

SEA-PHN Network Meeting

Dr Jacques Bindels, Scientific Director ASPAC

DANONE NUTRICIA EARLY LIFE NUTRITION

BSN



Antoine RIBOUD

1966: BSN
1969: Take-over bid on St-Gobain
1970: Evian, Kronenbourg



GERVAIS-DANONE

Daniel CARASSO

1919: *Barcelona*
1929: *Paris*
1941: *New York*



1973 BSN-Gervais-Danone

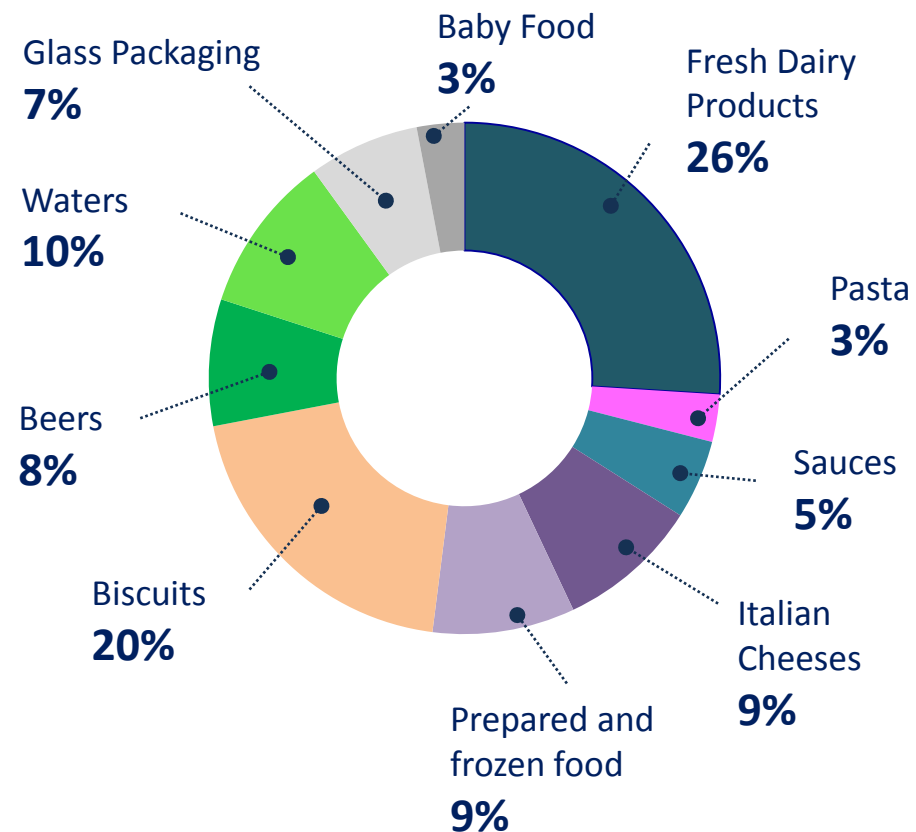
1994 BSN-Gervais-Danone becomes Danone

2007 Danone takes over Numico (~ Nutricia heritage)

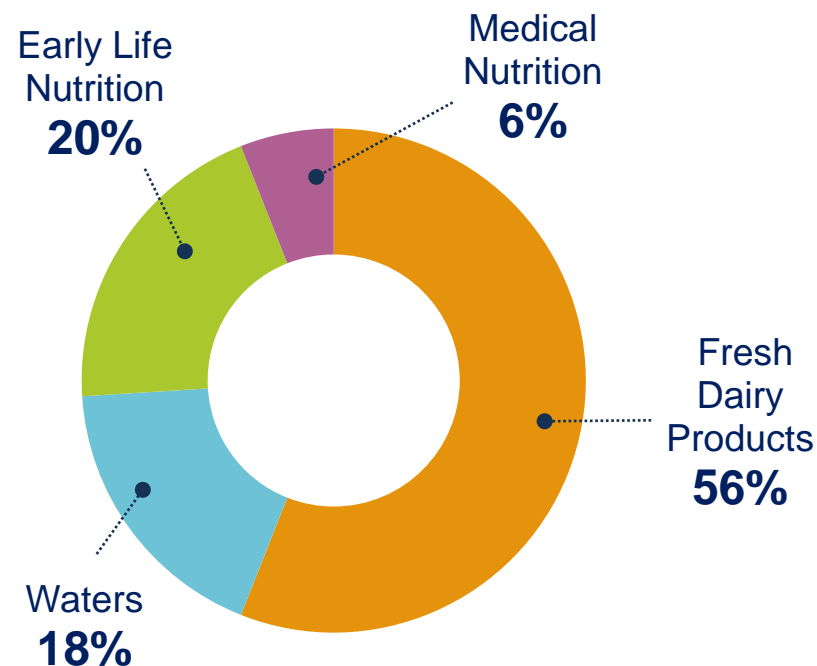
1996-2013: FOCUSING THE PRODUCT PORTFOLIO ON HEALTHY FOOD



Sales breakdown in 1996



Sales breakdown in 2013



39%

Healthy food

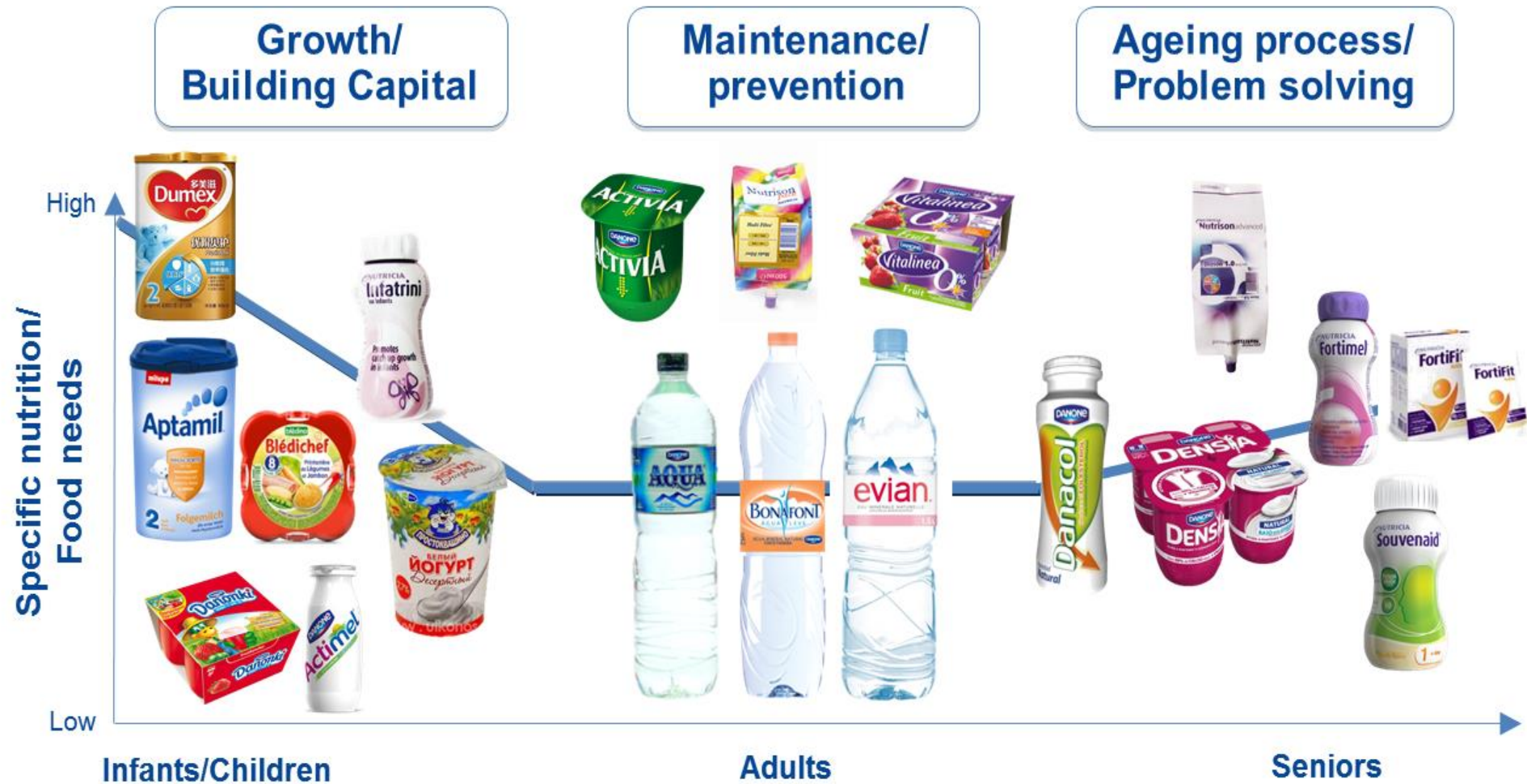
100%

4 Division of Groupe Danone:

Bringing Health through food to as many people as possible



... covering needs and demands at every age





**DANONE
NUTRICIA**
Early Life Nutrition

The Early Life Category: the first 1000 days

-9 to 0 m

PREGNANCY



0 to 6 m

LACTATION



6 to 12 m

SOLID FOOD INTRODUCTION



> 12 m

YOUNG CHILD DEVELOPMENT



... to build the child's best health foundations



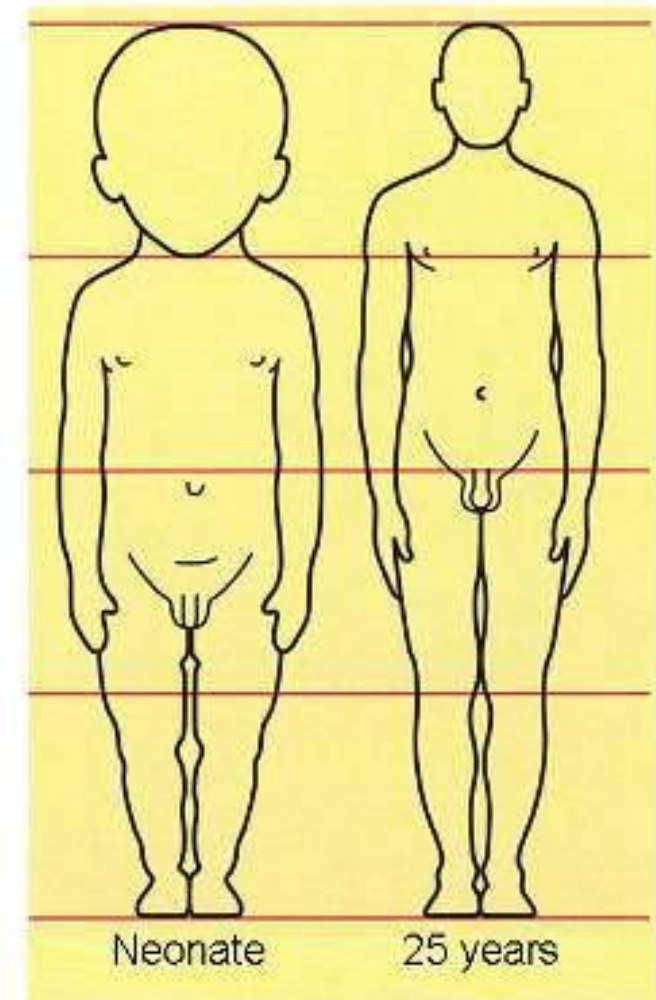
AN INFANT IS NOT A SMALL ADULT

IMMATURITY:

- Digestive system
- Physiology
- Metabolism
- Body composition
- Brain
- Gut Microbiota
- Immune system

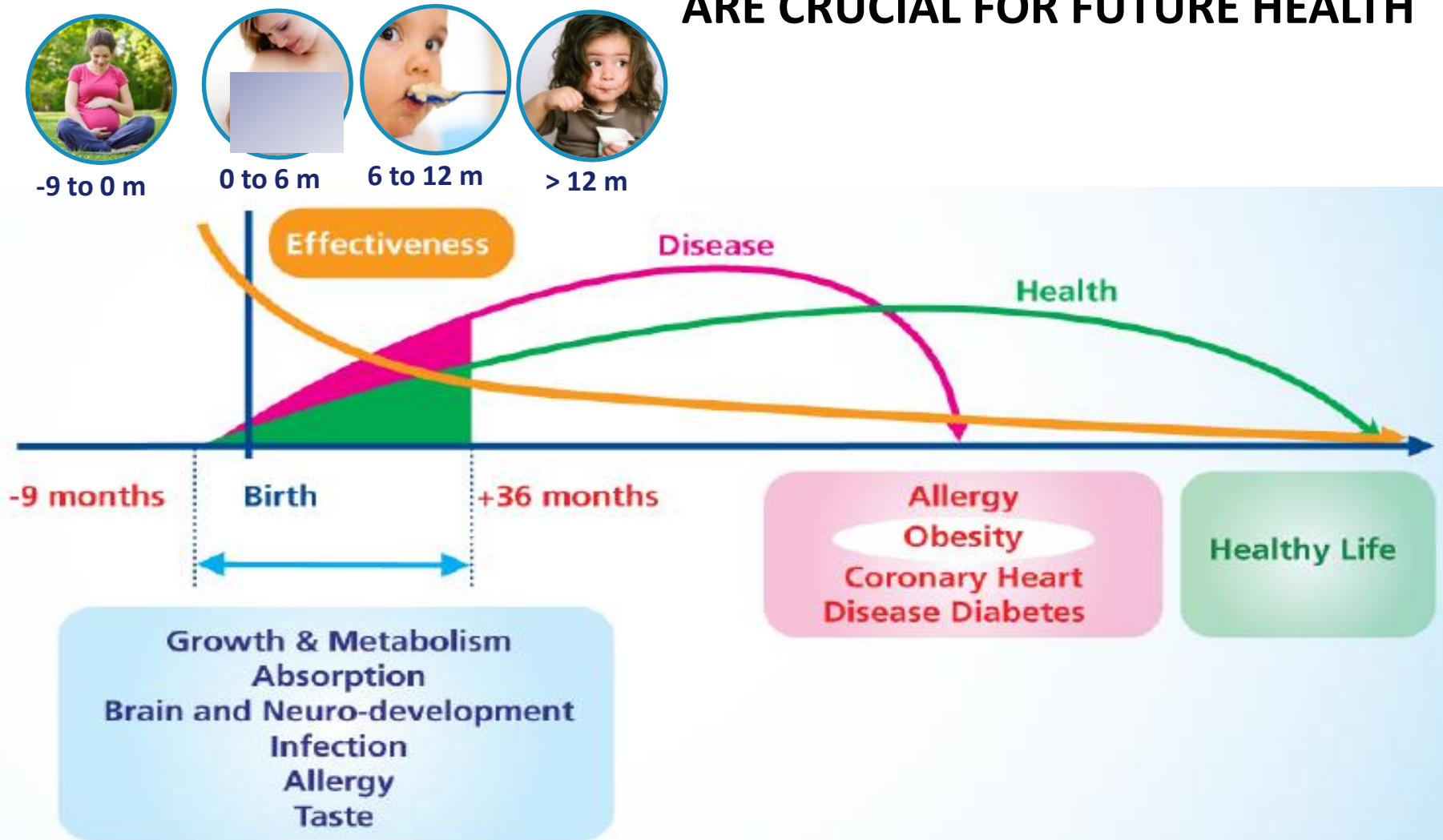
SPECIAL NEEDS:

- Nutritional requirements
- Food sensitivity

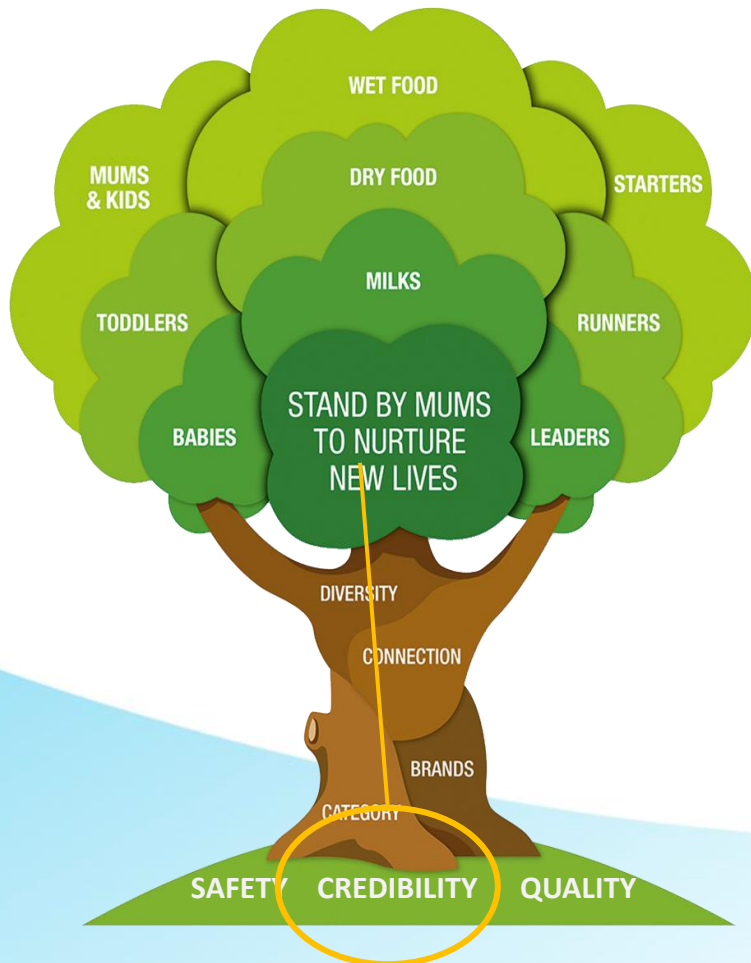


Koletzko B (ed.) Kinder- und Jugendmedizin,
Berlin, Springer, 13th. ed 2007 Berthold K

THE FIRST 1,000 DAYS OF LIFE ARE CRUCIAL FOR FUTURE HEALTH



Recognition of Early Life Nutrition is fundamental to delivering our long term ambition: **STAND BY MUMS NURTURE NEW LIVES**



**Building our
credibility!**

3 major R&D Centres

Utrecht The Netherlands



Sept.
2013

- Main R&D centre
- In Utrecht Science Park, one of Europe's most competitive regions
- Unique integration of science, education and business

Singapore



April
2011

- Focus on maternal & child health
- Connecting to the world-class scientific and medical network in Asia Pacific

Shanghai China



Sept.
2013

- Tailored nutrition and science to substantiate health benefit claims for Chinese population
- Connection with Chinese scientific and medical community

RESEARCH FOCUS IN SINGAPORE HUB

Impact of nutrition in early life:

how diet during
pregnancy & lactation
and in infancy
influences metabolic- &
immune programming



Asian-Caucasian comparison:

early colonization &
development of gut
microbiota and
interplay with
development of the
immune system in
relation to future health

Local nutritional needs:

by socio-economic
level with specific
focus on pregnant
women, infants and
toddlers (dietary &
public health
surveys)

Building a strong scientific network in the Asia-Pacific region to
facilitate local scientific and clinical collaborations

What is NutriPlanet ?

NutriPlanet is a systematic & strategic process bringing together all relevant information for a complete understanding of local nutrition needs within a holistic health context



What's in NutriPlanet ?

- **General Information about the country**

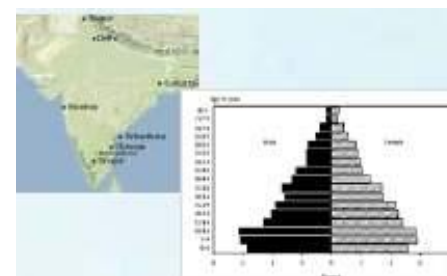
- Socio demographic, economic and geographic data

- **Dietary & Nutritional Profile**

- National recommendations by target
- Meal patterns, dietary habits & beliefs
- Nutritional status (anthropometry, biomarker)
- Food groups, macro- & micro-nutrient intakes

- **Public Health Profile & Interventions**

- Lifestyle e.g. physical activity, smoking/ alcohol
- Prevalence of major disease e.g. Infections, NCD
- Communication campaign and food supplementation / fortification program



→ *Identify gaps between reality and recommendations*

→ *Identify opportunities for improvements*

NUTRIPLANET COVERAGE – DECEMBER 2013



NUTRIPLANET ASIA – Knowledge Gaps

Lack of comprehensive data on the quantitative nutrient intake and health status of infants, young children, pregnant and breastfeeding women,

Limitations in data on the effects of social economic level on a child's nutritional status,

Insufficient data on the relationship between maternal nutrition, birth outcomes and health consequences of infants,

Disconnect between official recommendations and actual weaning practices in Asia,

Concerns about the efficacy and safety of traditional food recommendations and prohibitions during pregnancy and breastfeeding,

Lack of data on the composition of breast milk as a result of the dietary intake and nutritional status of mothers, and the relevance on the physiological state of infants

Post NutriPlanet Malaysia Quantitative Dietary Intake Study



to address the knowledge gap

New Study:

Assessing Dietary Intake
& Milk Drinking Pattern
of Children (1-10yo) from
Different Socio-Economic Status



Daily **Energy** Intake

Age (years)	1-3	4-6	7-10
% of recommendation	132	104	88

Averagely all major macro- and micronutrient intake levels were in line with the recommendation, except:

- **dietary fibre** (all age groups)
- **calcium** (in the older children)

Daily **Protein** Intake

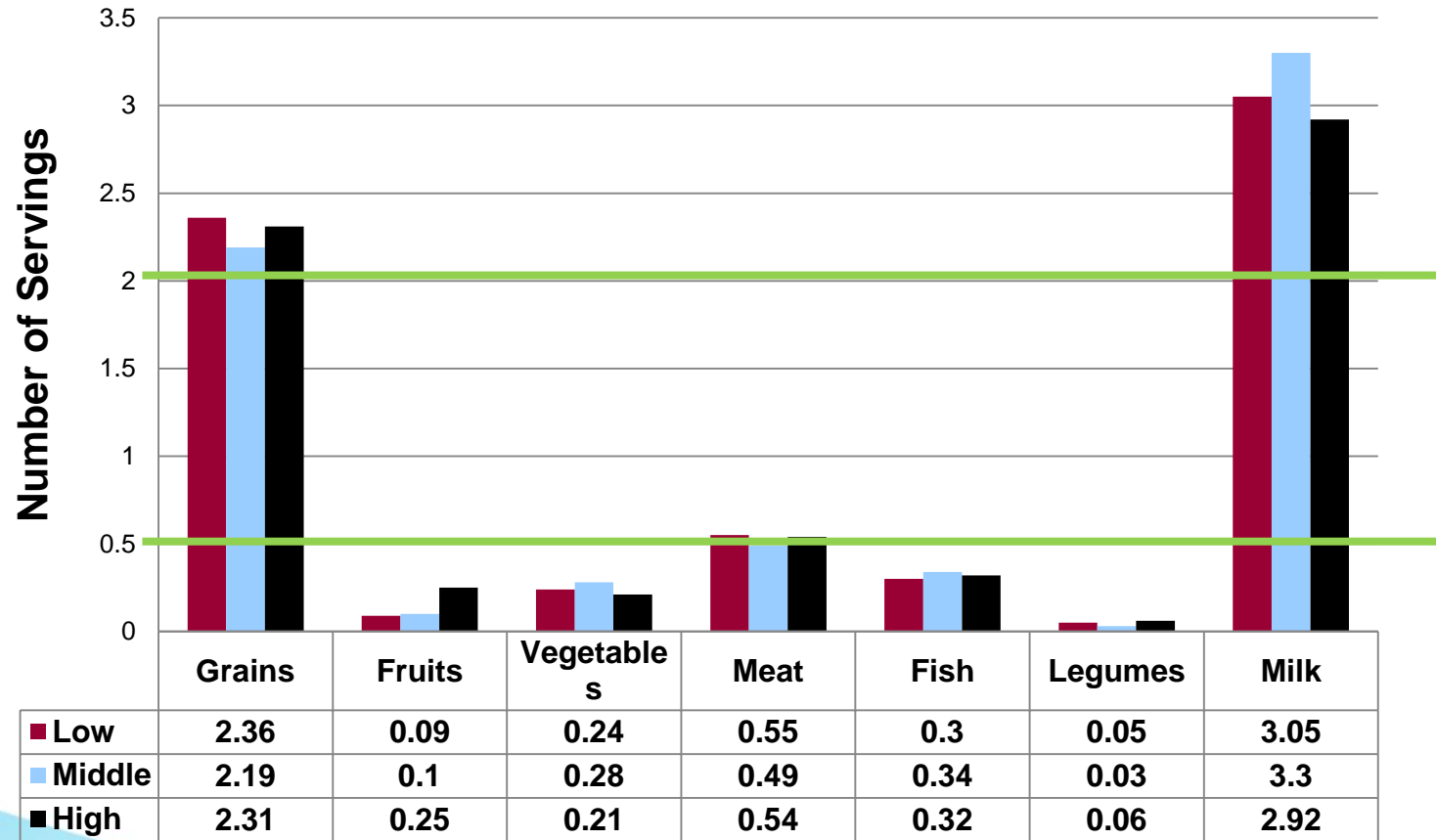
Age (years)	1-3	4-6	7-10
% of recommendation	309	256	206

Potential concern of **high protein intake** :
excessive protein intake could be a contributing
factor to **obesity**

Key Findings

Food Groups consumption in Malaysia 1-3 years old

Serving of Food Groups (1-3 years old)

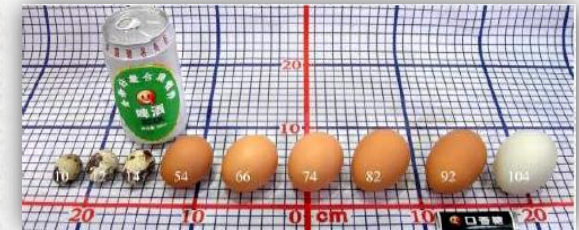
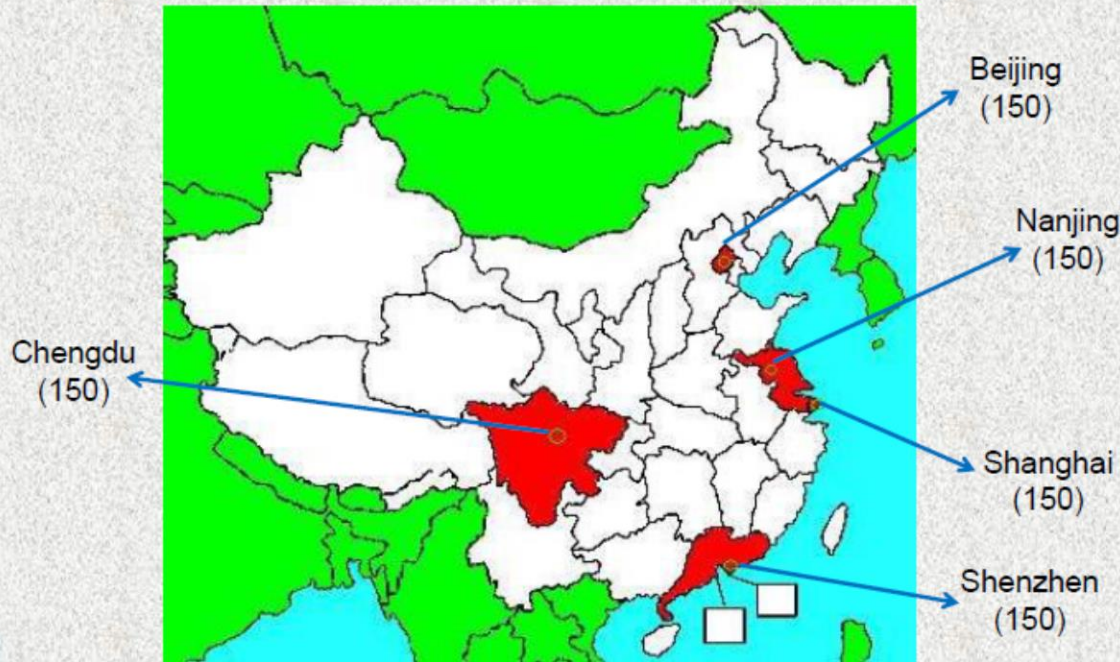


Post NutriPlanet China



Dietary and Nutrition Status Survey for 6m-3Y Children in Cities

Site Location



2nd Asia Maternal & Child Nutrition Workshop (Bangkok 12 Jan 2013)



中华预防医学会儿童保健分会
China Preventive Medicine Association, Society of Child Health



DANONE
NUTRICIA
Early Life Nutrition



NUTRITIONAL SUFFICIENCY AMONG PRE-PREGNANT AND PREGNANT WOMEN IN BOGOR, WEST JAVA, INDONESIA

**Siti Madanijah^{1, 2}, Dodik Briawan^{1, 2},
Rimbawan^{1, 2}, Zulaikhah¹,
Nuri Andarwulan^{1, 3}, Lilis Nuraida^{1, 3},
Tonny Sundjaya^{4, 5}, Priyali Shah⁶,
Jacques Bindels⁶**

.....
¹Southeast Asia Food and Agricultural Science & Technology
(SEAFast) Centre, Bogor Agricultural University;

²Department of Community Nutrition, Bogor Agricultural University;

³Department of Food Science and Technology, Bogor Agricultural
University; ⁴SariHusada, Jakarta; ⁵Nutricia, Jakarta;

⁶Nutricia Research, Singapore



METHODS

- ❑ Location : Bogor area
- ❑ 3 Groups:
 - 200 pre pregnant (~ child-bearing age) women
 - 203 pregnant women
 - (- 220 lactating mothers)
- ❑ Socio-Economic Level:
 - equally distributed according to wealth quintiles 2, 3 and 4 based on house hold expenditure
- ❑ Methods of data collection
 - Cross-sectional Dietary intake SURVEY
 - 2x24 hr Food Recall
 - FFQ
 - Nutrient Status Indicator
 - blood sample in a subgroup (n=135)

** SUSENAS 2009

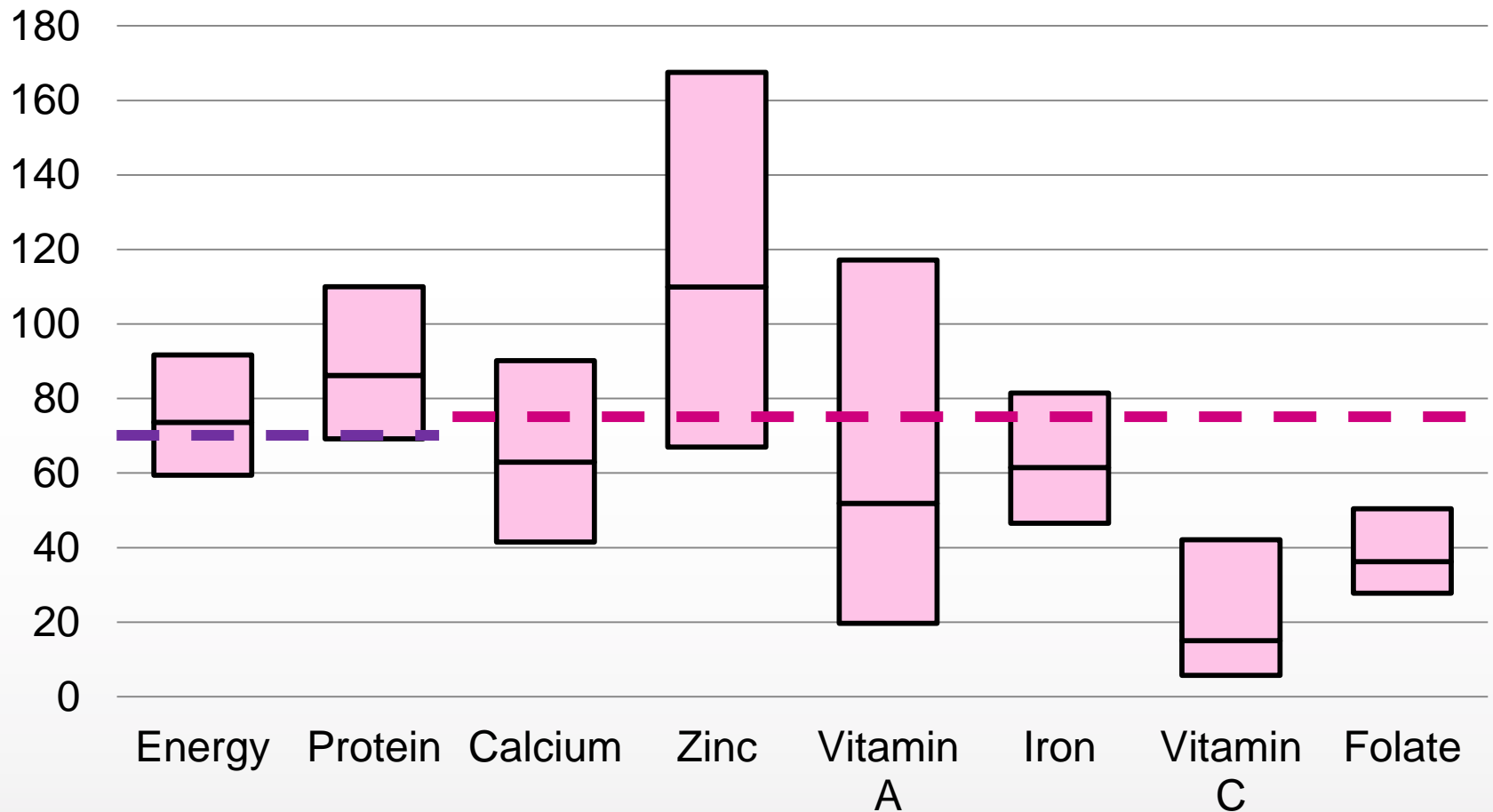
Q	BOGOR CITY **) (Rp/cap/month)	
	Range	Mean
Q 5	622,421 - 6,676,869	1,158,923
Q 4	432,210 - 618,983	517,468
Q 3	332,781 - 430,137	378,730
Q 2	253,875 - 330,787	295,701
Q 1	127,869 - 247,698	213,570

WOMEN PREPARING FOR PREGNANCY

NUTRIENT INTAKE RANGE (25TH, MEDIAN AND 75TH PERCENTILE)

AS %-AGE OF RECOMMENDATION

% of Indonesian RDA (2004)



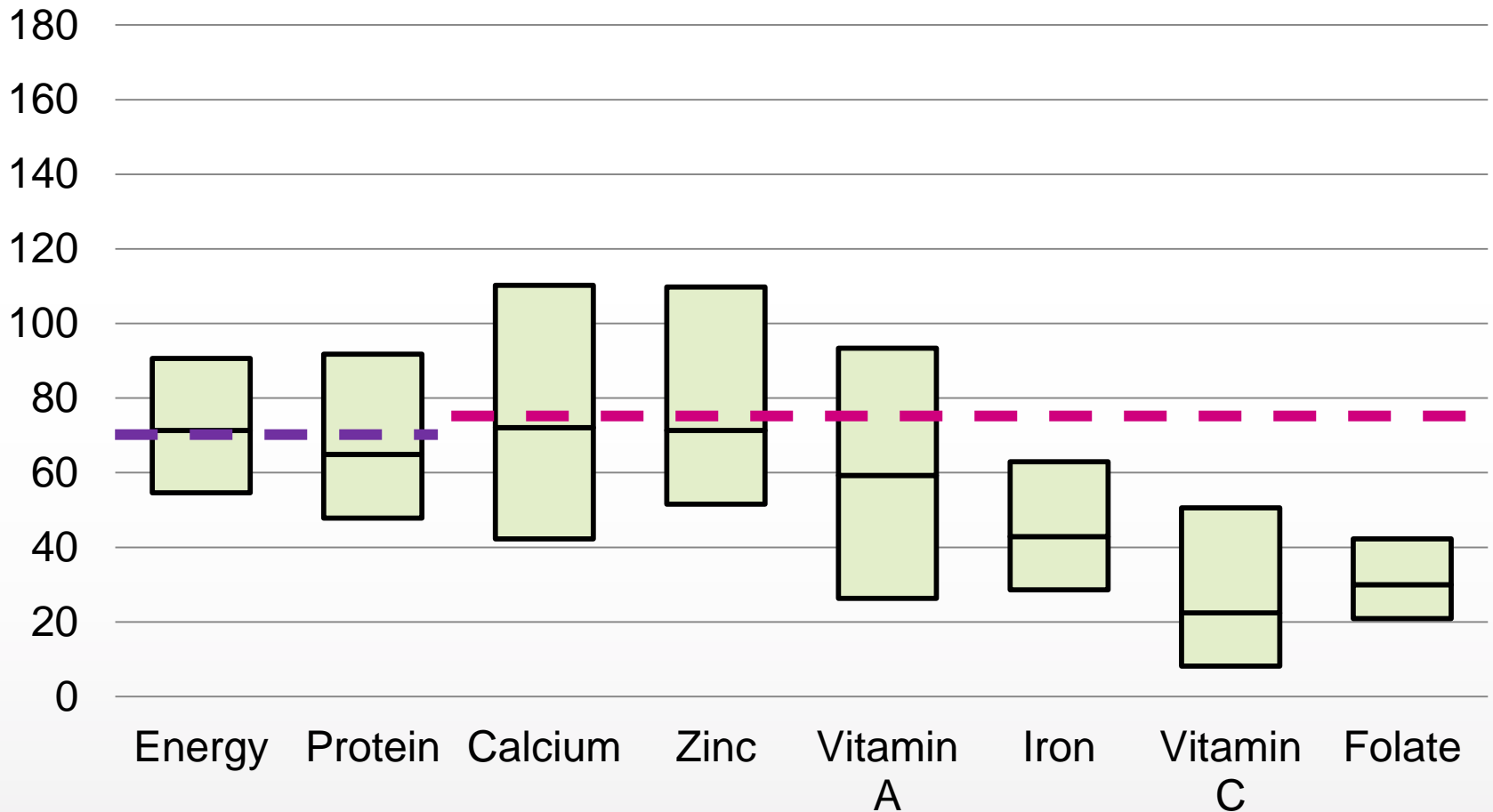
N=200, equally distributed over Bogor household expenditure quintiles Q2, Q3 and Q4

PREGNANT WOMEN (2ND TRIMESTER)

NUTRIENT INTAKE RANGE (25TH, MEDIAN AND 75TH PERCENTILE)

AS %-AGE OF RECOMMENDATION

% of Indonesian RDA 2004)

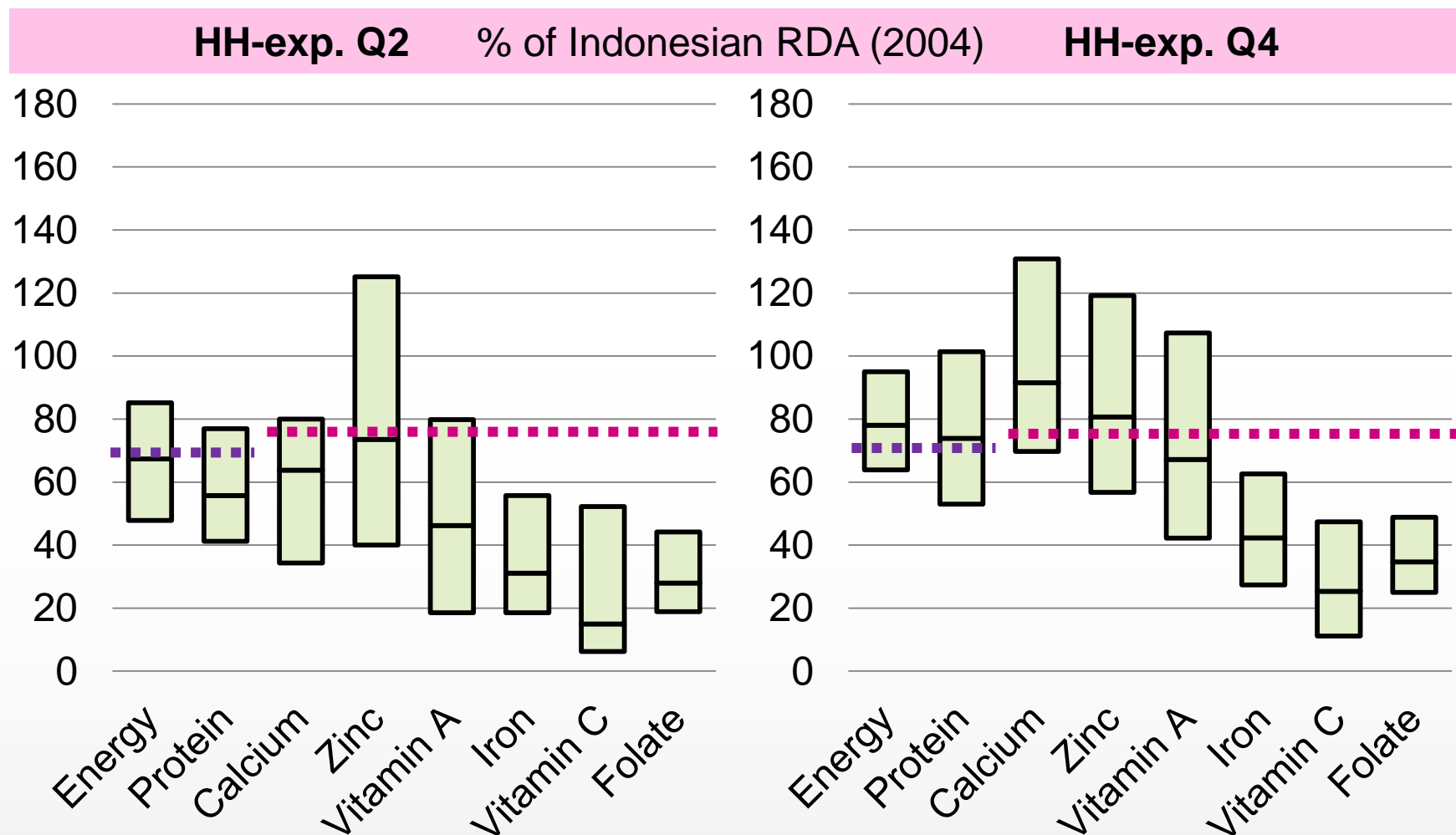


N=203, equally distributed over Bogor household expenditure quintiles Q2, Q3 and Q4

PREGNANT WOMEN (2ND TRIMESTER)

NUTRIENT INTAKE RANGE (25TH, MEDIAN AND 75TH PERCENTILE)

AS %-AGE OF RECOMMENDATION



Household expenditure quintile Q2 (left) versus Q4 (right)

Conclusions Post Nutriplanet Studies

The NutriPlanet process is helpful to obtain a comprehensive insight in nutrition and health status within a country and between countries

Several studies have been initiated and executed in the region to address the knowledge gaps identified in the relevant NutriPlanets

In Malaysia, the low fruits and vegetable intake and the very large variation in milk consumption amongst young children are remarkable and need well targeted actions

Improving quality and quantity of complementary foods for children aged 6-24 months is a priority for most countries in the region.

As found for China in children from well-educated mothers, extra attention for adequate weaning foods should be given to mothers who continue to breast feed

In Indonesia a more dedicated product for pregnant women could be developed based in established nutrient gaps

Sharing NutriPlanet and post NutriPlanet study results amongst regional experts was found to be very valuable

1st ASIA NUTRITION WORKSHOP



Singapore, 11 Dec 2010



Approx.
2 years
later

Additional
3 countries

2nd ASIA NUTRITION WORKSHOP



Bangkok, 12 Jan 2013


**DANONE
RESEARCH**
CENTRE FOR SPECIALISED NUTRITION

Co-organise with:



สมาคมโภชนาการแห่งประเทศไทย

Nutrition Association of Thailand

ในพระราชูปถัมภ์ สมเด็จพระเทพรัตนราชสุดาฯ สยามบรมราชกุมารี
under the Patronage of Her Royal Highness Princess Maha Chakri Sirindhorn



Danone Nutricia ELN views and expectations about SEA-PHNetwork

Foster and increase PPP partnerships in the field of **Early Life Nutrition**

- Research/Education
- Acceptance of infant formula producers as partners

Promotion **evidence based** public health Nutrition

- Turning theory into actions

Positioning SEA-PHN vs. activities **ILSI-SEA** ?!

- Visibility of industry contribution

The role of SEA-PHN in **driving policy change** ?

Development a **3-5 year roadmap** and scope of SEA-PHN

Credible & **committed working committee** members:

Good balance HCPs /academia & industry representatives with common goal – improving health through Nutrition.

Danone Nutricia ELN 3 suggestions for SEA-PHNetwork to embark on ELN activities

1. Within PPP-partnership develop test/research regional/local **Food Based Dietary Guidelines** for Women before & during pregnancy and breast feeding period and for Young Children.
2. Within PPP-partnership perform **Education Intervention** targeted at Women around Pregnancy to increase awareness of the impact of their own nutrition and current health, short term outcome and long term health (eg FBDGs, adequate pregnancy weight gain, risk factors GDM, breastfeeding support ...).
3. Within PPP-partnership perform pre-competitive affordable **Nutrition Intervention** in C-D class Women around Pregnancy using jointly developed fortified food addressing nutrient gaps and providing functional benefits.