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## Press information

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### Food insecurity attributed to future behavioural disorders in children

When a household experiences financial difficulties, the portion of the budget allocated to food is often restricted. In some cases, these difficulties may lead to food insecurity, i.e. limited and irregular access to a healthy and balanced diet. Based on a case study of 2,120 children, a team of Inserm researchers coordinated by Maria Mechior (Inserm Unit 1017 “Research Centre into epidemiology and population health”) has shown that children in food-insecure families have a high risk of developing long-term behavioural disorders, such as hyperactivity and attention deficiency.

This research has been published in the Plos One review.

Food insecurity is defined as restricted, inadequate or uncertain access to healthy and nutritious food. It is mainly caused by financial difficulties and affects up to 10% of the general public. Previous research has shown that children who grow up in food-insecure families have a high level of psychological and behavioural problems; however, studies conducted to date did not distinguish the different types of behavioural difficulties and did not study relationships over the long-term.

This study conducted by Inserm researchers is based on data from a representative birth cohort of the Québec population. 2,120 children born in 1997-1998 were regularly monitored up to the age of eight. The researchers examined the link between food insecurity in children between 18 months and four and a half years and their behaviour between four and a half and eight years (i.e. the frequency of symptoms of depression/stress, aggression or hyperactivity/attention deficiency).

5.9% of the children monitored experienced food insecurity during their early infancy. Compared to children who were not exposed to food insecurity, this group was three times more likely to develop long-lasting symptoms of hyperactivity and/or attention deficiency during childhood.

This link remains even when account is taken of family income and other characteristics that can be linked to food insecurity and the behaviour of children: single-parent families, parental psychopathology and negative behaviour of parents towards children. The link is therefore independent of these factors.

Food insecurity is a marker for particularly significant social and economic difficulties, of which the impact on the health of adults and children is known.

According to the researchers "Parents who are unable to regularly provide a satisfactory diet to the family may weaken the parent-child bond in early childhood, with effects on the long-term development of these children".

Finally, food insecurity leads to changes in the diet of these families and generally results in the consumption of less fresh food and more foods that are high in fat and sugar. For some children, nutritional deficiencies (particularly iron), as well as excessive sugar intake, can result in hyperactive and inattentive behaviour.

For the researchers "*reducing food insecurity in families could help reduce the frequency of behavioural disorders in young children*".

## Sources

### **Food insecurity and children's mental health: a prospective birth cohort study**

Maria Melchior<sup>1,2</sup>, Jean-François Chastang<sup>1,2</sup>, Bruno Falissard<sup>3</sup>, Cédric Galéra<sup>4</sup> Richard E Tremblay<sup>3,5,6</sup>, Sylvana M Côté<sup>3,5</sup>, Michel Boivin<sup>7</sup>.

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