# ToyBox – a European multi-country study of obesity prevention for pre-school children



# NEWSLETTER Spring 2012

#### First results!

The first stage of the ToyBox-study is complete and the results are revealed in a special supplement published by *Obesity Reviews*.

# Childhood obesity: large variations across European countries

Six different countries  $-\sin \alpha$  different rates of obesity.

Re-analysing existing data, the ToyBox-study group found that the prevalence of overweight among pre-school children shows wide variation.

In three countries – Belgium, Germany and Poland, under 5% of pre-schoolers are obese, but a further 10-18% are overweight. In Bulgaria the figures rise to 6% and 20% respectively.

Higher rates are observed in Greece and Spain. Over 10% of young children are obese, and a further 28-35% are overweight, resulting in over a third of all pre-school children having excess weight.

Research by MM van Stralen (VU University Medical Centre, Amsterdam) and colleagues.

## It is time for a new approach, says the ToyBox Coordinator.

Dr Yannis Manios, the coordinator of the ToyBox-study, Assistant Professor in Harokopio University, Athens, says it is time for fresh thinking on obesity prevention.

'We have conducted new systematic reviews of the scientific literature, focussing on children before they enter primary education,' said Dr Manios. 'We need to think about the best approaches for improving snacking and drinking habits, and to increase physical activity levels and limit sedentary behaviour.'

'The next phase of our study is to implement a preschool-based, family-involved program to influence behaviour in 4-6 year olds, allowing for cultural diversities in six European countries, and assess its costeffectiveness', he said.

#### Too much television at weekends?

A ToyBox systematic review showed that young children who watch the most television also eat the most unhealthy snacks and drink the most sweetened beverages.

Research by Marieke De Craemer (Ghent University) and colleagues also found that young children are more physically active during the week but less active at weekends.

The paper suggests that less TV and fewer unhealthy snacks and soft drinks will help these children most. Getting them active at weekends will also help.

#### Healthy diets need a subtle approach

Telling children or parents what they should be eating is not enough, say a group of researchers led by Dr Leigh Gibson, University of Roehampton, London.

'You need to get children to try 'strange' food items over and over again' he said. 'By the tenth trial, they will be much less averse to a new food.'

'Don't use unhealthy food as a reward for eating healthy food, said Dr Gibson. 'Saying 'well done', smiling, being encouraging and leading by your own example can be enough.'

#### Getting children to be active doesn't need a lot!

Pre-school children are naturally full of energy and do not need expensive equipment or structures to get them going.

That is the conclusion of a critical review of scientific studies of physical activity in young children, undertaken by Susanne Kreichauf (State Institute of Early Childhood Research, Germany) and an international team of colleagues.

'Children show a burst of activity for 10 or 15 minutes, so it is best to give them several opportunities per day to be active' she said. 'To avoid time constraints, try to integrate physical activity into your daily routine. What matters also, is your own enthusiasm and knowledge about physical activity.'

## Researchers: use accelerometers and food records for best results

A review of studies into younger children's behaviour led by Theodora Mouratidou (Zaragoza University, Spain) found that the best assessment tools are parent-reported food records for dietary behaviour. The most reliable way of measuring physical activity is to use accelerometers, the research time concluded.



#### Inactivity is clearly linked to pre-school obesity

A review of several scientific studies has shown a clear link between higher risk of obesity in pre-schoolers with lower levels of physical activity and high levels of sedentary behaviour.

An international team led by Saskia te Velde at the VU University Medical centre, Amsterdam, said linking lower activity levels to obesity was strong, and that there was also good evidence linking TV watching to obesity.

However, the evidence for dietary patterns was unclear, possibly due to the wide variation in the assessed behaviours.

#### The best programmes need to involve parents

Programmes to keep young children from becoming obese work best if parents are closely involved, says a research review led by Catherine Nixon (Durham University, UK) and an international research team.

Both physical activity and dietary change should be part of the programmes. Long-term follow-up is a sign of a good programme too. The focus should be on developing skills along with understanding – and more attention needs to be given to young children's own views, the team says.

#### TV habits: children take their cue from parents

A series of 24 focus groups in six European countries found that family rules strongly influence children's TV and video viewing habits.

According to the surveys, run by an international team of researchers led by Ellen De Decker, of Ghent University, siblings and friends are less influential than parents.

The team also found that the weather has a major influence, and parents may have different rules in rainy and cold weather than they do when the sun is shining.

### We need policies for healthier kindergartens

Many countries appear to lack the right policies to promote health for children in kindergartens, says a review of the legislation, regulations and policy instruments for children in preschool institutions.

A team of researchers led by Aviva Nethe at the Netherlands Institute for Health Promotion and Disease Prevention, found a lack of relevant policies and poor evaluation of the health needs of young children examined, in the six countries to run the pilot ToyBox programme.

'Routine health promotion in kindergartens was absent in all six countries,' she added.



### What works? Eight tips for health pre-schoolers.

Tips for improving the health of younger children have been published by a team led by Professor Carolyn Summerbell, Durham University. Their tips are:

- 1. Encourage walking and cycling short distances, and visit places where children can run around;
- 2. Encourage cooperative play and avoid competitive activities;
- 3. Do not put TVs, computers or video/DVD players in bedrooms;

- 4. Find all-weather play areas, so that children can be active at all times of the year;
- 5. Integrate activity during classroom time in pre-school and kindergartens classes; reduce the time they are sitting still;
- 6. Encourage family eating so the children and parents eat together at meal times;
- 7. Encourage more variety of healthy foods at meal time, and avoid having snack foods in the house;
- 8. No eating while watching TV!

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**ToyBox** is an EU-funded study (2010-2014) to develop and test an innovative and evidence-based obesity prevention programme for children aged 4-6. Early childhood is a critical period for addressing obesity prevention since behaviours, psychological traits and physiological processes are largely developed or formed at this young age. The development and adoption of the desired behaviours will help to ensure optimum growth during childhood and increase the likelihood of long-term health in adulthood.

**ToyBox** comprises a multidisciplinary team of 15 partners across the EU:

Harokopio University, Athens, Greece – Coordinator Dr von Hauner Children's Hospital, University of Munich Medical Centre, Germany Ghent University, Belgium VU University Medical Center, Netherlands Akershus University College, Norway University of Zaragoza, Spain Durham University, UK State Institute of Early Childhood Research, Germany Children's Memorial Health Institute, Poland Medical University of Varna, Bulgaria International Association for the Study of Obesity, UK
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