I.F. Briefing 2

Effects of the IDEFICS Community Intervention to Tackle Childhood Obesity

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An important aspect of the IDEFICS/I.Family study was to see whether a community intervention could help prevent childhood obesity.

We trialled an intervention in eight communities across Europe. To see if it was effective, we compared the outcomes in these communities with similar communities in the same country. Between 2008 and 2010, about 1,000 children experienced the intervention in each country.

Our obesity prevention program was designed to address factors that play a well-established role in causing overweight and obesity. These include physical activity and diet, as well as coping with stress, in the form of promoting family life and healthy sleep patterns.

Among other aspects, the intervention included changes in the school environment, to encourage physical activity and discourage unhealthy snacking. Teachers were trained on how to integrate health messages in the curriculum. Posters and brochures also gave tips and advice on healthier lifestyles to parents. In addition, in each intervention region there was a special community platform to develop community-wide actions, working with youth organizations, retailers, cultural organizations, and others.

We measured health-related behaviours and body composition in the children before and after the intervention, and have continued to monitor the children in the years since the intervention ended. We also looked into the more qualitative aspects of implementing an intervention, such as parents' understanding of the key messages, the degree of awareness of intervention messages among the parents and the population at large, the perception and attitudes of the parents and school personnel, and the overall adherence of teachers and parents to the programme.

The IDEFICS intervention was based on expert consultations and the best available evidence, integrating many different aspects and community actions. However, its effects were disappointing.

Observed effects on indicators of behaviours relating to energy intake and expenditure (like physical activity, diet and sleep), on body composition and on biological markers of healthy aging were weak, with only a few exceptions.[1] In addition, we found that parents and families often did not notice or remember the messages from the intervention.[2]

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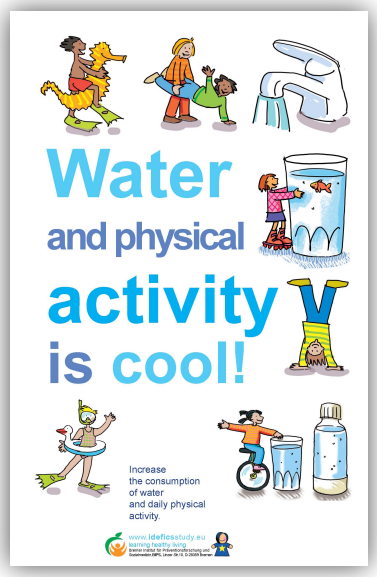
Nonetheless, some positive findings give hope for longer-term benefits. Later follow-up surveys, five years after the intervention, suggest that parents and children in the intervention areas were less likely to consume sugared foods and drinks.[3] Looking just at children who were already obese when the intervention started, we observed that reduction in weight status was more likely to happen in the intervention areas as compared to the control areas.[4] This suggests that the intervention provided important public health support for the subgroup of children who are already afflicted. We also found that parents had very favourable opinions of the intervention.[5]

Regarding the disappointing overall outcomes, various explanations are possible.



More engagement with the target community *prior* to the intervention may have improved outcomes. For example, this would have enabled us to put more weight on the modes of communication to which people respond best.

The overall intervention timeframe, of only about 18 months, is also generally considered too short. Some argue that we know too little about why children are behaving as they do, and about the 'drivers' that can reinforce or counteract healthy behaviour. We plan further research to address the many factors that play a role in the complex causal web of obesity.

There is increasing evidence that interventions should look beyond the individual, to the causes of obesity that operate at the levels of communities and systems. Addressing these 'structural' causes is likely to have a greater impact on people's health than we could. For instance, such changes could address the availability of healthy food in the community, especially for children and adolescents; or they could enhance opportunities for safe physical activity for all ages. Broader policy changes and political endorsement is needed to make this happen, as well as a longer timeframe.[6]

It is important that families don't feel discouraged from making changes to improve diet and other health-related behaviours. But our findings suggest that, for most people, the problem is not a lack of knowledge about healthier behaviours. Instead, parents and children face difficulties in acting in this knowledge, when environments do not enable and support these behaviours as well as they should.

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1 de Henauw et al. 2015. Effects of a Community-Oriented Obesity Prevention Programme on Indicators of Body Fatness in Preschool and Primary School Children. Main Results From the IDEFICS Study. *Obesity Reviews* 16: 16–29.

2 De Bourdeaudhuij et al. 2015. Implementation of the IDEFICS Intervention Across European Countries: Perceptions of Parents and Relationship with BMI. *Obesity Reviews* 16: 78–88.

3 Arvidsson et al. 2015. Fat, Sugar and Water Intakes Among Families From the IDEFICS Intervention and Control Groups: First Observations From I.Family. *Obesity Reviews* 16: 127–37.

4 Lissner et al. 2015. Differential Outcome of the IDEFICS Intervention in Overweight Versus Non-Overweight Children: Did We Achieve 'Primary' or "Secondary" Prevention? *Obesity Reviews* 16: 119–26.

5 Nicholls et al. 2015. Parents' Evaluation of the IDEFICS Intervention: An Analysis Focussing on Socio-Economic Factors, Child's Weight Status and Intervention Exposure. *Obesity Reviews* 16: 103–18.

6 Williams. 2015. The IDEFICS Intervention: What Can We Learn for Public Policy? *Obesity Reviews* 16: 151–61.

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