

# Fruit and vegetable consumption among eleven-year-old children in Iceland.

Kristjansdottir AG<sup>1</sup>, Thorsdottir I<sup>1</sup>, De Bourdeaudhuij I<sup>2</sup>, Due P<sup>3</sup>, Wind M<sup>4</sup>, Klepp KI<sup>5</sup>.

<sup>1</sup>Unit for Nutrition Research, Landspítali-University Hospital & Department of Food Science, University of Iceland, Reykjavik, Iceland.

<sup>2</sup>Department of Movement and Sport Sciences, Ghent University, Ghent, Belgium.

<sup>3</sup>Department of Social Medicine, University of Copenhagen, Copenhagen Denmark.

<sup>4</sup>Department of Public Health, Erasmus University Medical Centre, Rotterdam, The Netherlands.

<sup>5</sup>Department of Nutrition, University of Oslo, Oslo, Norway

## Aims

To assess fruit and vegetable consumption among eleven-year-old schoolchildren and to identify determinants of fruit and vegetable intake.

## Methods

A cross-sectional survey was performed in Iceland in the autumn of 2003 as a part of the Pro Children cross-Europe survey. The survey was designed to provide information on actual consumption levels of vegetables and fruits by 11-year-old school children and to assess potential determinants of consumption patterns. A total of 1235 Icelandic children (89%) from 32 randomly chosen schools participated. Hierarchical regression analyses were performed to determine the explained variance of the children's fruit and vegetable intake. In these analyses socio-demographic background variables were entered as a first block, perceived physical-environmental variables as a second block, perceived socio-environmental variables as a third block and personal variables as a fourth block.

## Results

64% of the children ate fruit less than once a day, and 61% ate vegetables less than once a day. Respectively, 31% and 39% of the variance in children's fruit and vegetable intake was explained by the determinants studied. About 7% and 13% of the variance in fruit and vegetable intake was explained by the perceived physical-environmental determinants, mainly by availability at home. About 18% and 16% of the variance in fruit and vegetable intake was explained by the personal determinants. For both frequency of fruit and vegetable intake, the significant personal determinants were preferences, liking, knowledge of recommendations and self-efficacy.

## Conclusion

Interventions to increase fruit and vegetable intake among children should aim at both environmental factors such as greater availability of fruit and vegetables, and personal factors as self-efficacy and knowledge levels concerning nutrition.