

## LIFESTYLES OF CHILDREN AND ADOLESCENTS | Years 2017-2018

# More sport and physical activity, less overweight and obesity

In Italy, about 2 million 130 thousand **children and adolescents aged 3-17** were overweight or obese and almost 2 million didn't practice sports or physical activity.

**74.2%** consumed every day fruit and/or vegetables but four or more portions were only for a few (12.6%).

Despite the downward trend, a quarter of children and adolescents were characterized by a daily consumption of sweets and carbonated beverages and of salty snacks (13.8%) as well.

# 25.2%

**Children and adolescents overweight or obese**

28.5% in the period 2010-2011

# 28.3%

**Daily consumption of sweets**

# 22.7%

**Neither sport nor physical activity**

25.7% in the period 2010-2011

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Obesity among children and young people is a worldwide phenomenon: the World Health Organization estimated over 340 million overweight or obese<sup>1</sup> children and adolescents aged 5-19.

Obesity among children was recognized by the literature as a predictor of obesity in adulthood, since at least one third of children and about half of overweight adolescents become obese adults. Currently, the most widespread living conditions among boys and girls during the growth age are often characterized by the so-called "obesogenic" environment, characterized by a continuous availability of fatty foods rich in sugars and carbonated and/or sugary drinks, frequently associated with a reduced energy expenditure due to low levels of physical activity: a kind of dangerous vicious circle.

### Among European children aged 7-8, Italy with the highest levels of obesity

In EU countries, between 7 and 8 years<sup>2</sup> almost one child out of eight was obese on average. Cyprus (20%), Italy (18%), Spain (18%), Greece and Malta (17%) showed the highest values; Denmark (5%), Norway (6%) and Ireland (7%) the lowest ones.

Between 2007-2008 and 2015-2017 the obesity rate among children aged 7-8 has been decreasing in several EU countries, particularly in Portugal, Slovenia, Greece and Italy (-4 percentage points), even though persistent high levels in Greece and Italy.

### Overweight or obesity for one child out of four

In the period 2017-2018, around 2 million and 130 thousand children and adolescents were overweight or obese (25.2% of the population aged 3-17; 28.5% in 2010-2011), with a gender gap against males (27.8% and 22.4% respectively).

Overweight / obesity decreased with age aged 3-10 (30.4% among children aged 3-10; 14.6% among adolescents aged 14-17).

## CHILDREN AND ADOLESCENTS OF 3-17 YEARS OLD OVERWEIGHT OR OBESE BY SEX AND AGE CLASS. Average 2010-2011 and 2017-2018, percentage values

	3-5 years old	6-10 years old	11-13 years old	14-17 years old	Total
<b>2010-2011</b>					
<b>Males</b>	35.7	37.3	28.1	21.7	30.9
<b>Females</b>	35.9	35.8	20.1	11.0	26.0
<b>Males and Females</b>	35.8	36.6	24.3	16.5	28.5
<b>2017-2018</b>					
<b>Males</b>	31.7	34.1	26.4	18.7	27.8
<b>Females</b>	30.4	30.5	17.9	10.1	22.4
<b>Males and Females</b>	31.1	32.3	22.3	14.6	25.2

## Higher overweight / obesity in the South

The overweight / obesity among children and adolescents increased significantly from North to South (18.8% North-west, 22.5% North-east, 24.2% Center, 29.9% Islands and 32.7% South), with particularly high percentages recorded in Campania (35.4%), Calabria (33.8%), Sicily (32.5%) and Molise (31.8%) (Table 2).

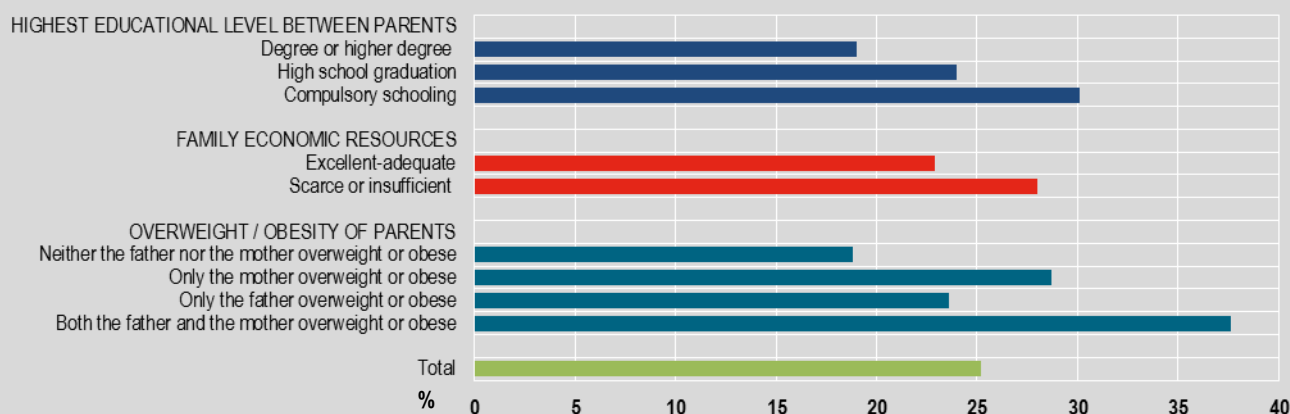
Over time the overweight / obesity decreased in almost all regions, even if the rankings remained substantially unchanged.

## Children affected by unhealthy parents' behaviors

Children and young people living in families where at least one parent was overweight / obese tended to be overweight or obese as well. More in detail, 37.6% of children were obese if both parents were overweight or obese (18.8% of children with normal-weight parents).

Children and young people who lived in families with low economic resources tended to be more overweight or obese, especially when parents' level of education was lower (30.1% if parents attended just compulsory school; 19% with graduated parents) (Figure 1).

**FIGURE 1. CHILDREN AND ADOLESCENTS OF 3-17 YEARS OLD OVERWEIGHT OR OBESE BY CHARACTERISTICS OF THE FAMILY (a). Average 2017-2018, percentage values**



(a) Only children and young people living with at least one parent are considered.

## Neither sport nor physical activity for 2 million children

In 2017-2018 5 million 30 thousand children aged 3-17 did not practice sport in their free time (59.4%), 52.5% practiced sport continuously and 6.9% occasionally (Table 5).

Around one million 450 thousand children (17.1%), even though not practicing sport, did some physical activity such as walking for at least two kilometers, swimming, cycling.

In their free time 1 million 925 thousand children and young people aged 3-17 did not practice neither sport nor physical activity (22.7%; 46.1% among children aged 3-5).

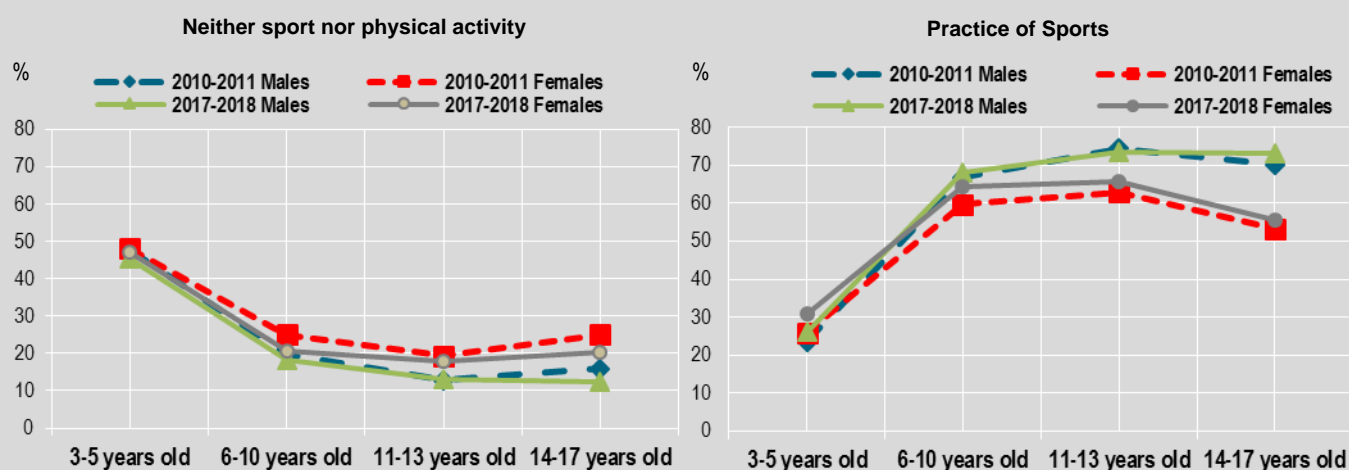
Over time sport involved more and more people, especially in relation to a continuous practice of sport (47.1% in 2010-2011 and 52.5% in 2017-2018). The increase mainly concerned girls, especially in the 3-10 age group (+7.7 percentage points) (Figure 2).

The North-South territorial gap was strong: with the exception of Sardinia, in most southern regions and in Sicily more than one boy in four did not practice sport or physical activity. On the contrary, the highest percentages were observed in Bolzano (74.5%), in Friuli-Venezia Giulia (73.2%), Valle d'Aosta (72.6%) and Liguria (71.6%) (Table 6).

For the practice of sport as well, differences were marked with respect both to parents' educational qualifications and families' economic resources: children living in families with a lower socio-cultural status presented the highest levels of sedentary lifestyle (32.1% if parents with at the most a compulsory school certificate; 12.9% of those living in families with at least one graduated parent) (Table 8).

Furthermore, an association was observed between physical inactivity of children and parents: a sedentary lifestyle was more common among young people whose parents declared to not practice sport or physical activity (47.9%; 9.8% with active parents) (Table 7).

**FIGURE 2. CHILDREN AND ADOLESCENTS OF 3-17 YEARS OLD BY SPORTS PRACTICE, SEX AND AGE CLASS** Average 2010-2011 and 2017-2018, percentage values



## Four or more portions of fruit and/or vegetables per day for over one child out of ten

In the period 2016-2017, 74.2% of children and adolescents consumed fruit and / or vegetables every day, but only 12.6% consumed 4 or more portions (11.4% in 2010-2011).

The proportion of children and adolescents who consumed sweets (28.3%), carbonated beverages (24.9%) and salty snacks (13.8%) was significant (Figure 3).

In recent years, the daily consumption of carbonated beverages decreased (from 31% in 2010-2011 to 24.9% in 2016-2017), while for desserts and salty snacks the decline was decidedly lower (from 29.7% to 28.3% and from 15.1% to 13.8% respectively).

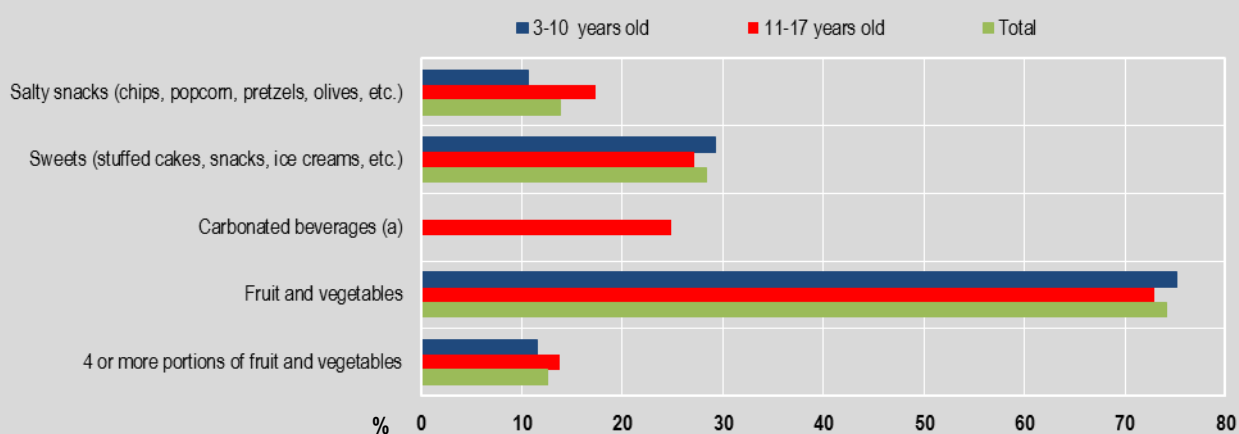
Daily consumption of salty snacks was higher among children and adolescents aged 11-17, while among children aged 3-10 the consumption of fruits and vegetables was higher.

Territorially, more consumers of salty snacks were recorded in the South and in the North-west (16.3% and 15.7% respectively) (Table 10); sweets and carbonated drinks reached the highest percentages in the Northern regions (32.3% sweets; 26.6% carbonated drinks) and in the Islands (27.7% sweets; 28% carbonated drinks).

Healthier eating behaviours (daily consumption of fruit and vegetables) were observed in the Islands (76.6%), in the North-west (76.4%) and in the Center (75%).

The Center (15.1%) and the North (14.1%) recorded the highest rates in relation to the consumption of at least 4 portions per day (8.3% in the South; 11.3% Islands).

**FIGURE 3. CHILDREN AND ADOLESCENTS OF 3-17 YEARS OLD BY DAILY CONSUMPTION OF SALTY SNACKS, SWEETS, CARBONATED BEVERAGES (a), FRUIT AND VEGETABLES AND AGE CLASS** Average 2016-2017, percentage values



(a) The data on the consumption of carbonated beverages is collected from 11 years upwards

## Families' influence on dietary habits

Socio-cultural characteristics of the family environment was evident on dietary habits: the higher the educational level achieved by parents, the more accurate the nutritional aspect of children in terms of both daily fruit and vegetable consumption and adequacy in quantities consumed daily (Figure 4).

Daily consumption of salty snacks involved 8.5% of children and teens (3-17 years) living in families with a higher socio-cultural status and 18.1% of those with parents with at most compulsory education.

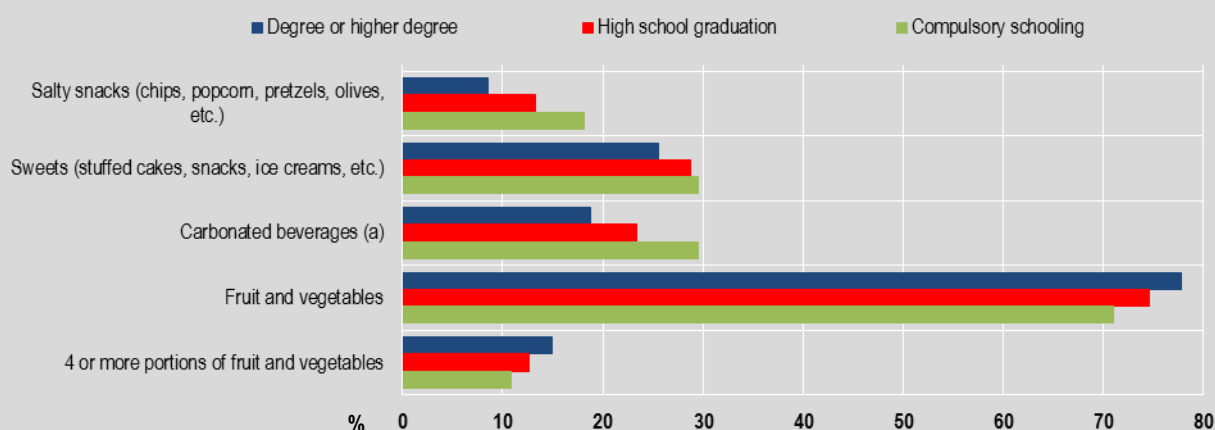
Similar influences were observed in carbonated beverages consumption (18.8% of adolescents if at least one graduated/postgraduated parent; 29.6% of those with parents who attended at the most the compulsory school).

1 WHO, Obesity and overweight, Fact sheet, 16 February 2018.

2 Health at a Glance: Europe 2018 - State of Health in the EU Cycle (2018).

3 Since 2007, the WHO European Region has launched the Childhood Obesity Surveillance Initiative (COSI) to monitor the progress of overweight and obesity and associated factors, including a sedentary lifestyle, in children aged 6 to 9 in European countries. Italy participates in this initiative with the OKKIO HEALTH Surveillance System under the coordination of the Istituto Superiore di Sanità, which periodically measures and collects information on a sample of children aged 8-9. For adolescents, data on excess weight, physical activity and other aspects of health and behavior are collected internationally by the HBSC study (Health Behavior in School-aged Children), carried out on a sample of children aged 11, 13 and 15 years every 4 years. Italy has participated in this collection since 2001.

**FIGURE 4. CHILDREN AND ADOLESCENTS OF 3-17 YEARS OLD BY DAILY CONSUMPTION OF SALTY SNACKS, SWEETS, CARBONATED BEVERAGES (a), FRUIT AND VEGETABLES AND THE HIGHEST LEVEL OF EDUCATION OF PARENTS (b) Average 2016-2017, percentage values**



(a) The data on the consumption of carbonated beverages is collected from 11 years upwards

(b) Only children and young people living with at least one parent are considered.

# Glossary

**Daily consumption of fruit, vegetables, vegetables:** consumption of at least one portion of fruit, vegetables or vegetables a day excluding potatoes.

**Excess weight:** The body mass index (BMI) of individuals was first calculated:

$$BMI = \frac{weight_{kg}}{height_m^2}$$

The condition of overweight/obesity was evaluated with respect to the cutoff values defined by Cole T.J. e Lobstein T. in Cole T.J., Lobstein T. Extended international (IOTF) body mass index cut-offs for thinness, overweight and obesity. *Pediatr Obes* 2012;7:284-94.

The weight and height data, necessary for the calculation of the body mass index, for individuals aged 14 and over were self-reported, while for children and young people under the age of 14 they were detected in proxy mode (a parent or adult member provided the information on their behalf).

**1 Porzione di frutta:** 1 mela, oppure 1 arancia, oppure 2 mandarini, ecc.

**1 Porzione di insalata, verdura, ortaggi:** 1 piatto medio, ossia una quantità che ricopre il fondo del piatto.

**Pratica sportiva:** si considera lo sport praticato con continuità o saltuariamente.

**1 Portion of fruit:** 1 apple, or 1 orange, or 2 mandarins, etc.

**1 Portion of salad, vegetables, vegetables:** 1 medium plate, which is a quantity that covers the bottom of the plate.

**Sports practice:** sport is considered as practiced continuously or occasionally.