

JAPAN - NEW ZEALAND FOOD EXPORT ROUNDTABLE

31, MARCH, 2015, AUCKLAND

**Japan/NZ Functional Food
Collaboration and the Potential
for Joint Product development for
Japan and third markets**

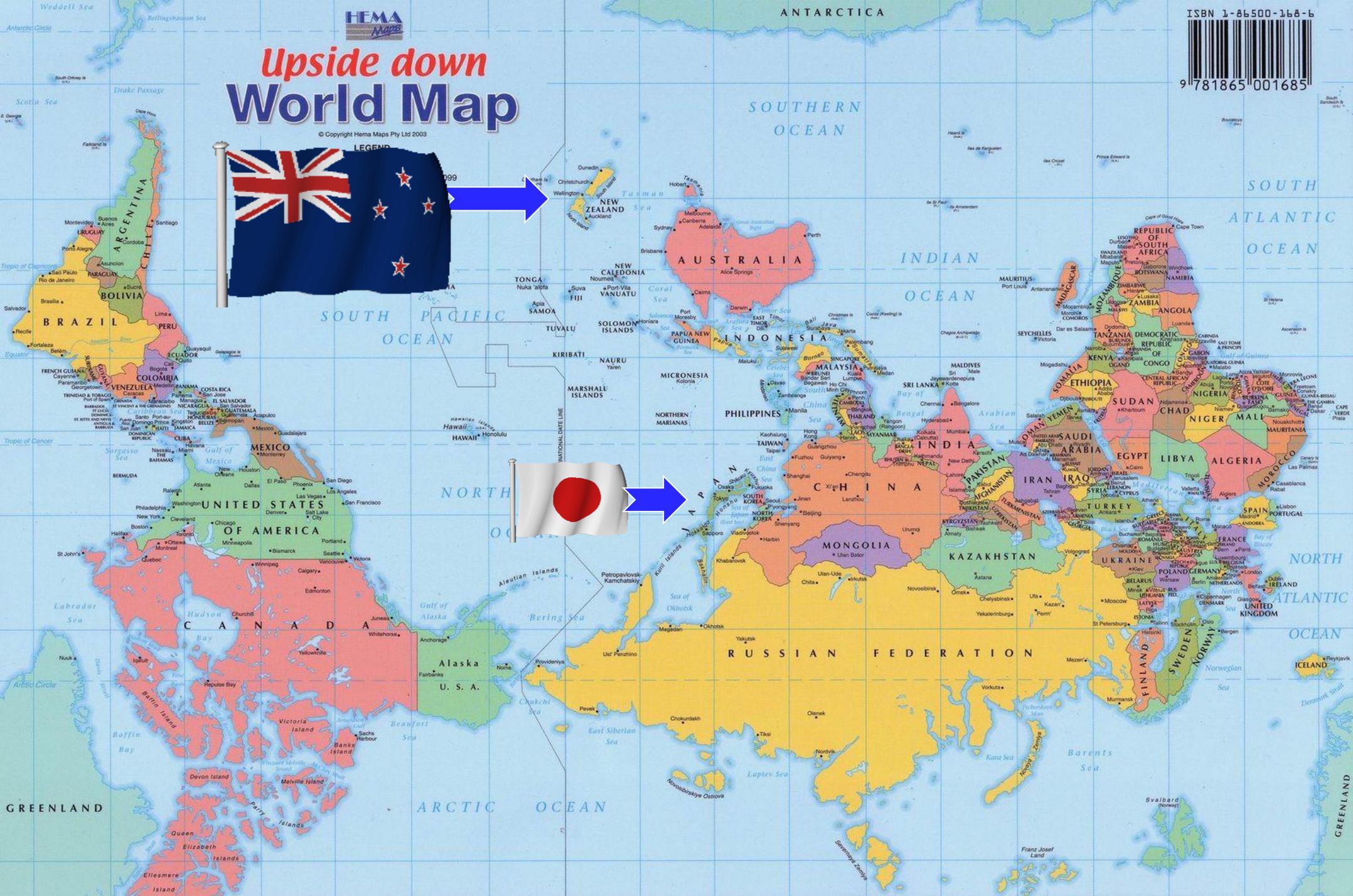


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Upside down World Map

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LEGEND

Upside down World Map



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ISBN 1-86500-198-6

Anti-aging and Healthy Long Life in an age of a Declining birth rate and Aging population



Apple Type



Visceral fat

Danger!

Pear Type



Subcutaneous fat

Preventive Medicine With Nutrition, Exercise and Rest, and the Role of "Functional Food"

Nutrition:

Balanced meals
Health food
Functional "oyatsu"

Exercise:

Sports promotion
Anti-fatigue = Stamina
Improvement of motor
function

Rest:

High-quality sleep
Recovery from fatigue
Over-compensation
from extreme fatigue

Locomotive syndrome
(surgical/orthopedic)

Provision for not being
bed-bound

Metabolic syndrome
(specific health
checkup)(internal/endocrine)

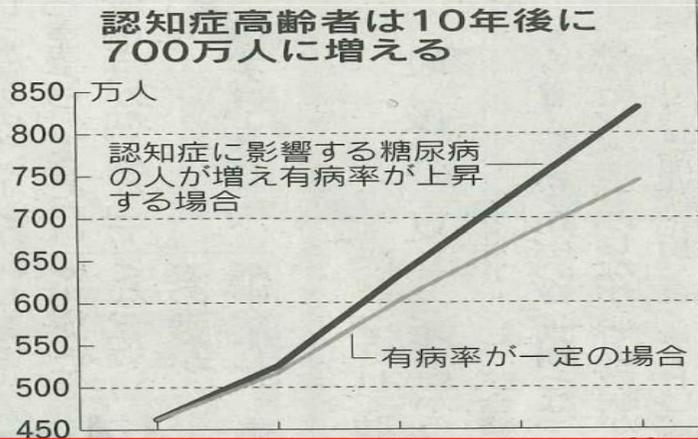
Countermeasure against
Lifestyle-related disease (counseling)

**Nation's Health , Economic Well-being,
and Less Medical Care Cost**

認知症、25年に700万人

65歳以上の2割

厚生労働省は7日、10年後の2025年
認知症の高齢者が700万人になるとする
値を示し、省庁を超えて取り組む国家戦略
明らかにした。目指すのは、住み慣れた地
暮らし続けられる社会の実現。早期の診断
療の体制を整備し、本人や家族が必要とす
援の拡充を図る。戦略案は月内に政府とし
定し、来年度以降の施策に生かす。



Estimated dementia patients
In Japan : 7,000,000
(current NZ population: 4.5m)

認知症高齢者の推計が一体となった見守り体制を全国に整備。交通事

は、福岡県久山町の住民
から
故を防ぐための高齢者へ
断の訪問指導、詐欺などの
省研
被害に遭わないようにす
塊の
るための相談体制を設け
る25
者
「認知症の人は症状を
自覚しても将来への不安
12年
などから診察を受けるこ
推計
とに二足を踏んでしま
1・
うケースが多い」(医療
通し
関係者)とされるほか、
専門医や相談窓口の不足
病床や
も指摘される。
こも予
このため戦略案では、
17年度までに早期診断に
たな戦
必要な研修をかりつけ
状態に
医6万人に受講してもら
れた地
う計画を明記。13年度か
つしを
大現す
ら始まった現行の5カ年
と
計画(オレンジプラン)
から目標値を1万人引き
で行
上げた。
先見・
歯科医師や薬剤師など
住民
幅広い医療従事者にも診

Functions of Food

Primary
function

nutrients: energy source, and maintenance and development of the body

Secondary
function

preference: taste, flavor, color, texture, shape, size, etc. perceived by sensory organs

Tertiary
function

adjustment: fixing physiological functions of the body upon ingestion



Functional Food

Requirements of Health Food

1. Evidence

sufficient evidence of effectiveness
provided significant pharmacological
difference in clinical trials shown

2. Safety

safety ensured

- history of safe consumption preferred

3. Mechanism

functional mechanism defined or
estimated

Safety and Function of Nutraceuticals



Nutraceuticals/Health Food: Situations Overseas and Governmental Point of View

1. Efficacy: Demand for Scientific Evidence
Health Claims
Labeling
2. Safety: Verification
Specification of Maximum Intake Level
Obligation of Adverse Reaction Reporting
and Information Sharing
3. Quality: GMP (Good Manufacturing Practice)
Indication of Allergic Substance, and
Carcinogenic material
4. Information Service and Consumer Education

Conditions Required for the Security of Nutraceuticals - from the Point of Risk Analysis -

Scientific Information and Risk Analysis - Adequate Application -

1. **Risk Assessment** : provision of the product which is confirmed 'safe' based on scientific evidence
2. **Risk Management** : approval of the product by the relevant regulations
3. **Risk Communication** : understanding of the product's safety by customers and its introduction into their dietary habits without worry

Health Trend and Future Direction of “Health Food with Functional Claims” of the New Labelling System



How can products claim health benefits in Japan?



	Drugs (including quasi-drugs)	Foods with Health Benefit Claims			General Foods including so-called Health Foods
		Foods for Specified Health Uses (FOSHU)	NEW Foods with Functional Claims	Foods with Nutrient Function Claims(FNFC)	
Characteristics	Approval per product	Approval and registration per finished product	Pre-launch notification (Company's responsibility)	Standardized regulation; (12 vitamins and 5 minerals only)	-
Allowed Claims	Approved medicinal claims	Approved and registered health benefit claims	Functional claims of health benefit on ingredient (<u>No disease claim</u>)	Functional claims of the nutrients	None
Laws & regulations	Pharmaceutical Law	Pharmaceutical law, Food Sanitation Law, Health Promotion Act, Food Labeling Law(NEW)			
		(For PR and advertisement) Law for Preventing Unjustifiable Extra or Unexpected Benefit and Misleading Representation, Act on Specified Commercial Transactions, JAS Act			

Approved claims for FOSHU

TARGET CONDITIONS

APPROVED CLAIMS

Intestinal Health

This is a product which increases the number of bifidus in the intestine and maintains your intestinal health.

Cholesterol

Isolated soy protein, which helps lower cholesterol, is added to this product. It helps change the diet of people who like meat but are concerned about cholesterol.

Triglyceride/Body Fat

This product contains XXX and XXX, which decrease triglycerides; therefore, it is suitable for those who are concerned about triglycerides.

Blood Pressure

This product contains XXX and is good for people whose have slightly high blood pressure.

Blood Sugar

This product contains dietary fiber, which moderates the absorption of sugar and helps change the diet of people who have become concerned about their blood sugar level.

Bone Health

This product contains CPP and promotes the absorption of calcium. It is good for supplementing calcium intake, which tends to be deficient in meals

Dental Health

This product contains sweeteners (XXX and XXX) that are not cavity-causing. In addition, it contains XXX, XXX, and XXX, which help recalcify teeth allowing them to remain strong and healthy.

Regulatory Reform and “Health Food with Functional Claims”, of The New Labelling System in 2015

- ★ System designed to ensure safety
- ★ Efficacy guaranteed by producers / rational and informed choice by the consumer (avoiding false recognition)
- ★ Security crackdown of malicious labeling, misleading advertisement and marketing methods
- ★ Promotion in understanding of healthy diet
- ★ Consumer education/edification and information transmission for safe usage of functional food
- ★ Self-regulated by producers (Govt assumes no responsibility)

Labeling examples of functionality of “Health Food with Functional Claims”

Clinical trials conducted with final products	This product contains A (a functional ingredient), thus it has health benefit B.
Review of final products	This product contains A (a functional ingredient), and it has been reported to have health benefit B.
Review of functional ingredients	This product contains a functional ingredient A. A has been reported to have health benefit B.

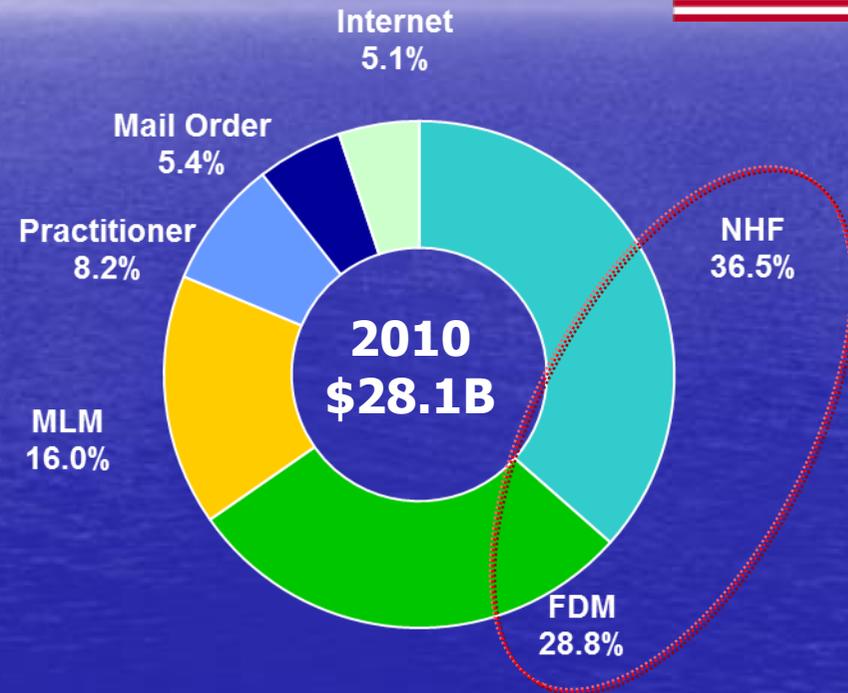
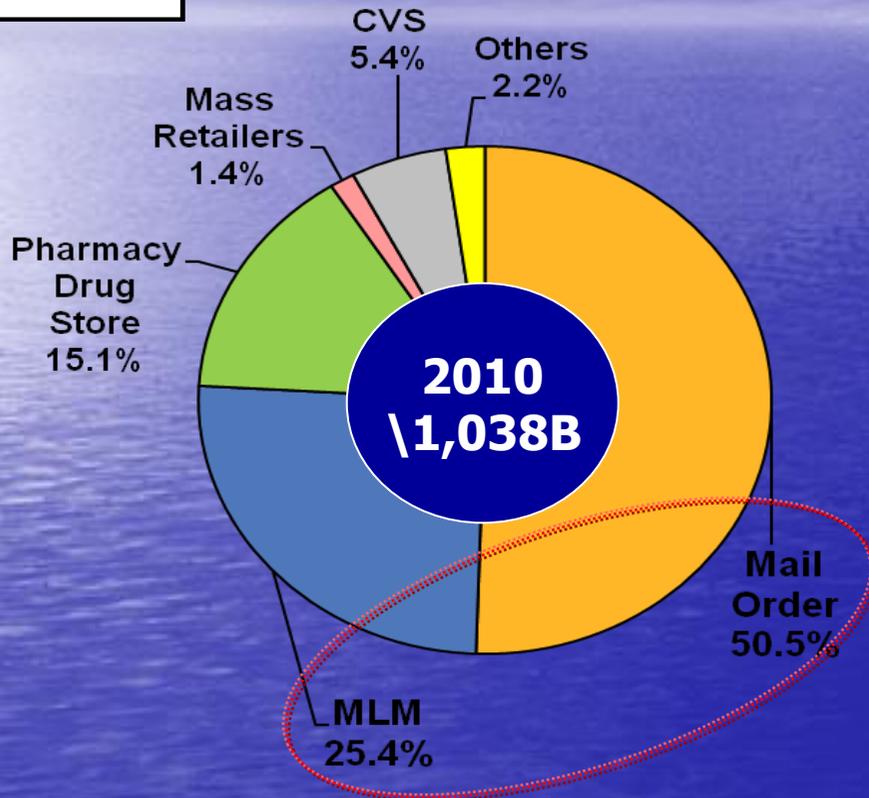


MARKET TREND

Dietary Supplement channel comparison : Japan and US



Dietary Supplement

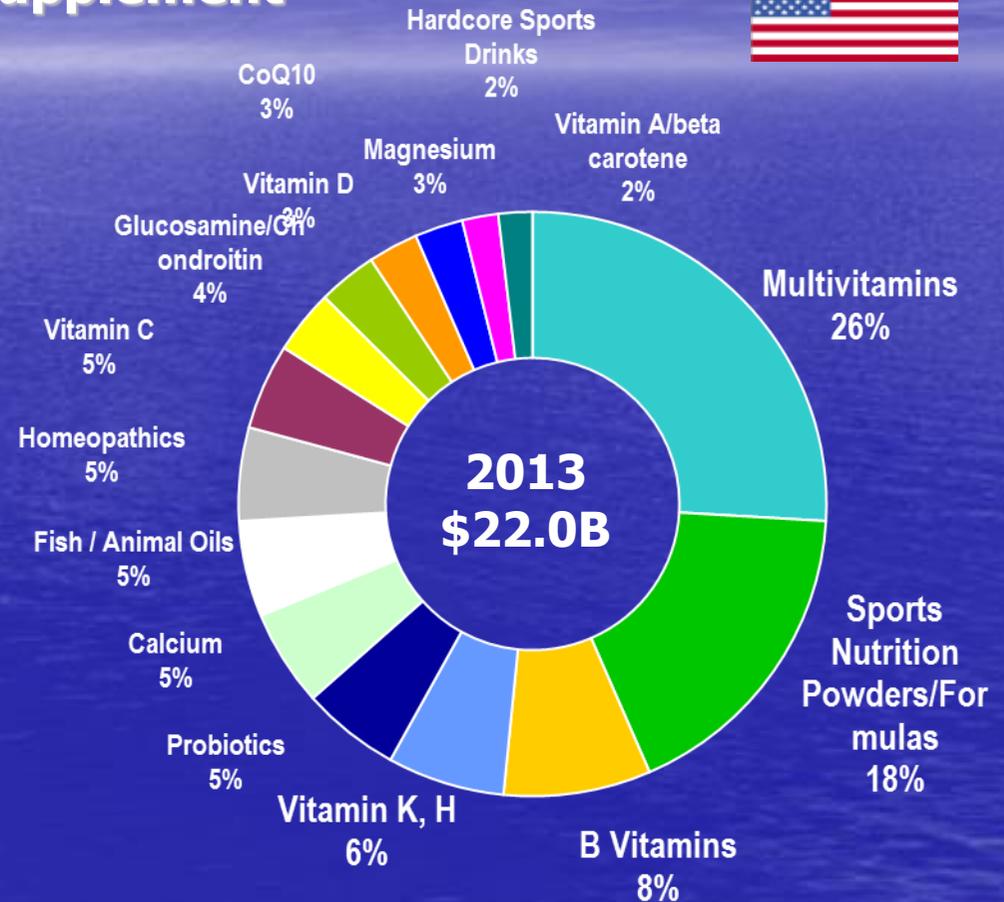
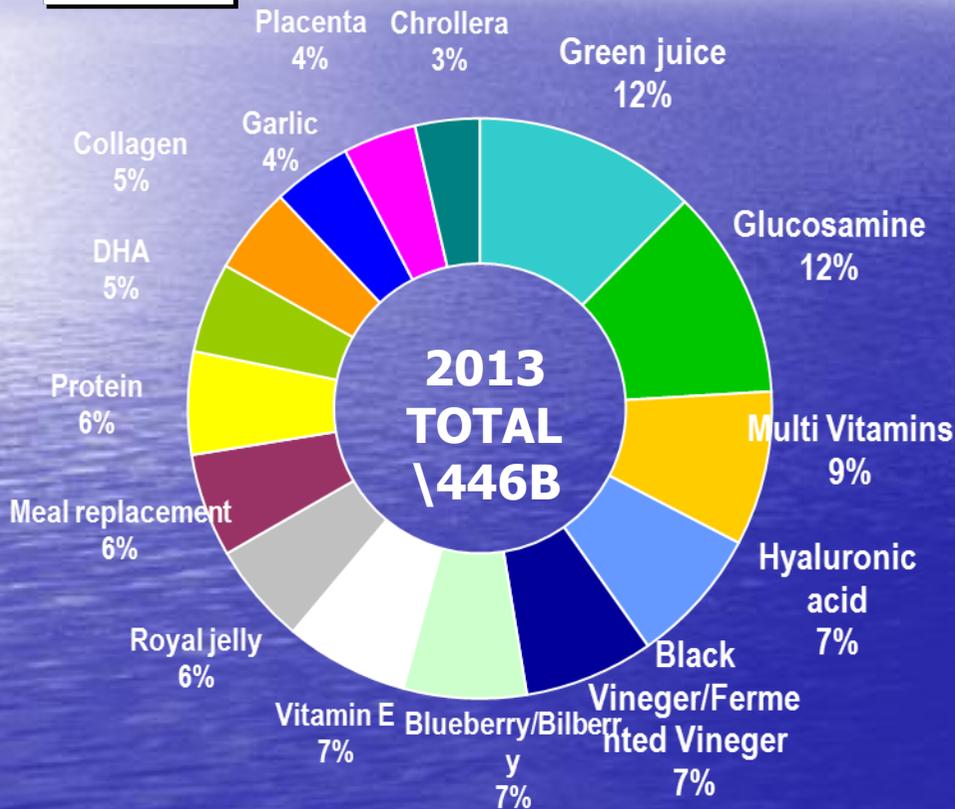


Direct channel dominates 76% of dietary supplant category. On the other hand, retail stores are main channel of dietary supplement market in the US.

Top 15 Dietary Supplement Ingredients : Japan and US



Dietary Supplement

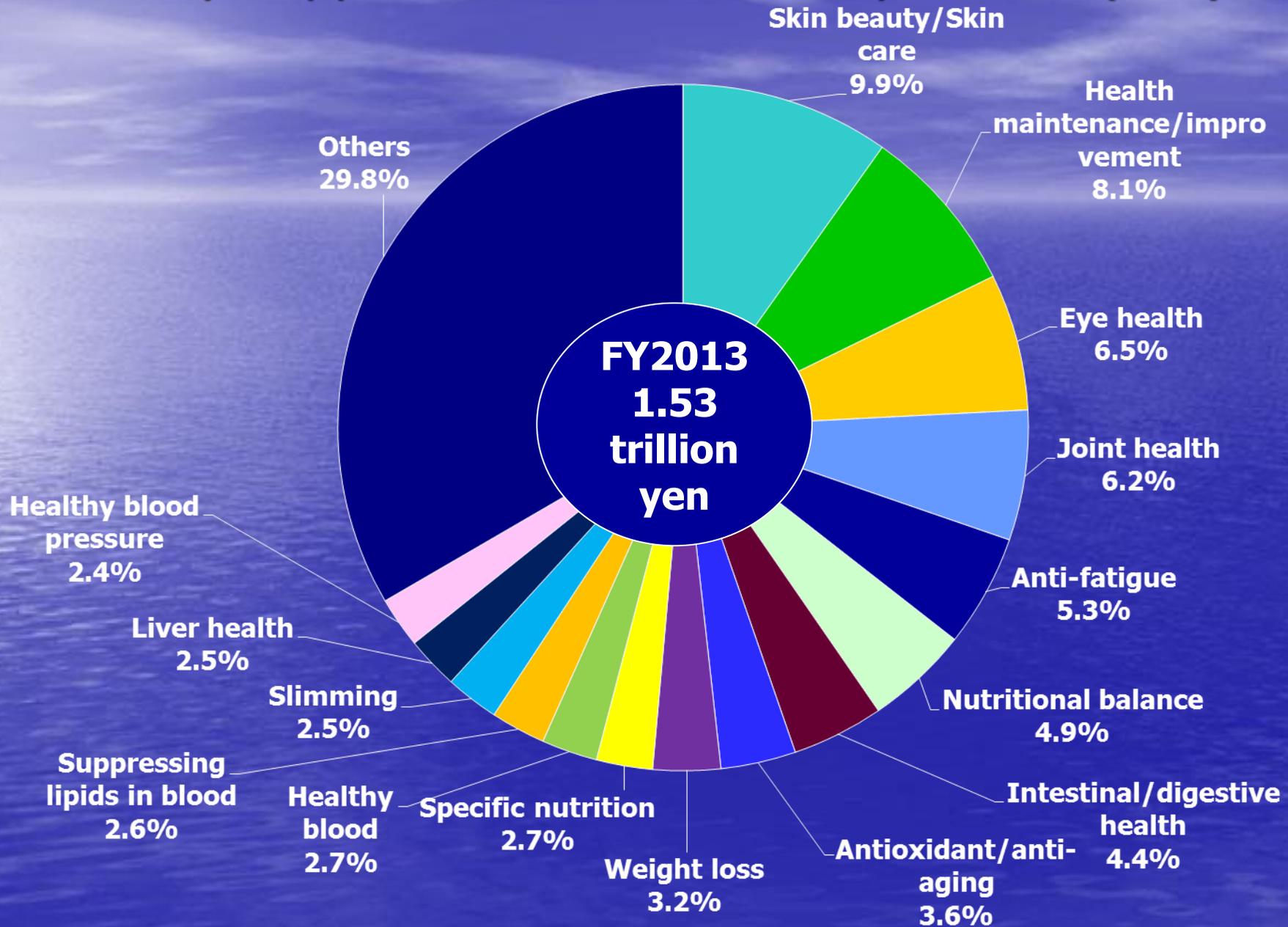




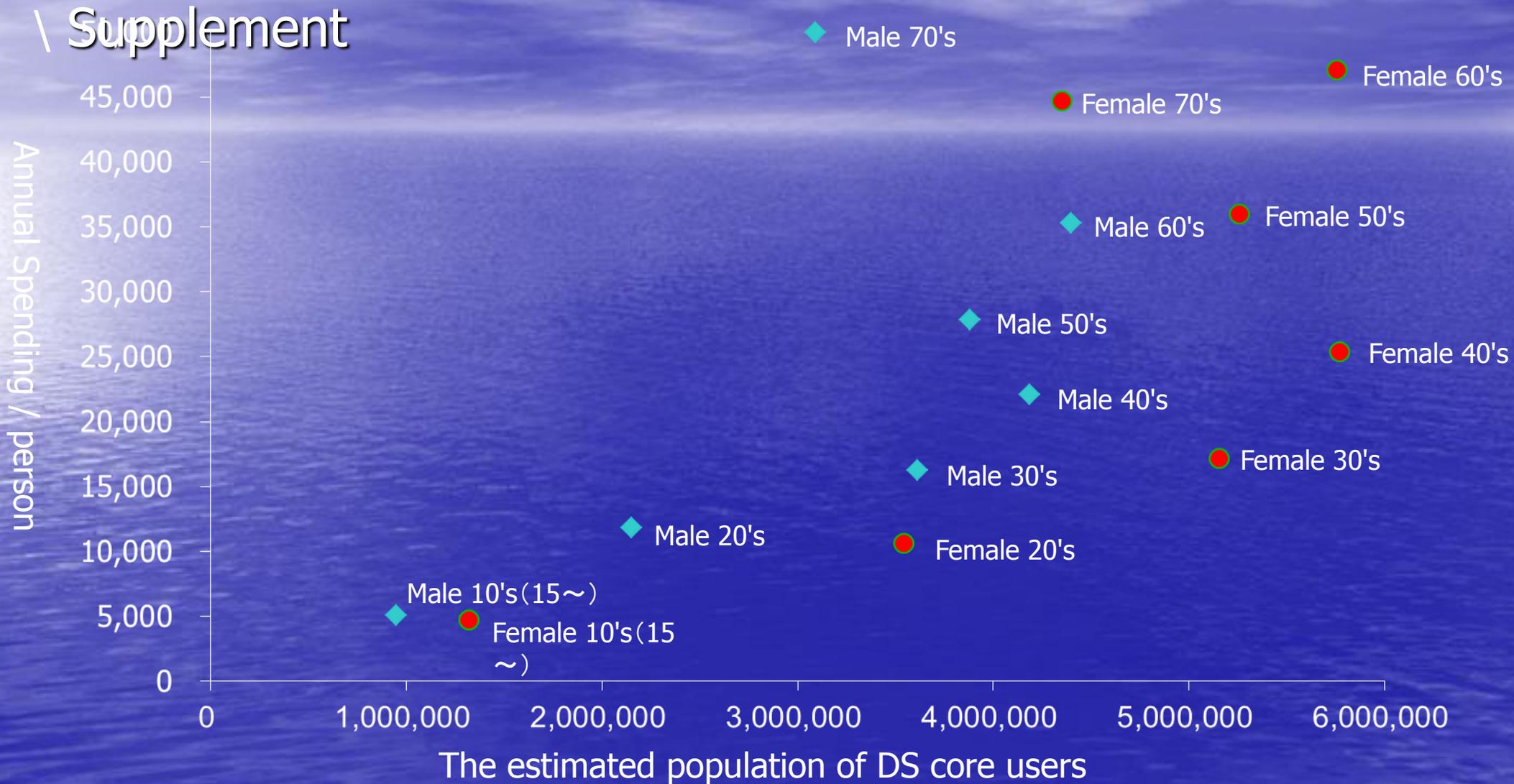
Report by intage inc.

CONSUMER TREND

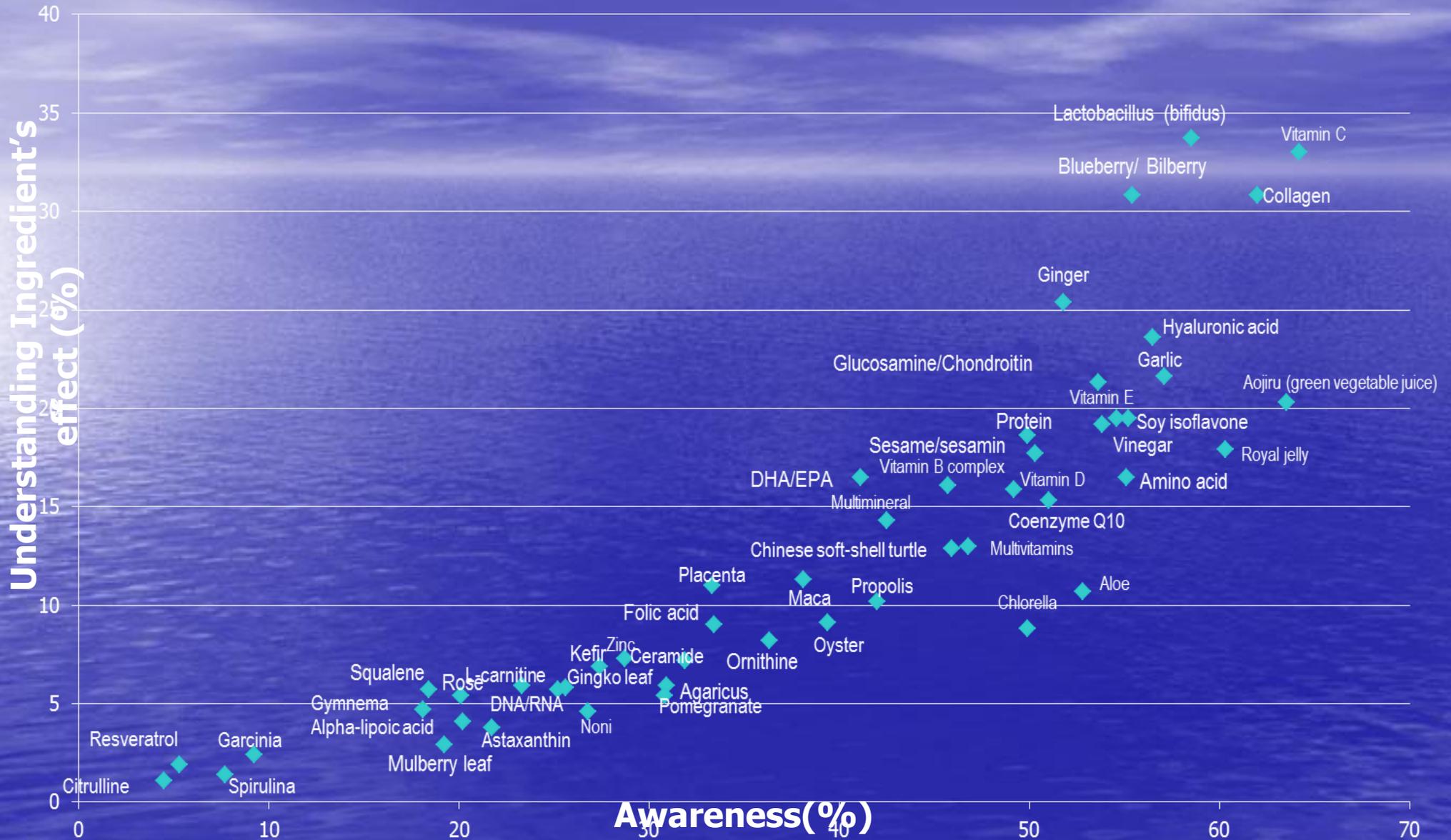
Dietary Supplement Market Size by Volume(Est.)



of Core Users and Annual Spending on Dietary Supplement



Awareness & Understanding Ingredient's effect



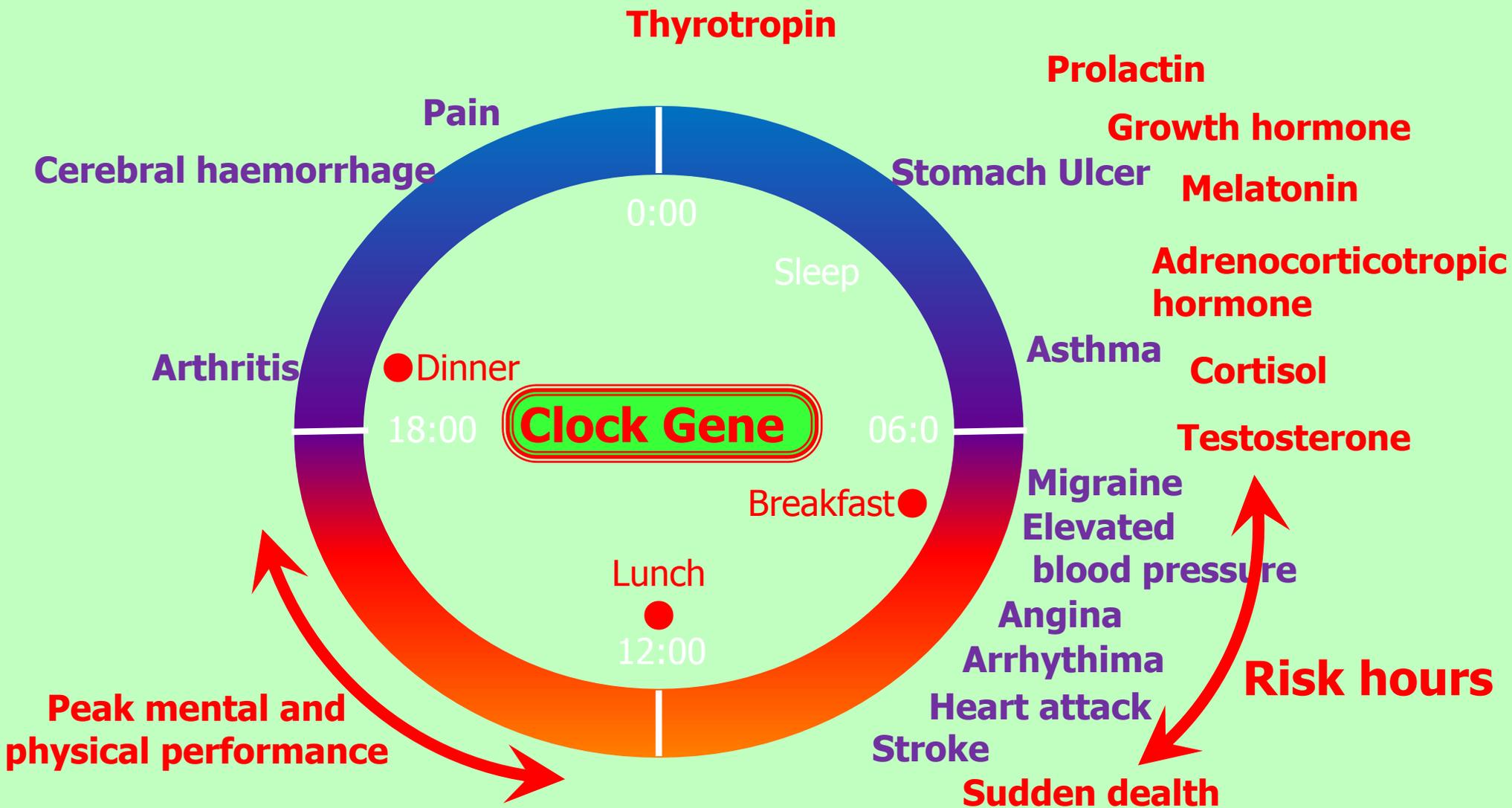
Classification of Functional Food

1. Antioxidant constituent
2. Brain food (improvement of brain function)
3. Prevention of circulatory disease (metabolic syndrome)
4. Prevention of disease of bone/joint metabolism (locomotive syndrome)
5. Improvement of bowel function
6. Immunostimulation
7. Anti-allergy/anti-inflammation
8. Improvement in vision
9. Anti-fatigue/increased endurance
10. Improvement in hepatic function
11. Prevention of carcinogenesis
12. Antibacteria/antifungus/antivirus
13. Smooth skin/beauty/hair growth
14. Sex hormone-like activity
15. Mood food (improvement of emotion/sleep)

Scientific Technology supporting Future Health Food

- ◆ **Global analysis of biological response against nutraceutical elements (Nutrigenomics)**
- ◆ **Analysis of biomolecule cognizing nutraceutical elements (Chemical biology)**
- ◆ **Absorbability of nutraceutical elements and analysis of metabolite (high-sensitive structural analysis technique)**
- ◆ **Epigenetics (chemical modification of gene)**
- ◆ **Chrono-nutrition**

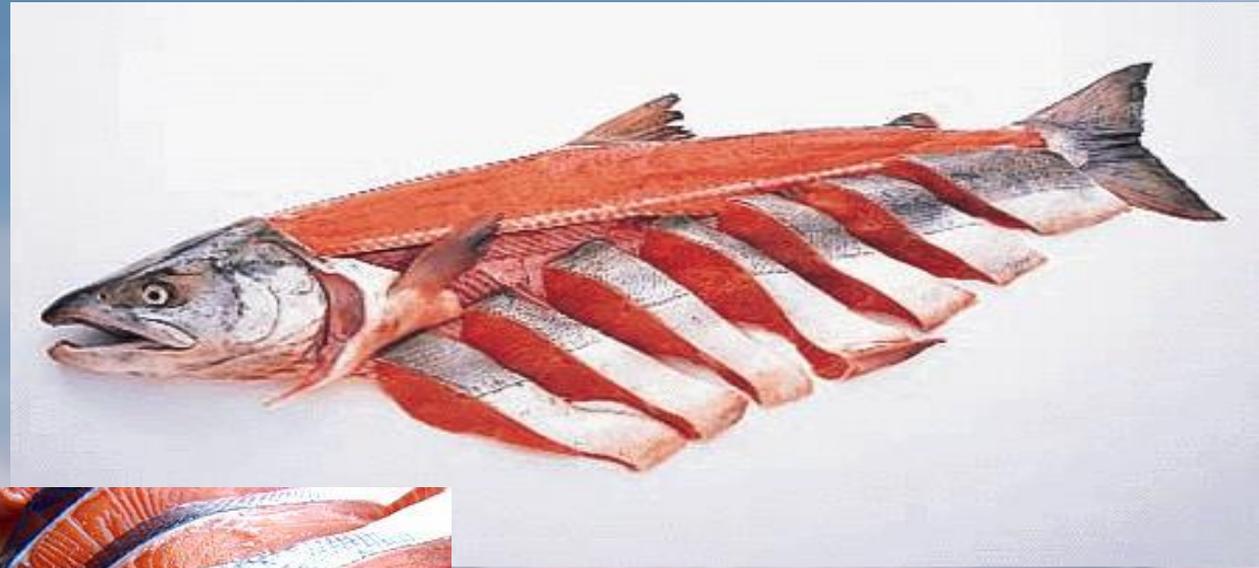
Human physiology and disease onset circadian rhythm



High-quality functional food ingredients in NZ



Astaxanthin in Sea Foods

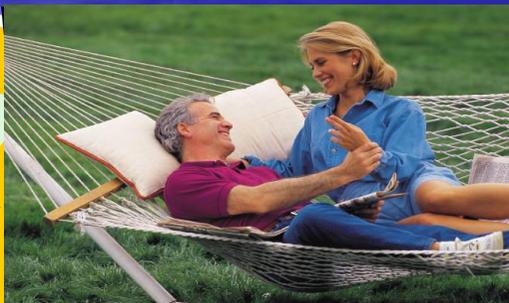


Astaxanthin Egg



BIOLOGICAL ACTIVITIES OF ASTAXANTHIN

Antioxidant	Potent singlet oxygen quenching and anti-lipid peroxidation activity.
Anti-inflammatory	Inhibition of cytokines and chemokines expression suppressing NF-kB activation
Eye Health	Eye fatigue , Visual acuity , Diabetic cataracts.
Sports Related	Muscle endurance and damage , Sports vision .
Life-style Related Diseases	Hypertension , LDL cholesterol, H. pylori , Diabetes & Diabetic nephropathy , Metabolic syndrome .
Personal Care	Anti-wrinkle (topical & within), Photo protectant, Melanin-inhibitor, Anti-hyperpigmentation.



Greenlipped Mussel



Sea Vegetables (Seaweeds)

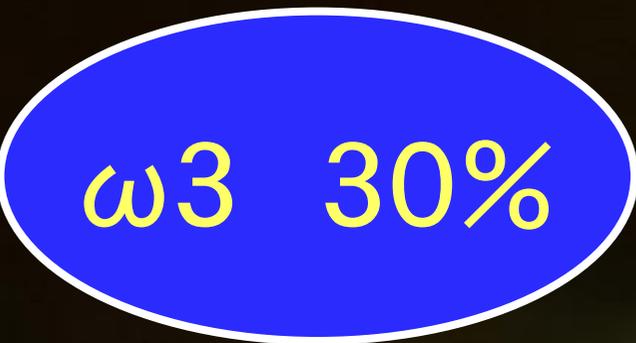


Krill Oil

Phospholipids
40%

ω 3 30%

Astaxanthin



ナンキョクオキアミ



“ OYATSU ”
(Snacking)
supporting Health Food
and Preventive Medicine



Role of "functional OYATSU / SNACKING"

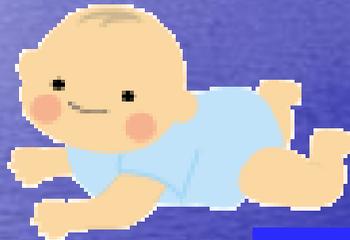
① pregnant and nursing mothers

Supplemental OYATSU for babies and mothers



② babies / toddlers

Nutrient-enriched OYATSU for brain/body growth



③ students

Good OYATSU for improvement of sport/study performance



④ adolescents

Supporting OYATSU for active mind and body



⑥ middle aged/housewives

Balanced OYATSU for metabolic syndrome prevention



⑦ elderly people

Preventive OYATSU for lifestyle-related disease



⑤ female office workers

"Beautifying" OYATSU (as small snacks)

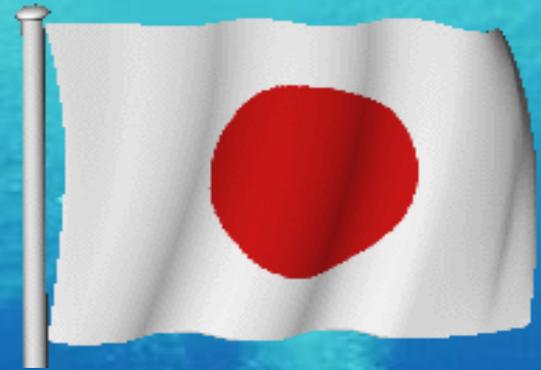


DHA-containing yogurt as "functional OYATSU"



Available at
convenience-stores or
home delivery, used
in hospital diets

DHA	830mg
EPA	230mg



Conclusion and Proposal



Japan - New Zealand functional food R&D collaboration opportunities

1. Japan and New Zealand possess complementary R&D capabilities.
 - NZ: High-quality functional food ingredients and agricultural science (GAP/GMP)
 - Japan: Advanced functional food product R&D expertise (GMP/GLP/GCP), with strong interest in collaborating with NZ
2. Japan's functional food interests (response to ageing society, anti-stress, QOL improvement) have universal appeal to other markets such as EU, the US, Asia, Russia, Africa, and South America.
3. Successful Japan-NZ partnerships have the potential for creating unique and highly sought-after "Japan-NZ" brand products (high efficacy, high quality, safe and scientifically evidenced) for world markets.
4. Japan's new functional food labelling system (2015) is likely to increase Japanese interest in the functionality of foods and stimulate consumption. The new system will also make strategic international collaboration – such as between Japan and NZ – easier and more attractive.
5. The timing is right for stronger Japan-NZ functional food R&D collaboration with a view to generating specific business partnerships for global markets.



Remember OYATSU !!

Thank you for your attention

