



City of Helsinki

Department of Social Services and Health Care

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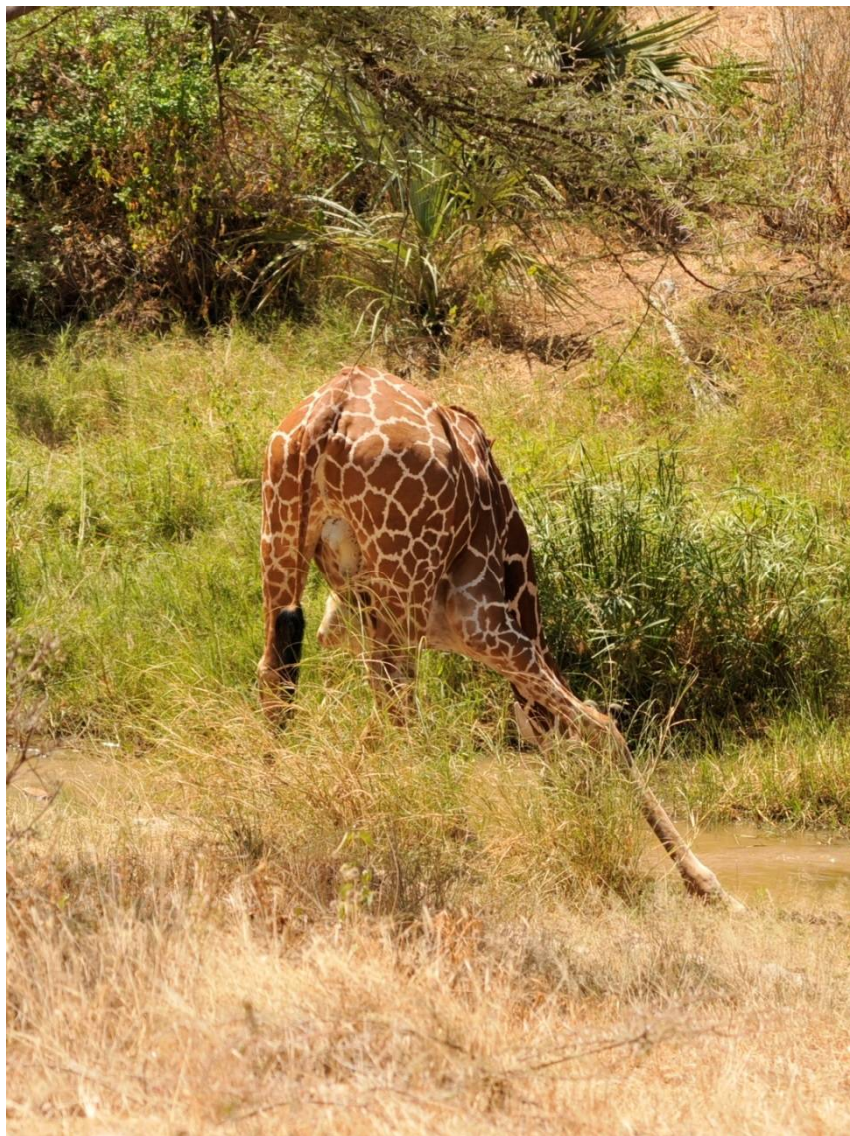


Screening and treatment of childhood obesity in school health care in Finland; preliminary results of obesity incidence, continuity and risk factors

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Photos: Juhana Häkkänen



Childhood overweight in Finland

- Between the years 1986 and 2006, overweight of 12-year-old children has doubled (boys 23,6%, girls 19,1%) but the situation for 5-year-old children has not changed (Vuorela et al. Acta Paediatr. 2009;98(3):507-12)
- Especially boys are gaining weight during primary school





Childhood obesity tends to continue into adulthood

- According to recent studies, childhood obesity and especially obesity after 12 years of age predicts obesity in adulthood and particularly if parent(s) are obese
- Preventing overweight children to become obese children is an important goal for school health care
- Childhood obesity is a risk factor for many conditions in adulthood and also already in childhood





School health care in Finland

- Legislated by law
- The school nurse meets annually one-on-one with every pupil
- The school physician meets all 1st, 5th and 8th graders
- Health checks include the wellbeing of the whole family
- National and local guidelines exist for preventing and treating childhood obesity
- School health care is preceded by child health clinic checks



Aim of the study

- To analyze the continuity of obesity during and before primary school
- To look for factors that are related to childhood obesity and could be identified in school health care



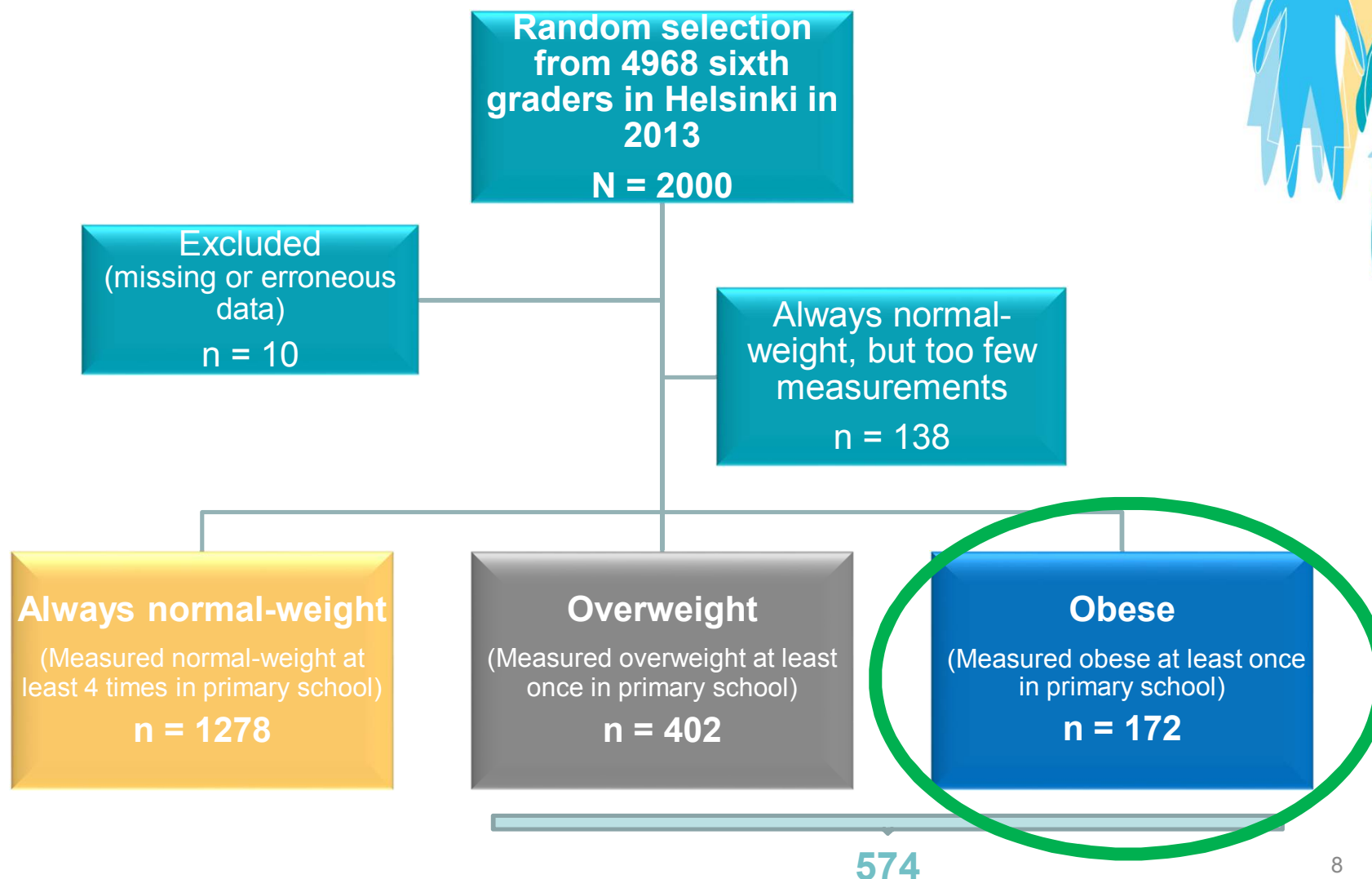


Methods

- Retrospective cohort study
- Randomly selected 2000 children of primary school 6th graders in Helsinki in spring 2013
- Children were classified into:
 - **Always normal-weight**
 - **Overweight** at least once in primary school health checks
 - **Obese** at least once in primary school health checks

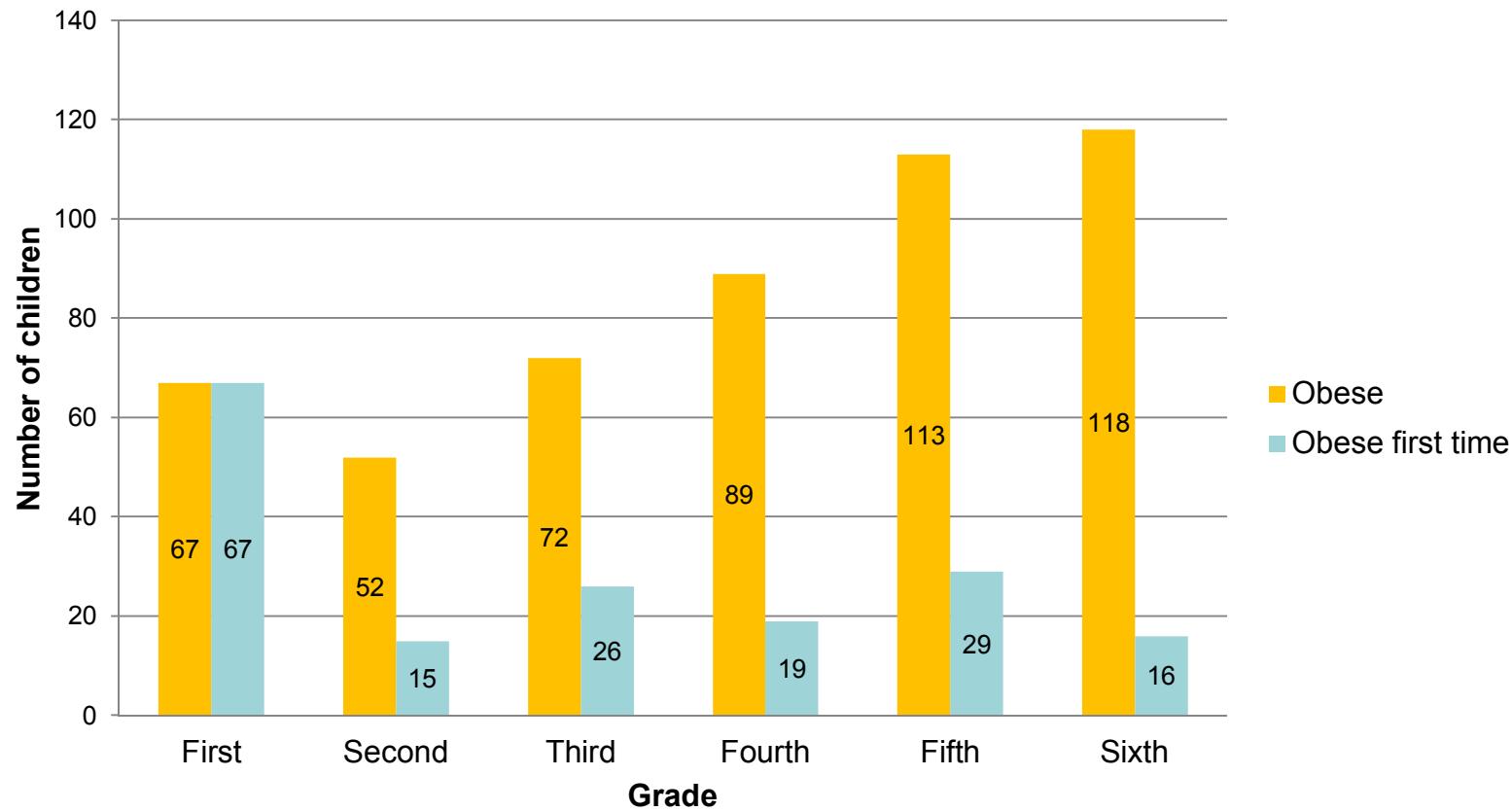


Flow chart of the study subjects





Prevalence of obesity increased during primary school





Obesity started early in primary school...

- 67 children were measured obese in the **first grade**.
Of them,
 - 87% were either overweight (28%) or obese (58%) in the **sixth grade**.
 - Only 6% were normal-weight in the **sixth grade**
 - (5 of the children were not measured in sixth grade)
- 118 children were measured obese in the **sixth grade**.
Of them,
 - 75% were either overweight (42%) or obese (33%) already in the **first grade**



... and obesity could be seen already before school age

- 80% of the obese children had been either obese (55%) or overweight (25%) at least once already before school age
- 87% of children who were normal-weight before school age remained normal-weight throughout primary school





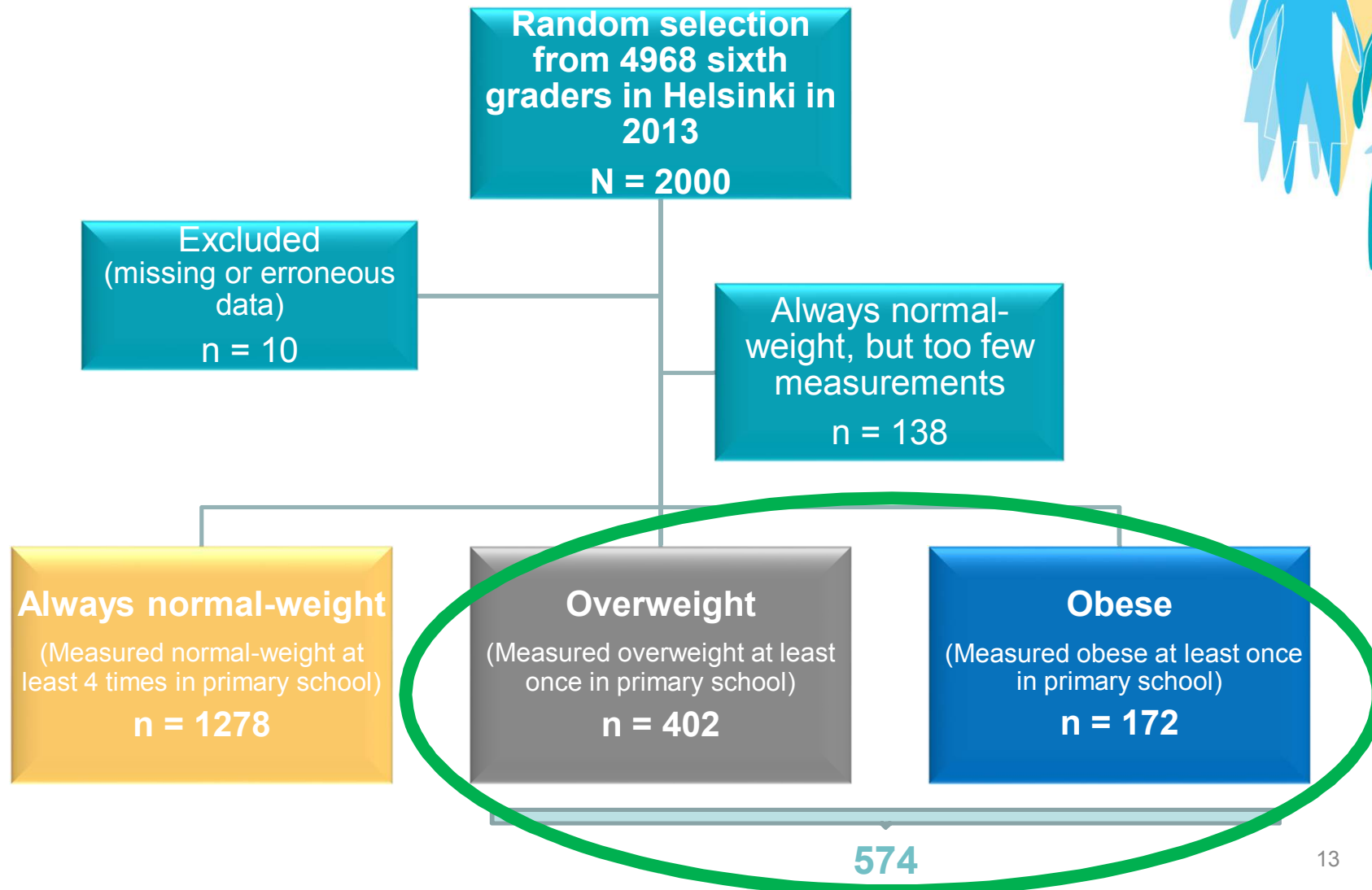
Child and family characteristics during primary school



Photo: Juhana Häkkänen

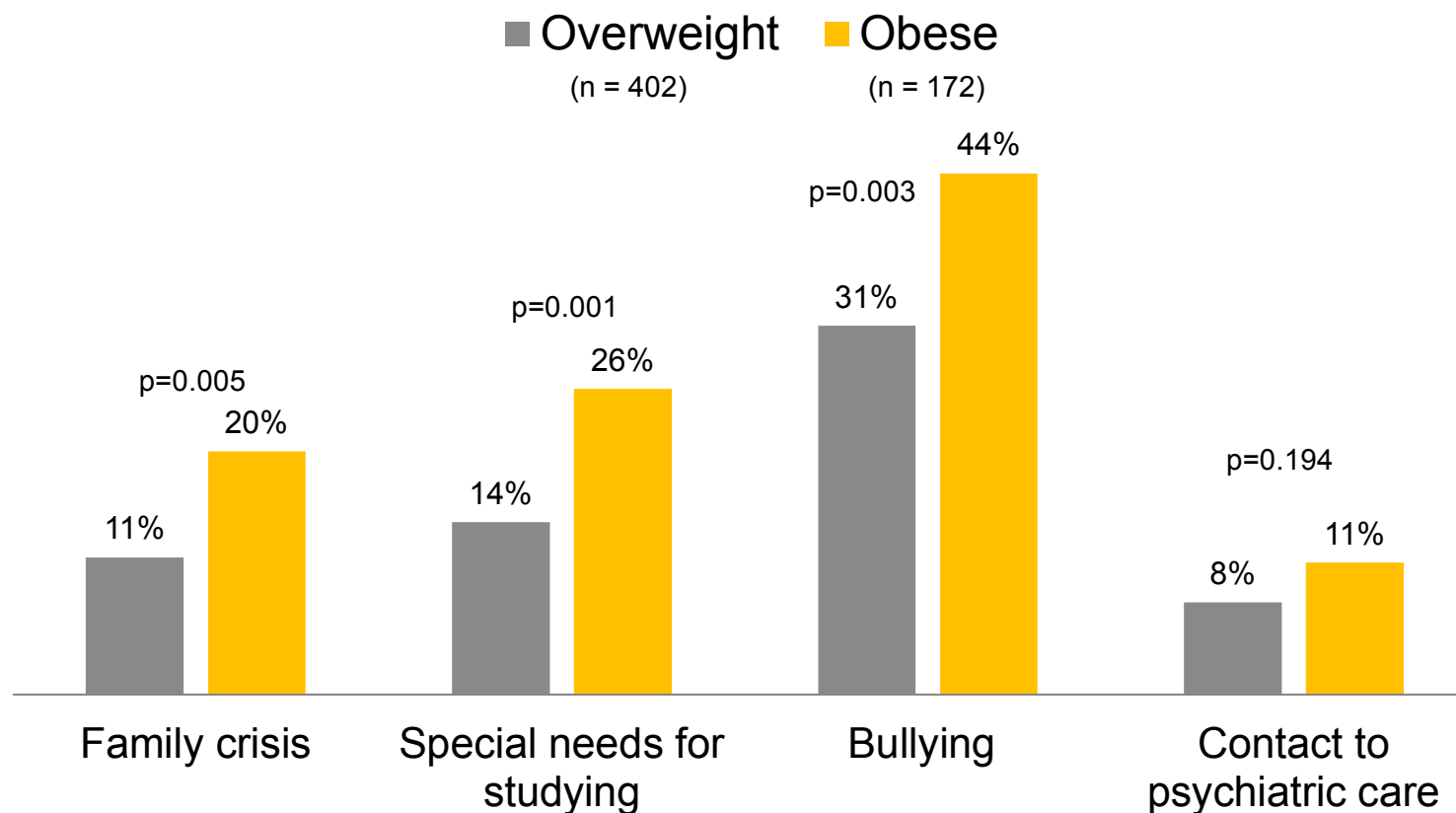


Flow chart of the study subjects





Comparison of overweight and obese children (n = 574) - child and family characteristics (mentioned in health records at least once during primary school)





Conclusions

- Long lasting childhood obesity seems to develop at early age and can be seen already before school age
- Obesity of first graders often continues to the end of primary school and therefore needs effective intervention
- Childhood obesity seems to be related to other challenges in the child's and the family's wellbeing
- School health care professionals have access to information that can be used to predict and prevent childhood obesity





What should we focus on?

- Recognize those at risk for obesity **as early as possible**
 - use information from growth charts
 - note family crises and other special circumstances
- **Identify factors** behind the obesity of a child
 - consider also other support than classic weight management
- Create guidelines for effective treatment of obese children with **multiple risk factors**



Thank you!

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