**Conclusion**

The included data provides some support that overall physical activity is too low and sedentary behavior is too high for almost all age groups investigated in the Sweden Report Card 2016 on Physical Activity for Children and Youth. These grades should be interpreted cautiously due to the limited number of included studies and the limitations involved in both self-reported and objective measures. However, this report card shows that many national level policies as well as the community and some features of the built environment are favorable in promoting physical activity in children and adolescents.

**Future steps**

Sweden needs to use objective measures in national level surveillance. In regards to active transportation and the built environment, collaboration between the health and the urban planning sectors is one possible way to improve the environment for physical activity. There is also a need for more national data on supportive environments for active transportation for children. Even though many policies exist, further work needs to be conducted to evaluate the implementation of those policies. More research within the school environment also needs to be conducted to investigate if the policies are being fulfilled.

A specific recommendation for sedentary behavior would be very helpful in order to appropriately assess Swedish children.

Finally, two indicators, active play and family and peers are two areas in which gaps in the research were found, and where research needs to be performed.

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**Diet**

We split the diet into three domains: fruits and vegetables, fish and sugar sweetened beverages, that represent healthy and unhealthy eating behaviours respectively. Fruits and vegetables received an F because less than 20% of 4 year olds consumed the recommended 400g per day. Furthermore, the frequencies of fruit and vegetable consumption in the NFFQ (Nordic monitoring of diet, physical activity and overweight) and the HBSC survey demonstrate that few children are fulfilling the recommendation (500g per day for children older than ten years). In regards to fish consumption, approximately 43% of children ate fish for lunch or dinner twice per week. When comparing the Swedish Dietary Survey 2003 and the NFFQ (2011) there is some evidence suggesting that sugar sweetened beverage consumption is decreasing. Finally, based on questions regarding sugar sweetened beverages and sweets the NFFQ concluded that approximately 50% of children fulfill the recommendation of less than 10% of their total energy from added sugar. Therefore, an overall grade of C- was assigned to the diet indicator.

**Overweight & obesity**

In 4 year olds in Sweden, approximately 10%-15% are overweight or obese as defined by BMI. A recent study in 8 and 12 year olds found that 12% of boys and 11% of girls at 8 years of age, and 16% of boys and 13% of girls at 12 years of age were overweight or obese. According to the HBSC international report 11% of 11 year olds, 13% of 13 year olds, and 16% of 15 year olds were overweight or obese. Even though recent studies indicate that the prevalence of overweight and obesity has decreased in 8 year old children, and remained approximately the same in 12 year olds, it is still far too high.

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**Active play**

Family & peers

Currently, in Sweden there is insufficient data for these two indicators, therefore a grade of incomplete was assigned.

**Inactivity**

Currently, in Sweden there is insufficient data for these two indicators, therefore a grade of incomplete was assigned.
Active Healthy Kids

SWEDEN

Worldwide, trends in the number of children who are overweight or obese have been increasing since the 1970s and Sweden is no exception. Although there has been some Swedish reports indicating that the prevalence is levelling off, or stabilising in children, in the past 30 years the number of overweight children has doubled. As a combination of low physical activity and large amounts of sedentary behavior are related to overweight and obesity, the compilation of this data is important for policy makers, researchers, and various stakeholders in order to assess problem areas and intervene in appropriate ways. The Active Healthy Kids Swedish working group was established in 2015 to review and compile the most recent, available literature for Swedish children and youth and assign grades to 11 indicators of a healthy lifestyle.

11 Health Indicators

- Overall physical activity
- Sedentary behavior
- Organized sport participation
- Active transportation
- School
- Community and the built environment

The 2016 Report Card

Grading of Indicators

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>81-100%</td>
</tr>
<tr>
<td>B</td>
<td>61-80%</td>
</tr>
<tr>
<td>C</td>
<td>41-60%</td>
</tr>
<tr>
<td>D</td>
<td>21-40%</td>
</tr>
<tr>
<td>F</td>
<td>0-20%</td>
</tr>
<tr>
<td>INC</td>
<td>Incomplete</td>
</tr>
</tbody>
</table>

School

The Education Act includes pre-school and after school childcare and emphasizes the promotion of a healthy lifestyle among children. Physical education is mandatory in both primary and secondary schools in Sweden (a minimum of 90 and 115 minutes a week respectively). Furthermore, home and consumer studies is mandatory for all children aged 13 years and older. Finally, all schools have to provide a nutritious lunch to every child throughout the compulsory nine years of school, free of charge. The free school lunch program became mandatory for all municipalities in 1997, but has existed since 1948.

Community & the built environment

Approximately 88% to 98% of Swedish 10-18 year olds report feeling safe outside where they live during the day and night, respectively. Most children also live within walking or cycling distance to school. In Sweden, 59% of school aged children have less than two kilometers between their home and their school. This proportion has remained relatively constant since 2003. The traffic safety along children’s school routes is an area where improvements can be made, as only 51% of parents perceive that their child’s route to school is safe. Finally, 94-100% of 15 year olds, living in urban areas, have access to green-space within 300m from their home.

Government strategies & investments

Physical activity and a healthy diet are two out of eleven objective domains of the national public health policy. National policy documents have a life-course approach and increase accountability through cross-sectional approaches. These include “Sports for Life” and “Sports Wants” as well as a strategic plan for the collaboration between the Sports Confederation and schools in order to promote sports in schools. The agencies responsible for transportation and urban planning have policies and guidelines addressing physical activity and active transportation. Furthermore, in Sweden there is “The Right of Common Access” which is guaranteed in the Swedish Constitution since 1994 and allows everyone to move around freely in the countryside.

Sedentary behavior

Internationally, the recommendation for sedentary behavior is no more than two hours of recreational screen time per day for 5-17 year olds and one hour for 2-4 year olds. Between 33%-40% of Swedish pre-schoolers had less than one hour of screen time per day. For school aged children, 47% of boys and 71% of girls had less than two hours of screen time per day. According to the HBSC (Health behaviour in school aged children, 2013/2014) survey, approximately 62% of 11-15 year olds had less than two hours of screen time per day. It is important to note that screen time in both studies included questions regarding TV or DVD viewing and playing video games.

Organized sport participation

Due to a lack of data in this area, only 11-15 year olds were included. According to the HBSC survey, approximately 75% of 11-15 year olds participate in organized sport at least two times per week. The highest participation was seen in 11 year old boys at 82% and lowest in 15 year old girls at 70%.

Active transportation

For children aged 6-15 about 48% and 58% use active transportation to and from school, in the winter and summer months respectively. A difference in the proportion of children walking and cycling was observed between the winter months (November to March), and the summer months (April to October). More children walk during the winter and cycle during the summer.

Overall physical activity

In pre-schoolers, when using accelerometers, 12% of girls and 22% of boys reached 60 minutes of moderate to vigorous physical activity (MVPA) per day. For school aged children, when using self-report, 13% of girls and 21% of boys aged 11 years reached 60 minutes of MVPA. When using objective measurements for this age group, the results are inconsistent with the most recent study, the IDEFICS study (Sweden), showing that 43% of boys and 18% of girls aged 8-9 years met the MVPA recommendation. Three older reports in this age group used lower cut-points for MVPA and reported that as many as 93-100% of 8-11 year old children (boys and girls) fulfilled the recommendation. For adolescents, 10% and 15% of 13 and 15 year olds reached the allotted 60 minutes.