



Disclosures



Ma. Fernanda Kroker-Lobos, M.Sc. Dr.Sc.

fkroker@incap.int

Population Nutrition

Institute of Nutrition of Central America and Panama –INCAP–

INCAP Research Center for the Prevention of Chronic Diseases

–CIPEC–

No conflict of interest



Learning Outcomes

- At the end of this session the participant will know how the rapid economic transition and multicultural factors impact diet, nutrition and health status in Latin American populations
 - Double burden of excess weight and undernutrition
- Will appreciate nutrition development in Latin America and successful experiences on public health interventions in the region.



Outline

- **NUTRITION IN LATIN AMERICA –LAC–**
 - Background and History
 - Who is the nutritionist?
- **HEALTH PROFILE AND NUTRITION TRANSITION**
 - Nutrition transition
 - Double Burden of Malnutrition
 - Current Policies
- **LEADERSHIP IN NUTRITION**
- **REFLECTIONS**



Nutrition History in Latin America



1933-1965 Professor Pedro Escudero Argentina

- Founder: National School of Dietitians and National Institute of Nutrition in Buenos Aires.
- First School of Dietitians in LA with university level: 3 years (Institutional approach)
- Escudero's School trained pioneers of dietetics in several Latin American countries.



Shifting from Dietitians to Nutritionists in the 60's

PAHO 1965-1973

New curricula is recognized (University degree, 4 or 5 years) designed by the Institute of Nutrition of Central America and Panama –INCAP- since 1962.

Creation of the Commission Studies on Academic Programs in Nutrition and Dietetics in Latin America –CEPANDAL-

Technical norms for nutrition and dietetics training were reoriented integrating public nutrition and shifting from "Dietitians to Nutritionists (CEPANDAL/PAHO, Venezuela, 1966).

Creation of the Latin America Society of Nutrition –SLAN- and the Latin American Journal of Nutrition –ALAN-

INCAP and PAHO 1970's and 1980's

"Academic Training of Nutritionist and Dietitians in LA" defining academic profiles and curricula

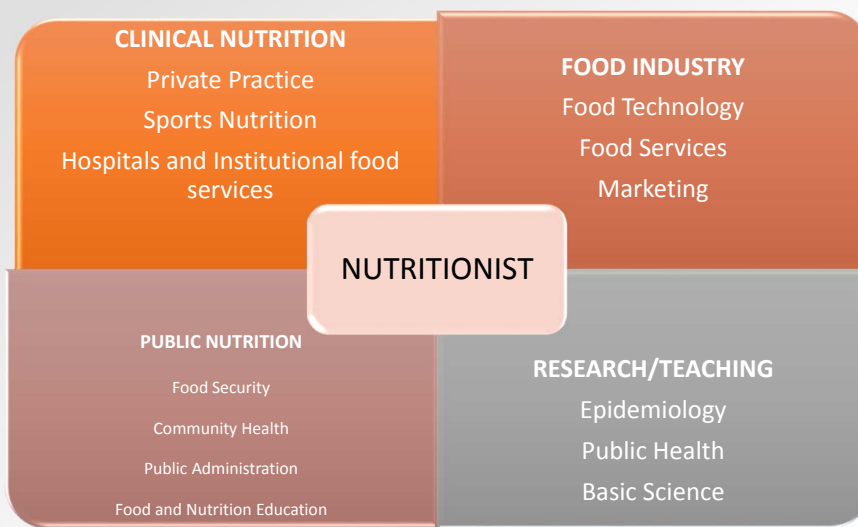
Dietitians (graduated before new orientation) from all LA trained at the School of Nutrition at INCAP for complementary courses on Public Nutrition

INCAP supported training of nutritionists in Central America

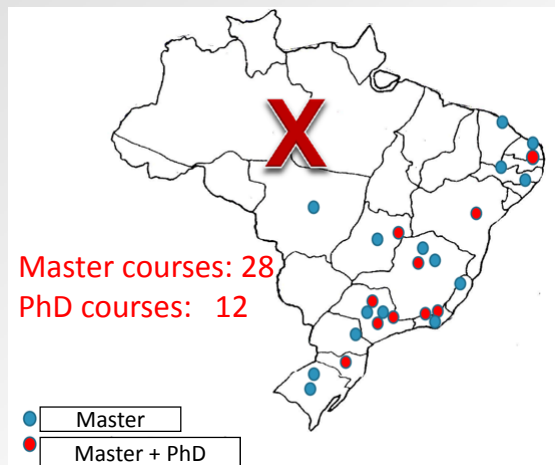
INCAP based curricula still in force in many countries



1. WHO IS THE NUTRITIONIST IN THE XXI CENTURY?: Labor Market Demands



Graduate Programs Available for Nutritionists: The case of Brazil



Source: Kac G and Chaves Dos Santos SM, Coordination for the Improvement of Higher Education Personnel, Brazil. **FNCE 2016**
Food & Nutrition Conference & Expo

Local Scientific Production in Latin America:



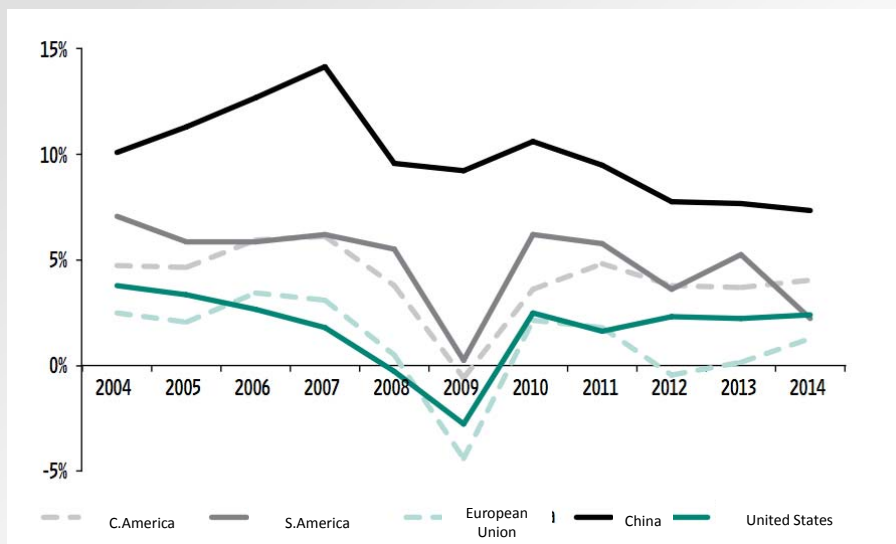
Source: <http://www.scimagojr.com/>

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Health profile and Nutrition Transition



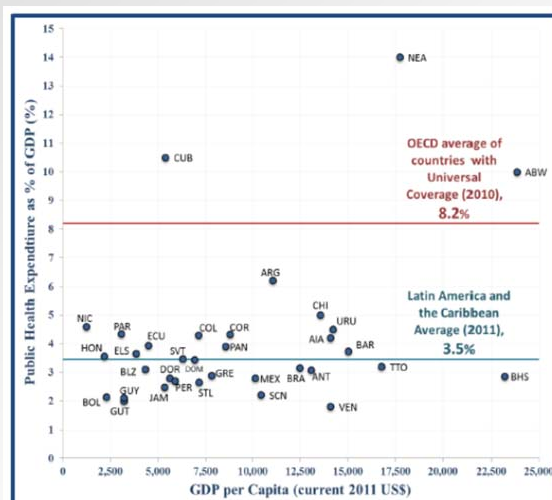
Economic Growth (Real GDP) 2004/2014



Source: State of the region, 2016.
www.estadonacion.or.cr



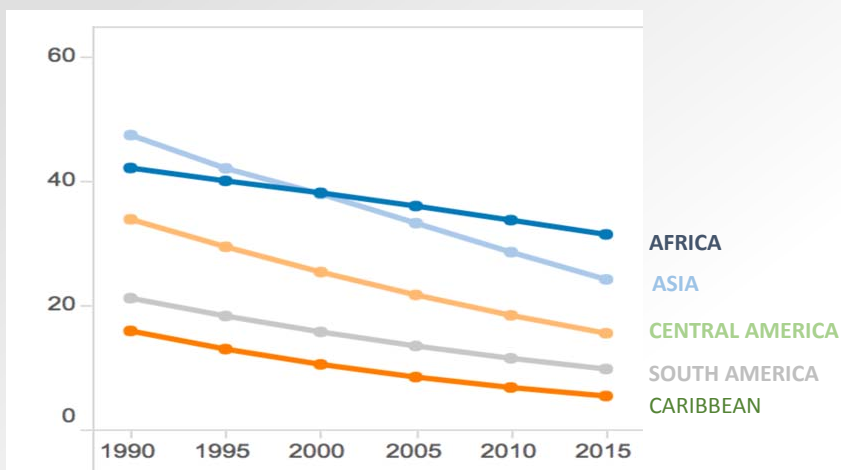
Per Capita Income and Public Health Expenditure as % of GDP



30% do not have access to health here

Source: PAHO, 2012 **FNCE 2016**

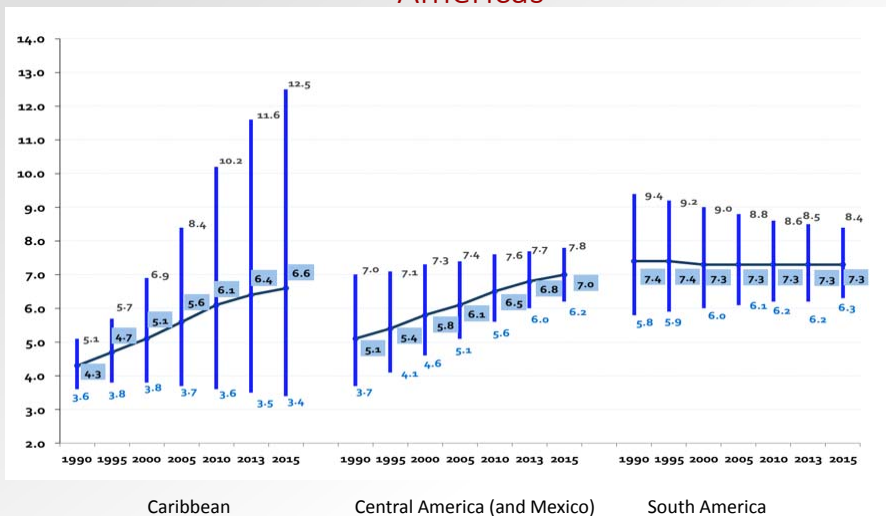
Percentage of Children Under 5 Stunted (Height-for-age <-2 SD), 1990– 2015



Source: WHO, Global Health Observatory Data Repository, consulted on October 8, <http://apps.who.int/gho/data/node.wrapper.nutrition-2016&showonly=nutrition>

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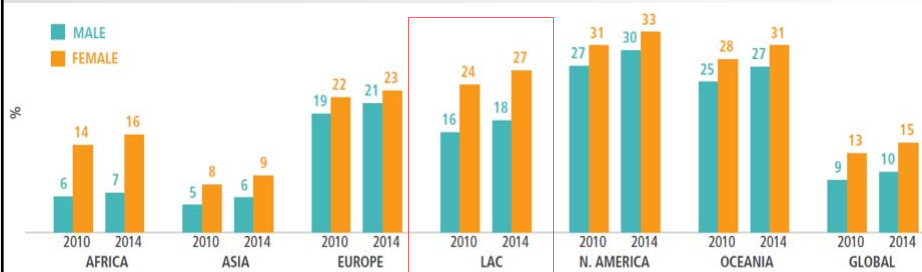
Trends of Childhood Overweight and Obesity in the Americas



Source: Palmieri M, et al, INCAP 2015.



Mean Prevalences of Obesity (BMI >30) by UN Region



- # 1 North America
- # 2 Australia
- # 3 Latin America

Source: Global Nutrition report (IFPRI), 2015



Comparative Risk Factors Assessment in Latin American Countries, Global Burden of Disease 2015.

Latin America and Caribbean	Fasting plasma glucose	Blood pressure	Body-mass index	Alcohol use	Smoking	Glomerular filtration	Total cholesterol	Nuts and seeds	Iron deficiency	Unsafe sex
Central Latin America	Fasting plasma glucose	Body-mass index	Blood pressure	Alcohol use	Glomerular filtration	Total cholesterol	Smoking	Nuts and seeds	Particulate matter	Iron deficiency
Colombia	Blood pressure	Body-mass index	Fasting plasma glucose	Alcohol use	Smoking	Total cholesterol	Glomerular filtration	Nuts and seeds	Particulate matter	Unsafe sex
Costa Rica	Blood pressure	Fasting plasma glucose	Body-mass index	Alcohol use	Smoking	Total cholesterol	Iron deficiency	Nuts and seeds	Particulate matter	
El Salvador	Blood pressure	Fasting plasma glucose	Body-mass index	Alcohol use	Glomerular filtration	Iron deficiency	Total cholesterol	Particulate matter	Unsafe sex	Nuts and seeds
Guatemala	Fasting plasma glucose	Childhood U	Body-mass index	Alcohol use	Blood pressure	Unsafe water	Particulate matter	Household air pollution	Glomerular filtration	Iron deficiency
Honduras	Blood pressure	Body-mass index	Fasting plasma glucose	Total cholesterol	Alcohol use	Particulate matter	Household air pollution	Nuts and seeds	Smoking	Glomerular filtration
Mexico	Fasting plasma glucose	Body-mass index	Blood pressure	Alcohol use	Smoking	Total cholesterol	Smoking	Nuts and seeds	Fruit	Particulate matter
Nicaragua	Fasting plasma glucose	Blood pressure	Body-mass index	Glomerular filtration	Alcohol use	Iron deficiency	Total cholesterol	Childhood U	Household air pollution	Particulate matter
Panama	Fasting plasma glucose	Blood pressure	Body-mass index	Alcohol use	Glomerular filtration	Unsafe sex	Total cholesterol	Iron deficiency	Childhood U	Smoking
Venezuela	Blood pressure	Fasting plasma glucose	Body-mass index	Iron deficiency	Alcohol use	Smoking	Total cholesterol	Glomerular filtration	Nuts and seeds	Particulate matter
Andean Latin America	Fasting plasma glucose	Body-mass index	Blood pressure	Alcohol use	Glomerular filtration	Iron deficiency	Smoking	Total cholesterol	Particulate matter	Childhood U
Bolivia	Blood pressure	Fasting plasma glucose	Body-mass index	Alcohol use	Smoking	Glomerular filtration	Iron deficiency	Childhood U	Particulate matter	Total cholesterol
Ecuador	Fasting plasma glucose	Body-mass index	Blood pressure	Glomerular filtration	Alcohol use	Iron deficiency	Total cholesterol	Childhood U	Smoking	Nuts and seeds
Peru	Blood pressure	Body-mass index	Fasting plasma glucose	Alcohol use	Iron deficiency	Glomerular filtration	Particulate matter	Household air pollution	Total cholesterol	Smoking
Caribbean	Blood pressure	Fasting plasma glucose	Body-mass index	Smoking	Unsafe sex	Total cholesterol	Alcohol use	Childhood U	Glomerular filtration	Whole grains
Antigua and Barbuda	Fasting plasma glucose	Blood pressure	Body-mass index	Alcohol use	Glomerular filtration	Total cholesterol	Whole grains	Fruit	Physical activity	Nuts and seeds
The Bahamas	Blood pressure	Body-mass index	Fasting plasma glucose	Alcohol use	Unsafe sex	Total cholesterol	Smoking	Glomerular filtration	Whole grains	Physical activity
Barbados	Body-mass index	Fasting plasma glucose	Blood pressure	Glomerular filtration	Total cholesterol	Physical activity	Fruit	Alcohol use	Nuts and seeds	Smoking
Belize	Body-mass index	Fasting plasma glucose	Blood pressure	Unsafe sex	Alcohol use	Smoking	Glomerular filtration	Iron deficiency	Total cholesterol	Whole grains

1 High Blood Pressure

#2 High fasting plasma glucose

#3 Adult high BMI

Source: GBD 2015 Risk Factors Collaborators, Lancet 2016. **FNCE 2016**
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Obesogenic Food Environments



NUTRITION TRANSITION: The Double Burden of Excess Weight and Undernutrition in Latin America

Supplement for the American Journal of Clinical Nutrition, 2014

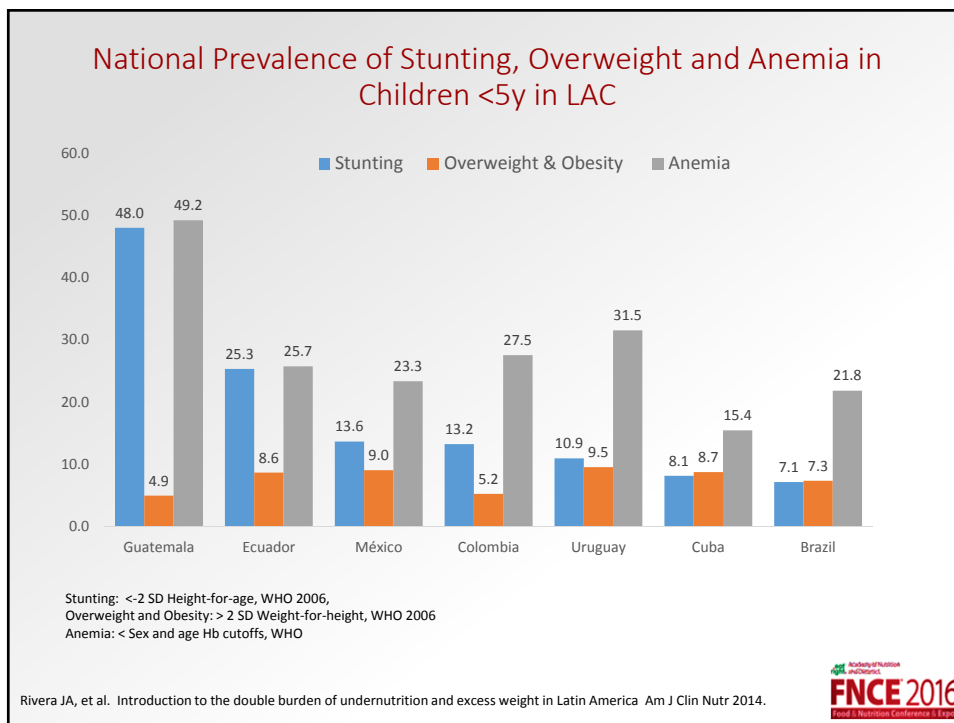
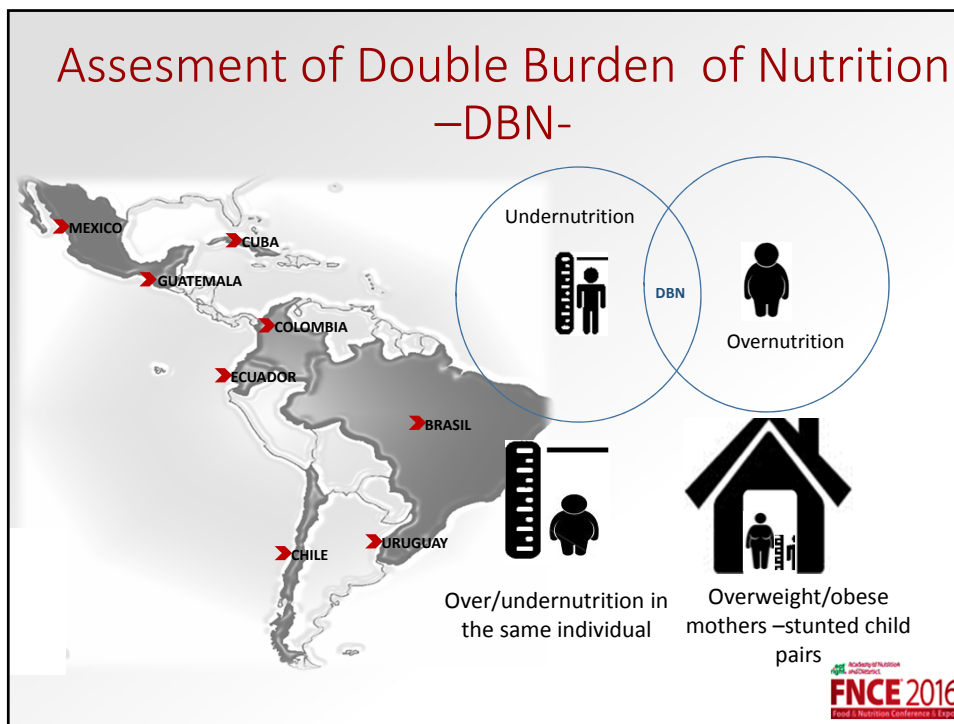


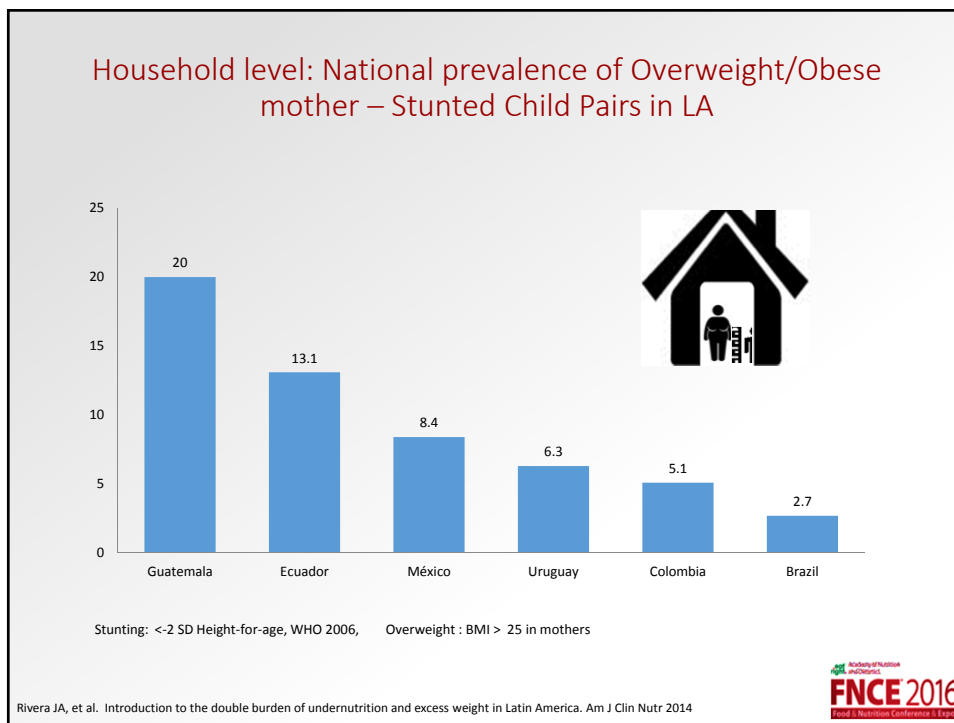
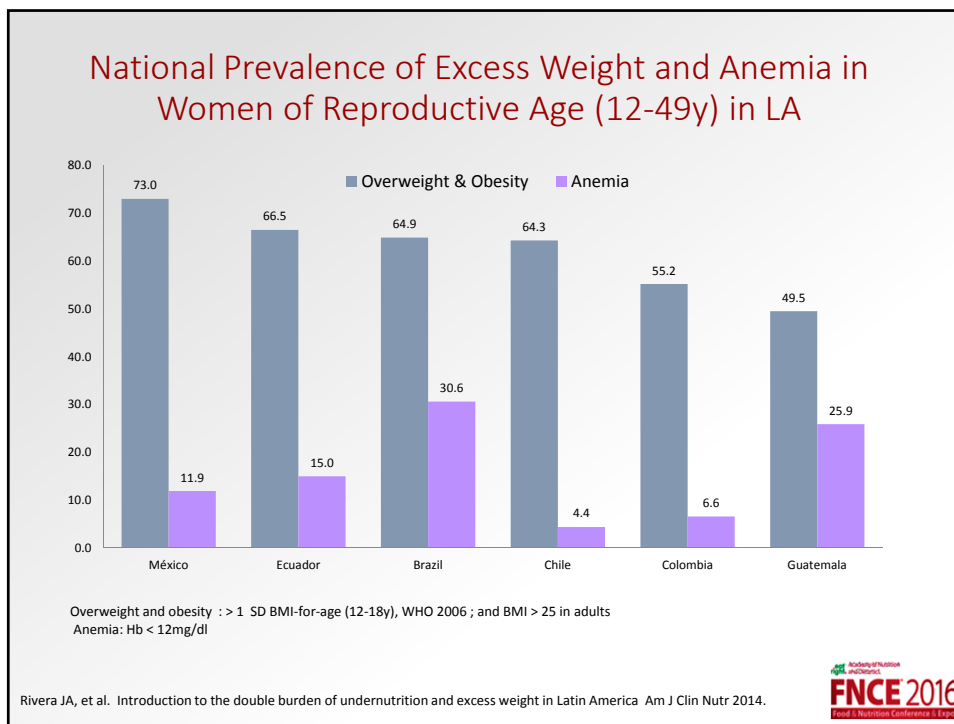
¿Why it is important to study the Double Burden of Nutrition?

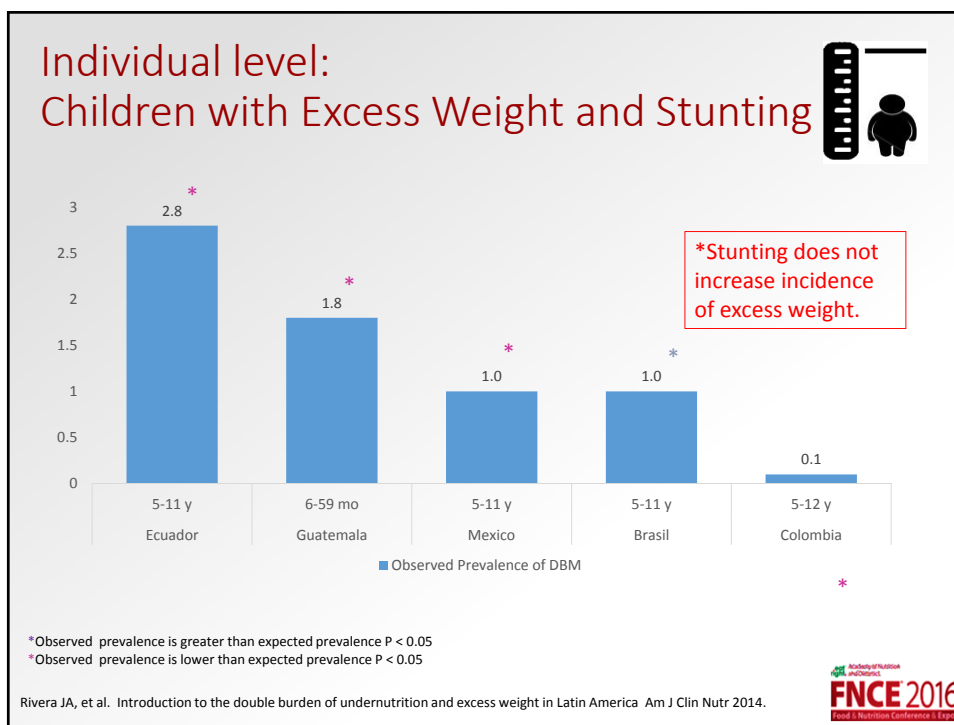
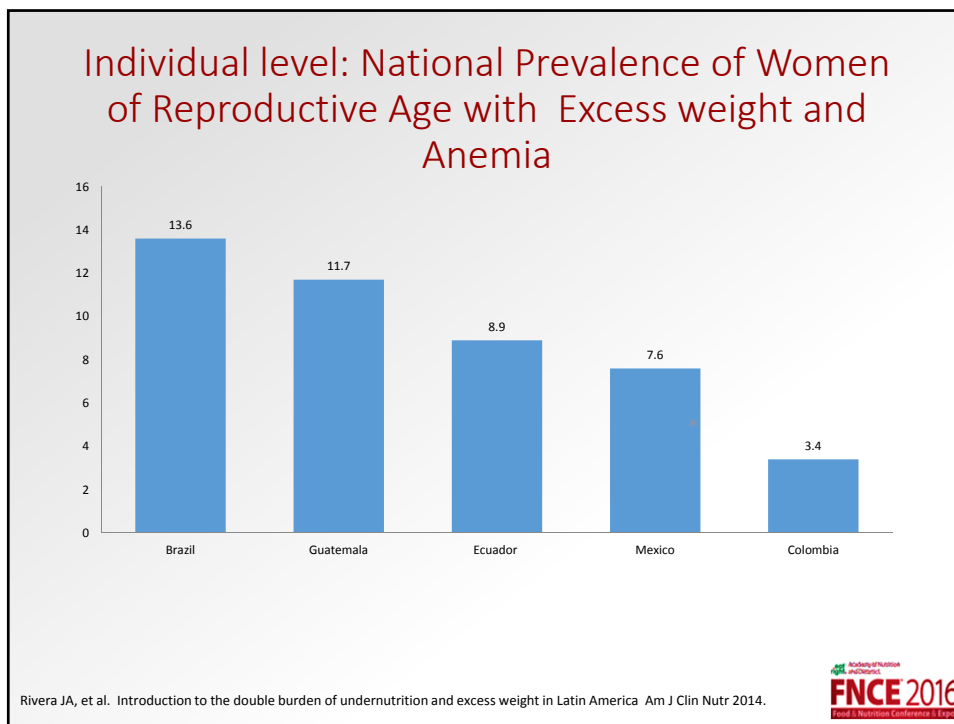
- It is a threat in growing economies of countries that should assume health care costs and losses in productivity and human capital.
 - Affects countries with different levels of economic growth: lack of institutionalism and resources.
- Situation compromises opportunities to reduce poverty and extreme poverty in the medium and long term.
- Need to strengthen political and public management.

Source: Palmieri M, et al, INCAP 2015.









Current Policies



Uruguay

- School-feeding program, “Baskets for nutritional risk”, “Fortified milk supply”, Cash transfer programs, Payment for health goals, Healthy eating at schools and high schools.
- Focused on one or the other side of the problem



Guatemala

- Most actions addresses undernutrition: Zero Hunger Pact.
- National Healthy Schools Strategy and Food Security and Nutrition Policy of Central America and Dominican Republic mention the DB.
- Implementation strategies do not include this phenomenon.



Current Policies



Cuba

- Iron Deficiency and Anemia Prevention.
- No policies considering the DB



Colombia

- National Policy of Food and Nutrition Security
 - School Feeding Program
 - Childhood Breakfasts
 - Obesity Law
 - UNIDOS
- Not contemplating the DB



Current Policies



Ecuador

- The priority is the reduction of the persistent high rates of under nutrition in children <5y.
 - Zero Under Nutrition
 - School lunch program,
- Considering regulating advertising and sale of processed foods

- Food Labelling system regulation



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Brazil Dietary Guidelines: Redefining What is a Food and What is a Product

FOUR RECOMMENDATIONS AND ONE GOLDEN RULE

Make natural or minimally processed food your diet

Natural or minimally processed foods, in great plant origin, are the basis for diets that are nutritious, appropriate, and supportive of socially and sustainable food systems.

Use oils, fats, salt, and sugar in small amount and cooking foods and to create culinary products

As long as they are used in moderation in culinary preparation, natural or minimally processed oils, fats, salt, and sugar toward diverse and delicious diets without rendering unbalanced.

Limit the use of processed foods, consuming amounts as ingredients in culinary preparation of meals based on natural or minimally processed foods

The ingredients and techniques used in the preparation of processed foods—such as vegetables in tinned cheeses and breads—unfavourably alter the nutrients of the foods from which they are derived.

Avoid ultra-processed foods

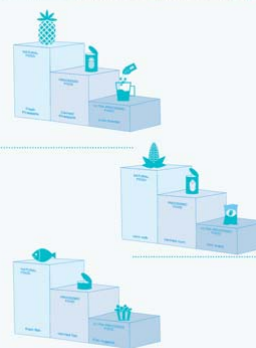
Because of their ingredients, ultra-processed foods—such as packaged snacks, soft drinks, and instant soups—are nutritionally unbalanced. As a result of their formulation and presentation, they tend to be consumed in excess, and displace natural or minimally processed foods. Their means of production, distribution, marketing, and consumption damage culture, social life, and the environment.

The golden rule. Always prefer natural or minimally processed foods and freshly made dishes and meals to ultra-processed foods

Opt for water, milk, and fruits instead of soft drinks, dairy drinks, and biscuits. Do not replace freshly prepared dishes (broths, soups, stews, saucers, rice and beans, pasta, steamed vegetables, peas) with products that do not require culinary preparation (packaged snacks and soups, instant noodles, pre-prepared frozen dishes, sandwiches, cold cuts and sausages, industrialized sauces, ready-meals for cakes), and stick to homemade desserts, avoiding industrialized ones.

MINISTRY OF HEALTH OF BRAZIL

DIETARY GUIDELINES FOR THE BRAZILIAN POPULATION



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Chile's Law on Food Labelling and Advertising: A Replicable Model for Latin America

- Nutrition interventions accordingly to the new epidemiological profile.
- Food environment regulations
 - Food composition limits
 - Banning of persuasive marketing targeted to children
 - Food labelling system regulation
 - Soda Tax (18%)












Research with Mission: Mexico

- “Oportunidades”
 - Promoting linear growth early in life and scaling up a strategy including obesity and NCD prevention in adults.
- Fortified milk distribution and Crusade against Hunger
- National Strategy to Prevent and Control overweight, obesity and type 2 diabetes
- Food Environment Regulations:
 - Reduction of access to unhealthy foods and SSB in schools
 - Sodas and high-energy density foods tax (10%)
 - Social Marketing campaign
 - Intake was reduced by 10%
 - Regulation of marketing to children <12y

“Would you give 12 spoons of sugar? So, why do you give them soda?”







Latin America Leadership Program in Nutrition

1997: Created by leaders of Latin American Society of Nutrition –SLAN-

- Strengthening leadership, communication
- Advocacy skills
- Capacity in networking and teamwork.
- To date: 150 leaders trained



Latin American Society
of Nutrition



Latin America Leadership
Program in Nutrition



LILANUT/SLAN Las Terrazas Cuba, 2012



Reflections

- Historic evolution of Dietitians/ Nutritionists in LA is unique, responding to the needs and concerns of our cultures and health systems demands.
- Double burden –DB–of undernutrition and excess weight it is present at national, household and individual level.
 - Guatemala has the highest prevalence of Overweight/obese mother-stunted child pair.
 - Most countries have failed to recognize DB in national policies
- Limited resources and health systems not prepared to cope with double burden of nutrition
 - New leaders in nutrition need to develop skills in communication, advocacy and networking.
- In Latin America: Chile, Mexico and Brazil are taking the lead on integrating scientific evidence into public policy to tackle obesity and diet related chronic diseases



TAKE AWAYS: IMMEDIATE APPLICATIONS

- Latin American Populations carry a history of undernutrition.
 - Stunted child and mother with excess weight might coexist in the same households.
 - Underlying determinants should be simultaneously addressed by appropriate public health policies.
 - Promotion of healthy growth before and after 3y.
- Nutritionist and Dietitians can learn from leadership models in Latin America to push public agendas towards healthier food environments.



THANK YOU

Contact: Ma. Fernanda Kroker-Lobos
fkroker@incap.int
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INCAP Research Center for the Prevention of Chronic Diseases.
(CIIPEC)

