

Passive smoke exposure

Introduction

Passive smoking is understood to mean the (involuntary) inhalation of tobacco smoke from the ambient air (DKFZ 2015a). Alongside active smoking, the indirect inhalation of tobacco smoke also increases the risk of serious illnesses such as cardiovascular and respiratory diseases and cancer (DKFZ 2010; DKFZ 2015a). Estimates show that per year around 3,300 deaths in Germany can be attributed to passive smoking (Keil et al. 2005).

Children and adolescents are particularly sensitive to tobacco smoke. Compared with adults, they have a higher respiratory frequency and inhale correspondingly more toxins. Since the development of their organs is not yet complete, they are furthermore less able to break these down. Young persons exposed to tobacco smoke suffer more frequently, for example, from coughs, shortness of breath, respiratory tract diseases and inflammation of the middle ear (DKFZ 2015a).

Indicator

In KiGGS wave 1, passive smoke exposure was surveyed among 11 to 17-year-olds using the following question: “How often do you stay in rooms where people are smoking?”. Additionally, parents were asked “Do people smoke in the presence of your child in the home?”. The response categories for both questions were: “daily”; “several times per week”; “once a week”; “less than once a week” and “never”.

The tables, on the one hand, show the proportion of adolescent non-smokers who are exposed to passive smoke several times per week or daily. On the other hand, they report the percentage of parents who state that people smoke in their home in the presence of their child on a daily basis or several times per week. The results are stratified for gender, age and social status of the adolescents.

Key statements

- ▶ Overall, 18.8 % of adolescents (18.7% of girls; 19.0% of boys) stay daily or several times per week in rooms where people are smoking.
- ▶ 7.9% of parents stated that people smoke in the presence of their children within their home.
- ▶ Older adolescents are clearly more frequently exposed to passive smoke than younger adolescents.
- ▶ In boys and girls from families of high socioeconomic status, passive smoke exposure is significantly lower than in boys and girls from families of low social status.

Conclusion

In KiGGS wave 1, 18.8% of adolescents aged between 11 and 17 years state that they stay daily or several times per week in rooms in which people are smoking. In addition, 7.9% of parents report that people smoke in their home in the presence of their children. Boys and girls are exposed to tobacco smoke roughly equally as often. Passive smoke exposure among adolescents increases with age. Whilst between the ages of 11 and 13 every seventh adolescent is affected, it is every fourth between the ages of 14 and 17. Significant differences in passive smoke exposure are to be observed with regard to social status. Adolescents from families with high social status are significantly less frequently exposed to tobacco smoke than young persons from families with medium or low social status. This is also evident in the home environment. In a total of 15% of adolescents from families in the low social status group the parents report that people smoke in their home in the presence of their child daily or several times per week. Among boys and girls from families of the medium status group, the figure is 7.1% and in the same from families of the high status group, 1.8%.

Statements can be made regarding the temporal trend in exposure to passive smoke in Germany by comparing KiGGS wave 1 with the KiGGS baseline survey (KiGGS Baseline), which was conducted from 2003–2006.

Comparison of said surveys reveals that passive smoke exposure has declined sharply in recent years: From KiGGS-Baseline to KiGGS wave 1 the proportion of adolescents regularly exposed has almost halved (35.1 % v. 18.8 %) (Kuntz, Lampert 2016). This positive development, which can also be observed in an international context (Raisamo et al. 2014, McIntire et al. 2014), can presumably be attributed to the interplay between different measures to protect non-smokers. In Germany these include, for example, Federal and State Government legislation to protect non-smokers in place since 2007, banning and/or restricting smoking in public buildings, public transport, schools and hospitals, as well as in clubs, bars, cafés and restaurants among others (DKFZ 2014; DKFZ 2015a). In addition, presumably increases in tobacco tax and public information campaigns within the population have contributed toward this success (Lampert, Kuntz, KiGGS Study Group 2014).

Since the middle of this year, as a further step in the protection of non-smokers there has been increased discussion concerning a smoking ban in cars to be observed when carrying minors in the vehicle (Die Drogenbeauftragte des Bundes 2015; DKFZ 2015b).

Note: A detailed description of the study as well as explanations on the method are available on the KiGGS study website, www.kiggs-studie.de, and in Lange et al. (2014). Further results regarding passive smoking among adolescents can be found in Kuntz and Lampert (2016).

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Table 1
Passive smoke exposure in 11 to 17-year-old, non-smoking girls according to age and social status

	Passive smoke exposure - daily or several times per week		Proportion of parents reporting smoking daily or several times per week in the presence of their child	
	%	(95%-CI)	%	(95%-CI)
Girls	18.7	(16.5–21.1)	8.8	(7.1–10.9)
Age				
11–13 Years	14.2	(11.0–18.0)	8.0	(5.7–11.3)
14–17 Years	22.8	(19.2–26.7)	9.5	(7.0–12.7)
Social status				
Low	26.8	(20.2–34.4)	16.1	(10.8–23.3)
Middle	19.0	(16.2–22.2)	8.6	(6.5–11.3)
High	9.1	(6.9–11.8)	1.2	(0.6–2.5)
Total (girls and boys)	18.8	(17.3–20.4)	7.9	(6.7–9.2)

Table 2
Passive smoke exposure in 11 to 17-year-old, non-smoking boys according to age and social status

	Passive smoke exposure - daily or several times per week		Proportion of parents reporting smoking daily or several times per week in the presence of their child	
	%	(95%-CI)	%	(95%-CI)
Boys	19.0	(16.9–21.3)	7.0	(5.3–9.1)
Age				
11–13 Years	11.8	(9.3–14.9)	6.7	(4.6–9.6)
14–17 Years	25.8	(22.5–29.3)	7.2	(5.0–10.3)
Social status				
Low	26.1	(19.9–33.4)	14.0	(9.0–21.2)
Middle	19.6	(16.8–22.7)	5.6	(4.1–7.6)
High	7.4	(5.2–10.4)	2.3	(1.1–5.0)
Total (girls and boys)	18.8	(17.3–20.4)	7.9	(6.7–9.2)

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