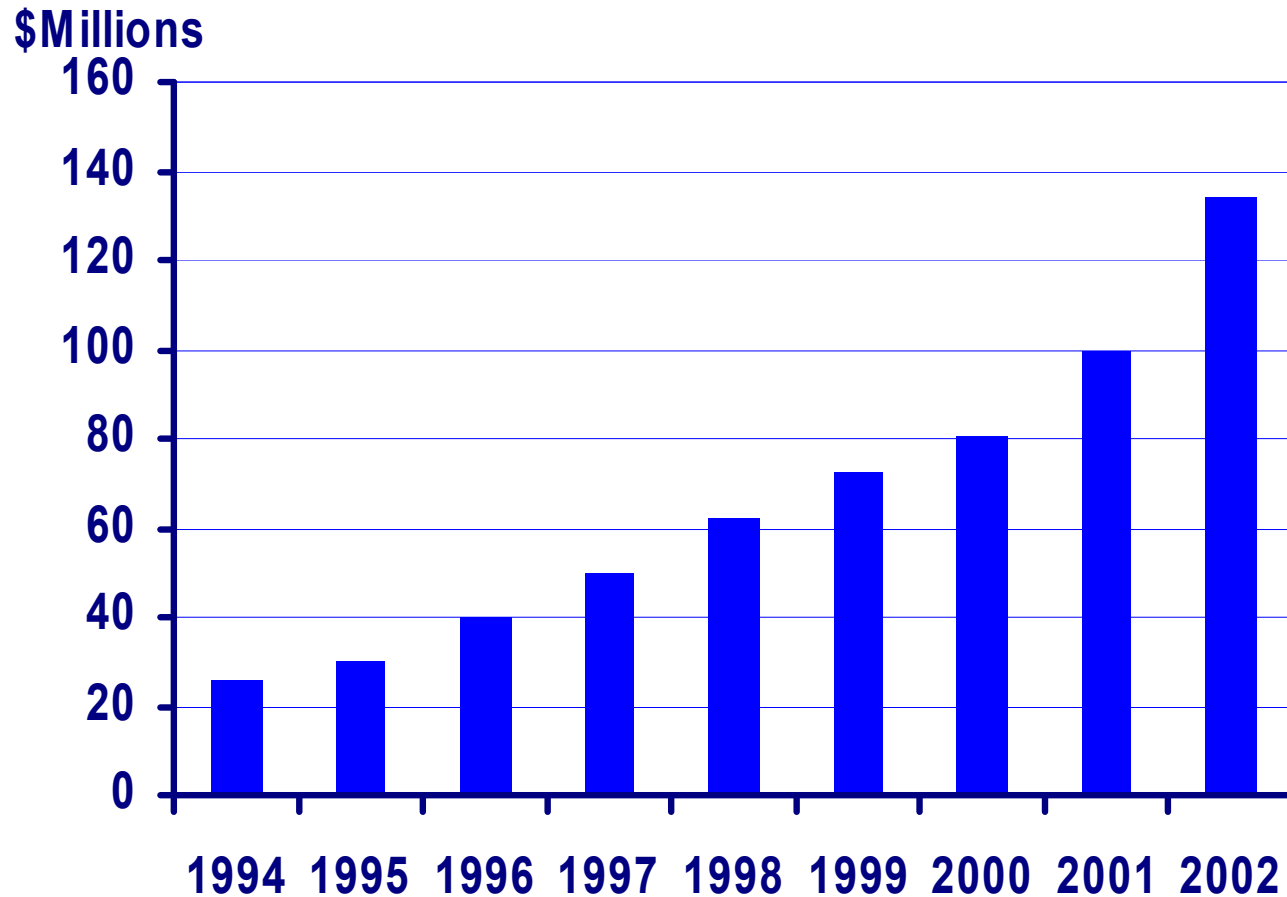
Total Fish Oil/Fatty Acid Retail Sales

FDM - including Walmart Panel Data

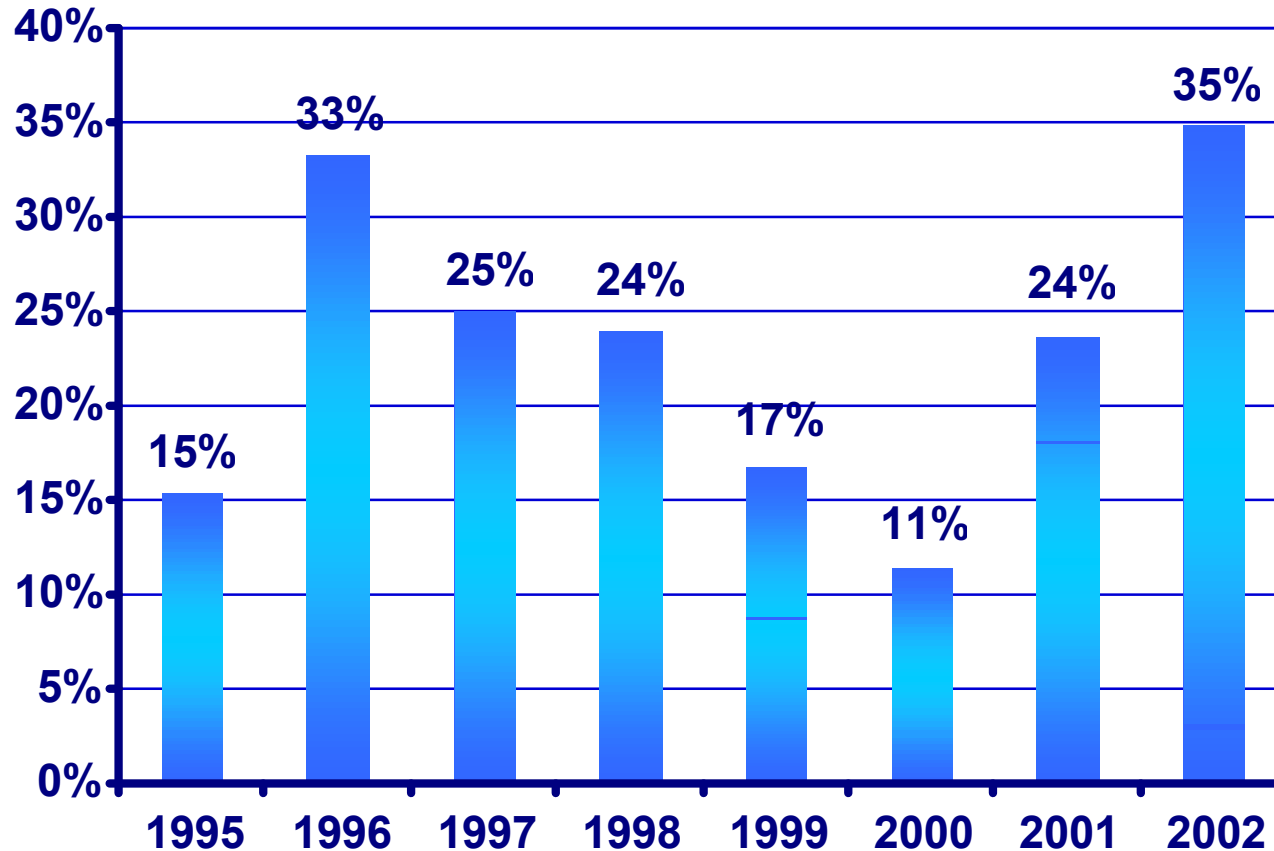


■ Dollar sales
 ◆ Volume sales

Fish Oil Supplement Sales



Annual Growth in Sales in Fish Oil



Omega-3 Battle Looming

JULY 2004

Canada set for omega-3 milk battle

Omega-3 producers of all types will have their eyes on Canada in the coming months, where the state of Ontario is to be the stage for an important contest between similar products that are both touting the benefits of omega-3s. Ontario will become the first market in the world in which rival omega-3 fortified milks – one marine-source, one vegetable-source – will be found side-by-side on the supermarket shelf.

While scientists and omega-3 producers tend to believe that most consumers, when they get the right communications, will pick the product that provides the dose of DHA and EPA they need (only available from the product made with marine-source omega-3), that is an assumption as-yet unsupported by evidence from the market. The Canadian contest will be the first real-life test of this hypothesis with the two parties using different approaches in ingredients, pricing and communicating the health benefits. Which brand wins will be as much about strategy as about science.

Natrel, the Canadian dairy producer which last year launched Natrel Omega-3, Canada's first omega-3 milk drink, is extending its distribution to Ontario, where it will be in head-on competition with Neilson Dairy Oh! Omega-3 fortified

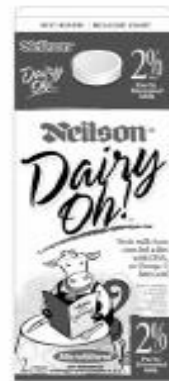


The milk on the left is fortified with fish-source

Canadian children. In terms of claims, the Neilson DHA milk is permitted to say: *"Omega-3 fatty acids contribute to good health, growth and development. DHA, an omega-3 fatty acid, supports normal development of the brain, eyes and nerves."*

Natrel's Omega-3 brand, on the other hand, carries no health claim. But from the outset instead of advertising, the company has been using a vigorous PR campaign in which it talks in its press releases about how: *"Consumption of Omega-3 and Omega-3 products such as Natrel Omega-3 will help: Promote the reduction of blood cholesterol; Prevent certain illnesses, such as cardiovascular disease; Foster brain and visual development in children; Improve immune reactions against allergies, and Reduce the risks of the formation of blood clots."*

Price-wise Neilson's Dairy Oh! is priced at a 10% premium to regular milk while Natrel Omega-3 stands at a 25% premium in its home state of Quebec.

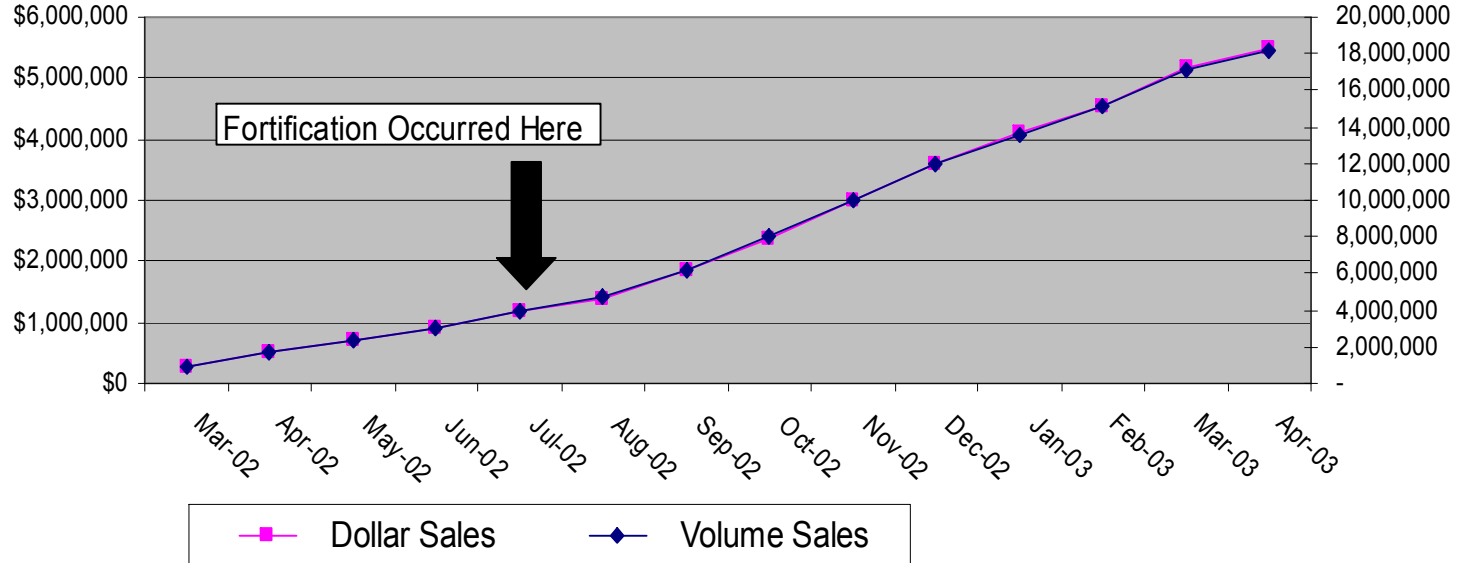


COMMENT: Some will argue that this will be a poor test from which to draw conclusions, since the Neilson product provides only 20mg of DHA per 250ml serving compared to 125mg per 250ml serve for most DHA-fortified milks. However, it is questionable whether time-pressed consumers will notice or

- Differences between omega-3 and EPA/DHA
- Conversion ALA to EPA/DHA relatively low (~3-5%)
- Levels of LC PUFA per serving for US health claim an issue

Addition of LC-omega-3 Fuels Growth in New Products

Enfamil Lipil Concentrate 13oz Reformulated with Omega 3 - FDMx



Continuing Global Launch of New Products - Margarine



Nutrition

Per 100g: energy 2,250kJ, 60g fat of which 16g saturated, 0.5g trans, 14g polyunsaturated, 5g omega-3, 4,40mg short chain (ALA), 600mg long chain (EPA, DHA), 27g monounsaturated, 380mg sodium, 380mg potassium, 1,000µg vitamin A, 10µg vitamin D

Company: Goodman Fielder Milling & Baking

Country: New Zealand

Launch: Jan-2003

Arla

Brand Name: Gaio
Country: Finland
Euro Price: 1.67
Pack Size: 250g
Storage: Chilled



Description

A light margarine (40% fat) with a healthy balance between different fatty acids (46% rapeseed oil, 45% milk fat, 9% fish oil) and omega-3. It carries the Green Keyhole logo which indicates healthy eating.

Ingredients

Water, rapeseed oil, butter oil, skimmed milk, **fish oil**, gelatine, salt (1.5%), emulsifier (E471, E472c), preservative (E202), antioxidants (ascorbic acid, E310, E385), acidity regulator (citric acid), flavour, vitamins (A and D)

Nutrition

Per 100g: energy 1,550kJ/370kcal, 3.5g protein, 0.5g carbohydrates (lactose), 40g fat of which 14g saturates, 17g monounsaturates, 7g polyunsaturates, 2.6g omega 3 fat of which 0.7g EPA + DHA, 70mg cholesterol, 0g fibre, 0.6g sodium, 900µg vitamin A, 7.5µg vitamin D, 5mg vitamin E

Company: Vandemoortele

Brand: Vitelma
Product: Progress Margarine
Category: Dairy
Country: Belgium
Pack Size: 250.00g
Packaging: Plastic pot/cup
Storage: Chilled



Product Description

New under the Vitelma brand is Progress margarine with 65% fat and Omega 3 which contributes to the healthy functioning of the cardiovascular system. It is packaged in a 250g plastic pot within a paperboard sleeve.

Ingredients

Fat ingredients (65%), colza oil, sunflower oil, vegetable oil, **marine oil**, water, emulsifier: mono- and diglycerides of fatty acids; preserving agent: potassium sorbate; flavour, acidifying agent: citric acid; vitamin A, vitamin D3; colouring: beta carotene

Margarine Spread Seachange

Ingredients: vegetable oils (min 42% Canola Oil), water, **Fish Oil (2%)**, Salt, milk Solids non Fat, Emulsifiers, Food Acid (270), Preservatives (202), Vitamins A and D, Vitamin E, Colour (160a), Antioxidant (307), Flavour.

Contains 60 mg Long Chain Omega-3 per 10 g Serving



Parmalat

Il latte del cuore

Description

UHT milk which contains Omega 3 and vitamins C, E & B₆. Available in a one litre Tetra Slim pack. **It contains 60 mg/100 ml DHA + EPA.**

Claim:

Parmalat milk omega3 is enriched with a significant amount of omega 3 and with vits C, E, B₆. The omega 3 are polyunsaturated fatty acids which help to improve the blood fluidity and to reduce the triglycerides level therefore contributing to reduce the risk of CVD. Thanks to the omega 3 also drinking a glass of milk can help you to take care of your well-being.



The Rising of Omega-3!



www.puleva.es



Trabajamos por el bienestar de la familia

Puleva

Product: PulevaOmega 3
Category: Dairy
Country: Spain
EuroPrice: 0.78
PackSize: 500ml
Packaging: TetraBrik carton

Description

A UHTskimmed milkenrichedwith omega-3fattyacid,and vitamins E, A,D

Ingredients

Skimmedmilk,sunfloweroil with a high "bily" grade,lactose,lactoseproteins, oliveoil, soya oil,emulsifier,**oil of marine origin**,vitamin E, A, D

Dieta cardiosaludable

- Lácteos desnatados o semidesnatados.
- Aceite de oliva (rico en ácido oleico).
- Pescado azul (rico en ácidos grasos Omega-3)
- Cereales, frutas, verduras y legumbres.

Puleva Omega3

- Es leche desnatada.
- Contiene ácido oleico, componente esencial del aceite de oliva.
- Contiene ácidos grasos esenciales Omega-3.



PULEVA
OMEGA₃

Con LECHE DESNATADA
Enriquecida con ácidos grasos Omega-3
Ácido oleico y vitamina E.



PULEVA
OMEGA₃

VALOR NUTRICIONAL

		• 100 ml	• 250 ml
ENERGÉTICO			
Energía	kJ	38	140
	kcal	237	593
Proteína	g	3,5	8,8
M. de carbono	g	0,2	0,5
Grasa	g	1,4	3,5
- Saturado	g	0,5	1,2
- Monoinsaturado	g	1,1	2,7
- Poliinsaturado	g	0,8	2
VITAMINAS Y MINERALES			
- Calcio	mg	132	331
		(66% CDR)	(145% CDR)
- Vitamina B ₂	µg	0,26	0,65
		(52% CDR)	(131% CDR)
- Vitamina A	µg	130	325
		(26% CDR)	(65% CDR)
- Vitamina D	µg	0,25	0,62
		(50% CDR)	(124% CDR)
- Vitamina E	mg	1,5	3,75
		(30% CDR)	(75% CDR)
- Vitamina B ₆	mg	0,3	0,75
		(60% CDR)	(150% CDR)
- Ácido Fólico	µg	30	75
		(60% CDR)	(150% CDR)

CDR: Cantidad Diaria Recomendada

Candia Milk

Brand Name: Candia
Product: Candia aux Oméga 3 Milk
Category: Dairy
Sub-Category: Milk
Country: France



Product Description:

A semi-skimmed milk enriched with omega 3 fatty acids. It is said to help keep the heart and arteries functioning well. It is available in 500ml bottles.

Pinar Milk

Brand name: Pinar Denge

Product: UHT milk

Country: Turkey

Launch date: April 2002

Shelf Life: 3 months



Heart Plus Low Fat Milk Brownes Dairy (Australia)

Ingredients

Skimmed milk, whole milk, **Omega-3 rich fish oil (60mg DHA & EPA)** vitamins (E, C, B6, B12 and folate), flavour, emulsifier (soy lecithin, E471)

Claim

Brownes Heart Plus has been specially formulated to **improve the performance of the heart and cardiovascular system** as part of a balanced diet combined with regular physical activity.

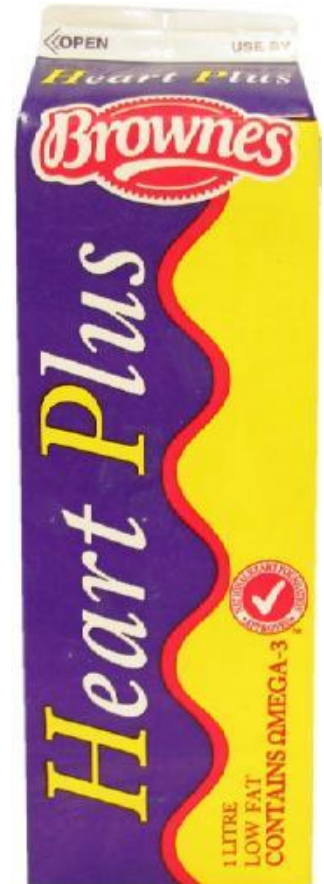
Marine omega-3 nutrients lower the blood triglyceride levels and help maintain a regular heart beat. Antioxidants (vit. C & E) enable the body to use omega-3 nutrients efficiently by neutralising harmful free radicals

Australians eat an average of only 100 mg of omega-3 nutrients daily but we should be consuming at least 210 mg daily *. You can get this amount of omega-3 by drinking just 260 ml of Browns Heart Plus per day

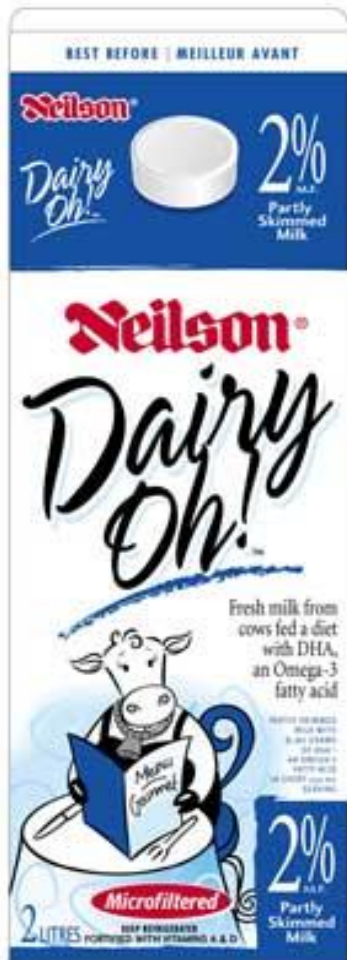
* as recommended by the UK Health Department (Coma Report 46, 1994)

The Australian National Health and Medical Research Council (1992) state that omega-3 consumption improves heart health.

The National Heart Foundation of Australia states that marine omega-3 reduces coronary heart events (1999)



More Milk and Beverages



Canada's launch of milk with DHA through feeding the cow EPA/DHA



OJ from UK with added fish oil to provide LCP for better brain power

Continuing Global Launch of New Products - Processed Fish



Nutrition

Per 100g:

energy 790kJ, 11.8g

protein, 6.9g

fat, 0.8g

of which saturates, 2g

of which polyunsaturates,

0.6g omega-3,

490mg alpha linolenic acid (ALA),

40mg eicosapentaenoic acid (EPA),

100mg docosahexaenoic acid

(DHA),

4g monosaturated fat,

19.7g carbohydrates, 2.3g of which

sugar,

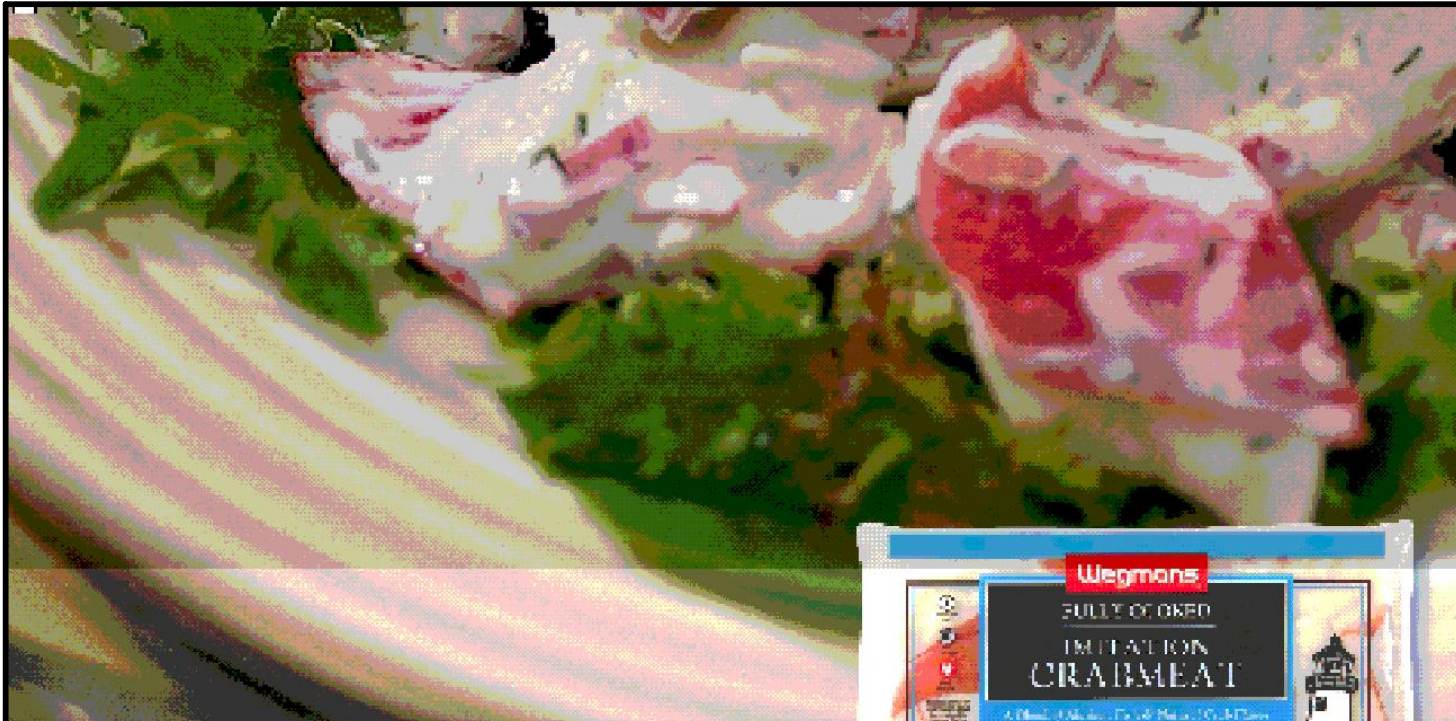
333mg sodium

Company: JR Simplot Company

Country: Australia

Launch: Mar-2003

Supermarket Brand Starts Value-Added Seafood



A
Heart-Healthy
Catch

Our delicious
imitation crabmeat
now has omega-3s

Diversity in Value-Added Seafood

1000MG OMEGA-3'S
MEGA OMEGA!TM
PER SERVING



Heinz Sopa de Pollo

Product Name: Sopa de Pollo con Vegetales Mixtos

Country of Origin: Venezuela

Manufacturer: Heinz



Hearty Mini Flakes

Ingredients:

Enriched Wheat Flour (contains Niacin, reduced Iron, Thiamine Mononitrate (Vitamin B1) Riboflavin (Vitamin B2)) partially hydrogenated Vegetable Fat, Coconut Oil, Malt, Salt, Sodium Bicarbonate, Sugar, Milk Powder, Yeast and **Omega-3**

Health Claim:

Omega-3 fatty acids are essential in helping to maintain a healthy heart.

They may help reduce the risk of heart disease, thereby making them an important part of a healthy diet



Milna Toddler Biscuits

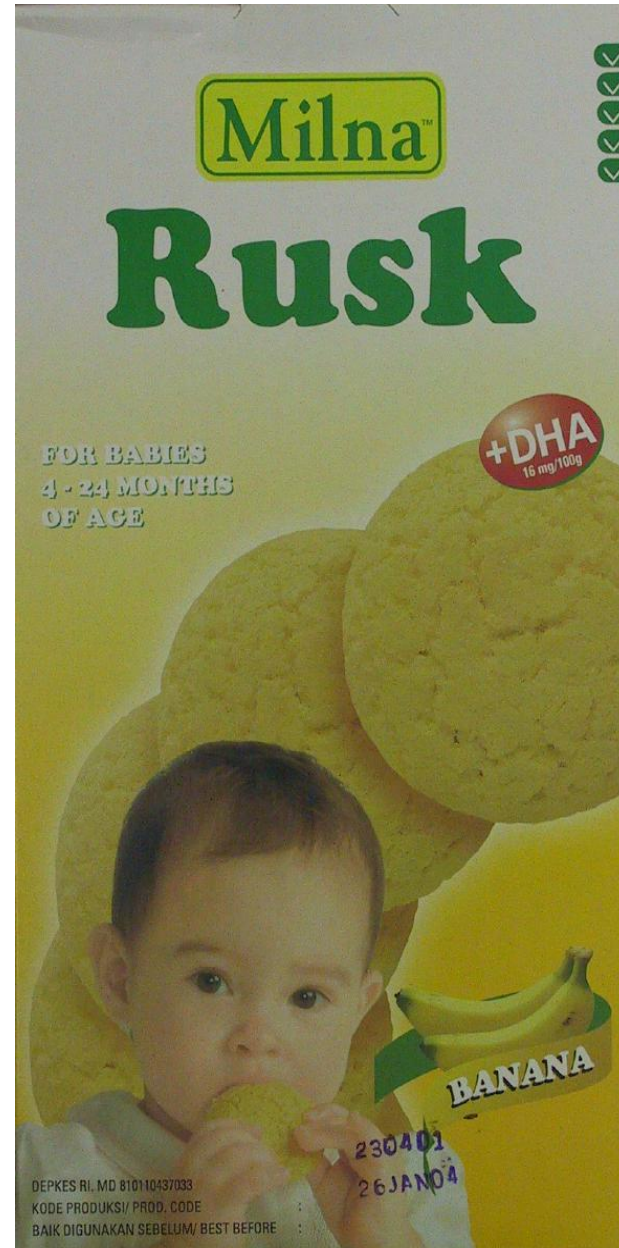


Milna Rusk Biscuits

Ingredients:

Wheat Flour, Sugar, Banana, Vegetable oil, Ammonium Bicarbonate, Calcium Carbonate, Emulsifier, **DHA** Iron and Vitamins

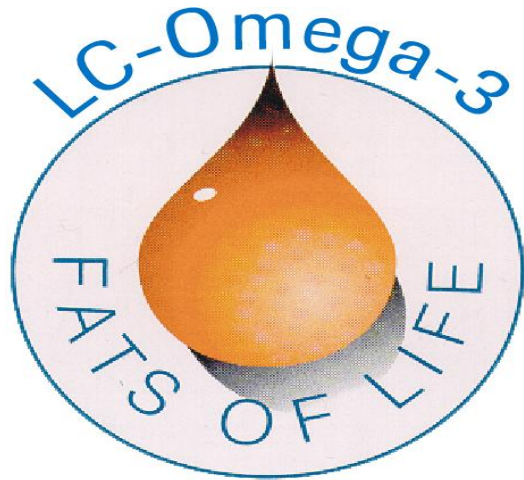
Claim: this healthy snack helps to promote brain development, facilitates growth of teeth and train your baby to feed himself



Summary

Developing new ingredients and foods takes:

- Time
- Science
- Government support
- NGO support
- Consumer awareness
- Food companies willing to launch foods
- MONEY



Thank you



Ceres Consulting



Contact location:

ian@ceresconsulting.com

905-471-3173