

Tackling childhood obesity in Chile – how
the IAEA support since 20 years has
helped to address the problem and
contributed to halting the rise in
childhood obesity in pre-school children

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19–20 September 2017

IAEA Scientific Forum

**Nuclear Techniques
in Human Health**

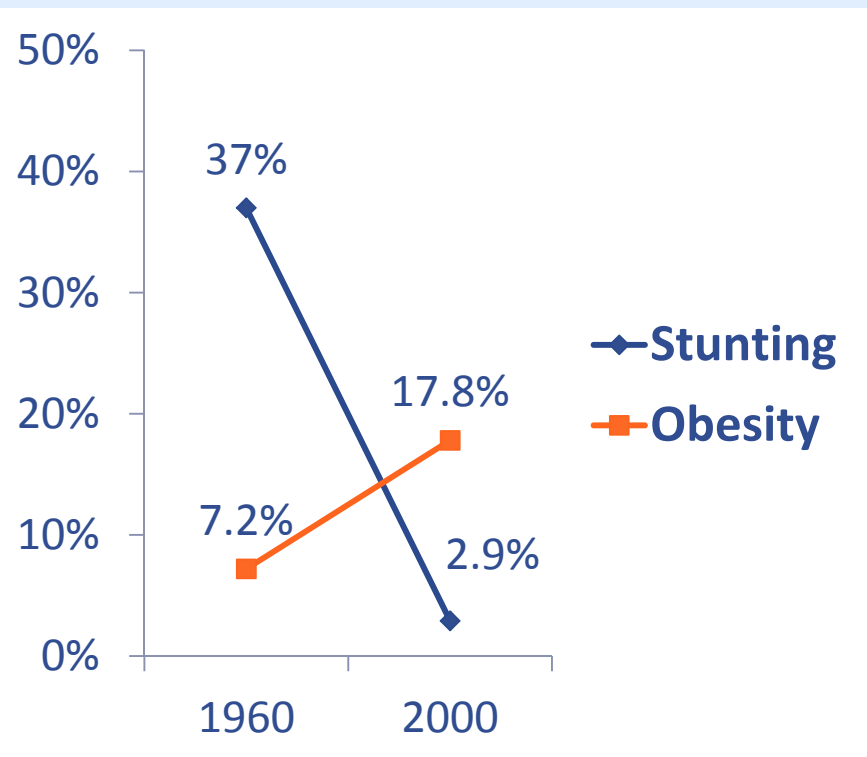
Prevention, Diagnosis, Treatment



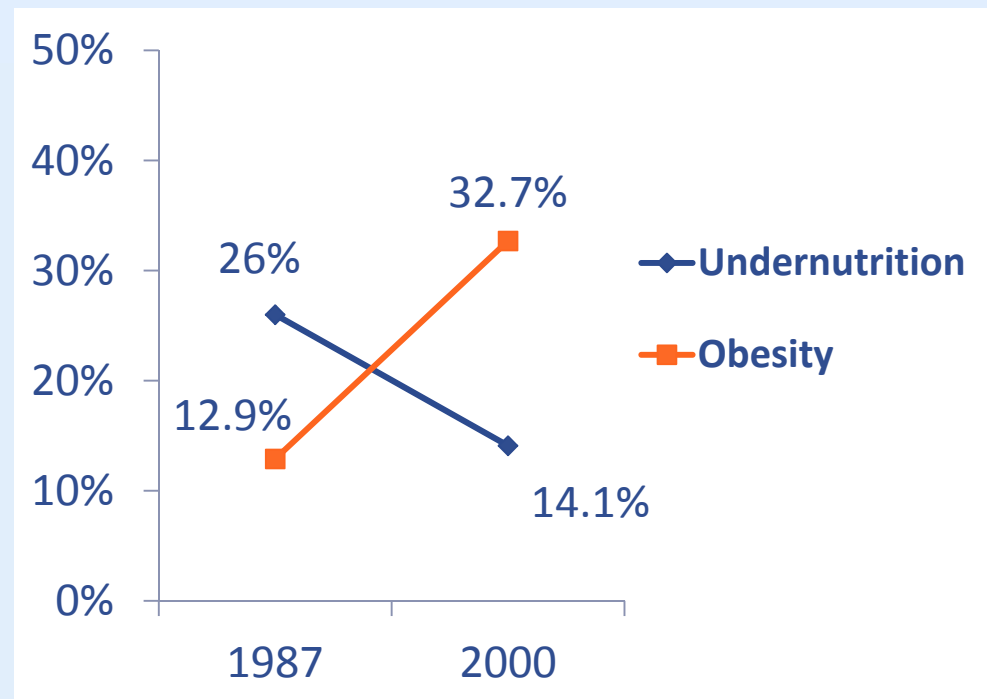
The Historical context

1960-2000: Chile underwent rapid demographic, epidemiological and nutritional transitions; higher income and major dietary changes (high sugar & high fat)

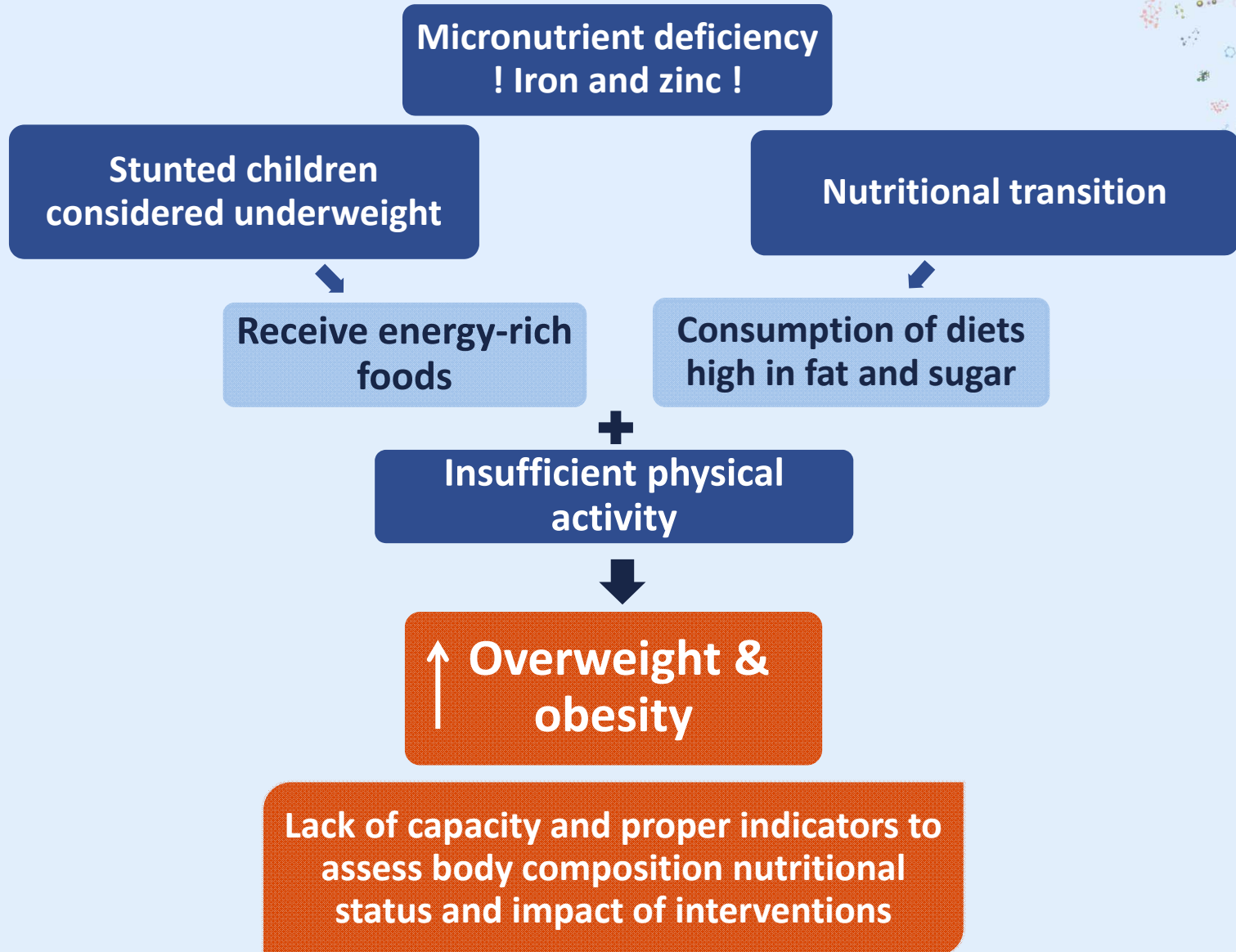
Children < 6 years old



Pregnant Women



Major challenges



Actions



**Exclusive
breastfeeding practice
birth to 6 mo
(paid maternity leave)**

**Iron and zinc
fortification of
powdered cow's milk
(6-24 m old children)**

**Rigorous growth
monitoring
including length
and height**

**Dietary
diversification
in nursery school
meals**

How the IAEA contributed to address the challenges and inform the actions

1997

IAEA started working with University of Chile, Institute of Nutrition and Food Technology (INTA) to address malnutrition

1998

Energy Metabolism and Stable Isotopes Laboratory (EMSIL) was established with support from IAEA

1999 – 2004

- Impact of iron fortified food on anaemia in children (RLA7008)
- Body composition and energy expenditure in children attending day care centres (RLA7008)

2005 – 2009

- Reduction of childhood malnutrition (RLA6052)
- Early diagnosis of *Helicobacter pylori* infection (RLA6054)

2014 (ongoing)

Early diagnosis of sarcopenia (RLA6073)

2012 – 2015

Breast milk intake and body composition (RLA6071)

2009 – 2015

Double burden of malnutrition (RLA6064)

2007 -2012

Prevent and control obesity in Latin America (RLA6059)

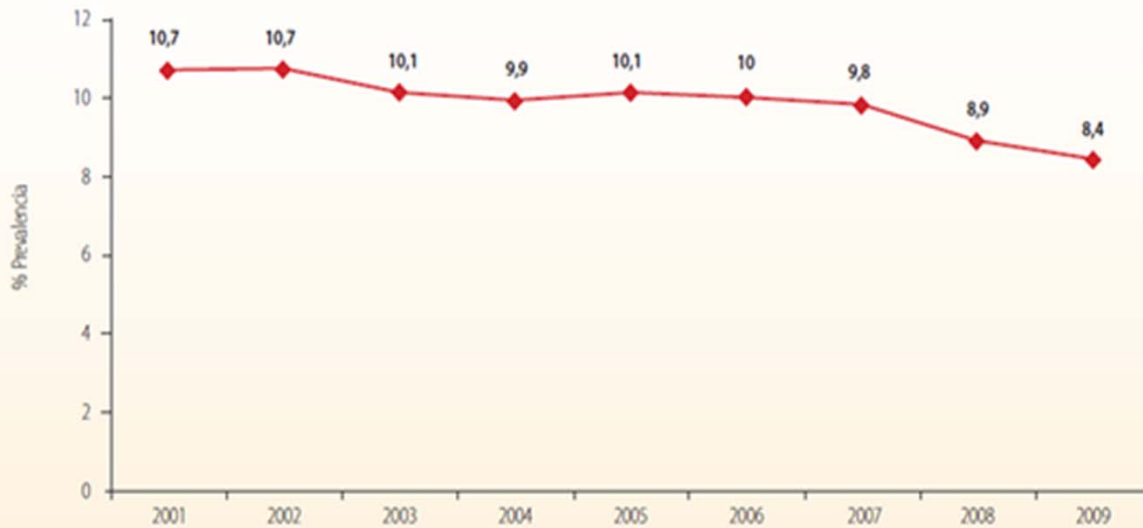
Day Care Centres for pre-school children

IAEA nuclear techniques identify high energy intake and physical inactivity

Provision of nutritious foods and early stimulation

Physical activity programme was designed and included into the curriculum

Obesity rate in preschool children was reduced from **10.7% in 2001** to **8.4% in 2009**



Fuente: Sistema de Información del Estado Nutricional de la Junta Nacional de Jardines Infantiles (JUNJI)



Conclusions

- **Lessons** learned from the IAEA-supported project **were adopted by several neighbouring countries**
- However, **obesity** in children **remains a major challenge** in Chile
- **Stunting** has **decreased to 1.8%** (**children < 5**) while **obesity** prevalence is **24%** (**children 1-6 years**)
- More needs to be done; **nuclear techniques** will be needed to **achieve effective interventions**





Thank you!