Changing the Face of Nutrition in Latin America
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Disclosures

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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).

**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**

   **CLINICAL NUTRITION**
   - Private Practice
   - Sports Nutrition
   - Hospitals and Institutional food services

   **FOOD INDUSTRY**
   - Food Technology
   - Food Services
   - Marketing

   **PUBLIC NUTRITION**
   - Food Security
   - Community Health
   - Public Administration
   - Food and Nutrition Education

   **RESEARCH/TEACHING**
   - Epidemiology
   - Public Health
   - Basic Science

   **NUTRITIONIST**
Graduate Programs Available for Nutritionists: The case of Brazil

Master courses: 28
PhD courses: 12

Source: Kac G and Chaves Dos Santos SM, Coordination for the Improvement of Higher Education Personnel, Brazil.

Local Scientific Production in Latin America:

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

![Graph showing per capita income and public health expenditure as % of GDP.]

Source: PAHO, 2012

30% do not have access to health care.

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

![Graph showing percentage of children under 5 years stunted (height-for-age <-2 SD) from 1990 to 2015.]

Source: WHO, Global Health Observatory Data Repository, consulted on October 8, http://apps.who.int/gho/data/node.wrapper.nutrition-2016&showonly=nutrition
Trends of Childhood Overweight and Obesity in the Americas

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


Source: Global Nutrition report (IFPRI), 2015
Comparative Risk Factors Assessment in Latin American Countries, Global Burden of Disease 2015.

#1 High Blood Pressure
#2 High fasting plasma glucose
#3 Adult high BMI

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.

Assessment of Double Burden of Nutrition –DBN–

Over/undernutrition in the same individual

Overweight/obese mothers –stunted child pairs

Overweight/obese

Undernutrition

National Prevalence of Stunting, Overweight and Anemia in Children <5y in LAC

Stunting: < -2 SD height-for-age, WHO 2006,
Overweight and Obesity: > 2 SD weight-for-height, WHO 2006
Anemia: < Sex and age Hb cutoffs, WHO

National Prevalence of Excess Weight and Anemia in Women of Reproductive Age (12-49y) in LA

Overweight and obesity: > 1 SD BMI-for-age (12-18y), WHO 2006; and BMI > 25 in adults
Anemia: Hb < 12mg/dl


Household level: National prevalence of Overweight/Obese mother – Stunted Child Pairs in LA

Stunting: <-2 SD Height-for-age, WHO 2006, Overweight: BMI > 25 in mothers

Individual level: National Prevalence of Women of Reproductive Age with Excess weight and Anemia

![Bar chart showing prevalence of women with excess weight and anemia across different countries.]

*Observed prevalence is greater than expected prevalence P < 0.05
*Observed prevalence is lower than expected prevalence P < 0.05


Individual level: Children with Excess Weight and Stunting

*Stunting does not increase incidence of excess weight.

![Bar chart showing prevalence of children with excess weight and stunting across different ages and countries.]

*Observed prevalence is greater than expected prevalence P < 0.05
*Observed prevalence is lower than expected prevalence P < 0.05

### 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.

**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

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

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: INMEDIATE 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

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