

Latin American Survey of Nutrition and Health (ELANS): Study design



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INTRODUCTION

- Decreased physical activity patterns and increased energy intake have been linked to obesity and non-communicable diseases.
- However, there are no updated dietary intake surveys in many Latin America countries and dietary and physical recommendations are based on limited data.

OBJECTIVE

This epidemiological research aims to evaluate the nutritional intake, physical activity and energy expenditure among urban populations of 8 Latin American countries.

METHODS

- ELANS is a household-based multi-national cross-sectional survey to be conducted in 8 Latin American countries;
- Study protocol was designed to investigate anthropometric profile, nutritional intake, and physical activity of 8,000 subjects;
- The study was based on complex, multistage sample design, stratified by conglomerates, being all regions of each country represented, and random selection of main cities within each region according to probability proportional to size method.
- All the study sites are university-based and will adhere to a common study protocol, training, data collection, and quality control procedures to be performed simultaneously.



Study sample

- 8,000 subjects (based on a complex multistage probability sample design stratified by conglomerates)
- Both gender,
- Age: 15 to 65 years
- Socioeconomic level: high, medium and low strata

Instruments

Data collection process involves 2 household visits (8 days a part) for the following evaluations:

1. Demographic and socioeconomic profile: sex, age, ethnicity, marital status, presence of children in the household, number of people in the household, educational level, and socioeconomic level)
2. Dietary pattern:
 - a. Two 24-hour dietary recall (according to Multiple Pass Method)
 - b. Food Frequency Questionnaire (for beverages intake)
3. Anthropometry evaluation: weight, height, waist, hip and neck circumferences
4. Physical activity and energy expenditure:
 - a. IPAQ-Long Questionnaire (adapted according to IPEN study)
 - b. 7 day of Accelerometry

A pilot study at small scale (50 subjects) will be performed in each country in order to test procedures and tools involved in ELANS.

Protocol and Ethical Approvals

The overarching ELANS protocol was approved by the Western Institutional Review Board (#20140605) and registered at Clinical Trials (#NCT02226627). Each site-specific protocol was also approved by the ethical review boards at the participating institutions.

CONCLUSION

This study will result in a unique dataset for Latin America, enabling cross country comparisons in nutritional status, focusing both energy intake and expenditure. Thus, it will provide reliable information for planning of health policies and programs aimed to control nutritional inadequacies and their consequences that may be culturally adapted for implementation in Latin American countries.

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