



Leveraging traditional knowledge and modern technology – mass market opportunities

Rinka Banerjee

Regional Technology Director, Foods South Asia

Hindustan Unilever Limited

FOODWORLD INDIA 2011

Mumbai



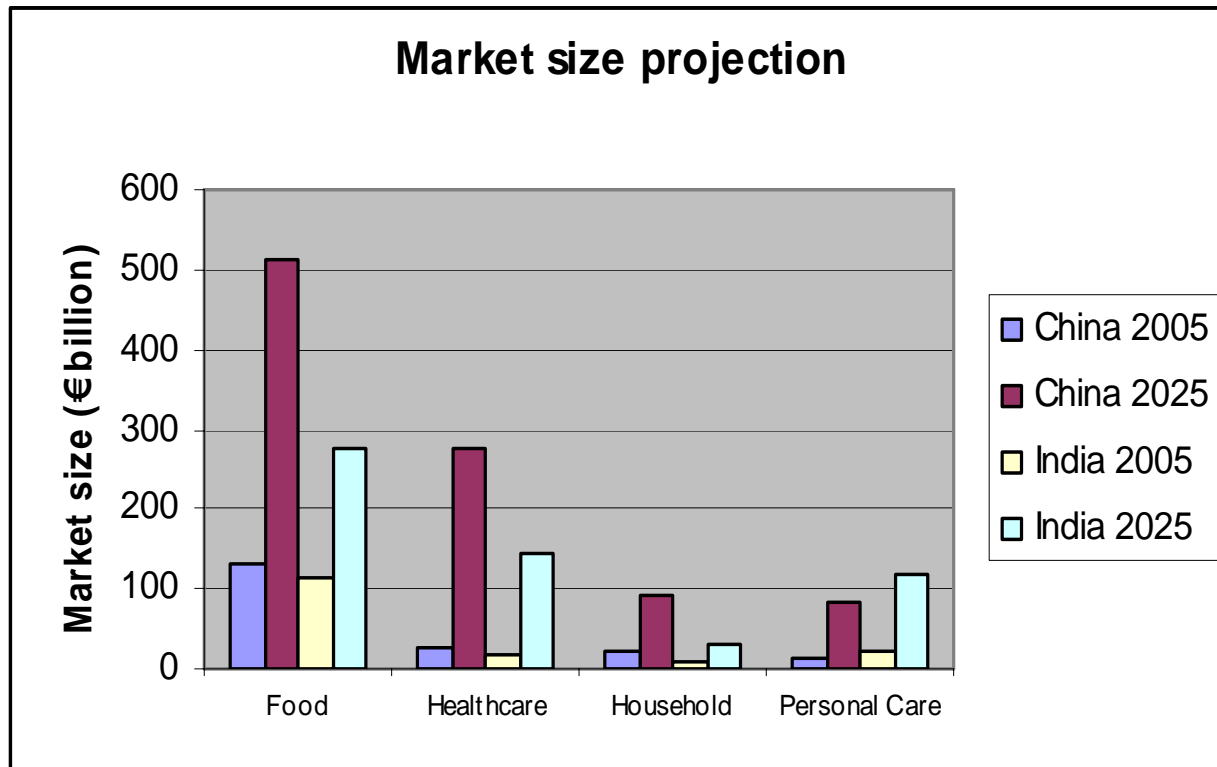
What will I talk about



- **What are the opportunity drivers**
 - **Leveraging tradition & technology - case**
 - **What challenges need resolving**
- 

Foods & Health - large business opportunities

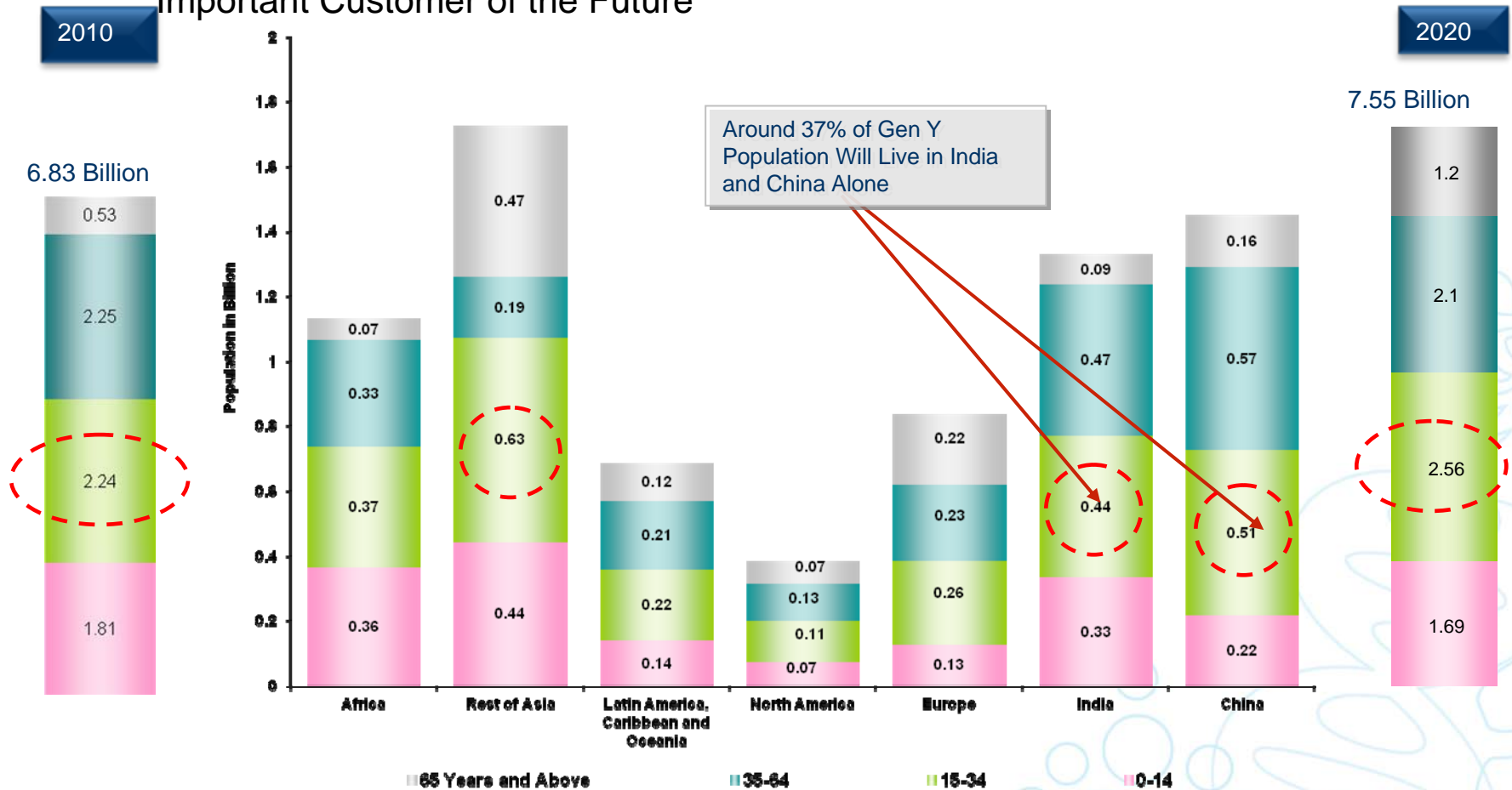
Food and Health Care are among the biggest source of business. Currently, 90% of Foods spending in India is un-branded.



Source: McKinsey Global Institute Analysis

Key Customers

World Population in 2020 : 2.56 Billion Population in Age Group 15 to 34 (currently Gen Y)
Important Customer of the Future



World Population: Breakdown by Region (Global), 2020

Note: Gen Y : Population between 15 – 34 Years today

Source: US Census Bureau, 2010 and Department of Economic and Social Affairs of the United Nations, Frost & Sullivan

Key Trends towards Health



Q: Which of the following concerns you personally or another in your household:

Top problems	North America	South America	North Europe	South Europe	China/India
1	Tiredness, 42%	Overweight, 22%	Tiredness, 26%	Overweight, 19%	Frequent colds/flu, 35%
2	Stress, 40%	Stress, 21%	Stress, 25%	Frequent colds/flu, 12%	Tiredness, 34%
3	Overweight, 35%	Eye health, 21%	Overweight, 22%	Tiredness, 12%	Food allergies, 23%
4	Arthritis, 28%	Tiredness, 18%	Eye health, 15%	Stress, 12%	Stress, 21%
5	Eye health, 23%	Frequent colds/flu, 14%	Cosmetic signs of aging, 12%	High cholesterol, 11%	Gastro Intestinal problems, 21%

Tiredness and Stress, Overweight, and frequent Colds and Flu are top 3 clusters of health concerns to shoppers in every region. Other health concerns include arthritis, eye health, cosmetic signs of aging, high cholesterol, Gastro intestinal problems, and food allergies.

Nutrition transition: Indian Middle Class

Nutrition transition :

Unhealthy eating habits, intake of empty calories, overweight and obesity – Inadequate consumption of key micronutrients

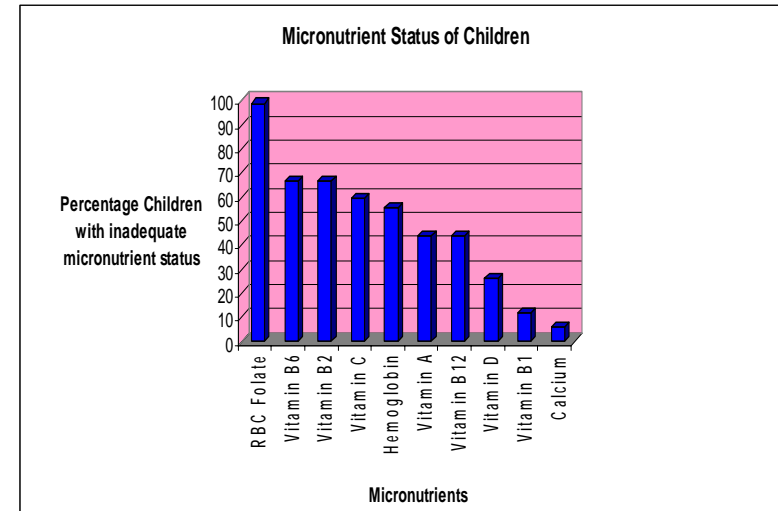
- Increased urbanisation
- Changing diets and lifestyles
- Out of home consumption, junk food
- Less physical activity
- Excess energy intake and poor quality of energy
 - Middle and High SES children, total fat and sugar intakes are twice the recommended intake
 - Prevalence of overweight: 8 - 29%
 - Prevalence of obesity: 1- 7%
- Low nutrient density of foods



Nutrient intake: Urban India- Apparently Healthy (Well fed) Children

- Multiple micronutrient deficiency co-exist even in school children belonging to middle and high income group.

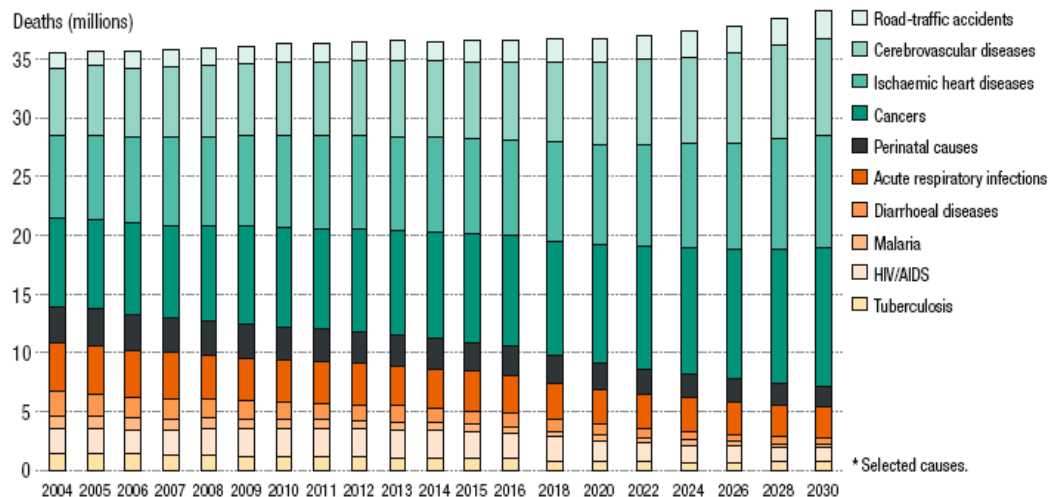
- Inadequate dietary intakes of vital nutrients like iron & other micronutrients
- High prevalence of anemia – (14 – 88%)
- Prevalence of anemia linked to low dietary intakes of iron (only 30-50% of RDA)
- 44-66% of the affluent school children has vitamin A, vitamin B2, B6, B12 and vitamin C deficiencies



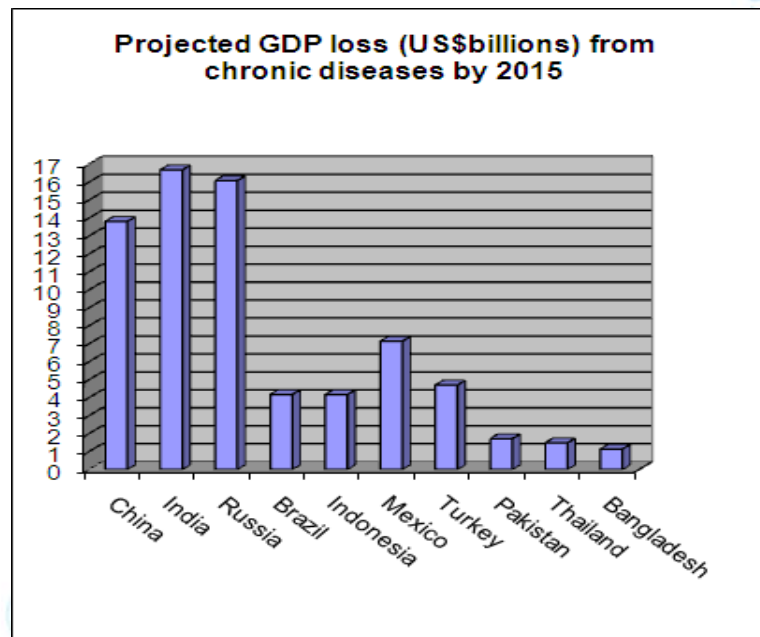
- Sub-clinical deficiencies of Iron, Folate, Vitamin B12, Vitamin A and C can be commonly seen.
- Indications that intakes of zinc is also low.
- The percentage of households receiving adequate iodized salt is only 51 %

Lifestyle diseases trends & insights

Shift towards non communicable diseases as causes of death by 2030



WHO estimates by 2015, India is set to lose a massive \$237 billion, in national income as a result of diabetes, heart disease and stroke.



Indigenous People – Food Systems

What can we learn ?



• HARRIET V. KUHNLEIN • BILL ERASMUS • DINA SPIGELSKI

Indigenous Peoples'
food systems: the many
dimensions
of culture,
diversity and
environment
for nutrition
and health



**The traditional food
systems of Indigenous
Peoples touch the full
spectrum of life in ways
that modern food systems
do not - **FAO****

Food and Agriculture Organization of the United Nations
Centre for Indigenous Peoples' Nutrition and Environment

Rome, 2009

WANG LAO JI- Cooling Tea

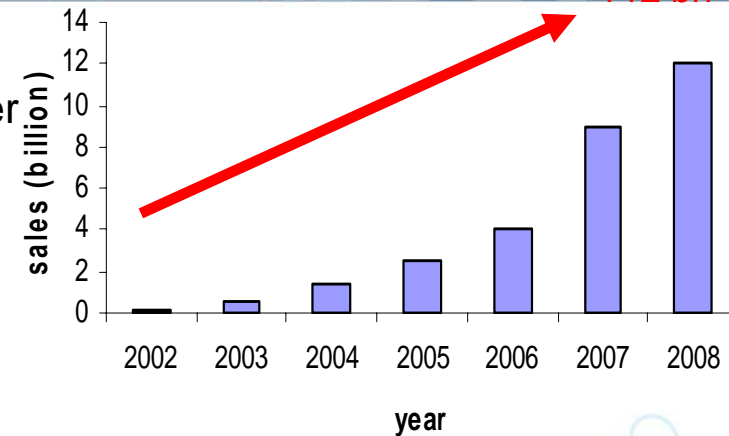


¥12 bn



R.T.D. herbal tea registered as normal foods with the soft claim “To avoid inner fire, drink Wanglaoji”.

“The most popular tin beverage in China” in the last 3 years;
 “Global food industry award” in 2010;
 80% MTK share in “cooling tea”.



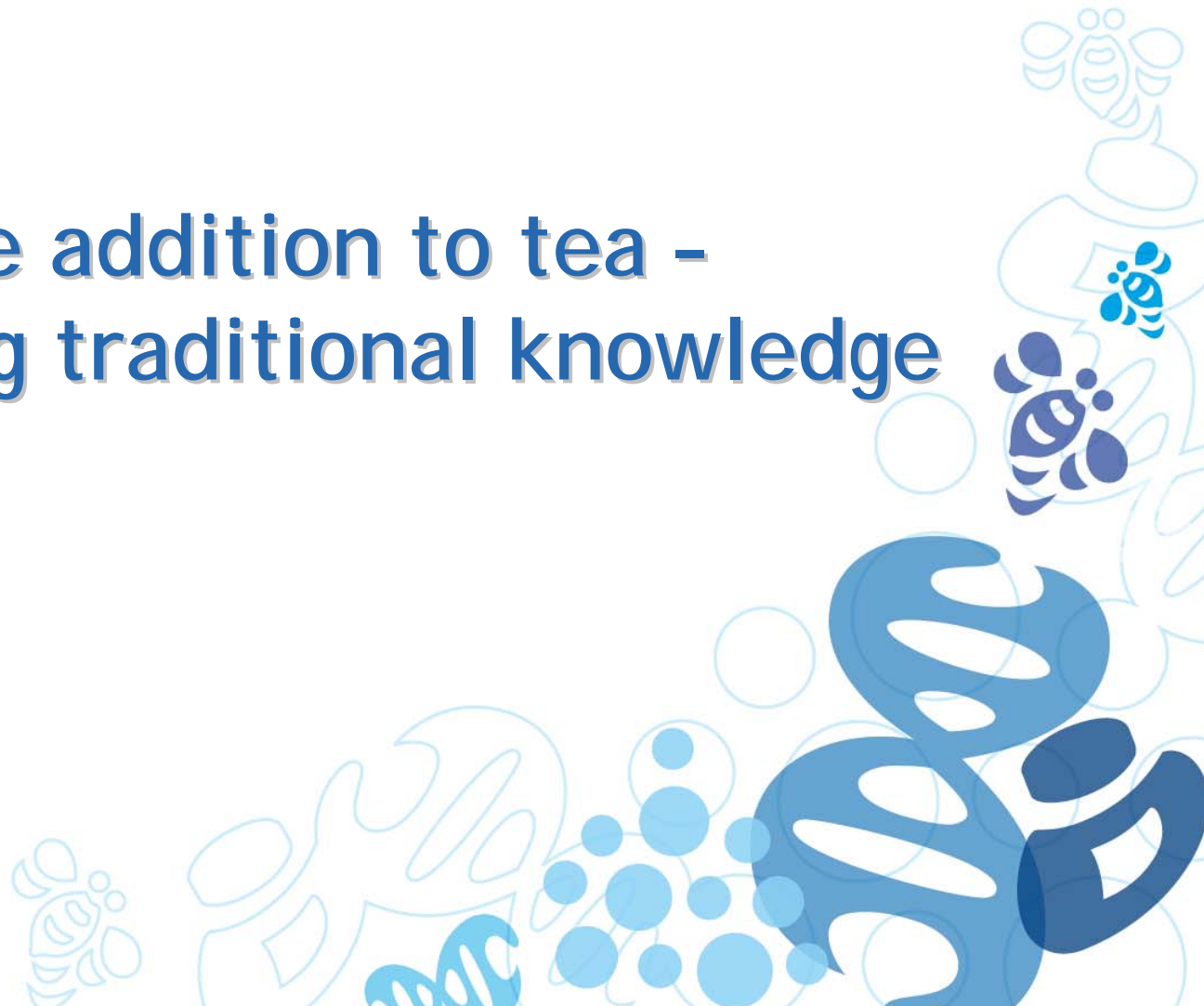
- “Inner fire” is prevalent in modern society, which is believed to be linked with environmental pollution, physical inactivity, stress, irregular life, spicy food and humidity. Cooling tea, which dated back to A.D. 306, is routinely consumed to relieve inner fire in South China, especially Guangdong province.
- “WANGLAOJI” is the cooling tea brand with more than 180-year history and had been sold in tea houses. Hong Kong Jia Duo Bao group founded the joint venture with Guangzhou Pharmaceutical Company and manufactured the first R.T.D. herbal tea in 1995. It fastens consumer’s reorganization on the “Chinese traditional wellness culture” and caters for Chinese consumers’ need on “natural & healthy” beverage.

Science behind the product

- The herbal recipe is composed of hot grass jelly, chrysanthemum, liquorice, honeysuckle, spica prunellae Plumeria rubra acutifolia and Microcos paniculata Linn.
- In the product website, it is claimed that “modern scientific evidences show that the plant flavonoids, the main active components, can prevent inner fire”.
- No available efficacy data.



Value addition to tea - Leveraging traditional knowledge





Define the consumer insight

Ayurvedic ingredients helps protect my family from common illness like cough and cold.



Target consumer : Contemporary urban homemaker who wants the best for her family's health

Some people fall ill less often than others. During change of weather some people get cough and cold while others don't which is because of immunity.

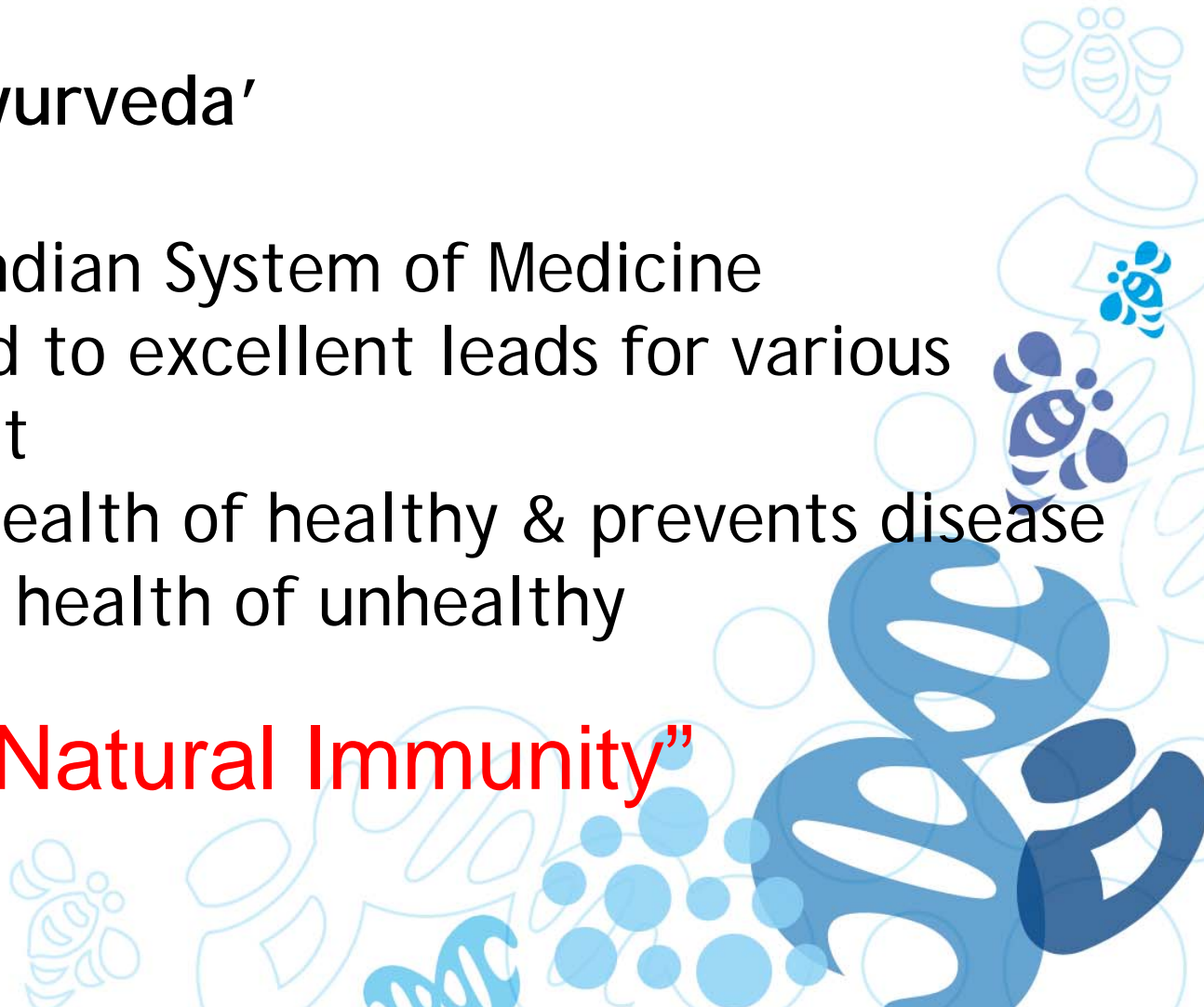


Leveraging traditional knowledge

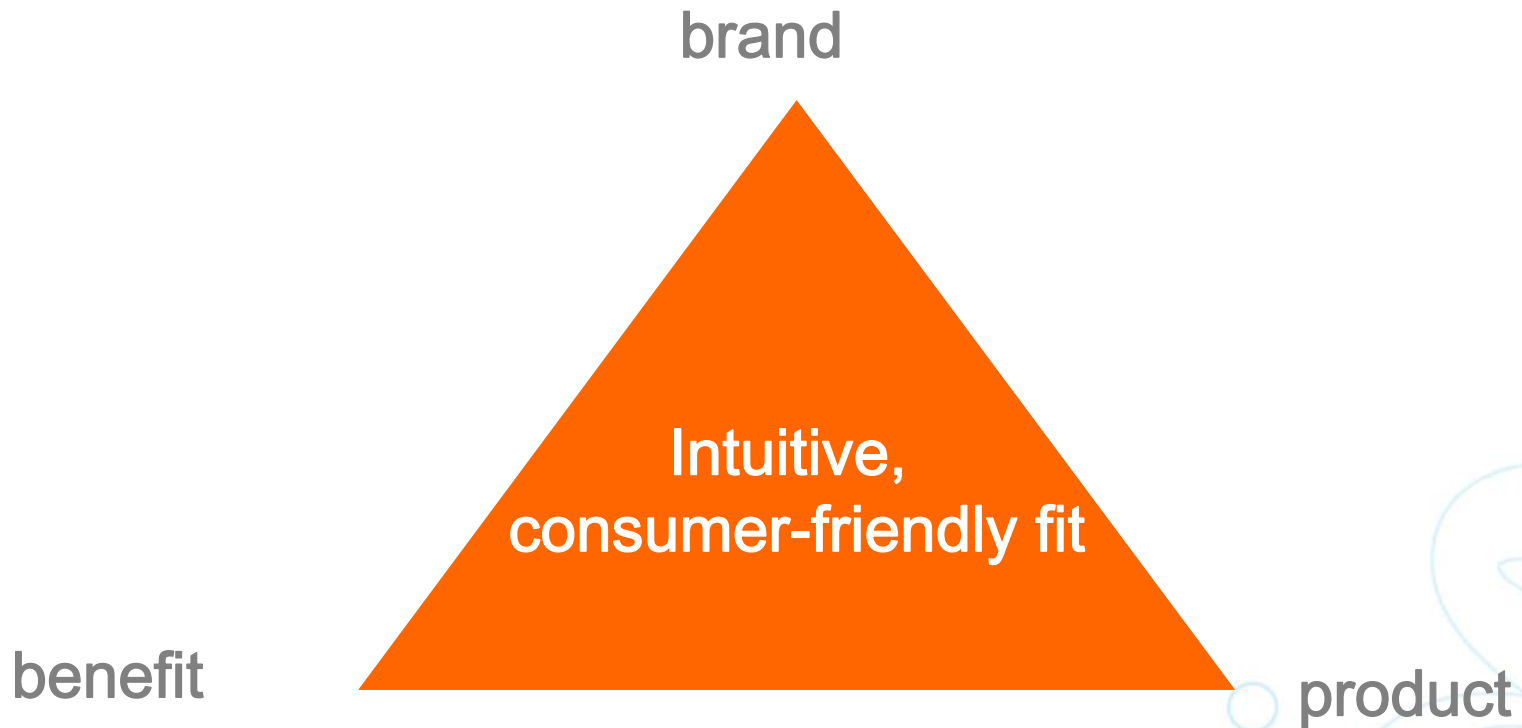
Leads from 'Ayurveda'

- Traditional Indian System of Medicine
- Provides good to excellent leads for various health benefit
- Retains the health of healthy & prevents disease
- Improves the health of unhealthy

“Boosting of Natural Immunity”



Aligning brand, product and benefit





The Product

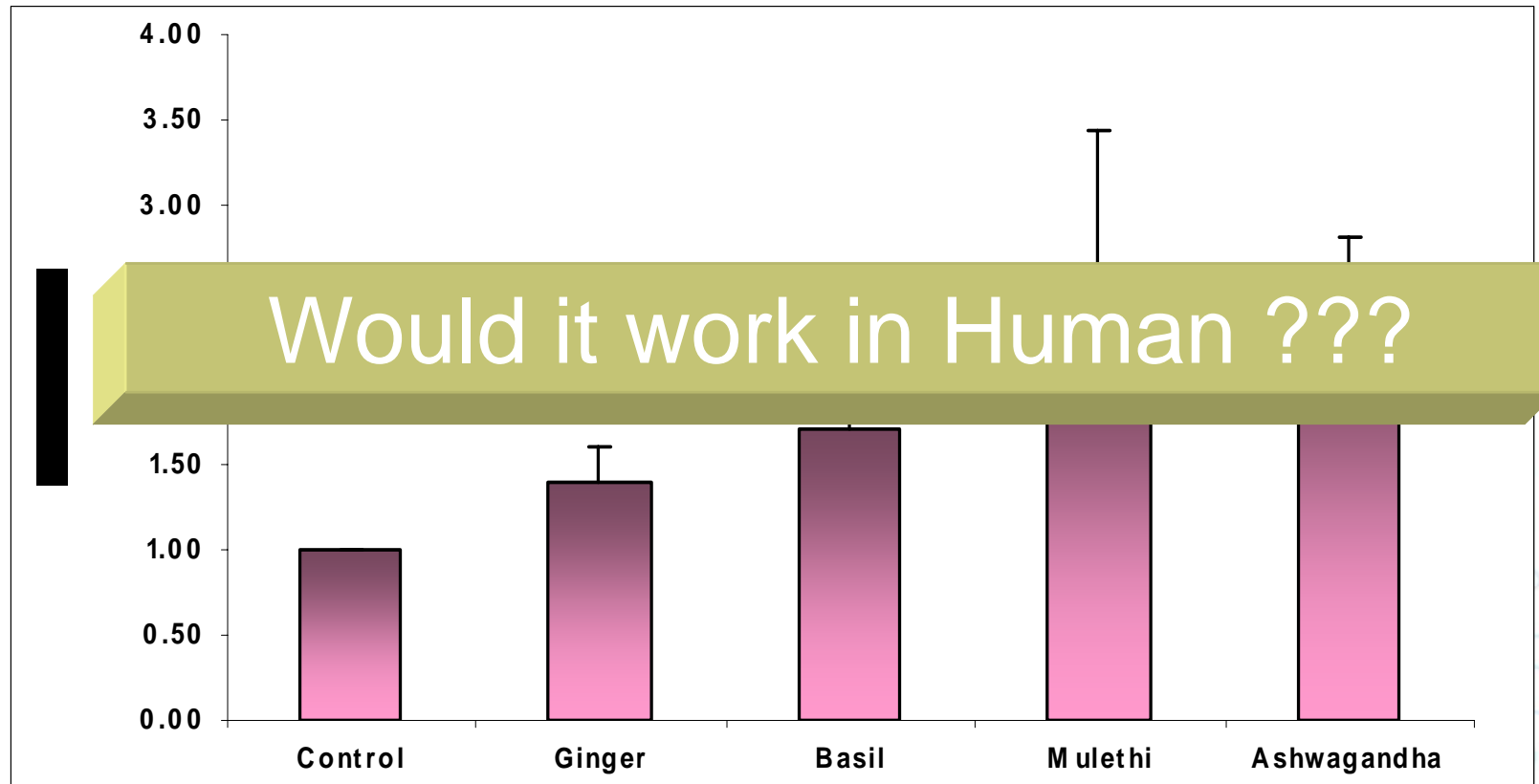


- A unique mix of 5 ayurvedic ingredients - Ashwagandha, Mulethi, Ginger, Tulsi and cardamom
- In house developed low cost technology for uniform distribution of extracts on tea
- 5 panel artwork - a packaging innovation to differentiate the ingredients to consumers



Cell Culture Based Bio-Assays

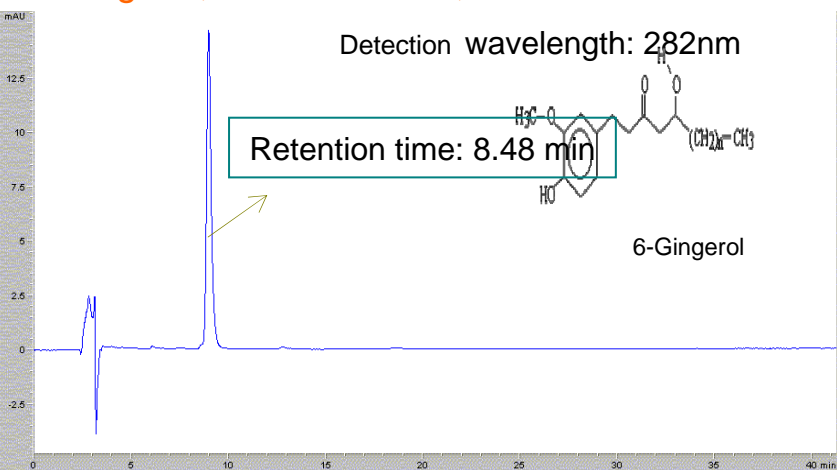
Natural Killer Cell Assay



Natural Killer cell activity enhanced by herbs *in vitro*.

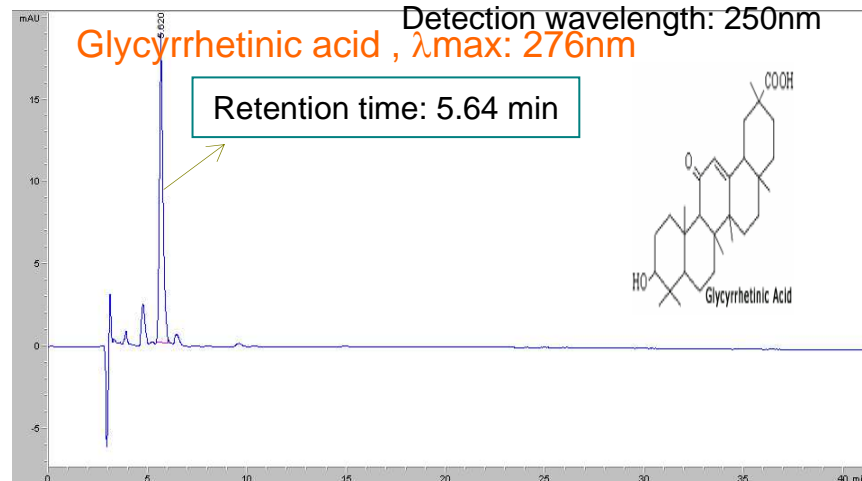
Detection of Herbs in Tea Extract

Gingerol, λ_{max} :320nm, λ_{max} :355nm

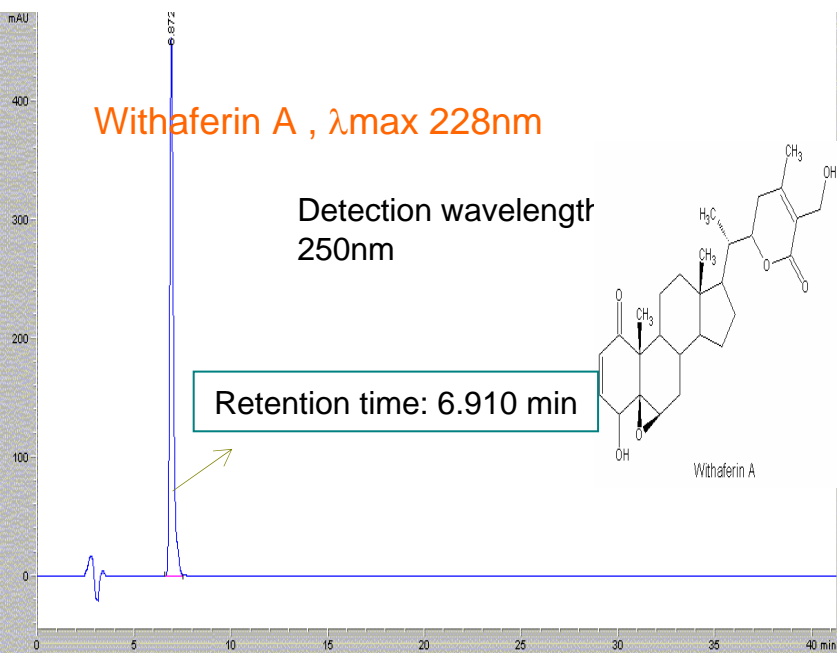


Detection wavelength: 250nm

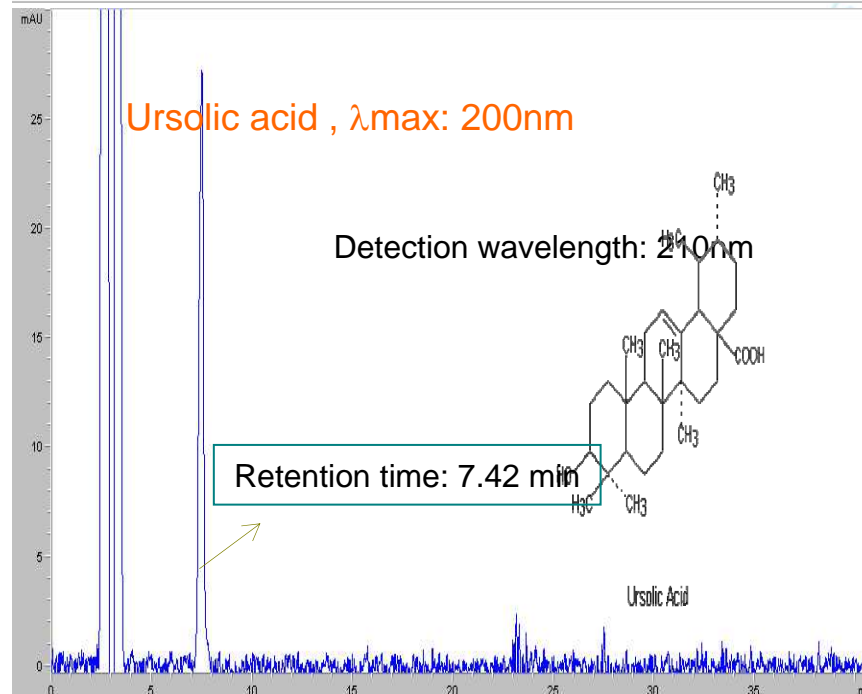
Glycyrrhetic acid, λ_{max} : 276nm



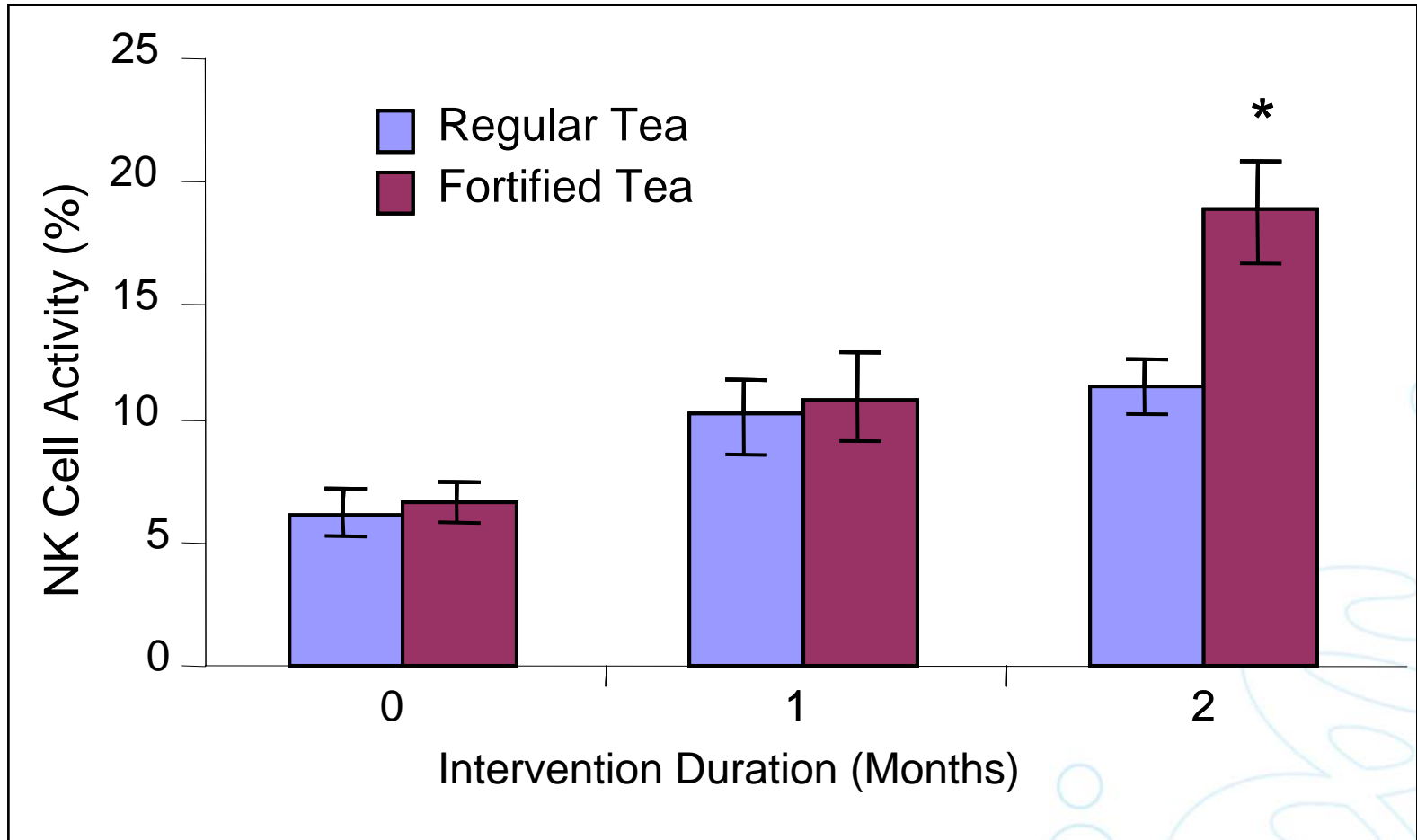
Withaferin A, λ_{max} 228nm



Ursolic acid, λ_{max} : 200nm



Result



Consumption of Fortified tea significantly improves NK cell activity.

Red Label Natural Care



Execution:

- 360 communication
- Activation

Business Results:

Strong double digit growth

Significant contribution to RED LABEL



“In store” Activation

Traditional Food Preparations of India from Millets



Millets Seeds as Cereals



Traditional Health Care (*Ayurveda*) & Millets

- **References to Millets**
 - *Charaka Samhita* (1000 BC)
 - *Bhavprakash Nighantu* (16th century)
- **Benefits of Millet preparations**
 - Easy to digest
 - Improves fat metabolism and helps in losing weight
 - Bone health: Strengthens bones, helps in repair of broken bones
- **Recommended in Diabetes**
 - Replacement of Indian Daily Bread (*Chapatti*)
 - Soaked in *Triphala*, dried and mixed with wheat

Triphala: Amalaki (*Emblica officinalis*), Bibhitaki (*Terminalia bellerica*), Haritaki (*Terminalia chebula*)

Finger Millets: Anti-Diabetic Potential

- **Post-Prandial Glucose Control**

- Intervention: Finger Millet flour incorporated in wheat bread (*Roti*) [3% - 30%] and rice (*Dosa*) [70%] suppress post-prandial blood glucose increase in diabetic patients

- Plant Foods for Human Nutrition 57: 205–213
 - Ind J Nutr Diet 27: 316–320
 - Ind J Nutr Diet 32: 123–126
 - Current Science 98, no. 6, 25 march 2010

LIMITATIONS: Small sample size, Diabetic population on drugs

Nutritional Benefits of Millets

What Underlies largely Perceived Superior Nutrition Profile of Millets ?

- **Whole grain Consumption vs. Refined Grain**
- **Unique carbohydrate composition ?**
 - Distinct physicochemical properties
 - Low Glycemic Response
- **Higher Fiber Content**
- **Better Micronutrient profile**
 - Fe^{++}
 - Ca^{++}

Leveraging tradition & Science



Helping consumers make healthier choices

Key Challenges



- **Regulatory Issues:**
 - Guidance for claims
 - Broadening standards to include traditional ingredients
 - **Building trust & credibility:**
 - Generating the scientific data; establishing history of safe use, and efficacy
 - **Consumer communication**
 - **Tasty & Healthy**
- 

Consumer communication challenge

- **Consumers seek healthy foods and beverages, but:**
 - do not always know what choices to make
 - often have misconceptions about what is healthy or unhealthy
- **They are interested in nutrition information, but:**
 - often don't read back-of-pack information at point of purchase
 - have difficulty understanding labelling information
- **Simple “smart choice” front-of-pack logo to endorse health credentials of the product**
- **However....**

Proliferation of health logos...



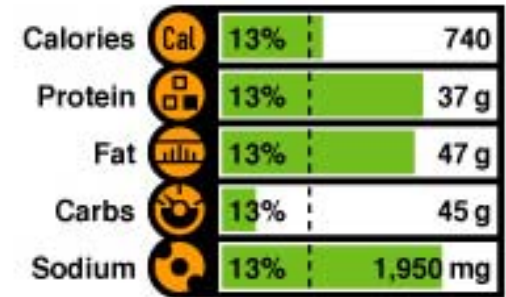
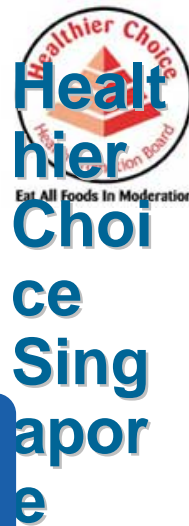
Pick the tick
Australia/New
Zealand



PepsiCo
United States of
America



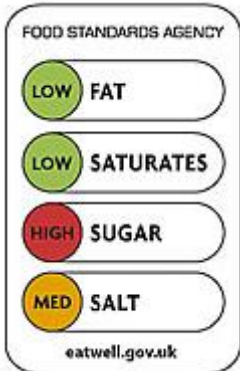
Albert Heijn
The
Netherlands



GDA McDonald's



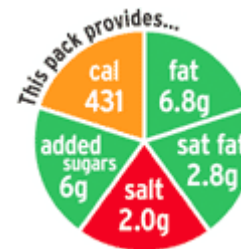
GDA Tesco



Multiple Traffic Light
United Kingdom



Sensible Solution
Kraft



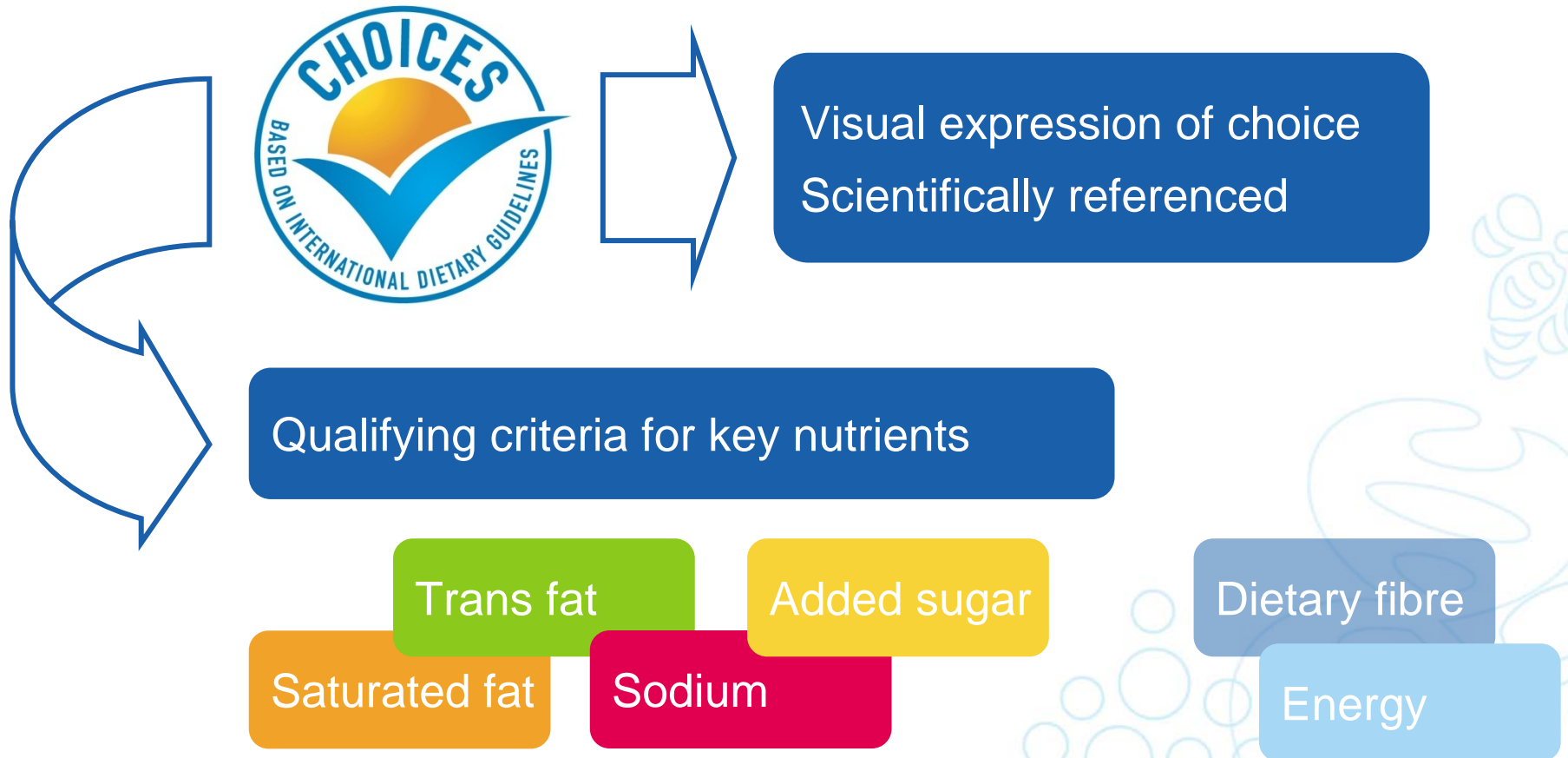
Sainsbury Traffic Light
United Kingdom



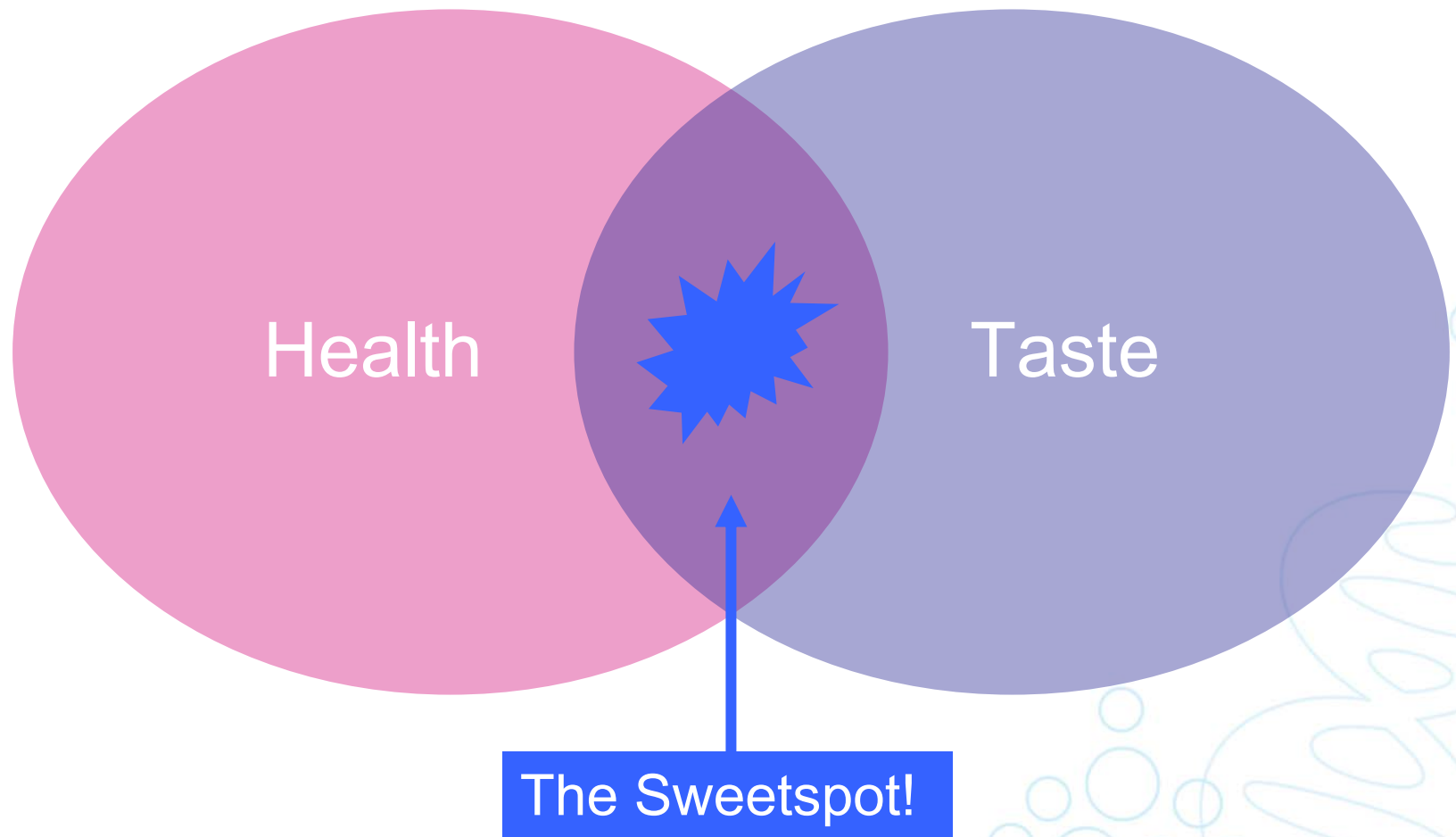
Health Robot
South Africa

... can be confusing

The Choices Stamp



Need to drive taste and health together



Summary

- Large, fast growing market for health & wellness foods using traditional knowledge
- Leveraging key consumer trends, insights/beliefs and major market segments is the key to success
- Products should deliver taste & health
- Claims must be backed with appropriate scientific substantiation
- Self regulation with appropriate checks and balances
- Play to the market realities : “Its easier to ride the wave than create one”
- Ensure alignment of product, brand and benefit; “Intuitively must make sense”



THANK YOU

