

Secular trends of physical growth and abdominal adiposity of school children and adolescents living at a moderate altitude in Peru

Cossio-Bolaños M.

de Arruda M.

Andruske C.L.

Luarte-Rocha C.

Gómez-Campos R.

Objective: Identify changes in physical growth and abdominal adiposity at an interval of 14 years in children and adolescents living at a moderate altitude in Peru. **Materials and Methods:** The data comes from two cross-sectional studies carried out in the city of Arequipa, Peru, located at a moderate altitude of 2,320 meters. In 2001, 473 males and 482 females were assessed, and in 2015, 432 males and 403 females between 6.0 and 12.9 years old were evaluated. Data were collected in public state schools and measured using the anthropometric variables for weight, height, and waist circumference. Body mass index (BMI) was calculated according to age and sex. **Results:** Positive trends for weight were identified for both males and females at all ages ($p < .001$). For height, significant increases were observed in males for all ages. No significant increases ($p > .05$) occurred in height for females between the ages of 6 and 8 years. However, commencing at age 9 until 12 years, females showed positive and significant increases ($p < .001$) in height. In 2015, BMI and waist circumference increased significantly for both sexes at all ages. **Discussion:** Between 2001 and 2015, positive trends in physical growth and abdominal adiposity were identified for children and adolescents living in Arequipa, Peru. These changes may be associated with the rapid economic development in the country. © 2016 Wiley Periodicals, Inc.

altitude

height

schoolchildren

waist circumference

weight

abdominal obesity

adolescent

age distribution

altitude

Article

body height

body mass

body weight

child

child growth

controlled study

female

human

major clinical study

male

Peru

school child

sex difference

waist circumference

altitude

American Indian

cross-sectional study

epidemiology

obesity

physical anthropology

physiology

statistics and numerical data

Adiposity

Altitude

Anthropology, Physical

Body Height

Body Weight

Child

Cross-Sectional Studies

Female

Humans

Indians, South American

Male

Peru

Waist Circumference