Incorporating Latin American Perspectives

Evaluation & Promotion of Physical Activity
Curso Virtual:
PRINCIPIOS FUNDAMENTALES PARA LA EVALUACIÓN Y PROMOCIÓN DE
PROGRAMAS DE Actividad Física

Curso introductorio para profesionales interesados en adquirir y mejorar sus habilidades para promover y evaluar programas de actividad física

Conoce más sobre:
- Beneficios
- Recomendaciones
- Métodos de medición
- Evaluación de programas
- ¡Todo sobre la actividad Física!

Temas:
- Introducción a la promoción de la actividad física a nivel clínico y poblacional.
- Recomendaciones internacionales sobre el nivel de actividad física adecuado a lo largo del ciclo de vida.
- Métodos de medición y evaluación de la actividad física.
- Evaluación de intervenciones para promover la actividad física.

Inicia: 1 de noviembre 2010
Duración: 5 semanas
Costo: US$ 135.00
Cierre de inscripción: 15 de octubre 2010

A las primeras aplicaciones enviadas que cumplan con los requisitos establecidos en la convocatoria, el CIPEC otorgará una beca por el 60% del costo total del curso.

Para mayor información visite: www.cipec-incap.org
Sponsors

CIIPEC – INCAP Comprehensive Center for the Prevention of Chronic Diseases

INCAP- Institute of Nutrition for Central America and Panamá

GUIA – Guide for Useful Interventions for Physical Activity in Brazil & Latin America
INCAP- Institute of Nutrition for Central America and Panamá

- WHO/PAHO
CIIPEC – INCAP Comprehensive Center for the Prevention of Chronic Diseases

- International research and HR training center of excellence that aims to build local and regional capacities for health promotion and DRCD prevention and care.

- National Heart, Lung and Blood Institute (NHLBI) and United Health Group, (UHG).

- RAND Corporation and from Public Health Schools of Harvard University, Johns Hopkins University, and Michigan University.
Initiated in 2005

Goal: to examine and promote evidence-based strategies to increase physical activity in Brazil and Latin America.

CDC, PRC St. Louis, the Federal University of Sao Paulo, PAHO
1. Victor Matsudo, MD
   - Specialized in Orthopedics, Trauma and Sports Medicine.
   - Scientific director of the Physical Activity Research Center in Brazil.
   - President of the Agita Sao Paulo Project
   - International consultant for Active Living WHO
   - Vice President of the International Counsel of Sports Sciences and Physical Education.
Presenters

Felipe Lobelo, MD, PhD – Exercise sciences
  - EIS/CDC/NCCDPHP/DNPA

Manuel Ramirez, MD, PhD
  - Coordinator of CIIPEC
  - Coordinator of the INCAP’s Physiology and Body Composition Lab

Diana Parra, MPH, PhD student
  - PRC St Louis CDC Orise Fellow
  - Coordinator of GUIA
Attendees

- About 60 people from most countries in Latin America.
- MDs, nutritionists, physical therapists, exercise scientists
Brief Summary of Key Articles
Recognize profound shift in major causes of death and disease in developed countries and underway in many developing countries

- 2001 60% of deaths worldwide caused by non-communicable disease
- Physical inactivity 4th leading risk factor for global mortality

Goal: promote and protect health by guiding...actions at individual, community, national and global levels that... will lead to reduced disease and death rates related to unhealthy diet and physical inactivity
Figure 6: Deaths attributed to 19 leading risk factors, by country income level, 2004.
Worldwide, overweight and obesity cause more deaths than underweight.

WHO estimates that, in 2005, more than 1 billion people worldwide were overweight (BMI ≥ 25) and more than 300 million were obese (BMI ≥ 30).

Mean BMI, overweight and obesity are increasing worldwide due to changes in diet and increasing physical inactivity.
Rationale for Physical Inactivity as a Risk Factor

- The risk of coronary heart disease, ischaemic stroke and type 2 diabetes grows steadily with increasing body mass, as do the risks of cancers of the breast, colon, prostate and other organs.

- Physical inactivity is estimated to cause around 21–25% of breast and colon cancer burden, 27% of diabetes and about 30% of ischaemic heart disease burden.

- The combined burden of these diet-related risks and physical inactivity in low- and middle-income countries is similar to that caused by HIV/AIDS and tuberculosis.
2006 Report – remarks on progress 1996-2006 in 5 critical areas:

1. **Dose-Response relationship** between Physical Activity and Health
   - 1000 kcal/wk in just 1 or 2 bouts can postpone mortality
   - 30 minutes/day sufficient to decrease risk of cardiovascular disease
   - 60 to 90 min/day at moderate intensity needed to prevent weight re-gain
   - 30 to 50 min/day to prevent transition to overweight
2. Short Episodes

- Energy expenditure: 3 short bouts = 1 long bout
- Effectively increases physical fitness
- Inconclusive with respect to body mass, lipids, blood pressure and glucose and insulin
  - Most studies show short total duration and small dose of PA
- Short bouts of stair climbing increased aerobic capacity
- Health associations with commuting seen mainly with more than 30 min commuting time per day
- Household chores – depend on intensity
  - Those done outdoors more often meet moderate intensity criterion including walking the dog
3. Assessment and Surveillance
   - Key changes in approach
     - Population level assessment; domains and settings; use of measures from other disciplines

5. Promoting Physical Activity
   - Community based approaches
     - Society as a whole; collective responsibility; risk conditions; unhealthy environments

6. Future
   - Bigger bolder visions to create societal change. e.g.:
     - Norway requires schools provide 1 hour PA each day
     - President Costa Rica proposed to spend 5% of nat’l health budget on disease prevention and health promotion
Adults:
- at least 150 min/wk moderate intensity aerobic physical activity
  - Or 75 min/wk vigorous intensity
  
  *Rule of thumb: moderate = talk not sing; vigorous = no more than a few words without pausing for breath*
  
  - Minimum 10 minute bouts
  - Spread throughout the week

- **Also** muscle-strengthening activities 2 or more days/week
  
  - All major muscle groups

*Provides major health benefits regardless of weight change!*
## Prevalence of Self-Reported Physically Active Adults 2007

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<thead>
<tr>
<th>Healthy People 2010 Objectives</th>
<th>2008 Physical Activity Guidelines</th>
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<tr>
<td>- 30 min moderate intensity activity, 5d/wk or 20 min vigorous intensity activity 3d/wk</td>
<td>- 150 min moderate intensity activity/wk or 75 minutes vigorous intensity activity/wk</td>
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### 48.8% met objectives in 2007 BRFSS survey

### 64.5% met guidelines in 2007 BRFSS survey

Self-reported PA higher than accelerometer measured (2003-2004 NHANES): 42% young children; 3-12% adolescents; <5% adults
Tools of Note for Measuring Community Based Physical Activity

- **SOPARC** — System for Observing Play and Recreation in Communities (parks)
- **NEWS** — Neighborhood Environment Walkability Scale
- **Community Guide** — provides rating of effective interventions to increase physical activity vs those with insufficient evidence (www.thecommunityguide.org)
Built Environment Factors that Influence Physical Activity (Brownson et al. 2009)

- **Functional**
  - Walking Surface; Streets; Traffic; Permeability
- **Safety**
  - Personal; Traffic
- **Aesthetic**
  - Streetscape; Views
- **Destination**
  - Facilities
- **Other**
  - Community-wide campaigns to increase active living
“In the future it will be important to include socio-political variables in addition to the measures of the built environment...”
Honduras: a five-star country
Central America
Copan
Bay Islands are a part of the world's second largest barrier reef system
La Esperanza
In 2004, violence was the main cause of death in Brazil, Colombia, Venezuela, El Salvador, Mexico and Honduras (UN)
Analysts say that growing social inequality is fuelling crime in the region

TEGUCIGALPA

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According to the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) Latin America is the most unequal region in the world.

Total Income

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<th>L.A.</th>
<th>Developed</th>
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<tr>
<td>Richest</td>
<td>48</td>
<td>29</td>
</tr>
<tr>
<td>Poorest</td>
<td>1.6</td>
<td>2.5</td>
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(World Bank)
Countries with the highest inequality in the region (UN)

Haiti
Colombia
Bolivia
Honduras
Poorest countries in the region (World Bank)

Haiti
Nicaragua
Bolivia
Honduras
Undernourishment
(World Bank)

Haiti 47%
Nicaragua 27%
Bolivia 23%
Honduras 22%
Countries with the highest homicide rate per year per 100,000 inhabitants

Honduras 59
Guatemala 57.9
El Salvador 49.1
Venezuela 48
Two Big Problems:

VIOLENCE “MARAS”

DENGUE
The gang phenomenon is considered by many as one of the biggest problems affecting Honduras.

The current level of youth violence in Honduras is among the worst in Central America. USAID
In 2004, the estimated murder rate per 100,000 people was 45.9 in Honduras. In the United States, the corresponding figure was 5.7.
Costs and Impacts of Gang Activity

- The majority of government resources goes towards law enforcement
- Very little is allocated for prevention and intervention

USAID
Causes and Risk Factors of Gang Activity

- Lack of opportunities and alternatives for youth and adolescents
- Family breakdown
- Movement of Hondurans to and from the United States
- Abuse of drugs and alcohol
Gang violence may threaten political stability, inhibit social development, and discourage foreign investment in Central America.
“Acting President Victor Hugo Barnica declared on Tuesday an emergency state due to the increase of dengue cases, a disease which has killed nine people this year in the country.”

“President Porfirio Lobo is absent for supporting its national soccer team in South Africa.”

“The combat against dengue in Honduras has been difficult because workers of the health sector have occupied several buildings demanding a salary rise.”