

Top food sources of energy and nutrients-to-limit among Latin Americans: Latin American Study of Nutrition and Health Study (ELANS) 2014-2015

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Introduction: Energy intake in excess of energy expenditure and higher intakes of added sugars, solid fatty acids (SFA) and sodium (Na) contribute to unhealthy weight gain and chronic non-communicable diseases in overall population. Evidence from high-income countries (HIC), such as the USA and Canada, has shown an increase in the consumption of these nutrients. Latin-American countries are not impervious to this global public health concern. Understanding current food sources of energy and overconsumed nutrients of public health concern among Latin-Americans is important for designing socio-cultural strategies to help meet current dietary recommendations.

Purpose: To identify the most commonly consumed food sources by Latin-Americans (≥15yo) in terms of their contribution to energy and overconsumed nutrients of public health concern.

Methods: The ELANS is a multicenter cross-sectional nutrition and health surveillance study of a nationally representative sample of urban populations from eight Latin American countries (Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Peru, and Venezuela). Dietary intake data was obtained from two in-person 24h dietary recall using an auto-mated multiple pass method. An adaptation of the “What We Eat in American (WWEIA)” food category classification system was used to classify all foods consumed. The ELANS database was used to identify the food grouping based on sources of nutrients in the Latin American diet. Rank order and percentage were obtained in STATA version 13.

Argentina							
Energy (%)		Added Sugars (%)		Solid Fats (%)		Sodium (%)	
Meats	10,13	Sweetened Beverages*	47,67	Meats*	16,42	Breads, Rolls, Tortillas*	13,71
Breads, Rolls, Tortillas*	9,75	Sugars*	30,46	Mixed Dishes - Pizza	13,37	Mixed Dishes - Grain-based	12,86
Sweetened Beverages	8,99	Sweet Bakery Products	10,92	Mixed Dishes - Grain-based	12,74	Mixed Dishes - Pizza	9,47
Brazil							
Cooked grains*	12,02	Sweetened Beverages*	44,86	Meats*	21,00	Cooked grains*	14,79
Meats	10,22	Sugars*	29,80	Fats and Oils	13,79	Breads, Rolls, Tortillas*	11,00
Breads, Rolls, Tortillas*	9,93	Sweet Bakery Products	9,01	Milk	9,67	Meats	10,58
Chile							
Breads, Rolls, Tortillas*	23,73	Sweetened Beverages*	45,97	Fats and Oils	14,97	Breads, Rolls, Tortillas*	29,11
Sweetened Beverages	8,20	Sugars*	27,09	Cheese	13,25	Cured Meats/Poultry	9,98
Cooked grains*	6,16	Sweet Bakery Products	12,62	Breads, Rolls, Tortillas	11,36	Cooked grains*	8,49
Colombia							
Cooked grains*	10,18	Sugars*	37,97	Meats*	13,57	Mixed Dishes - Soups	16,88
Breads, Rolls, Tortillas*	8,20	Sweetened Beverages*	33,94	Mixed Dishes – M/P/S	8,87	Cooked grains*	14,04
Sweetened Beverages	6,82	Sweet Bakery Products	5,95	Milk	7,99	Breads, Rolls, Tortillas*	11,06
Costa Rica							
Cooked grains*	15,47	Sweetened Beverages*	28,76	Meats*	15,09	Cooked grains*	18,09
Mixed Dishes - Grain-based	9,45	Sugars*	24,54	Fats and Oils	9,48	Mixed Dishes - Grain-based	13,41
Breads, Rolls, Tortillas*	7,42	100% Juice	18,32	Sweet Bakery Products	8,32	Meats	7,93
Ecuador							
Cooked grains*	17,81	Sweetened Beverages*	36,53	Meats*	11,40	Cooked grains*	20,03
Mixed Dishes - Soups	7,07	Sugars*	30,95	Cheese	10,46	Mixed Dishes - Soups	15,70
Sweet Bakery Products	7,01	100% Juice	11,36	Mixed Dishes – M/P/S	8,68	Mixed Dishes - Meat, Poultry, Seafood	8,78
Venezuela							
Breads, Rolls, Tortillas*	13,59	Sweetened Beverages*	35,47	Cheese	25,12	Breads, Rolls, Tortillas*	21,12
Mixed Dishes - Grain-based	9,11	100% Juice	20,78	Mixed Dishes - Grain-based	14,66	Cooked grains*	10,64
Cooked grains*	8,35	Sugars*	20,46	Meats*	13,15	Mixed Dishes - Grain-based	9,06
Peru							
Cooked grains*	19,93	Sugars*	57,68	Poultry	13,28	Cooked grains*	51,99
Breads, Rolls, Tortillas*	9,53	Sweetened Beverages*	23,72	Meats*	12,36	Breads, Rolls, Tortillas*	15,70
Sugars	9,02	Sweet Bakery Products	6,51	Eggs and omelets	7,96	Poultry	3,88

Note: *Food groups that are commonly consumed in the eight countries (appears at least in 6/8 countries (80%))

M/P/S = Meat, Poultry and Seafoods

Discussion: Socio-cultural differences in total energy consumed by Latin-American countries in comparison to HIC were found¹. A large proportion of total energy in these countries was from grains sources (e.g., cooked grains; and bread, rolls and tortillas) while in HIC were from energy-dense food groups (e.g., sweetened beverages and snacks and sweets). Therefore, Latin-Americans are consuming more energy from sources that are either high in calories, but from some major sources contributing important vitamins and minerals². Awareness of food sources may be useful to create or refine dietary strategies within public health initiative considering socio-cultural aspects to improve the diets of Latin-Americans.

References:

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