

Promotion of Cardiovascular Health in Preschool Children: 36-Month Cohort Follow-up

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No disclosures



Salud Integral
COLOMBIA



Mount
Sinai
Heart



Background

- CVD leads to mortality worldwide / Colombia
 - Lifestyle changes (diet, sedentary behaviour)
 - CVD risk factors identifiable in childhood
 - **Age 3-5 years is a window of opportunity to effectively intervene for subsequent health behavior.**
 - Accordingly, our intervention targeted preschoolers
-

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Céspedes JA, Fuster VF, etal.: AJM. 2013; 126: 1: 27 -35e.

Céspedes JA, Fuster VF, etal.: AJM. 2013; (in press).

Setting



Low SES
Female led households



**Multicomponent
Pedagogical
strategy focused
on key messages**



40 hours



Children: 3-5 yrs
Endpoint: 6-8 yrs
Parents : 30.7 yrs

**Heart & Body
awareness**

**Diverse &
balanced nutrition**

**Physical
activity**

Intervention

Teachers

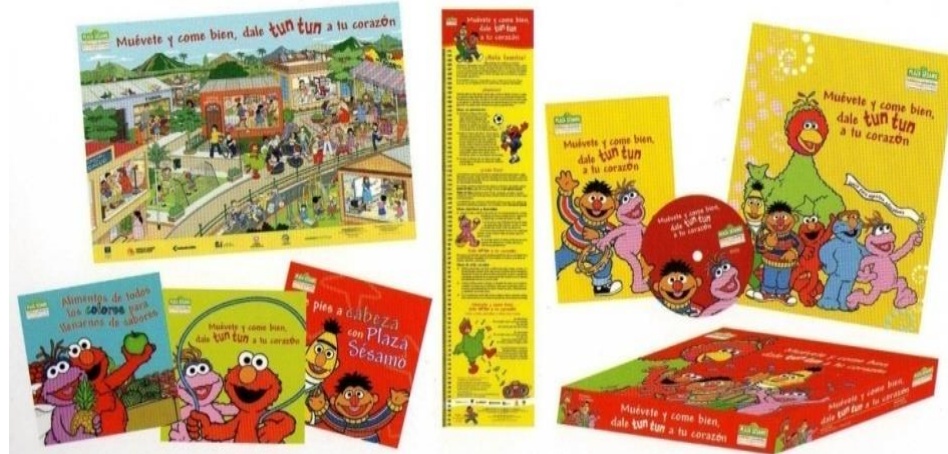
Children

Parents



INICIATIVA COLOMBIANA POR UN
CORAZÓN SALUDABLE

PLANEADOR PEDAGÓGICO



Notas Saludables
INICIATIVA COLOMBIANA POR UN CORAZÓN SALUDABLE

¿SABÍAS QUE...?

El corazón se puede enfermar y estas enfermedades pueden ser muy graves.

Esta acumulación de grasa puede iniciarse desde la niñez, y depende en gran medida de los alimentos que se consumen y de la cantidad de actividad física que los niños hacen.

Si ellos aprenden a comer bien y a hacer ejercicio físico todos los días estarán ayudando a tener un corazón sano para cuando sean jóvenes y adultos.

De esta manera se disminuyen los factores de riesgo cardiovascular que son la salud, antecedentes familiares como factores no modificables, y la presencia de hipertensión arterial, elevación del colesterol, obesidad, el tabaquismo y la diabetes.

Actividad de la semana
Pala a su hijo que recorte varias imágenes de las partes del cuerpo: Cabeza, tronco, brazos, manos y piernas. Marque las recortes e invítelo a ensamblar Persepolis.

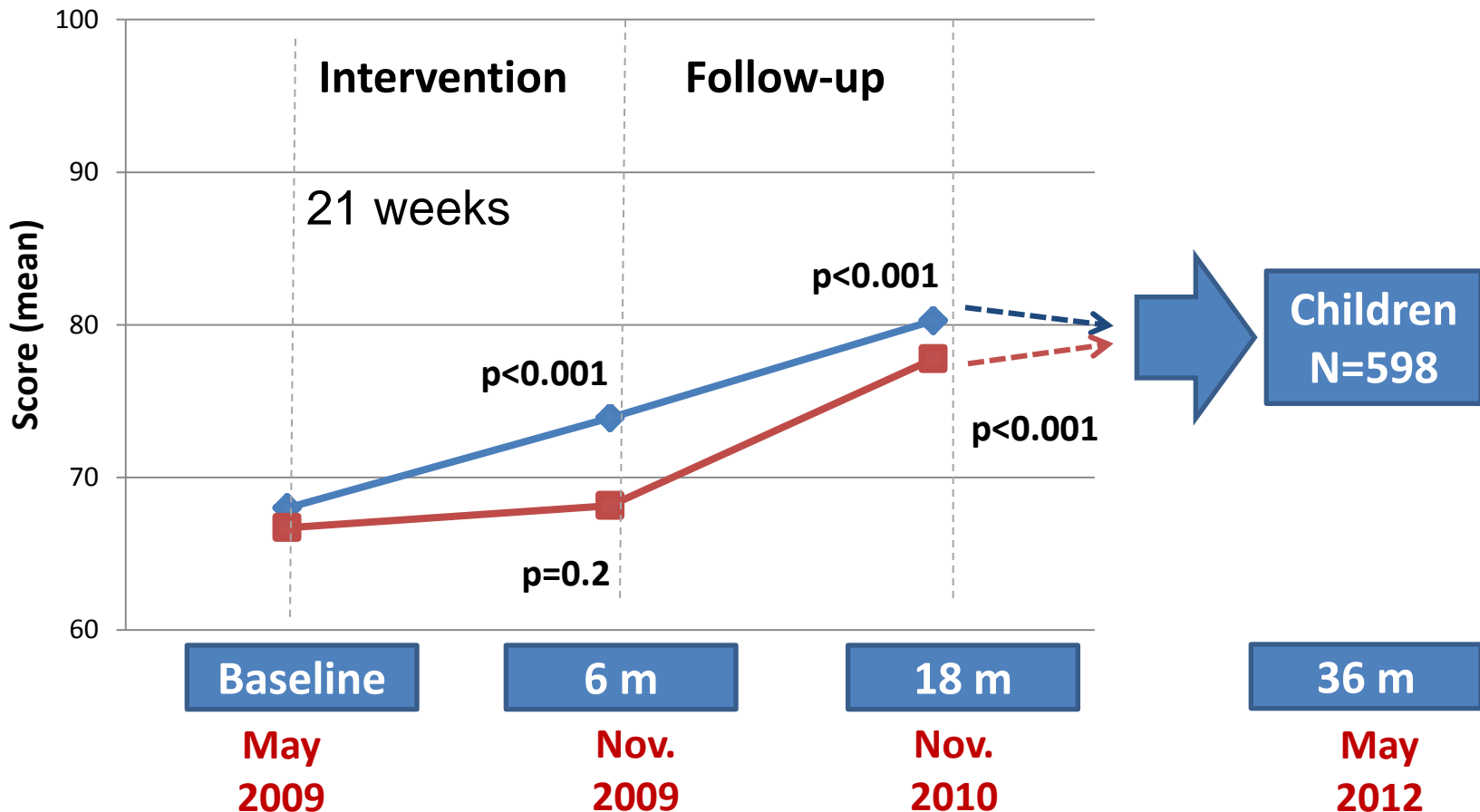
Hable con su hijo sobre la cantidad del cuerpo: higiene, alimentación sana y actividad física regular.

Combined RCT - Cohort follow up

14 → 305 school facilities

Cluster RCT

Cohort

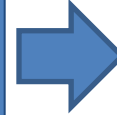


Study measurements - Outcomes



Educational areas:

- 1- Heart and Body
- 2- Nutrition
- 3- Physical activity



Evaluation areas

- 1- Knowledge
- 2- Attitudes
- 3- Habits

- **Mean change on children's KAH scores over time**
- **Change in children's nutritional status**

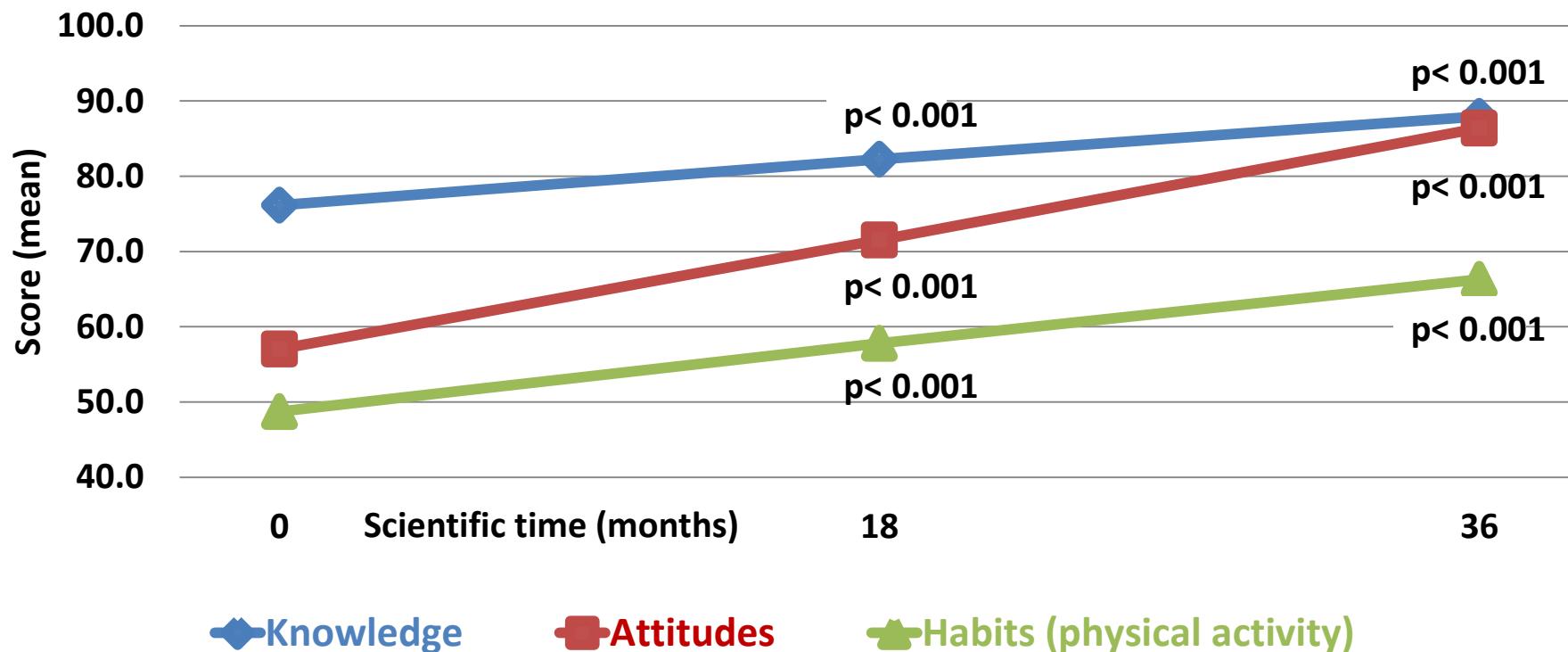
K: Cumulated sum of information acquired over time.

A: Learned predisposition to behave in a consistent way.

H: Learned responses which are regularly manifested (physical activity, etc).

Results - 1

36m-change in children's **KAH** mean scores*

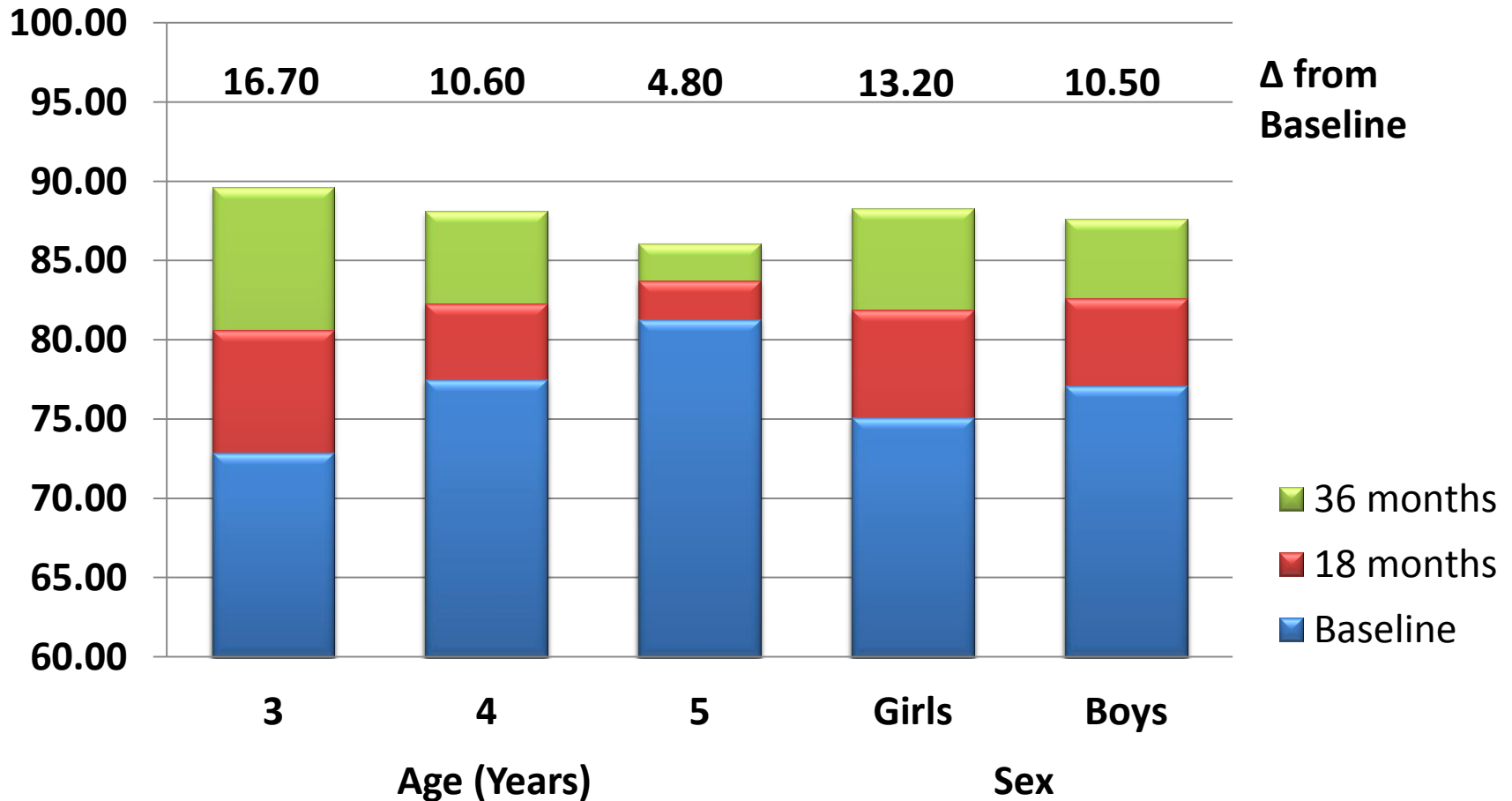


*0 – 100 scale

Adjusted by sex and age of children, group, socioeconomic status, age of parents, age and educational level of teachers .

Results - 2

36m-change Children's Knowledge mean scores*



* adjusted by age and sex covariates

Results - 3

36m-change Children's nutritional status*

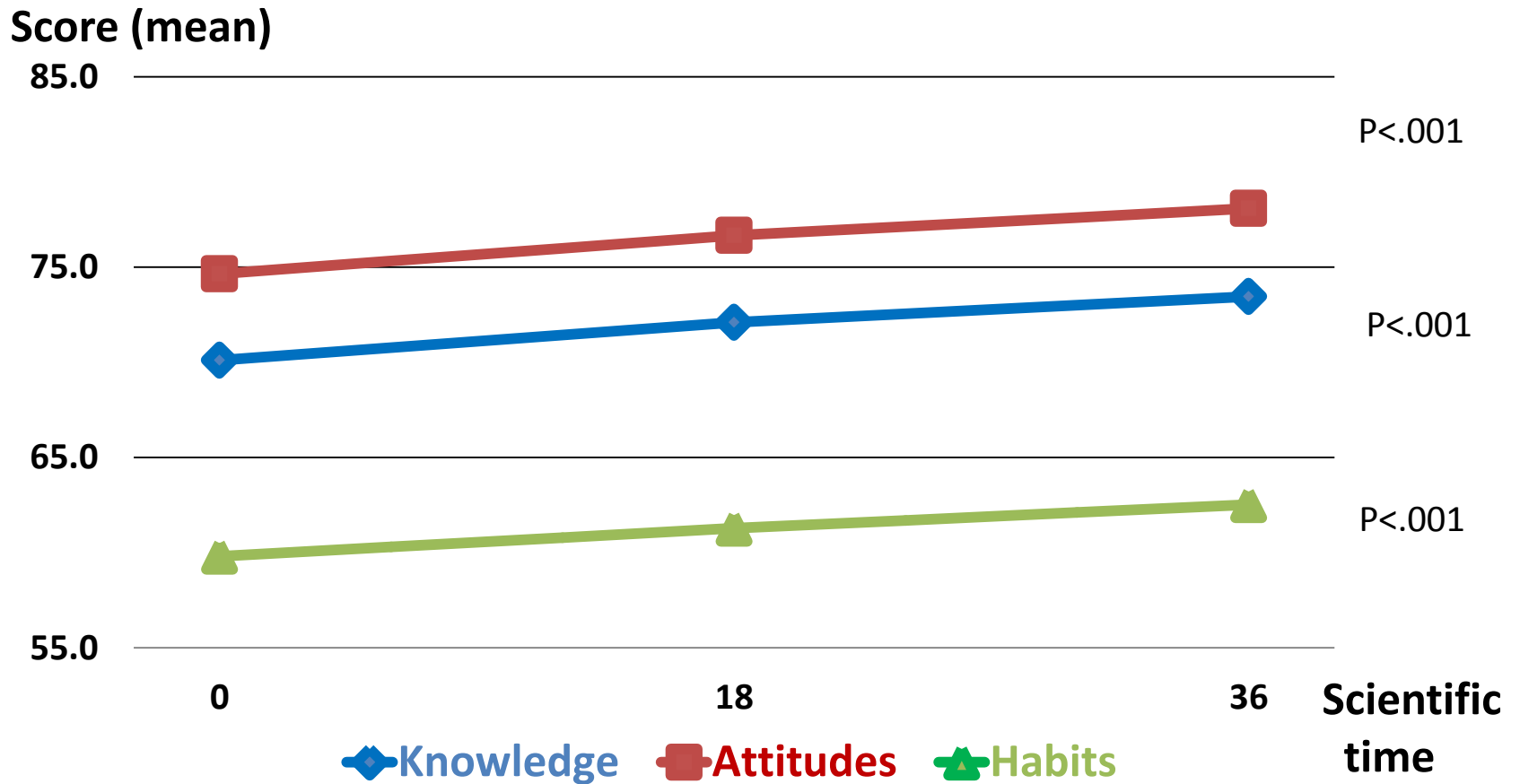
Nutritional status	Baseline	18 months	36 months	
	(%)	(%)	(%)	p value*
Underweight	15.5	12.3	3.3	<0.0001
Eutrophic	62.1	64.6	75.0	<0.0001
Overweight / obese	22.4	23.1	21.7	0.7354

* % of Eutrophic

CDC growth charts BMI/age-sex: Underweight: -2 SD and < - 1 SD,
 Eutrophic: -1 SD and +1 SD,
 Overweight: > +1 and +2SD,
 Obese: >+2SD

Results - 4

36m-change Parent's KAH mean scores



Delta from Baseline: Knowledge:3.5, Attitudes:3.4, Habits: 2.7

Conclusions

- This pre-school based intervention maintains a positive change in children's knowledge, attitudes and habits after 36 months
- This study contributes to the mounting evidence for the effectiveness of similar interventions initiated at preschool years and could represent a critical period for cardiovascular health promotion

Limitations

- Such projects are challenging due to the high migration of families and children moving to new schools
- Because of the original significant benefit obtained on the intervened group, we were obliged to later deliver the interventional strategy to the control group, as well
- There is limited data collection on dietary habits; this will be addressed in the follow-up program