ROBERT KOCH INSTITUT

THE ADIMON INDICATOR SYSTEM

Childhood obesity: tracking the influencing factors

ADIMON
Population-wide monitoring of factors that influence childhood obesity

THE ADIMON INDICATOR SYSTEM

Childhood obesity: tracking the influencing factors

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The AdiMon Indicator System – what it is and what it can be used for

Overweight and obesity in children and adolescents pose major public health challenges. About one in six children in Germany is overweight or obese. Among 11- to 13-year-olds, the figure rises as high as one in five. Obesity can have negative consequences for the health of children that can continue into adulthood.

Childhood obesity is caused by a variety of individual and environmental factors that cannot be reduced to individual dietary behaviours and physical activity. As such, providing healthy food in day-care centres can contribute as much to obesity prevention as the presence of spaces for sport in the local environment and parents acting as role models.

The AdiMon Indicator System answers questions such as 'How many children drink sugar-sweetened beverages every day?', 'How are patterns of food consumption changing?' and 'How many children are affected by poverty?' The information provided to these and many other questions enables the need for action to be recognised at an early stage and to track developments over time. This information can and should be used by healthcare professionals to plan preventive measures and to monitor current developments.

This brochure provides a selection of important, revealing population-wide figures from the AdiMon Indicator System. The complete indicator system, which provides far more background information on the factors that influence childhood obesity, is available at www.rki.de/adimon.

Obesity

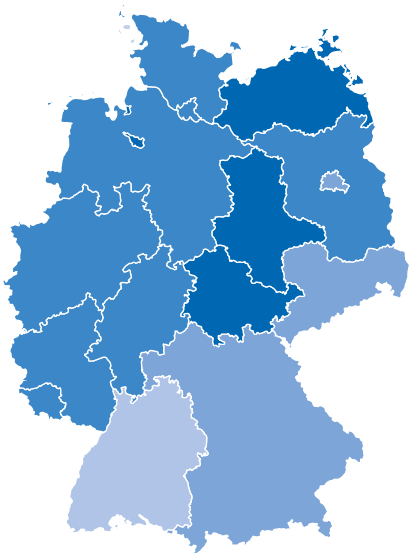
Recognising risks at an early stage

Obesity can lead to health problems in childhood and have a negative impact on health into adulthood. The first years of a child's life, are central to obesity prevention because many risk and protective factors are shaped significantly during this phase of life.

The German Health Interview and Examination Survey for Children and Adolescents – KiGGS Wave 2 (2014–2017), which was conducted by the Robert Koch Institute (RKI), found that 1.0% of boys and 3.2% of girls aged between 3 and 6 years are obese in Germany. Moreover, the prevalence of obesity among boys and girls increases among school-aged children. The study found that 8.7% of boys and 7.2% of girls aged between 11 and 17 are obese. Importantly, the prevalence of obesity has stabilised at these levels in recent years. In the 2017 report of the physical examinations undertaken when children are admitted to school it was found that the prevalence of obesity among these children varies according to region: the lowest prevalence was identified in Baden-Württemberg (2.8%), and the highest in Saxony-Anhalt (5.6%).

In view of the higher prevalence of obesity among school-aged children and the consequences that severe overweight can have for health, it is essential that obesity prevention begins at an early age. As such, obesity prevention needs to begin during pregnancy and continue during early childhood. Furthermore, living environments that promote physical activity and a healthy diet should be created.

The prevalence of obesity among children on admission to school



The prevalence of obesity

among children and adolescents

3–6 years

3.2%
of girls

1.0%
of boys

7–10 years

4.7%
of girls

6.8%
of boys

11–17 years

7.2%
of girls

8.7%
of boys

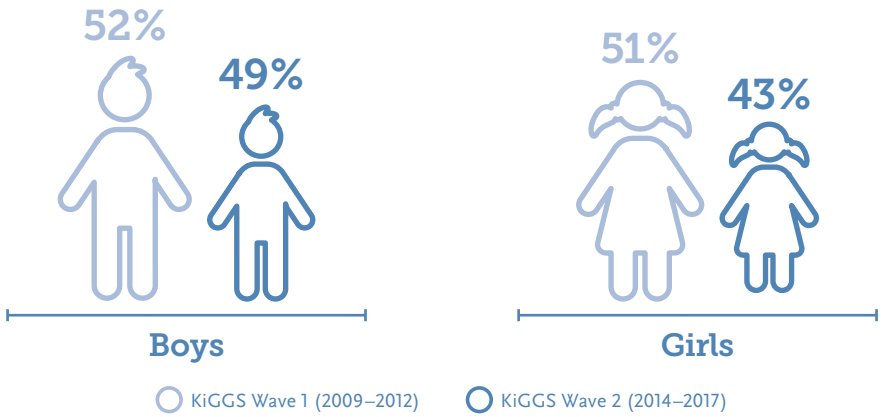
Behaviour

Create activity-friendly communities

Physical activity promotes children's physical, psychological and social well-being, and helps prevent obesity. In accordance with recommendations made by the World Health Organization (WHO), children and adolescents should undertake at least 60 minutes of moderate- to vigorous-intensity physical activity every day. This can include walking as well as sports such as gymnastics and football.

The results from KiGGS Wave 2 (2014–2017), which was conducted by the RKI, demonstrate that almost half (46%) of children between 3 and 6 years meet the WHO's recommendations on physical activity. Boys do so slightly more frequently (49%) than girls (43%). The proportion of 3- to 6-year-old children who achieve the WHO's recommendations on physical activity has fallen slightly compared to the figures from KiGGS Wave 1 (2009–2012).

In order to prevent childhood obesity, children need an environment that facilitates and encourages physical activity. This includes activity-friendly communities and day-care centres as wells as recreational activities that enable children to engage in physical activities.




Boys achieve the WHO's recommendations on physical activity slightly more often than girls.
46%
of children aged 3-6 years meet the WHO's recommendations on physical activity.
The proportion of 3- to 6-year-old children who achieve the WHO's recommendations on physical activity has fallen slightly in recent years.

27% *of boys and* **25%** *of girls aged 0–6 years are members of a* **sports club**.

In recent years, the **proportion** *of children aged 0–6 years who are members of a sports club* **has increased**.

Children who live in **western Germany** *are more* **frequently** *members of a sports club than children living in eastern Germany.*

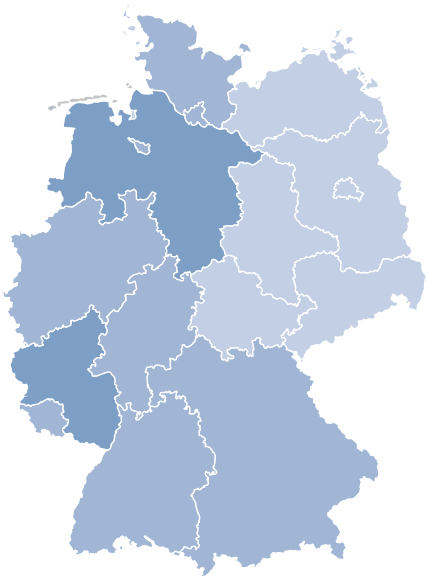
Join sports clubs

Sports clubs can play an important role in encouraging children – irrespective of their social background or circumstances – to participate in sport and to increase their levels of physical activity. As such, they also contribute towards preventing obesity. There are more than 90,000 sports clubs in Germany that offer children a wide range of sporting activities.

According to the 2017 membership survey undertaken by the German Olympic Sports Confederation, 26% of children aged 0–6 years are members of a sports club. In recent years, there has been a significant increase in the proportion of nursery-aged children (0–6 years) who have joined a club. In 2000, only about one in five nursery-aged children was a member of a sports club. Children's membership of sports clubs differs according to region. In the old federal states (West Germany), children aged 0–6-years are significantly more likely to be members of a sports club than those in the new federal states (East Germany).

In the interests of obesity prevention, it is important that children are physically active. Sports clubs can provide an important contribution in this respect. Therefore, it is essential to improve children's participation in sports clubs and to guarantee that neither the area in which they live nor their social status prevents them from doing so.

Sports club membership among children aged 0–6 years



10% to under 20%

20% to under 30%

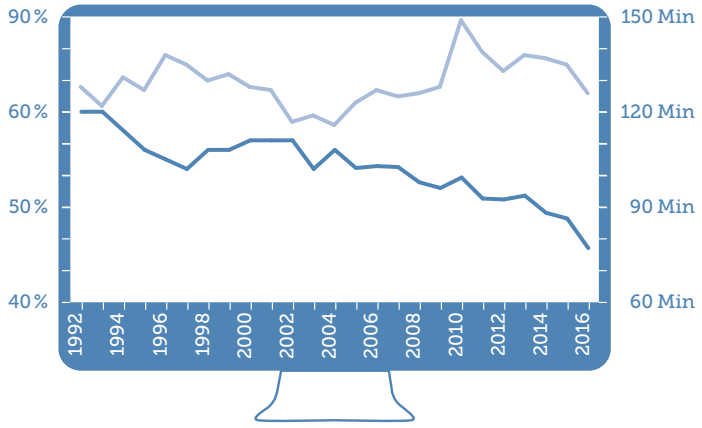
30% to under 40%

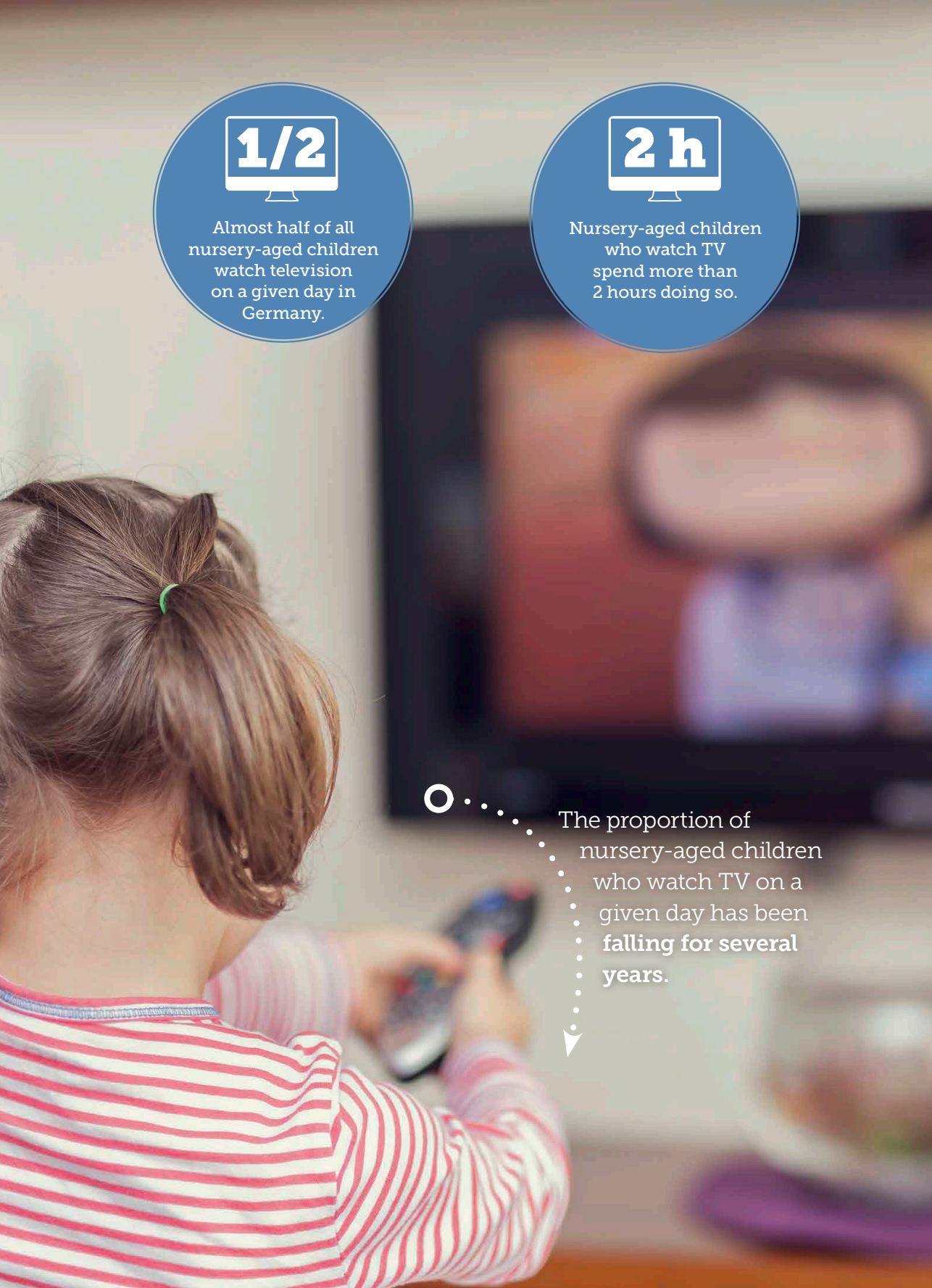
Reduce screen time

Watching television only leads the body to use up a small amount of energy. In addition, when children watch TV they often eat energy-dense snacks. And, television adverts encourage children to eat even more energy-dense foods, such as sweets and sugar sweetened beverages. In the interest of obesity prevention, therefore, children should watch as little television as possible.

According to data from the television panel at AGF Videoforschung from 2016, almost every second 2- to 5-year-old child watches television on a given day in Germany. Moreover, when these children watch television, they tend to spend more than 2 hours doing so. Only slight differences between boys and girls were identified in this regard. However, data from the past few years shows that the proportion of nursery-age children who watch TV on a given day is declining.

Television can provide information, encourage children to development their interests and provide entertainment, but it can also lead to surplus energy and encourage the development of obesity. The Federal Centre for Health Education recommends that children under the age of 3 years should not watch any television at all, children aged 3–6 years should not spend more than 30 minutes, and children over the age of 6 years should not spend more than 60 minutes a day watching television or other similar forms of media.




1/2
Almost half of all nursery-aged children watch television on a given day in Germany.
2 h
Nursery-aged children who watch TV spend more than 2 hours doing so.
The proportion of nursery-aged children who watch TV on a given day has been **falling for several years.**

The proportion of 3- to 6-year-old children who drink **sugar-sweetened beverages every day** has **fallen in recent years.**

11%

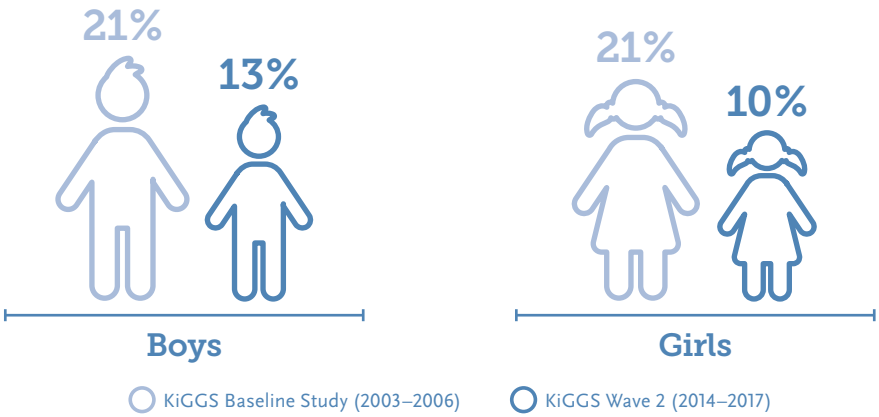
of 3- to 6-year-old children drink sugar-sweetened beverages every day.

Drink water

In order to ensure that children eat a balanced diet and to help prevent childhood obesity, children should drink calorie-free beverages such as water and unsweetened teas. However, children can also drink fruit juice spritzers occasionally. Nevertheless, they should rarely be offered sugar-sweetened beverages (SSB) because these contain high levels of energy and sugar. SSB are usually defined as fruit drinks, fizzy drinks and flavoured water that have been sweetened with sugar.

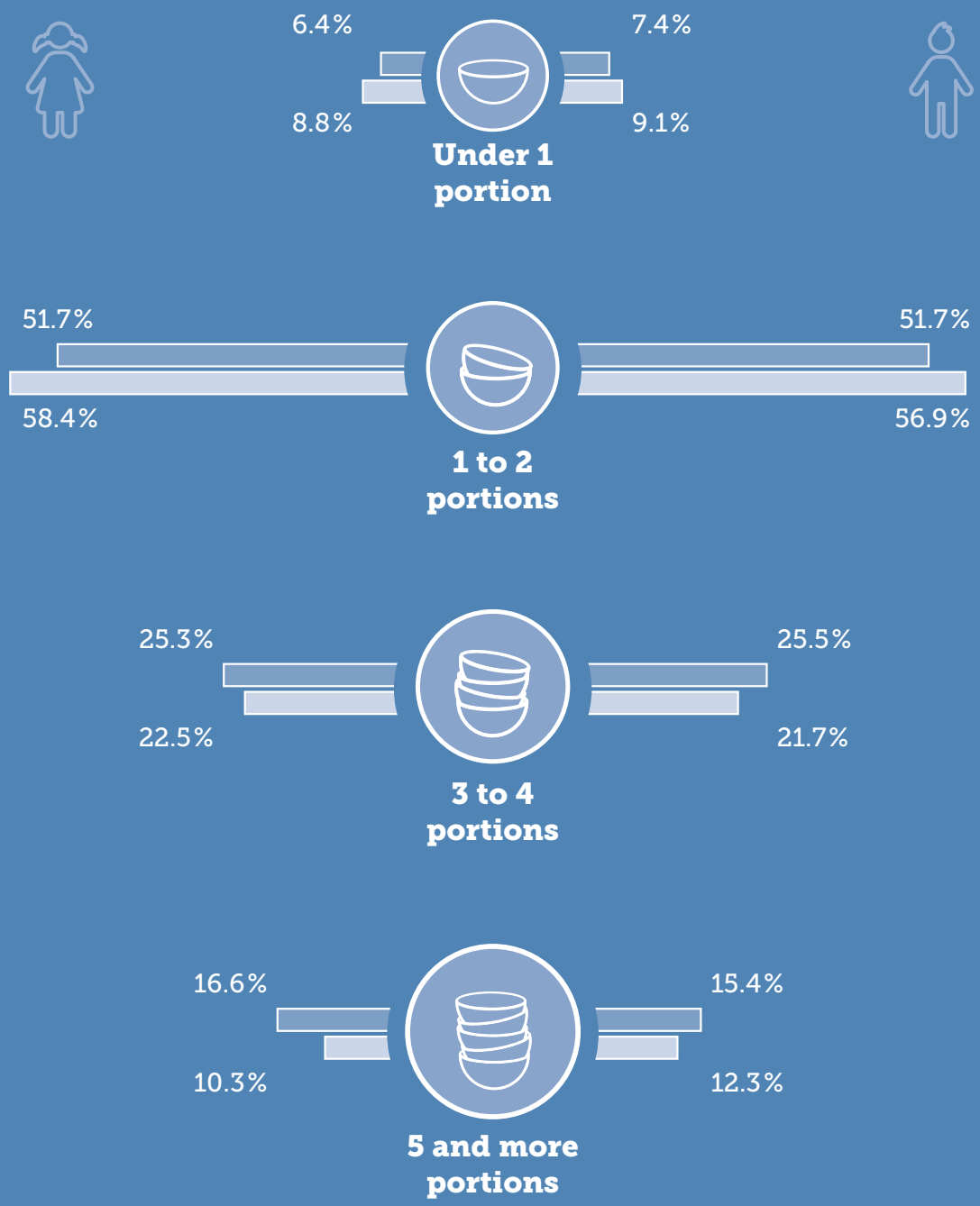
KiGGS Wave 2 (2014–2017), which was conducted by the RKI, found that 11% of 3- to 6-year-old children drink SSB every day (13% of boys and 10% of girls). As such, the prevalence of SSB consumption has fallen significantly compared to the KiGGS Baseline Study (2003–2006). However, it is important to note that data on the SSB consumption was collected differently for both surveys.

In the interests of obesity prevention, children should rarely consume SSB. As such, it is important to provide children with healthy alternatives such as water and unsweetened teas. Finally, in order to reduce the amount of SSB that children consume, organisations including the World Health Organization (WHO) call for restrictions of marketing and the introduction of a tax on SSB.



Fruit and vegetables

Portions per day for 3- to 6-year-olds



Eat more fruit and vegetables

Fruit and vegetables contain important vitamins and minerals and relatively low levels of energy. It is important to eat fruit and vegetables regularly as part of a balanced diet and doing so helps prevent obesity. The German Nutrition Society (DGE) recommends that people eat at least five servings of fruit and vegetables every day.

According to KiGGS Wave 2 (2014–2017), nine out of ten (93%) children aged between 3 and 6 years eat at least one serving of fruit or vegetables every day. However, only 16% of children meet the DGE's recommended five servings per day. There are no pronounced differences in this respect between boys and girls. Compared to the figures from the KiGGS Baseline Study (2003–2006) the proportion of children achieving the DGE recommendation has risen slightly.

In order to increase the amount of fruit and vegetables that children eat, it is important to offer them fruit and vegetables at home and in day-care centres. Moreover, parents act as role models and influence the levels of fruit and vegetables that children eat. If parents regularly eat fruit and vegetables, children often do so too.

93%

of 3- to 6-year-old **children** *eat at least* **one serving** *fruit and vegetables* **a day.**

16%

of 3- to 6-year-old children meet the **recommended 'five a day'.**

Environment

Food consumption

In order to prevent obesity in the population, it is important to ensure that the available food supply enables and promotes a balanced diet. One indicator of the level of food consumed in Germany is the annual per capita consumption, which is derived from agricultural statistics. The annual per capita consumption is calculated using the figures showing the amount of food that is produced in or imported to Germany minus what is exported, in relation to the population.

According to agricultural statistics provided by the Federal Ministry of Food and Agriculture (BMEL), in 2016, the per capita consumption was 116 litres of soft drinks, 97 kg of vegetables, 65 kg of fruit, 10 kg of chocolate products and 6 kg of confectionery (such as jellies and candies). Per capita consumption of soft drinks increased significantly until 2013, but has since declined. Moreover, there is a current tendency towards increased per capita consumption of vegetables and a decreasing per capita consumption of fruit. Recent years have also seen a slight increase in level of consumption of chocolate products and confectionery.

Developments in per capita food consumption demonstrate that the amount of soft drinks consumed in Germany has increased significantly in recent years. From the perspective of obesity prevention, this development has to be viewed critically. However, these developments have also been accompanied by a positive trend towards a higher level of per capita vegetable consumption.


Soft drinks
Vegetables
Fruit
Chocolate products
Confectionary
150 kg
120 kg
90 kg
60 kg
30 kg
0 kg
150 l
120 l
90 l
60 l
30 l
0 l
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016

How much does food cost?

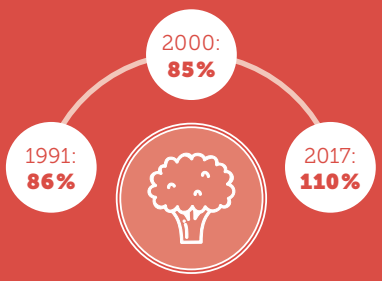
The price of food can influence parents' and children's purchasing behaviour and thus is relevant to childhood nutrition and the development of childhood obesity. This is especially true in the case of families on low incomes. As such, it is essential that a balanced diet does not cost more than a diet comprising a high proportion of energy-dense, nutrient-poor foods.

According to the consumer price index calculated by the Federal Statistical Office, the cost of food and non-alcoholic beverages has risen significantly in recent years. Moreover, whereas the price of confectionery, caffeine-free soft drinks and cola-based soft drinks have largely followed the general rise in the price of food and non-alcoholic beverages, the price of fruit has been hit by above-average rate of price increase. In contrast, vegetable prices have risen less than the average price of food and non-alcoholic drinks.

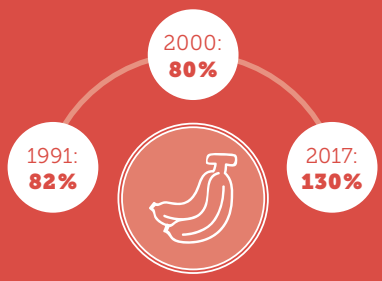
In order to prevent childhood obesity it is essential that families can afford a balanced diet irrespective of their income. It is assumed that measures aimed at reducing the price of foods such as fruit and vegetables and increasing the price of energy-dense, nutrient-poor foods would have a positive effect on family's diets.

Consumer price index

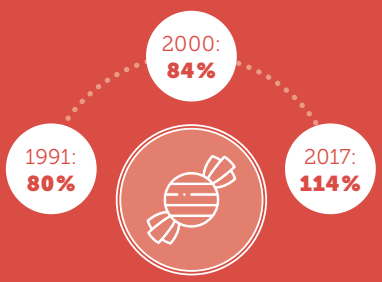
Year (2010 = 100%)



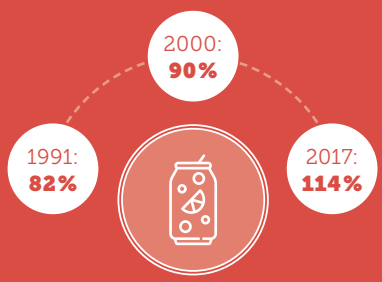
Vegetables



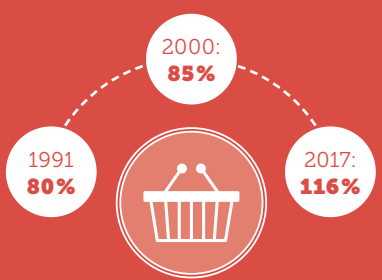
Fruit



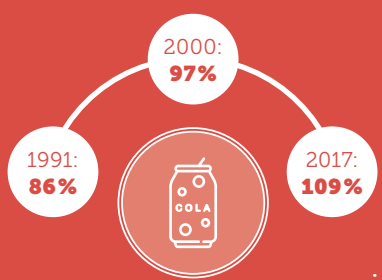
Confectionary (including sugar, jams and honey)



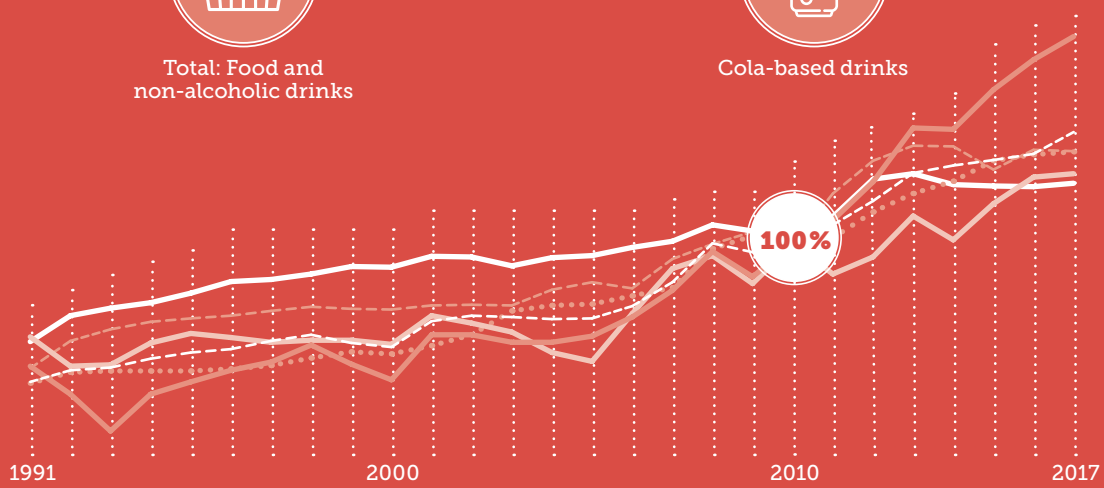
Caffeine-free fizzy drinks



Total: Food and non-alcoholic drinks



Cola-based drinks




29.6%
DGE's quality standard
4.0%
Bremen checklist
3.3%
optiMIX concept
4.1%
A different quality standard

Catering in day-care centres

Almost all children in Germany attend a day-care centre during their first years of life. They normally eat lunch in the nursery, and partly even breakfast. As such, healthy meals in day-care centres can contribute to a balanced diet and the prevention of childhood obesity.

The Catering in Nurseries study (VeKiTa), published in 2016, found that 41% of child day-care centres base their catering on external quality standards. The quality standards drawn up by the German Nutrition Society (DGE) form the basis for planning and implementing meals in the majority of cases. Almost one-third (29.6%) of day-care centres in Germany uses the DGE's quality standard, followed by the Bremen checklist (4.0 %), developed by the Leibniz Institute for Prevention Research and Epidemiology (BIPS) and the optiMIX concept (3.3%), which was developed by the Research Institute for Child Nutrition (FKE).

The results of the VeKiTa study show that most nurseries in Germany have yet to ensure the meals they provide adhere to external quality standards. Although a healthy diet in day-care centres is clearly possible without following external quality standards, a nationwide implementation of research-based quality standards with aim of preventing childhood obesity would certainly be welcome.

41%

of **child day-care centres** *follow* **external quality standards** *for their* **catering.**

More time for active play

The amount of time that children are physically active also depends on the environment in which they live. For example, environments that provide opportunities for exercise and that encourage active movement, such as those with public green spaces, sports facilities, and playgrounds, can promote physical activity.

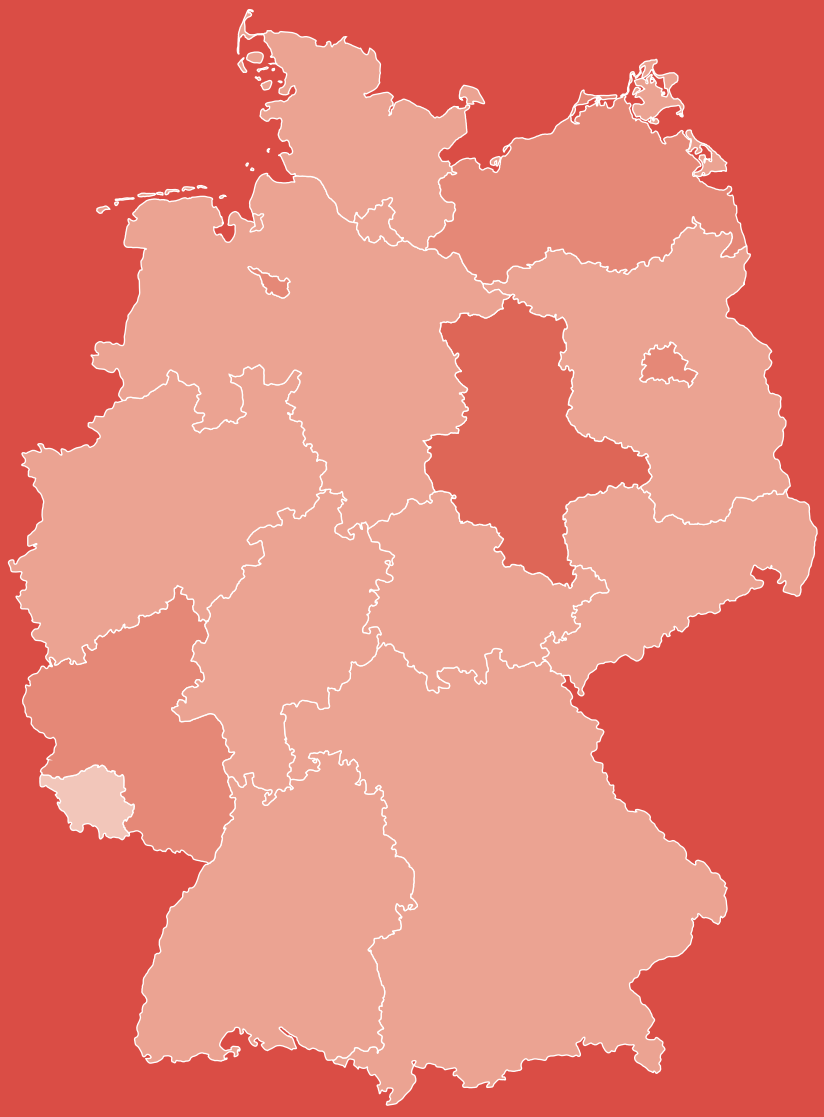
Area statistics from the Federal Statistical Office from 2016 show that 15% of residential areas in Germany are used for sports, leisure and recreation. These areas include green spaces, sports facilities and playgrounds. The proportion differs between federal states, in some cases significantly. Saxony-Anhalt has the highest proportion (33%) of sports, leisure and recreational spaces in residential areas; Saarland has the lowest (9%). However, it should be noted that residential areas in metropolitan areas usually have a higher proportion of sports, leisure and recreational areas than those in smaller districts. In addition, newer residential areas usually have more of these spaces than older residential areas.

Clearly, area statistics show that a significant proportion of residential areas in Germany is devoted to sport, leisure and recreation. These spaces offer children the opportunity to engage in physical activity during leisure time outside the home environment. As such, these spaces can contribute to the prevention of childhood obesity. However, as different surroundings can provide different opportunities for exercise, it is important to ensure that appealing green spaces, sports facilities and playgrounds are widely available, and that infrastructure is provided that encourages active transport such as cycling or walking.

of residential areas in Germany provide **space for sport, leisure** *and* **recreation.**

The proportion is **usually higher** *in* **metropolitan areas** *than in smaller municipalities.*

The proportion of residential areas used for sport, leisure and recreation.



Under 10%
10% to under 20%
20% to under 30%
30% to under 40%

Like father, like son… like mother, like daughter?

The risk of developing obesity that children face is also linked to their parents' weight. Children whose parents are obese have an increased risk of becoming obese themselves. This is due to genetics as well as lifestyle-related factors such as their parents' dietary behaviour and physical activity.

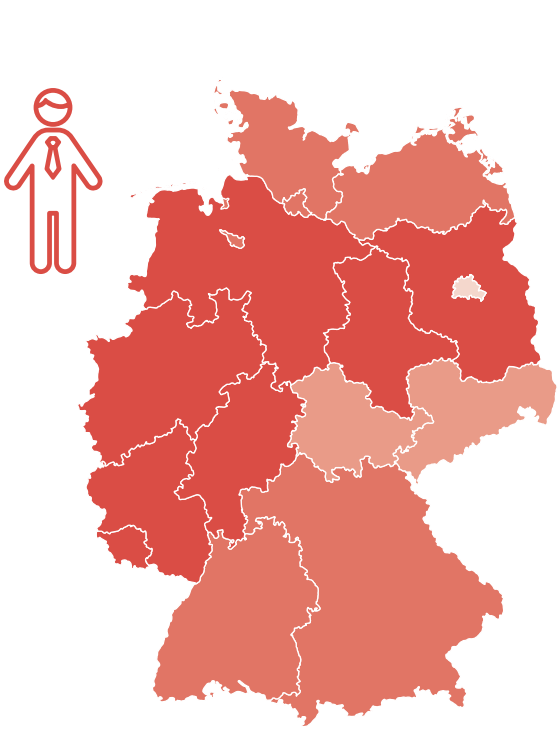
According to the microcensus conducted by the Federal Statistical Office in 2013, 14% of fathers and 10% of mothers of children aged 0–6 years are obese. The microcensus also identified clear differences between the federal states: the prevalence of obesity is lowest among fathers and mothers in Berlin (9% and 7% respectively) and highest among fathers in Rhineland-Palatinate (16%) and mothers in Bremen (15%). In recent years, the prevalence of obesity among fathers and mothers in Germany has increased significantly.

The increasing prevalences of obesity among parents of nursery-aged children demonstrate the need for approaches to prevent obesity that take the whole of society into account. Above all, these measures should focus on the living environments such as the family, school, day-care centre, workplace and the local community in order to promote a healthy lifestyle for the entire family and to prevent the development of childhood obesity.

The **prevalence of obesity** among **fathers and mothers** of nursery-aged children has **increased significantly** in recent years.

Prevalence of obesity

among fathers and mothers

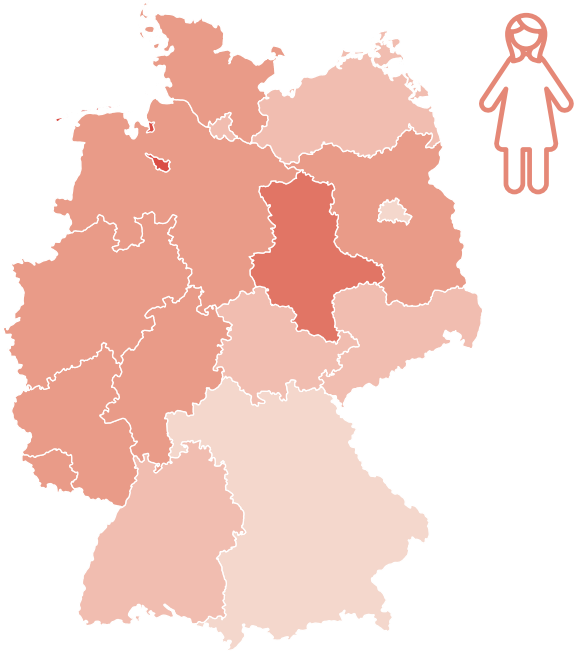


14 %

of fathers of nursery-aged children are obese.

10 %

of mothers of nursery-aged children are obese.



The prevalence of obesity among fathers and mothers of nursery-aged children differs according to federal state.

6 % to under 8 %
8 % to under 10 %
10 % to under 12 %
12 % to under 14 %
14 % to under 16 %

41% of fathers *and*
29% of mothers *of nursery-aged children meet the WHO's recommendations on* **aerobic physical activity**.

Growing up healthily in the family

A well-balanced diet and appropriate levels of physical activity can help to prevent the development of childhood obesity. However, the amount of exercise that children undertake and the food that they eat are influenced by their parent's levels of physical activity and their diet: if parents have a physically-active lifestyle and eat a balanced diet, children often do so too.

The results of the German Health Update (GEDA 2014/2015), conducted by the RKI, show that 41% of fathers and 29% of mothers of children aged 0–6 years meet the World Health Organization's (WHO) recommendations on aerobic physical activity. The WHO argues that adults should undertake at least 150 minutes of aerobic physical activities such as cycling or playing football each week. At the same time, the GEDA 2014/2015 study showed that about 36% of fathers and 57% of mothers eat at least one serving of fruit or vegetables every day.

Environments that enable people to be physically active and to eat healthy can support families to adopt a physically-active lifestyle and a balanced diet.

36%

of fathers

and

57%

of mothers

eat at least one portion of fruit or vegetables per day.

Mealtimes

A balanced diet provides the foundations for good health in childhood and the prevention of childhood obesity. Children's diets are influenced by factors such as their parents' dietary behaviour and the food offered at home. Thus, the amount of time that parents spend preparing meals can also play a role in obesity prevention.

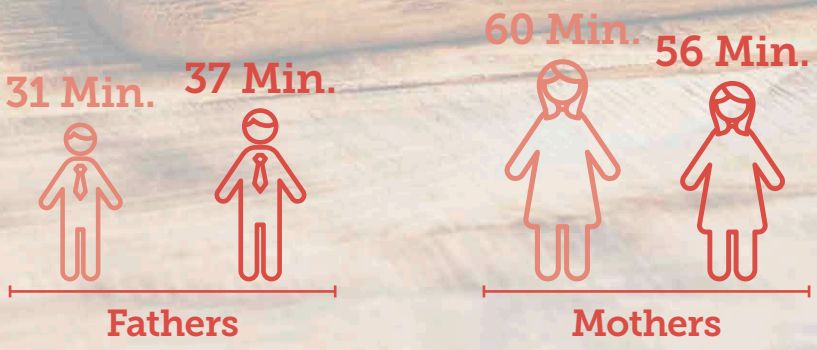
According to the Federal Statistical Office's Time Use Survey from 2012 to 2013, 47% of fathers and 86% of mothers of 0- to 6-year-old children spend time preparing meals. These figures have not changed significantly compared to 2001/2002. On average, in 2012/2013, these fathers spent 37 minutes preparing meals every day and these mothers 56 minutes. Compared to the Time Use Survey from 2001/2002, the average time that fathers of 0- to 6-year-olds spend preparing meals has risen slightly but the time that mothers spend preparing meals has decreased slightly.

In order to make it easier for parents to prepare meals at home, the reconciling of work and family life should be facilitated. In addition, training courses can be useful to support parents in preparing well-balanced meals using fresh ingredients.

***86% of mothers** and **47% of fathers** of 0- to 6-year-old children spend time preparing meals.*

*On average, **mothers** of nursery-aged children spend **56 minutes** and **fathers 37 minutes every day** preparing meals.*

Average time spend preparing meals



Pre- and post-birth

Staying healthy during pregnancy

The foundations for a child's health are laid during pregnancy. Factors that can affect a child's development before birth and increase the risk of obesity later in life are maternal obesity, gestational diabetes and maternal smoking. Therefore, these factors play a key role in the prevention of childhood obesity.

The 2016 Federal Evaluation of Obstetrics, which was undertaken by the Institute for Quality Assurance and Transparency in Healthcare, found that 15.2% of pregnant women in Germany were obese during the first prenatal screening. Gestational diabetes was identified among 5.4% of expectant mothers. The prevalence of obesity among pregnant women and the prevalence of gestational diabetes have increased significantly in recent years. The proportion of women who smoke during pregnancy was found to be 5.5% and has been declining for several years.

The increasing proportion of obese pregnant women and the increased diagnosis of gestational diabetes illustrate the importance of preventive measures that target expectant mothers. These include measures that promote physical activity and a healthy diet among the adult population, as well as target group-specific measures such as prevention courses run by health insurers for women who are planning to have children and those who are already pregnant.

Prevalence of smoking among pregnant women

2005

2006: **10.4%**

2011: **7.9%**

2016: **5.5%**

2018

5% of pregnant women have smoked during pregnancy.

Prevalence of gestational diabetes

2018

2016: **5.4%**

2011: **4.4%**

2006: **2.4%**

2005

5% of pregnant women have gestational diabetes.

Prevalence of obesity among pregnant women

2018

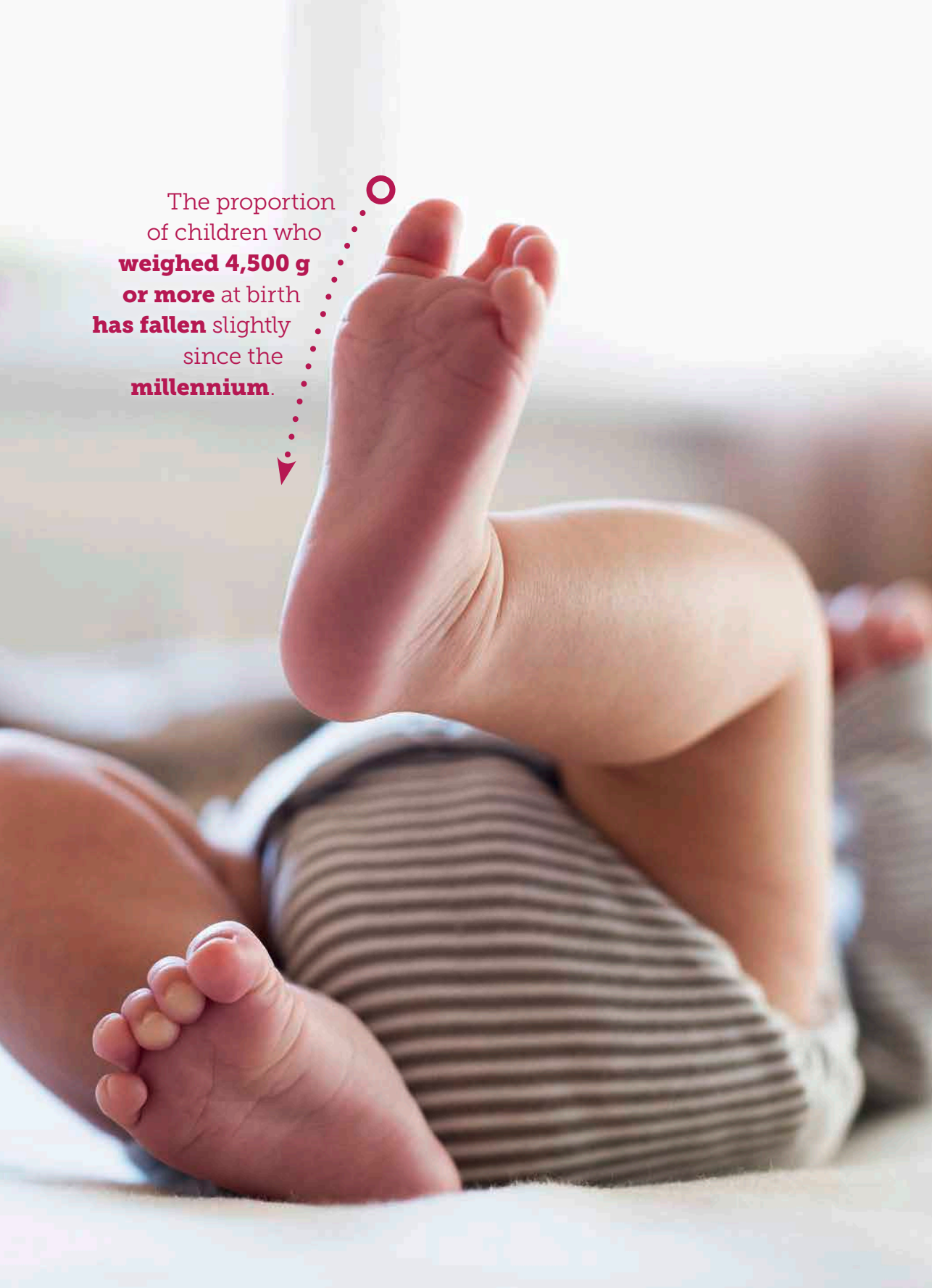
2016: **15.2%**

2011: **13.8%**

2006: **12.2%**

2005

15% of pregnant women were obese at the beginning of pregnancy.


The proportion of children who **weighed 4,500 g or more** at birth **has fallen** slightly since the **millennium**.

Birth weight

Children's pre-natal development has an effect on their physical development for their entire life: children with a high birth weight become more frequently obese in later life than babies born at a normal weight.

In 2013, birth statistics showed that 1.6% of newborn boys and 0.7% of newborn girls had a high birth weight of 4,500 g or more. During the 1990s, the proportion of newborn babies that weighed 4,500 g or more at birth remained stable; however, it has declined slightly since the beginning of the millennium. At the same time, a very low birth weight can also have an impact on metabolic disorders and childhood obesity. In 2013, 6.4% of newborn boys and 7.5% of newborn girls weighed less than 2,500 g. The proportion of newborn babies with a low birth weight initially increased during the early 1990s, but has remained relatively stable since 2003.

As the foundations of a child's subsequent weight development are laid down before they are born, expectant mothers should be provided with advice about this issue as early as possible. Counselling should be aimed at ensuring that unborn children neither receive too much nor too little nutrition before birth.

In 2013

of boys

and

of girls

in Germany were born with a high birth weight (4,500 g or more).

Breast milk: the super food

Breastfeeding has many benefits for the health of children and nursing mothers. In addition to improving bonding between mother and child and protecting children from infectious diseases, it is also associated with a lower risk of long-term overweight and obesity. As such, the WHO recommends that infants receive nothing but breast-milk for the first six months of their lives as this provides them with the best possible chances of a healthy development.

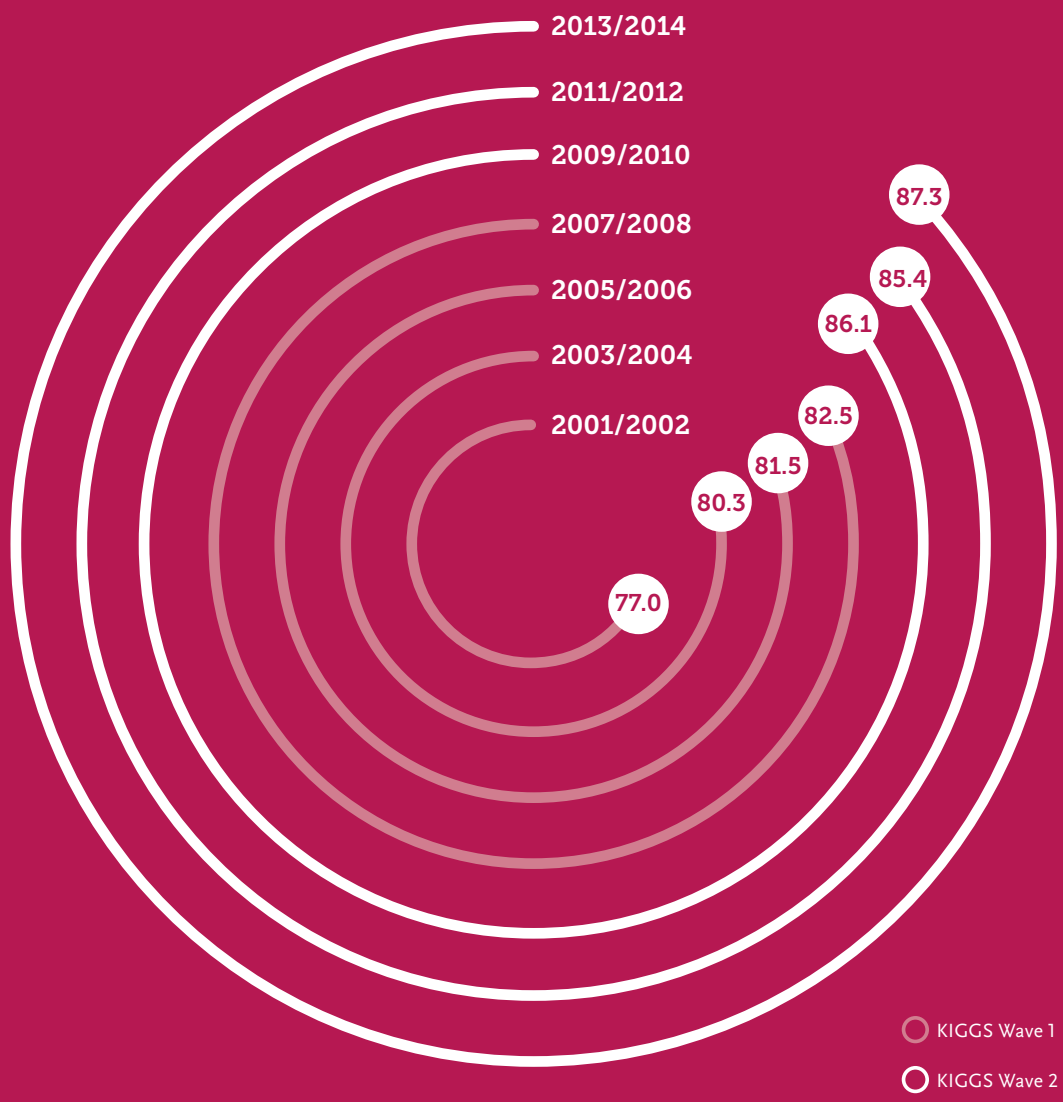
According to data from KiGGS Wave 2 (2014–2017), 87.3% of children born in 2013 and 2014 in Germany were breastfed. This amounts to almost nine out of ten newborn babies. Moreover, this means that the proportion of breastfed children in Germany has increased by ten percentage points compared to the 2001–2002 birth cohort. However, only 12.5% of children born between 2012 and 2016 met the WHO's recommendation of six-months of exclusive breastfeeding. This proportion has not changed significantly since the 2001/2002 birth cohort.

In order to ensure that as many children as possible can benefit from being breastfed, measures aimed at promoting breast-feeding should start as early as possible and nursing mothers should continue to receive support after they have given birth. This requires both an infrastructure and a society that encourages breastfeeding.

Only **12.5%** *of children born between 2012 and 2016 were exclusively breastfed for the first six months and therefore met WHO recommendations.*

Nine out of ten *children in Germany* **have been ever breastfed**.

Proportion of children who were ever breastfed



Only about **one in eight** *children in Germany is exclusively* **breastfed** *for* **at least six months** *and therefore achieves the WHO's recommendation.*

Psychosocial factors

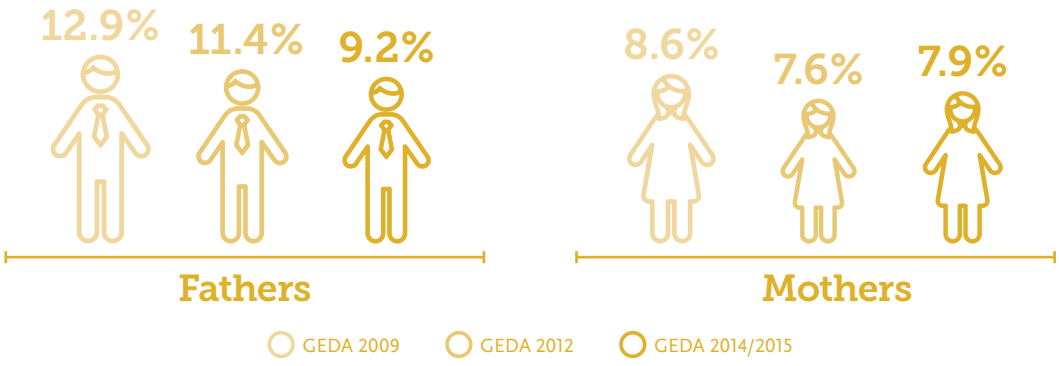
Health awareness

If people are to make healthy choices as part of their everyday life, they need awareness of health-related issues and the capacity and the will to assume personal responsibility for their own health. The level of awareness that parents have about health has an impact on their own lifestyle and that of other family members. As such, parental health awareness can also affect the development of childhood obesity.

According to the results of the German Health Update (GEDA 2014/2015), which was conducted by the RKI, 7.9% of mothers and 9.2% of fathers of 0- to 6-year-old children have a low level of health awareness. There are no significant differences between mothers and fathers. Compared to previous GEDA surveys, however, the proportion of fathers with a low level of health awareness has fallen slightly.

Mothers and fathers should be helped to make decisions that promote their health and that of their children. These include decisions relating to a balanced diet and the physical activity they conduct as part of their everyday life. Measures aimed at providing an assessment of the nutritional value of food (such as through 'traffic light labelling') can promote health awareness as can involving parents in preventive measures in day-care centres and schools.

The proportion of parents with a low level of health awareness



9% of fathers and **8% of mothers** of 0- to 6-year-old children have a **low level of health awareness**.

The **health awareness of fathers** has **increased in recent years**.

Context

Fight child poverty

For families with a lack of financial resources it can be more difficult to offer their children a balanced diet and physically active recreational activities. This makes it harder for these families to prevent childhood obesity. In addition, monetary poverty often accompanies other forms of social deprivation, such as growing up in socially disadvantaged neighbourhoods, which, in turn, are also linked to an increased risk of childhood obesity.

According to the microcensus undertaken by the Federal Statistical Office in 2016, 20.9% of children aged 0–6 years in Germany are at risk of poverty. This means that they live in households with less than 60% of the average equivalised income of all households in Germany. The equivalised income is a needs-weighted per capita income that is calculated according to the number of people in the household and their age. Importantly, the risk of childhood poverty differs between federal states, in some cases significantly. The lowest risk of poverty is found among 0- to 6-year-old children living in Bavaria (14.2%) and Baden-Württemberg (15.1%); the highest rates are in Mecklenburg-Vorpommern (28.5%) and Bremen (39.4%). In recent years, the proportion of nursery-aged children who are at risk of poverty has remained relatively constant in Germany.

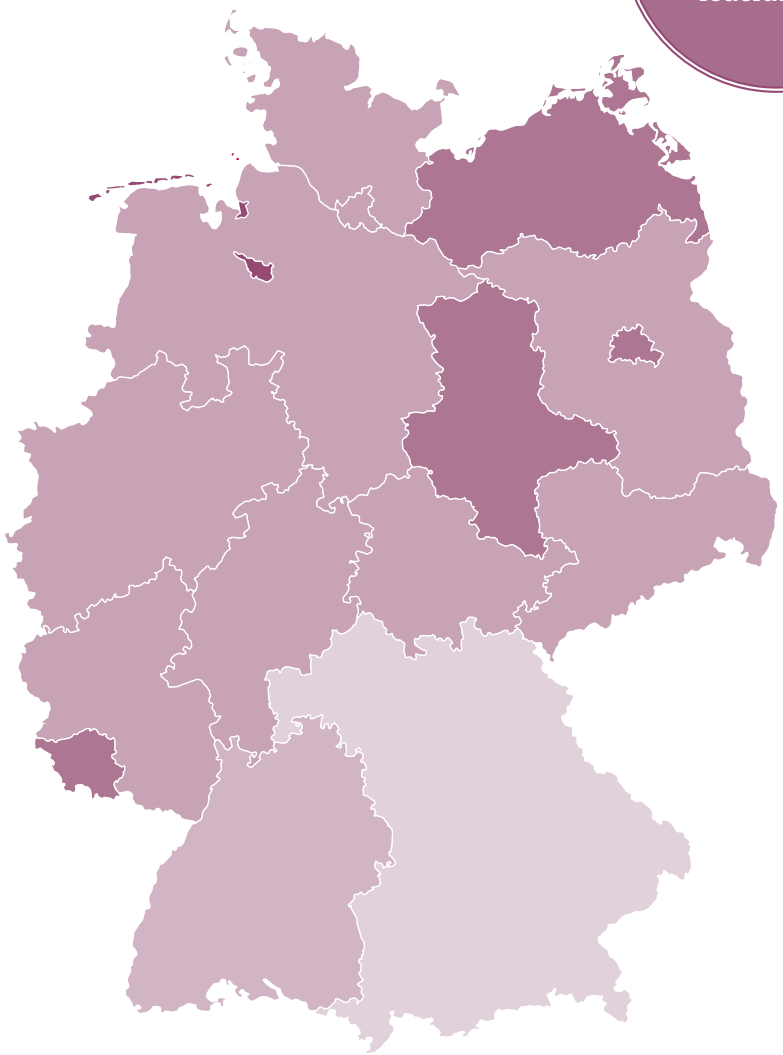
In addition to socio-political measures aimed at improving the income of population groups who are at risk of poverty, measures that improve access to healthy food (such as tax reforms) and promote active-friendly environments (such as those that can be implemented in residential areas) can also help prevent childhood obesity. However, these measures need to reach children from all social groups.

In Germany, **one in five children** *of nursery-aged lives in a household that is at risk of poverty.*

Risk of poverty

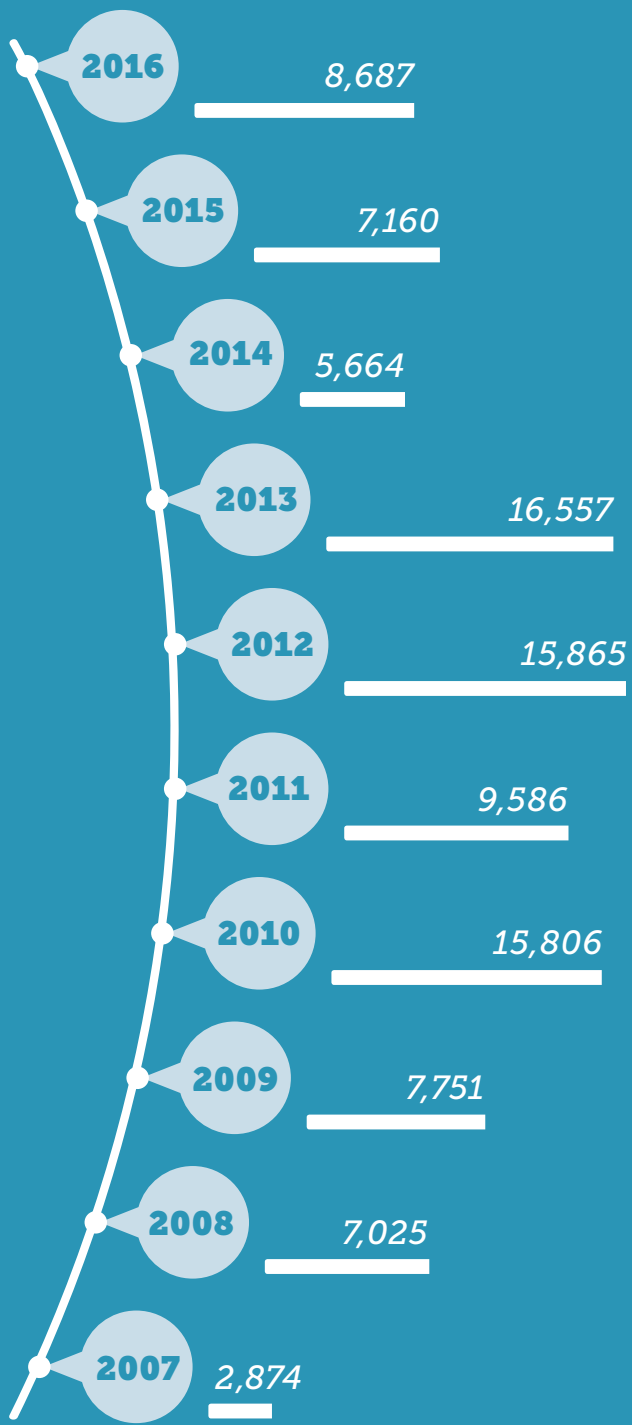
Children aged 0 to 6 who are at risk of poverty

The risk of poverty differs significantly according to federal state.



10 % to under 15 %
15 % to under 20 %
20 % to under 25 %
25 % to under 30 %
30 % to under 35 %
35 % to under 40 %

Nurseries that received support



Interventions

Prevention measures in nurseries

Almost all children in Germany attend a day-care centre during their first years of life and, thus, can be reached by preventive measures put in place in these institutions.

According to the Prevention Report drawn up by the Statutory Health Insurance and the Medical Service of the National Association of Statutory Health Insurance Funds, in 2016, the statutory health insurers provided support to a total of 8,687 day-care centres to implement health-promoting projects and programmes. More than three-quarters of the activities they funded focused on encouraging healthy diets and physical activity. In recent years, the number of activities in day-care centres that have received funding has varied between 2,874 (2007) and 16,557 (2013). It should be noted, however, that the institutions themselves now carry out some of these activities independently.

Health-promoting projects and programmes in day-care centres can contribute to the prevention of childhood obesity and should be primarily aimed at promoting healthy environments. These include a well-balanced catering and ensuring that centres are designed in a manner that encourages physical activity. The Statutory Health Insurance can make an important contribution in this regard.

***8,687** day-care centres received **support** from statutory health insurers in **2016** to implement activities that promoted healthy lifestyles.*

Childhood obesity: tracking the influencing factors

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