WATERSCHOOL

Survey: Drinking Behavior, Water Quality and Access to Water in Partner Countries Schools

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Content

Drinking Behavior, Water Quality and Access to Water in the Partner Countries Schools

The survey describes **health data** (obesity, overweight, caries) and the **situation of drinking behavior of children and adolescents** in the project partner countries (Austria, Bulgaria, Czech Republic, Germany, Italy and the United Kingdom). There is also an overview of **quality of drinking water** and the availability of clean water in kindergartens and schools.
We were also interested, whether there are **regulations and requirements for the availability of beverages** (e.g. limitations of sugar or sweetener content, requirements for filling of vending machines) **in schools**.

Situation in Europe

There is a worrying trend in overweight and obesity rates in European children and youth. According to estimates from the WHO's Childhood Obesity Surveillance Initiative around one in three children in the EU aged 6-9 years old are overweight or obese. Though in some countries a significant decrease in the prevalence of overweight and obesity was recorded - e.g. in Italy and Slovenia. But in other countries, e.g. Bulgaria, rates are still increasing. Consumption of sugary soft drinks gain the risk of becoming overweight or obese. Promotion of drinking water instead – at least at school – are effective measures to reduce overweight.

The EU Action Plan on Childhood Obesity 2014-2020 states, that initiatives to provide children and young people with fresh drinking water in schools - to promote health and as a substitute for sugar-sweetened beverages - should be prioritised. Schools should be so called "protected environments". Some of the partner countries therefore have strict regulations, beverage dispensers are completely banned from schools. Other countries yet have no restrictions regarding the sale of sugar-sweetened drinks at schools. But in nearly each country promotion of drinking water is recommended.

Most people living in the EU enjoy good access to high quality drinking water. Tap water is free in European schools. Drinking water in Europe is abstracted from different sources, main sources are groundwater and surface water. EU water policy focuses on protecting water resources. The EU Water Framework Directive (WFD) is designed to achieve good ecological status and enable sustainable use of water. The new Drinking Water Directive states that drinking water should become better throughout Europe, with stricter pollutant limits, and be available to all citizens.

Resources:
WHO 2018: FACTSHEET Childhood Obesity Surveillance Initiative, Highlights 2015-2017, http://www.ceidss.com/wp-content/uploads/2018/05/WH14_COSI_factsheets_Artwork-version.pdf (access: 28.1.2019)
EU Action Plan on Childhood Obesity 2014-2020, https://ec.europa.eu/health/sites/health/files/nutrition_physical_activity/docs/childhoodobesity_actionplan_2014_2020_en.pdf (access 28.1.2019)
Report on the Quality of Drinking Water in the European Union, 2016 (examining the Member States' reports for the 2011-13 period). http://ec.europa.eu/environment/water/water-drink/pdf/reports/EN.pdf
https://ec.europa.eu/eurostat/web/environment/water

Austria

Drinking behaviour of children and adolescents

Children at the age of 5 to 10 do not reach the drinking requirements. A survey (behavioral observation) among elementary school students showed that 60 percent of the pupils do not drink at school.

Pupils aged 10-12 drink enough. A critical situation is in girls aged 13-14 where 90 percent reach the recommended amount of drinking. 20 to 30 percent of the 10 to 18 years old adolescence consume sugary sodas daily. With the beginning of puberty it increases, and at age 17 years the consumption starts to decrease again. In detail: 25 percent of the 10 years old (boys and girls alike) and 25 percent of the 13-15 year old boys drink sweetened lemonades daily, while only about 15 percent of the girls of the same age do so.

A survey in Viennese secondary schools (pupils aged 10-15) showed that two-thirds of adolescents consume soft drinks several times a week, half of them daily (33 percent of boys, 30 percent of girls). 15 percent of these students never or rarely drink water.

Resources:

Bundesministerium für Gesundheit: Ernährungsbericht 2012.
https://www.bmgf.gv.at/cms/home/attachments/4/5/3/CH1048/CMS1348749794860/oeb12.pdf [abgerufen am 8.1.2019].
Swazina,K.R., Nitsch,M. (2011): Evaluationsbericht „Wiener Jause - Essen und Trinken an Volksschulen" . 1. Zwischenbericht. Ludwig Boltzmann Institute Health Promotion Research. Wien: LBIHPR
HBSC Factsheet 02: Das Ernährungsverhalten österreichischer Schülerinnen und Schüler (HBSC Ergebnisse 2014) https://www.bmgf.gv.at/cms/home/attachments/9/7/0/CH1444/CMS1427118828092/hbsc_2014_-_factsheet_ernaehrung.pdf [abgerufen am 8.1.2019].

Rates of obesity, overweight and caries among children/youth

In Austria, 10% of pre-school children (3-6 years) are overweight and 6% of the boys and 3% of the girls are obese.

In elementary school, children show an increase in being overweight. Approximately 30% of boys (8 years) are overweight or obese, of which 12% are obese or morbidly obese. In girls, we determine regional differences from 20.6% (West) to 29.1% (East of Austria) overweight or obese, of which 7.4% are obese or morbidly obese. Austrian dental health status survey 2016 nationwide 45% of the examined 6- to 7-year old have caries. The socioeconomic status of the family plays a major role in caries experience

According to the HBSC-data, 20% of the 11-year-old boys are overweight or obese, and 16% of the girls. In 13-year-olds 23% of the boys and 17% of the girls are overweight or obese. In the age of 15, 19% of the boys and 10% of the girls are overweight or obese. Boys tend to have significantly higher prevalence at all ages. It should be noted that the HBSC-data are based on self-reported height and weight and may therefore underestimate the true situation.

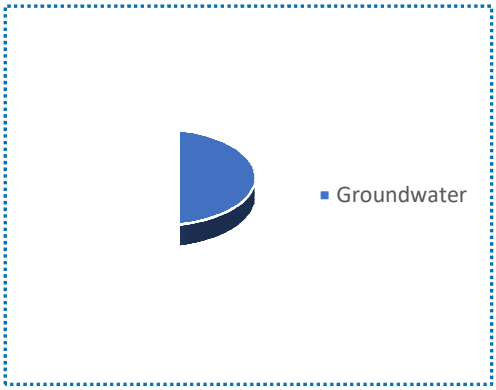
Resources:

COSI - Childhood Obesity Surveillance Initiative (2017).
https://www.bmgf.gv.at/cms/home/attachments/8/3/3/CH1048/CMS1509621215790/cosi_2017_20171019.pdf [abgerufen am 8.1.2019].
Bodenwinkler A., Sax G., Kerschbaum J. (2017): Länder-Zahnstatuserhebung 2016: Sechsjährige in Österreich. Zahnstatus sechsjähriger Kinder mit und ohne Migrationshintergrund. Gesundheit Österreich, Wien
HBSC Factsheet 02: Das Ernährungsverhalten österreichischer Schülerinnen und Schüler (HBSC

Ergebnisse 2014) https://www.bmgf.gv.at/cms/home/attachments/9/7/0/CH1444/CMS1427118828092/hbsc_2014_-_factsheet_ernaehrung.pdf [abgerufen am 8.1.2019].

Access to clean drinking water

Drinking water resources in Austria
Ground/spring water: 100 %
Austria is a country with large freshwater reserves, with 12,000 m³ per inhabitant per year. The drinking water requirement can be completely covered by protected groundwater resources. Almost 92% of the population in Austria is supplied with public water. The remaining 8% are supplied via private domestic wells.



Do schools have access to safe tap water?
Kindergartens and schools have access to safe water. This is regulated in the "Trinkwasserverordnung". Water quality has to be monitored, the test results must be published at least once a year. Water supplied to schools, kindergartens and households has to be safe. Water supply is the responsibility of the municipalities.
If water is left in the water pipes for a longer period of time, substances from the pipe material can be absorbed into the water. This can be problematic in schools, where often for a long time - during the holidays, over the weekend - no water flows. At schools, therefore, strict attention is paid to allowing the water to run off at the first use in the morning, but especially after the weekend or after holidays, until it is pleasantly cool. This ensures that no stagnant water, but fresh, clean drinking water comes from the line.

Resources:
Report on the Quality of Drinking Water in the European Union, 2016 (examining the Member States' reports for the 2011-13 period). http://ec.europa.eu/environment/water/water-drink/pdf/reports/EN.pdf
Österreichischer Trinkwasserbericht, https://www.sozialministerium.at/cms/site/attachments/2/3/7/CH4111/CMS1069238654727/trinkwasserbericht_20150318.pdf [abgerufen am 8.1.2019].
Infoportal Trinkwasser https://www.trinkwasserinfo.at/. With current information on drinking water quality from the Austrian water suppliers.
Trinkwasserverordnung, https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20001483 [abgerufen am 8.1.2019].
Hygieneplan für Österreichische Schulen, https://bildung.bmbwf.gv.at/schulen/unterricht/hygieneplan.pdf?61ed8y [abgerufen am 8.1.2019].

Are there requirements or regulations for drinking in schools?

There aren't any specific regulations regarding drinking in kindergartens and schools. However, recommendations for healthy nutrition include recommended amounts of water per day. Starting with September 2019, the sugar content of drinks sold in schools has to be below 6.7 g / 100 ml.

Resource:
https://www.sipcan.at/neue-grenzwerte-fuumlr-getraumlnke.html

Bulgaria

Drinking behaviour of children and adolescence

The child's body contains more water and the ratio of surface area to mass is higher in children than in adults. Therefore, the water much easier evaporates through the skin, which could more easily lead to dehydration if water losses are not restored. The amount of water that is recommended for children depends on age, sex, growth rate, diet, physical activity, health condition, air temperature, etc. Adequate fluid intake, along with proper nutrition, is particularly important for children. The water-salt balance is delicate due to the still imperfect mechanisms of thermoregulation, immaturity of the excretory system, etc. Different scientific studies regarding consumption of fluids by school-age children indicate that they do not drink enough water. Children prefer sweet and carbonated beverages, and parents incorrectly think that fruit and vegetable juices as well as milk can replace water. Although they are healthy, they are not sufficient for a good water balance of the child's organism, which easily dehydrates. Poor nutrition and dehydration increase the risk of diseases such as diabetes, cardiovascular disease, and a high percentage of children at age between 3 and 17 years are overweight.

Rates of obesity, overweight and caries among children/youth

Healthy nutrition of children and adolescents is a priority in our national policy on public health. Nutrition and physical activity are determinants of good health and a prerequisite for ensuring optimal growth and development of children and adolescents - the age at which habits related to healthy lifestyles are formed.

A national representative survey conducted among pupils aged 6-19 years old in Bulgaria within the period 2010-2011 showed that the prevalence of overweight was 30.2% and obesity was 12.7% respectively. The comparison revealed a worrying tendency to increase obesity in children in Bulgaria. Reducing obesity is a key task in all nutrition and health strategies adopted by the European Union and the World Health Organization in recent years.

Within the framework of the National Action Plan "Food and Nutrition" (2005-2010) of the Ministry of Health, the following documents supporting the healthy nutrition of the children were developed: Food based dietary guidelines for Recommendations for Healthy Nutrition of Students 7-19 years old in Bulgaria; Ordinance for healthy nutrition in school; A collection of recipes for student canteens and buffets has been updated; weekly menus for supportive breakfast have been developed; participation in the preparation and launching of a National Strategy and Regulation for its implementation "School Fruit". Annual events focusing on the problems of overweight and obesity in children in Bulgaria are organized: National Obesity Care Week, European Obesity Day and European Day for Healthy Food and Cooking. Statistics has shown no changes in the prevalence of overweight or obesity. According to data released at the end of 2018, Bulgaria is one of the EU countries with a high incidence of overweight and obesity in early childhood, together with Greece, the Czech Republic and the UK.

In 2015, the Ministry of Health adopted a National Programme for the Prevention of Oral Diseases in Children from 0 to 18 years of age in the Republic of Bulgaria, which envisages different prophylactic activities including fluoridation and school education programmes. The programme is developed in accordance with the adopted National Health Strategy (2014-

2020). The results of the epidemiological study on the oral health of children in Bulgaria indicate that the data on the incidence of dental caries show higher prevalence values than the WHO global targets. The relative share of caries-free 5-6-year-old children is only 28.87%. As the age increases, the relative share of children without caries decreases. At the age of 12, the relative share of healthy children is 21.31%, while the 18-year-old is only 8.31%. The comparison of the results according to the settlement shows a higher relative share of the children without caries in the cities than in the rural areas.

Recent studies in Bulgaria show increased consumption of bottled natural mineral waters as well as mineral waters from publicly available watering points (stations) containing more than 1-1.5 mg / l of fluorine. Free access to mineral waters with such fluorine content is a prerequisite for increased fluoride in children up to 7 years of age. The presence of dental fluorosis in free access to various fluorine sources that offer modern living conditions proves insufficient awareness of fluoride and fluoride prophylaxis of dental caries.

Resources:
National Programme for the Prevention of Oral Diseases in Children from 0 to 18 years of age in the Republic of Bulgaria 2015-2020
Dimova, A. et.al. 2018. Bulgaria. Health system review, Health Systems in Transition, Vol. 20 No. 4 2018,p. 166
National epidemiologic study for the oral health status establishment in three age groups of children in Bulgaria, report, Dec. 2011: 3-5. [in Bulgarian]

Access to clean drinking water

Drinking water resources in Bulgaria

Compared to other European countries, Bulgaria has relatively significant fresh water resources, both in absolute terms and per capita. According to Eurostat data for 2015, Bulgaria is ranked at 52nd place in the world for access to drinking water (99.33%), with the highest rate in the last 25 years in 1994 (99.9%). However water resources in Bulgaria are mainly formed by external inflows and unevenly distributed over the country territory. An analysis of the projected domestic water consumption and internal water resource base suggests that Bulgaria is not a water-stressed country.

Water supply sources

Surface water is the main source for drinking water supply. Surface water provides 52% of the total raw water abstracted, and groundwater provides the other 48%. Groundwater is of good quality in all river basins despite nitrate pollution. Seventy-nine percent of groundwater abstracted is used for public water supply; 17% for industry; 2% for agriculture, forestry, and fisheries; 2% for services. The rest is used for irrigation. Surface water is polluted by domestic water from urban sewerage systems and by untreated industrial wastewater discharged into rivers (MoEW, 2014).

Do kindergartens/schools have access to safe tap water?

Most of the kindergartens and schools have access to safe tap water. However, the practice bottled spring water to be provided by the municipality or by the parents themselves is quite widespread. One of the main problems with access to quality drinking water is the obsolete water supply network in our country, as well as easy and free access to public mineral water fountains.

Resources:
Executive Environment Agency: http://eea.government.bg/bg/soer/2011/water/water1

Danube water program: https://sos.danubis.org/eng/country-notes/bulgaria/
Valkova, K. et.al. 2018. Situational analysis on equitable access to water and sanitation in Bulgaria
Ministry of Environment and Water (MoEW): https://www.moew.government.bg/en/
Report on the Quality of Drinking Water in the European Union, 2016 (examining the Member States' reports for the 2011-13 period). http://ec.europa.eu/environment/water/water-drink/pdf/reports/EN.pdf

Are there requirements/regulations for drinking in schools?

There aren't any specific regulations regarding drinking in kindergartens and schools. However, recommendations for healthy nutrition include recommended amounts of water per day. Several documents partly address the topic, e.g. an Ordinance 9 from 16.09.2011 on the specific requirements for safety and quality of food offered in kindergartens, school canteens and retail establishments on the territory of schools and kindergartens, as well as food offered at organized events for children (last updated on 11.4.2016).

A campaign to promote tap water consumption in childcare facilities was launched in 2018. Currently the provision of bottled mineral, spring and table water in the children's establishments, in cases that the access to safe tap water is guaranteed and there aren't any restrictions by the health authorities for its use, shall be supported by a motivated decision of the director of the respective kindergarten.

Resources:

The Ministry of Health in Bulgaria, "Healthy Nutrition Recommendations" for different age groups, http://ncpha.government.bg/index.php?lang=en
Ordinance 9 from 16.03.2001 on the quality of water intended for drinking and household purposes

Czech Republic

Drinking behavior of children and adolescence

Results of a drinking habits study done in 2016 on a sample of school children found:

- More than 90 percent of children drink sweetened beverages regularly, almost 30 percent twice weekly. Every 12th child drinks sweetened beverages every day. Half of daily consumed sugars among the sampled group came from beverages.
- Most frequently consumed beverages: water 46,1%, water with syrup 25,5%, tea 19,6%, mineral and sweetened mineral water 2%, coke, juice 2%, milk 1%.
- Frequency of drinking sweetened beverages: almost daily = 8 percent, twice a week or more = 30 percent, do not drink = 7 percent.
- Drinking during school day: Very little drinking during morning school session. 20 percent of children do not drink in the morning at home, more than 10 percent drink only 3 times a day or less often.

Resource:
Research results „Jak pijí české děti“ (What Czech children drink), MUDr. Petr Tláskal, AquaLife Institut, May 2016

Rates of obesity, overweight and caries among children/youth

The Czech Republic is the fourth most obese country in Europe, with 5-10 percent of child obesity present. Approximately 5 -10 percent of the child population is obese. According to COSI, overweight and obesity occur in 23 percent of Czech girls and 24 percent of Czech boys. Approximately 154,000 children under 16 years of age suffer from obesity, of which 85,000 obese children with complex metabolic changes, and 34,000 of those children are suffering from extreme obesity (COSI, 2016). It is reported that every 5th boy in the Czech Republic has a higher than normal weight (SZÚ, 2013). The increasing trend in the Czech Republic is therefore attributed mainly to the shift from the overweight category to the obesity category (Hainer, 2011).

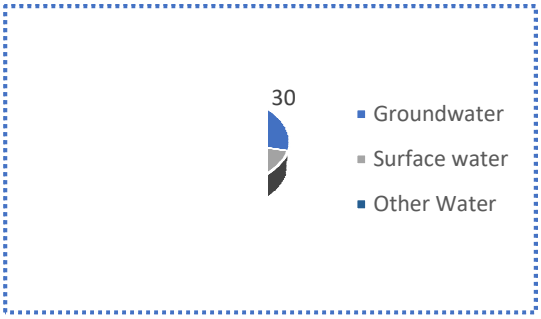
The incidence of obesity in children had increased significantly over the 20 years period (1996-2016), but remained stable over the final five years (2011-2016), currently at around 10 percent. The researched sample shows these results: total of 8.1 percent of children with low weight (2% under the 3rd percentile), normal weight had 74.1 percent of children, overweight was 7.5 percent, and obese was 10.3 percent. Boys were more likely than girls to have higher than normal weight, but the difference was only 2.2 percent ($p = 0.002$). Significant differences in body weight were found in relation to age.

Resource:
COSI (2016): WHO European Childhood Obesity Surveillance Initiative (COSI). World Health Organization.
Výsledky studie „Zdraví dětí 2016“, SZU, 2016

Access to clean drinking water

Drinking water resources in Czech Republic
All ground and spring water is treated before its considered “drinking” water.
The hygienic requirements for drinking water (controls, bottled water, chemical, physical and microbiological limits) are laid down by Decree of the Ministry of Health No. 252/2004 Coll.

In Czech Republic, the municipalities are responsible for the water supply, some of them have contracts with private providers. The quality of drinking water supplied by water companies in the Czech Republic is at a very high level. Any odour, haze or coloration of the water is caused by the reaction of the transported water with the inner surface of the pipeline and in the vast majority of cases it is only an aesthetic but not a health problem.



Do schools have access to safe tap water?
All schools in the Czech Republic have access to safe tap water.

Resource:
https://cs.wikipedia.org/wiki/Vodn%C3%AD_hospod%C3%A1%C5%99stv%C3%AD_v_%C4%8Cesku
Report on the Quality of Drinking Water in the European Union, 2016 (examining the Member States' reports for the 2011-13 period). http://ec.europa.eu/environment/water/water-drink/pdf/reports/EN.pdf

Are there requirements/regulations for drinking in schools?

Kindergartens: According to legislation, a drinking regime has to be ensured throughout the day in nursery schools. The amount of liquid to drink is not covered by the legislation. The type of drinking regime is selected by the kindergarten expert employees. Beverages should not be overly sweetened, they should be natural, black tea should not be offered too often. Children who are used to drinking unsweetened drinks should not be taught to drink sweetened beverages.

Primary schools: There is a decree on unhealthy food that cannot be sold in schools. The Decree defines food requirements including drinks that can be offered for sale and sold in schools and school facilities. Offered for sale, sold, or advertised for may be foods that: (a) do not contain sweeteners and non-alcoholic beverages with tea extract, (b) do not contain trans fatty acids derived from partially hydrogenated fats, or (c) are not energetic or stimulating drinks or foods intended for athletes or people with increased physical performance. There are restrictions on what can be offered for sale, sold, or advertised. These may be fruit and vegetable juices and nectars without added sugar, which means all monosaccharides and disaccharides with an energy value greater than 3.5 kcal/g from sources other than fruit and vegetables and dairy products, with the exception of milk sugar. Added sugars are defined as sugars contained in food, in particular honey, malt, molasses, all syrups or twice or more concentrated fruit or vegetable juices, when used for their sweetening properties.

Nutritional guidance for school food provision, Ministry of Health Czech Republic:
Children's drinking regime should be based on water and other unsweetened drinks. Therefore, children should always be provided with a non-sweetened non-dairy drink in the school canteen. If a sweetened drink is offered, unsweetened drink should always be offered as well. Plain drinking water should be regularly offered not only during the meals at the school canteen, but also during the day as part of the drinking regime.

In practice, a school canteen should always offer an unsweetened non-dairy drink (in the form of water, unsweetened fruit tea or other unsweetened tea, in exceptional cases mineral water). Only as a second choice, it should offer either a dairy (sweetened or unsweetened) or a non-dairy sweetened drink.

Resource:
Nutritional guidance for school food provision, Ministry of Health Czech Republic, 1.9.2015

Vyhláška o požadavcích na potraviny, pro které je přípustná reklama a které lze nabízet k prodeji a prodávat ve školách a školských zařízeních (Decree on food requirements for which advertising is admissible and can be offered for sale and sold in schools and school establishments), Ministry of Education Czech Republic, 29.8.2016

Germany

Drinking behaviour of children and adolescence

Children of the age of 5 to 10 drink about 800-900 ml / day, of which 41 to 45% are water, about 27% fruit juices and 19% of them are sodas.
Boys (14-18 years): drink approximately 2262 ml/day of which are 1069 ml of water, 116 ml of coffee and black tea, 82 ml of herbal and fruit flavoured teas, 460 ml of fruit juices, 505 ml of lemonade and 30 ml of fruit juice beverages or other beverages.
Girls (14-18 years): drink a lot less compared to the boys. They land at around 1909 ml/day. This is divided into 963 ml of water, 118 ml of coffee and black tea, 160 ml of herbal and fruit flavoured teas, 383 ml of fruit juices, 260 ml of lemonade and 24 ml of other fruit juice beverages

Resources:
Max Rubner Institut (Hg.) (2007), Forschungsbericht EsKiMo – Ernährungsstudie als KiGGS-Modul, Bonn, Berlin, Paderborn, Seite 51
https://www.bmel.de/SharedDocs/Downloads/Ernaehrung/EsKiMoStudie.pdf?__blob=publicationFile (Access: 19.11.2018) P. 51
Max Rubner Institut (Hg.) (2008), Nationale Verzehrsstudie II: die bundesweite Befragung zur Ernährung von Jugendlichen und Erwachsenen, Karlsruhe, Seite 54
https://www.bmel.de/SharedDocs/Downloads/Ernaehrung/NVS_ErgebnisberichtTeil2.pdf?__blob=publicationFile (Access: 16.11.2018) P.54

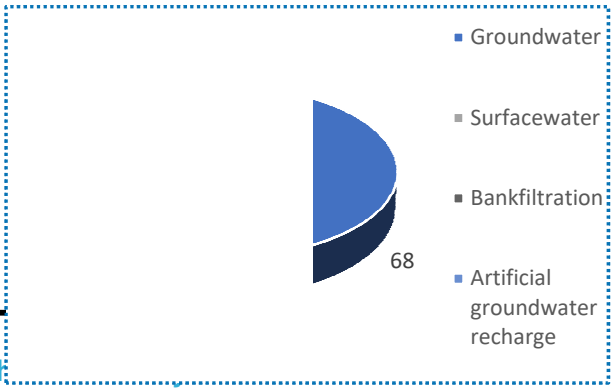
Rates of obesity, overweight and caries among children/youth

9% of the children age 3 to 6 years that were examined are overweight, of which 2,9 % already are obese
In the category of children age 7 to 10 years 15% are overweight, of which 6,4% were obese
In the age group of children age 14 to 17 years 17% were overweight, of which 8,4% are obese.
Eight out of ten children at the age of 12 (81,3%) are totally free of caries. With those numbers Germany is on the pole position when it comes to international and worldwide comparison.

Resource:
Bundeszentrale für gesundheitliche Aufklärung (https://www.bzga-kinderuebergewicht.de/vertiefende-informationen/fakten-und-folgen/uebergewicht-in-zahlen/, Zugriff: 19.11.2018) Primärquelle: KiGGs
Source: Kassenärztliche Bundesvereinigung, Bundeszahnärztekammer (Hg.) (2016): Fünfte deutsche Mundgesundheitsstudie (DMS V). Berlin, S.8
https://www.bzaek.de/fileadmin/PDFs/dms/Zusammenfassung_DMS_V.pdf (Zugriff: 19.11.2018)

Access to clean drinking water

Drinking water resources in Germany
Drinking water in Germany contains 62% ground water, 8% spring water, 17% treated surface water. The remaining 13% come from other water sources such as directly from lakes, rivers and dams.



Do kindergartens/schools have access to safe tap water?
In Germany it is almost impossible to not have access to safe tap water as tap water has its own regulations by law. Problems can be old plumbing in buildings. But these are usually checked on and changed by certified businesses to safer pipes when there are renovations. Most buildings nowadays have safe plumbing and therefore access to safe tap water.

Resources:
Report on the Quality of Drinking Water in the European Union, 2016 (examining the Member States' reports for the 2011-13 period). http://ec.europa.eu/environment/water/water-drink/pdf/reports/EN.pdf
Umweltbundesamt (UBA) (2016), Rund um das Trinkwasser, Dessau, Seite 9, 43
https://www.umweltbundesamt.de/sites/default/files/medien/479/publikationen/uba_rund_um_das_trinkwasser_ratgeber_web_0.pdf (Access: 19.11.2018) P. 9, 43

Are there requirements/regulations for drinking in schools?

There are no requirements/regulations for drinking in schools by law, but there are many programs, such as “Trinken im Unterricht” (Informationszenrale Deutsches Mineralwasser) or “Wasser macht Schule” (Bundesverband Energie- und Wasserwirtschaft in cooperation with Forschungsinstitut für Kinderernährung) that offer information and school material on how to teach children of all different ages how to establish a healthy and sustainable drinking behaviour.

Resources:
https://www.trinken-im-unterricht.de/ (Access: 19.11.2018)
https://www.wasser-macht-schule.de/ (Access: 19.11.2018)
http://www.fke-do.de/index.php?module=page_navigation&index%5Bpage_navigation%5D%5Baction%5D=details&index%5Bpage_navigation%5D%5Bdata%5D%5Bpage_navigation_id%5D=140 (Access: 19.11.2018)

Italy

Drinking behaviour of children and adolescence

According to the CENSIS survey, 90.3 percent of Italians drink mineral water, 79.7 percent drink at least half a litre a day. In the last twenty years, between 1995 and 2016, there has been a consumer boom of 19 percentage points (and those who drink at least half a litre a day have increased by 36 percent). Today there are 49 million Italians who drink mineral water: 8 million more than twenty years ago.

In Europe, Italy holds the distinction in the individual consumption of bottled water: on average 206 litres per capita per year, 29 litres more than the Germans (16.4% more), 84 litres more than the French (+ 68.9%), 85 litres more than the Spaniards (+ 70.3%), 173 litres more than the United Kingdom (+ 524.4%), 96 litres more than the average EU value (+ 87.3%).

Millennials (18-34 year-olds) are those who have the closest relationship with mineral water both as consumers (92.6%) and as consumers, with 83.3 percent drinking at least half a litre per day (table 3). The minors follow with 91.1 percent. Baby boomers are close together with 90.9 percent, while the oldest component of the population is the one with the lowest share of mineral water consumers, which remains high at 86.8 percent.
With regard to the more intense consumers, those who drink at least half a litre a day, the quotas are still high with the highest point among the Millennials (83.3%), then the Baby boomers (80.8%), the minors (79, 7%) and the elderly among whom, however, almost three quarters drink at least half a liter a day.

In conclusion, in Italy 170-180 lt / ab / year are consumed. According to data from the National Observatory on sustainable lifestyle 2018 in collaboration with Lifegate (on a sample of 800 people) on daily behavior in Italy, if you ask Italians to consume bottled water, 47 percent will say that it is a choice due to a "perception of greater security", 20 percent for "comfort" and 16 percent for the taste. While the tap is preferred only by 27 percent of the sample interviewed and drunk because safe (40%), for health (16%) and to have a lower impact on the environment (10%).

Resource:
CENSIS (Il valore sociale rilevato del consumo di acque minerali) - Roma febbraio 2018

Rates of obesity, overweight and caries among children/youth

According to the latest data from the World Health Organization, Italy is the first in Europe for childhood obesity. In Italy, 3 out of 10 children have obesity/overweight problems. Higher prevalences are recorded in the southern and central regions, although the difference has slightly decreased. 21.3 percent are overweight children and 9.3 percent are obese, including severely obese children who are 2.1 percent on their own; the overweight and obese females are 21.7 percent and 8.8 percent respectively, while the males are 21.0 percent and 9.7 percent. On the other hand, underweight children are 1.4 percent. There are no data on child obesity broken down by age: generally it refers to children aged 6-10 years.

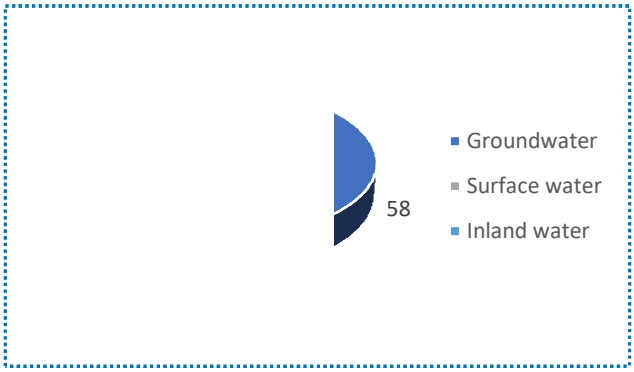
The main causes of this are identified:

- an increase in the sedentary nature of children, due to the often excessive use of technologies
- in the family context: where there is an obese parent, the prevalence of children in excess weight is greater, as in families who have difficulty reaching the end of the month with the income available to them.
- in bad eating habits, such as not having breakfast and eating snacks with high energy density
- in the maternal perception of body weight: 50.3 percent of mothers of overweight children and 12.2 percent of mothers of obese children consider their normal-weight child

Resource:
OKkio alla SALUTE - Surveillance system on overweight and obesity in children promoted and funded by the Ministry of Health / CMM

Access to clean drinking water

Drinking water resources in Italy
Groundwater: 58%
Surface water (watercourse, natural lake, artificial basin): 38%
Inland water: 4%



Drinking water treatment: about a third of the water withdrawn (33.0%) for one total annual 3.1 billion cubic meters, comes from a treatment of potabilizers.

Do schools have access to safe tap water?
Although in recent years more and more school facilities have decided to totally eliminate the use of plastic bottles during meals or breaks from lessons, bringing in the canteens and on the counters only tap water, there are no precise data on how many schools have access to safe tap water.
But what prompted the Italian school to make this choice? One of the main reasons that led many institutions to make this decision is the growing sensitivity to the issues related to eco-sustainability, as it allows contributing to the environmental cause, reducing the production of polluting waste.
Another reason, which has convinced a greater use of public water, is the significant economic savings that this choice entails; a bottle of water, in fact, costs from three hundred to a thousand times more, often weighing on school budgets or on families.
Finally, a greater consumption of public water, encourages the municipalities themselves to increase the periodic checks of the aqueduct, thus ensuring its healthiness.

Resources:
ISTAT - Censimento delle acque per uso civile (anno 2017)
Report on the Quality of Drinking Water in the European Union, 2016 (examining the Member States' reports for the 2011-13 period). http://ec.europa.eu/environment/water/water-drink/pdf/reports/EN.pdf

Are there requirements/regulations for drinking in schools?

In Italy each school has its own regulation on the subject that takes into account the national nutritional indications (Guidelines for healthy eating - INRAN 2003) and international (WHO 2003) and the Criteria for environmental and social sustainability (PAN GPP, DL 264 /2013)

Slovenia

Drinking behaviour of children and adolescence

A study among Slovenian adolescents revealed that soft drinks (drinks with added sugar, drinks with naturally present sugar) intake is with boys: 51% of all daily drink intake, with girls: 47% of all daily drink intake. Adolescents drink less water and non-caloric drinks (unsweetened tea, drinks with non-caloric sweeteners).

Resource:
Fidler Mis, N., Kobe, H., Štimec, M. Dietary intake of macro- and micronutrients in Slovenian adolescents: comparison with reference values. Ann. Nutr. Metab., 2012, vol. 61, št. 4, 4. page.

Rates of obesity, overweight and caries among children/youth

According to data from 2013 there are 14% of overweight boys and 6,9% of obese boys (21% all together) in the age of 6-9 years. There are 15,7% of overweight girls and 6,6% of obese girls (22,3% all together).

From 11-15 years there are 21% of obese and overweight boys and 13,3% of girls. There are 18,6% of overweight people who are older than 15 years.

Only one third of 3-4 years old children have caries. Among 12 year old children, 42% of children in Slovenija have completely healthy teeth, with no caries or extracted teeth. Slovenija got the highest international award for prevention program.

Resources:
Korošec A., Gabrijelčič Blenkuš M., Robnik M., Otroška debelost v Sloveniji. Nacionalni inštitut za javno zdravje, 2018. Ljubljana.
Jeriček Klanšček H., Koprivnikar H., Drev A., Pucelj V, Zupanič T., Britovšek K. Z zdravjem povezana vedenja v šolskem obdobju med mladostniki v Sloveniji, Izsledki mednarodne raziskave HBSC. NIJZ, Ljubljana, 2014.
Zdravstveni statistični letopis 2015. NIJZ, 2015. Ljubljana.
Sedej K.a · Lusa L.b · Battelino T.c · Kotnik P.a Stabilization of Overweight and Obesity in Slovenian Adolescents and Increased Risk in Those Entering Non-Grammar Secondary Schools. Obesity Facts, 2016.
Zupanič M. Slovenski otroci šampioni po bleščečih zobeh. Delo, 2018.
https://www.delo.si/novice/slovenija/slovenski-otroci-sampioni-po-blescecih-zobeh-61783.html
Vošnjak A. Danes ima karies le vsak tretji malček. Dnevnik, 2014 https://www.dnevnik.si/1042671517

Access to clean drinking water

Drinking water resources in Slovenia
Groundwater: 67%
Surface Water: 33%

Slovenia has six springs and their rivers: Ljubija, Hudinja, Bistrica, Kolpa, Soča and Podresnik. They all reach requirements of rule book about drinking water.

Resources:
Uradni list RS, št. 19/04, 35/04, 26/06, 92/06)(ARSO, 2010)
Report on the Quality of Drinking Water in the European Union, 2016 (examining the Member States' reports for the 2011-13 period). http://ec.europa.eu/environment/water/water-drink/pdf/reports/EN.pdf

Do schools have access to safe tap water?
In Slovenia all schools and kindergartens have access to safe tap water. National Institute of Public Health recommends drinking tap water, because in Slovenia there is good and safely water supply for most of the population. In the case that water is not suitable, people have to be informed about that. For young people the National Institute recommends following the rules of the local health institution and drinking bottled water.

Resource:
National institute of Public Health, 2016
http://www.nijz.si/sl/pitje-tekocin-in-uporaba-energijskih-pijac-pri-otrocih-in-mladostnikih

Are there requirements/regulations for drinking in schools?

There are requirements/regulations for drinking in schools in Slovenija (Act/Law about Nutrition in School). Within the school or kindergarten are a and areas which are in their domain, it is forbidden to place vending machines for food or drinks.

Guidelines for Healthy Nutrition in schools and kindergartens:
During meal time children and teenagers should be offered enough of drinks, especially healthy, safe drinking water. Water or unsweetened tea should be offered to children, not fruit drinks. They contain added sugar and make children fill full, that´s why they don´t finish their meals. With the youngest children we don´t recommend drinking sparkling water.

Resource:
Act/Law about Nutrition in School, 4.paragraph, 8. point (Zakon o šolski prehrani, 4. člen, 8. točka)
Guidelines for Healthy Nutrition in schools and kindergartens (Smernice zdravega prehranjevanja v VIZ ustanovah, p.17, 30)

United Kingdom

Drinking behaviour of children and adolescence

Within the United Kingdom, many schools have already experienced the benefits of providing easily accessible tap water through water-bottles-on-desk schemes. Studies have shown that children need to drink at least 3-4 glasses of water per day while at school and even more when exercising or in warm weather. Water needs to be conveniently located in safe and hygienic locations, be attractive to children in terms of taste and temperature, and children need to be encouraged and supported to drink water throughout the day.

Since the end of the 1990's, there have been a number of reports and regulatory documents in the United Kingdom that have looked at drinking water in schools and which have aimed to promote drinking water and support schools in allowing children to do so.

Resource:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/788884/School-food-in-England-April2019-FINAL.pdf

Rates of obesity, overweight and caries among children/youth

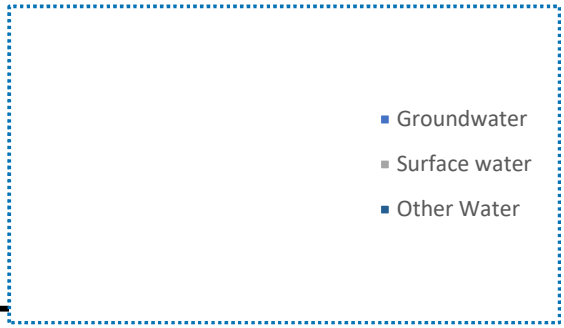
In 2010, the Department for Health launched the Food in Schools campaign in a bid to tackle rising levels of obesity among children. The campaign aimed to encourage schools to stock healthier food and drinks in vending machines in schools. The project was trialed in 500 schools, with the aim of then developing a nationwide school approach to promote healthy eating and drinking in children and to help schools, teachers and education authorities to develop similar schemes in the longer-term.

A number of groups in the UK argue that too much sugar can lead to health problems such as obesity, dental decay and diabetes. In 2018, the Government introduced the Soft Drinks Industry Levy. Commonly referred to as the 'Sugar Tax', the aim was to get soft drink manufacturers to reducing the sugar content of drinks. Soft drinks manufacturers who don't reformulate pay a levy, which is expected to raise £240 million each year. This money goes towards doubling the Primary Sports Premium, the creation of a Healthy Pupils Capital Fund to help schools upgrade their sports facilities and to give children access to top quality PE equipment. The levy will also give a funding boost for healthy school breakfast clubs. Since the introduction of the sugar tax, there have also been calls from lobbyists to ban all soft drinks from schools in order to help cut obesity levels and dental decay.

Resource:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/251020/The_School_Food_Plan.pdf

Access to clean drinking water

Drinking water resources in United Kingdom
Groundwater: 23%
Surface water: 63%
Other water: 23%



In the United Kingdom about 90 percent of the population is supplied by private companies.

Do schools have access to safe tap water?
There are three main ways in which mains water can be accessed within the school environment. Water coolers, water fountains and water bottles on desks.
Water coolers can use either mains or bottled water, however mains coolers (piped with a mains water supply) are the best. These are used with disposable cups, cones or used to refill bottles. These provide a constant source of cool, fresh tasting and accessible water.
Refrigerated or non-refrigerated drinking fountains provide a jet of water to the user under normal mains pressure which does not need a cup or drinking vessel. Some of these can be fitted with filtration systems. Alongside taps, these are currently the most common drinking facility in UK schools.

Water bottles on desks are the easiest, cheapest and the most effective way for children to get water. Either the schools can supply a water bottle, or it can be brought in from home. The use of refillable water bottles are also a good way of introducing the topic of plastic waste and recycling to children.

Resource:
Report on the Quality of Drinking Water in the European Union, 2016 (examining the Member States' reports for the 2011-13 period). http://ec.europa.eu/environment/water/water-drink/pdf/reports/EN.pdf

Are there requirements/regulations for drinking in schools?

The Education (School Premises) Regulations, produced by the Government Department for Education and Skills (DfES) in 1999 stated that: 'A school shall have a wholesome supply of water for domestic purposes including a supply of drinking water.' As well as this, the National Healthy School Standard Guidance of 1999, made it a basic requirement that clean drinking water should be provided to school children.

In 2005, the School Meals Review Panel produced a report titled ‘Turning the Tables: transforming school meals’. In this report, the panel suggested that children and young people should have easy access to free, fresh drinking water in schools at all times. Following this report, in 2006, the DfES produced its School Food Standards that recommended the provision of suitable and sufficient drinking water in schools.

In 2013, Henry Dimbleby and John Vincent wrote the School Food Plan, which aimed to improve school food. Following the release of the plan, a new set of standards for all food served in schools was launched by the Department for Education. They become mandatory in all maintained schools, and new academies and free schools from January 2015. Amongst other things, the standards stated that free, fresh drinking water should be available at all times.
More recently, in 2016 the Department for Education produced the guidance document, School Food in England: Departmental advice for governing boards. This guidance is based upon government legislation from 2014 titled ‘the requirements for school food regulations 2014’. As well as offer advice to school governors relating to school food, the 2016 document highlights that drinking water must be provided free of charge at all times on school premises.

Resource:
http://www.legislation.gov.uk/uksi/1999/2/contents/made