

## Tobacco prevention in Germany – what works?

### Background

The prevalence of smoking among German youths has decreased over the last decade. In 2012, only 12 percent of teenagers aged 12 to 17 smoked, compared to 28 percent in 2001. Advocates for the tobacco industry, however, are now using this reduction to argue against the need for new tobacco control legislation. Companies like Philip Morris and Imperial Tobacco argue that the plans to introduce plain packaging for cigarettes in Ireland and the United Kingdom are unnecessary. Referring to the “German Model”, the tobacco lobby claims that Germany’s school-based programmes for smoking prevention and German health education campaigns were responsible for the decrease of the smoking prevalence among German youths. Lobbyists therefore propose to follow the “German Model” and to introduce school-based programmes for smoking prevention instead of making cigarettes less attractive through the implementation of plain packaging. Their arguments are as follows:

- Philip Morris: “Educational programmes, seen as and proven to be one of the most effective drivers in discouraging youth smoking and helping smokers quit are proving successful. For example the German programme “Be Smart – Don’t Start”, forms part of a comprehensive education programme that has seen youth smoking rates more than halved since 2001”<sup>8</sup>.
- Imperial Tobacco (parent company of Reemtsma): “Germany has a tobacco control strategy with education embedded at its core, and it delivers proven results”<sup>16</sup>. Imperial Tobacco further mentions eight health education programmes, among which “Klasse 2000” and “Be Smart – Don’t Start” have the highest numbers of participants<sup>16</sup>.
- Other lobbyists incorrectly suggest in public statements that the German school-based programmes for smoking prevention are mandatory elements of the German curriculum<sup>2</sup>.

It is common practice for tobacco companies to claim that school-based programmes addressing teenagers (rather than measures addressing the whole population) are the best measures to reduce the prevalence of smoking. The tobacco industry itself has financed youth health education programmes, well knowing that such programmes have marginal impact<sup>22</sup>.

In the following section, the scope of the school-based programmes mentioned above, as well as the impact that the tobacco industry claims they have on youth smoking rates are discussed and compared to political tobacco control measures.

### School-based programmes for smoking prevention in the United Kingdom, Ireland and Germany

The national curricula of the countries of the United Kingdom have integrated the issue of smoking into different school subjects, but coverage is not mandatory. As such, school-based programmes for smoking prevention are provided locally at schools’ discretion. In Wales, for example, some schools take part in the “Be Smart – Don’t Start” campaign, and in approximately 40 schools, students enrol in the ASSIST-programme. Ireland has integrated the “Smoke and Health” programme into its curriculum and coverage is mandatory. Additional school-based programmes for smoking prevention do not exist.

The German federal school system promotes region-specific curricula. Since the 1980s, smoking has been an integral part of biology courses in German schools, but it is up to the teachers to decide how to deal with the topic. Even so, in the 1980s and 1990s the prevalence of smoking among teenagers aged 12 to 17 years increased continuously. In response, the prevention programme “Klasse 2000” was created to counteract the trend by addressing 6 to 10-year old students (school grades 1 to 4, primary school). For older students (11 to 14 years; school grades 5 to 8, secondary school), the programme “Be Smart – Don’t Start” was introduced. Both programmes are non-governmental and are predominantly financed by non-governmental organizations. Participation is not mandatory. The schools and teachers are free to decide whether or not they wish to enrol in them.

### Scope of school-based programmes for smoking prevention in Germany 2012

In Germany, the two most highly frequented school-based programmes for smoking prevention “Klasse 2000” and “Be smart – Don’t start” actually reach very few 6 to 17-year old students. This holds true for all students within a certain school grades, as well as the sum of all grades (Fig. 1).

“Klasse 2000”: Of the 700,000 students registered per school grade in primary classes in Germany (ages 6 to 10, class levels 1 to 4) in 2011/2012, as few as 15 percent (100,000 students) of each grade participated in “Klasse 2000”. Summed up over all four grades of primary school, the programme reached 400,000 of Germany’s 2.8 million primary school students. A decade ago, the coverage was even worse, with only 3.4 percent of all year-1 students enrolled in 1999/2000.

“Be smart – Don’t start”: Of the 726,000 to 780,000 students registered per school grade in German secondary schools (ages 11 to 14, class levels 5 to 8) in 2011/2012, as few as 9 percent (64,000 students) of each grade participated in “Be smart – Don’t start”. A decade ago, in 1999/2000, the coverage was even worse, with only 1.6 percent of all 11 to 14-year old students reached.

Table 1: Comparison of the school-based prevention programmes “Klasse 2000“ and “Be Smart – Don’t Start“

	Klasse 2000	Be Smart – Don’t Start
<b>Target group</b>	School grades 1 to 4	School grades 5 to 8
<b>Brief description</b>	<ul style="list-style-type: none"> <li>• General programme to promote health education (not only smoking)</li> <li>• 15 teaching units/year</li> <li>• Focus on fitness, nutrition, relaxation, conflict resolution and substance use</li> </ul>	<ul style="list-style-type: none"> <li>• Class competition (smoking specific)</li> <li>• Classes obligate themselves to reduce smoking prevalence to a maximum 10 percent of the class from November to April</li> <li>• Intends the denormalisation of smoking in the class</li> </ul>
<b>Scope</b>	Approx. 15 percent of year-1 students (year 2011/12)	Approx. 9 percent of students in school grades 5 to 8 (year 2011/12)
<b>Effect</b>	In a class of 28 students, one student can be prevented from taking up smoking over the course of one year (Number needed to treat = 28).	In a class of 23 or 24 students, one student can be prevented from taking up smoking over the course of two years (Number needed to treat = 23,4).

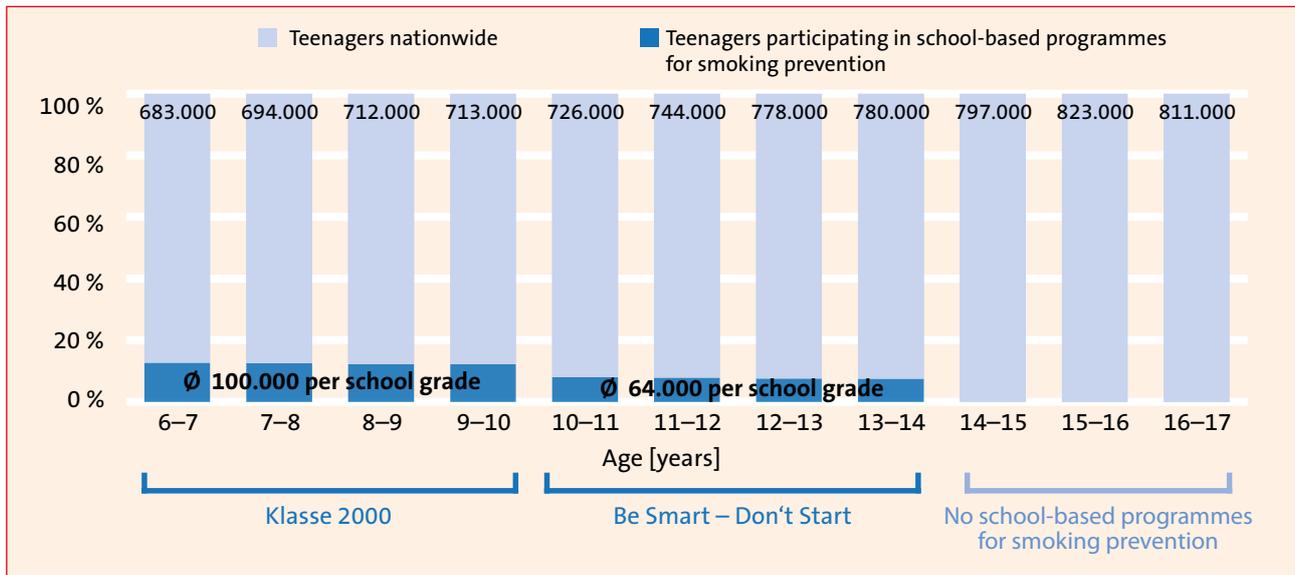


Figure 1: Percentage of students participating in the school-based programmes for smoking prevention “Klasse 2000“ and “Be Smart – Don’t Start“ in 20011/2012. Sources: Verein Programm Klasse2000 e.V.<sup>37</sup>, Hanewinkel R<sup>13</sup>, Statistisches Bundesamt<sup>33</sup>

Germany’s two biggest school-based programmes for smoking prevention reach only a very limited number of students: 85 percent of all year-1 students and 91 percent of teenagers aged 11 to 14 are not reached by the programmes. Thus, these programmes can only have contributed minimally — if at all — to the decline of the youth smoking rate in Germany.

**Impact of school-based programmes for smoking prevention in Germany**

Evaluations show that the effects of school-based programmes for smoking prevention on the smoking habits of students are minimal. For each student prevented from starting to smoke each year, 28 students must enrol in the

“Klasse 2000“ programme, for example. In other words, the programme prevents 3.6 percent of the participating students from taking up smoking as assessed at the time point of evaluation 1 year after the programme<sup>24</sup>.

“Be smart – Don’t start“ shows similarly limited effectiveness. According to a meta-analysis, only one in every 23 or 24 students is prevented from starting to smoke as assessed at the time point of evaluation 2 years after the programme. This equals 4.3 percent of all participants<sup>19</sup> (Fig. 2).

The majority of the students (approx. 90 percent), however, does not take up smoking even without participating in a programme.

The efforts of tobacco lobbyists to misuse the “German Model” as an argument against the implementation of new

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tobacco control policies is condemned as implausible and illegitimate by the organizers of the school programme (box).

**Health Education**

The budget provided by the German Government for health education in tobacco use prevention is as low as 1 Million Euros per year<sup>9</sup>. This money is spent on brochures, providing information online, a quit-line for those who want to quit smoking and are looking for support, and on several small projects. These projects are generally model projects, often with a very limited coverage.

**Impact of increased tobacco taxes**

Continuous and substantial increase in tobacco tax is one of the most effective tools of smoking prevention<sup>23</sup>. Children and youths with relatively little money at their disposal react more strongly to increased cigarette prices as compared to adults<sup>6,11,18,35</sup>. Increasing the price of cigarettes in industrial nations by as little as 10 percent effectively results in a decrease of 4 percent in consumption of cigarettes<sup>36,40</sup>. US data shows that a 10 percent price increase results in up to 13 percent decrease in cigarette consumption among the youth and young adults<sup>7,28</sup>.

The smoking habits of youth in Germany confirm this observation, indicating that only pronounced increases in tobacco taxes are effective, unlike minor increases which are ineffective. The minor increases in tobacco tax introduced in the years 1992, 1998, 2001 and 2011 had no positive effect on the prevalence of smoking among German youths. On the other hand, the number of smoking youths even increased by 20 percent since 1993 to reach a maximum of 28 percent in 2001. In contrast, the pronounced raise in tobacco tax between the years 2002 and 2005 effectively helped reducing the youths’ smoking rates from 28 percent in 2001 to 20 percent in 2005 (Fig. 3).

**Prof. Dr. Reiner Hanewinkel, head of the Institute for Therapy and Health Research (IFT-Nord) and developer of “Be smart – Don’t start“ on the decline in youth smoking prevalence:**

“We are convinced of the effectiveness of the competition. But it is neither plausible nor is it legitimate to attribute the decline of smoking prevalence in German youth by 50 percent in the last decade *exclusively* to the implementation of the competition. The more obvious cause for the decline is the successful policy mix of structural and behavioural preventive measures that have been thoroughly implemented in the past 10 years. Thus, I’m strongly in favour of the introduction of plain packaging to prevent the youth from smoking.”

A further decrease in the prevalence of smoking among German youths currently is due to the implementation of additional effective tobacco control measures.

**Impact of the German smoke-free legislation**

Smoking bans in all public places help to decrease tobacco consumption by rendering smoking both less attractive and socially unacceptable<sup>27</sup>. A smoke-free environment not only protects children and youth from second-hand smoke but also helps in preventing them to take up smoking or reducing smoking. Smoke-free hospitality venues, too, protect the youths from smoking initiation and influence their smoking behaviour<sup>29,30</sup>.

The German smoke-free legislation was implemented gradually. In 2004 a ban on smoking in the workplace was imposed, however with the exception of workplaces with public access (e.g. hospitality venues). Following a broad public discussion the nationwide Non-Smokers’ Protection Act was enacted in 2007 to ban smoking in all public federal institutions, public transportation and railway stations. In 2007/2008 the sixteen federal states banned smoking in all public institutions

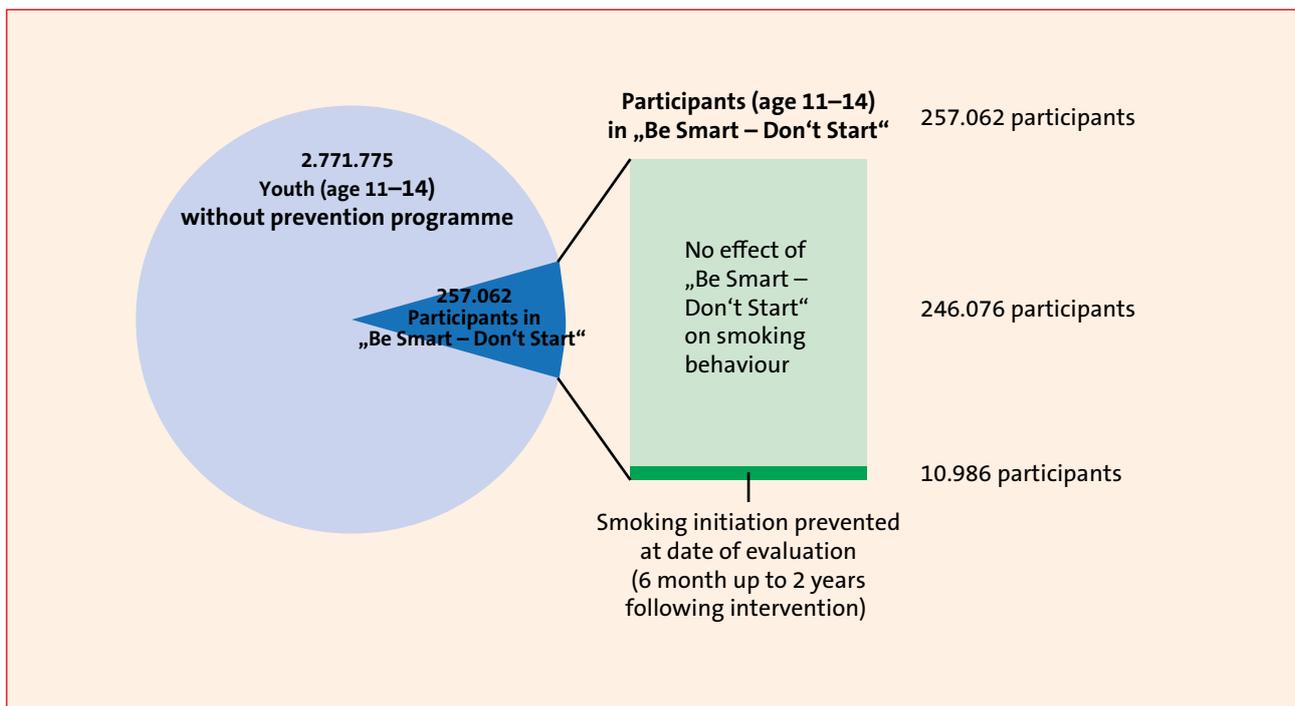


Figure 2: Scope and impact of „Be Smart – Don’t Start“ in 2012. Sources: Isensee B et al. 2012<sup>19</sup>, Hanewinkel R<sup>13</sup>, Statistisches Bundesamt<sup>33</sup>

of the states, in sports facilities, in hospitals, and in bars and restaurants. However, smoking rooms are permitted in some states. The most comprehensive smoke-free law was adopted by Bavaria, Saarland and North Rhine-Westphalia. Almost all federal states ban smoking in schools.

The German smoke-free legislation supports the trend towards non-smoking. Within only a few months the laws were effective in decreasing smoking rates among individuals who tend to go out to bars, restaurants, and cafés more frequently, such as the young, the unmarried, and city dwellers<sup>1</sup>. Due to the ban on smoking in public places, more and more smokers voluntarily ban smoking in their homes – especially in families with little children<sup>25</sup>. Simultaneous to the implementation of the German smoke-free legislation the smoking prevalence of German youths dropped from 18 percent in 2007 to 13 percent in 2010 (Fig. 4).

### Impact of other tobacco control measures

Several legislative amendments aimed to make the availability of cigarettes for the youth difficult, as this helps in reducing youth cigarette smoking<sup>21</sup>. Therefore, cigarettes were forbidden to be sold to under 16-year-olds since 2003 and to under 18-year-olds since 2007 and in 2007 all cigarette vending machines were equipped with an age-coded card reader to ensure that only adults use the machines. Additionally, free samples of cigarettes as a giveaway are forbidden since 2004. Moreover, in 2002, the textual health warnings on tobacco packs were enlarged and in 2007 advertising for cigarettes was banned in print and internet. The tobacco industry is also forbidden to sponsor international events (e.g. sport competitions and festivals).

These measures strongly influence the trend of not smoking amongst the youths.

### Current deficits in tobacco prevention

Due to several loopholes, the measures taken to date do not utilize their full potential:

- The current tax increase on tobacco is so low that it only ensures revenue growth but does not influence the smoking behaviour<sup>39</sup>.
- Non-Smoking legislation with exceptions – existing in most German federal states – has lower impact on smoking prevalence as compared to comprehensive non-smoking legislation<sup>1,17</sup>.
- The availability of cigarettes in Germany is higher than for any other consumer product: the extensive network of 350,000 vending machines<sup>4</sup> guarantees access 24/7.
- The current bans on tobacco advertising are insufficient. The tobacco industry uses all permitted means to reach potential customers. These include billboard advertising, advertising at the point of sale, on-screen advertising in cinemas after 6 pm and sponsoring of national events. Furthermore, promotion, ambient media, brand stretching, raffles and accessories for giveaways are legal.
- The impact of the current warnings printed on packages is limited<sup>14</sup>. Enlarged and more prominent textual and graphical warnings catch the smoker's eye more easily<sup>3,10,12,34,42</sup> and prevent the youths from taking up smoking and, most important, also motivate youths to quit smoking<sup>12,26,38,41</sup>. More prominent textual warnings and graphical warnings help decreasing general tobacco consumption<sup>15</sup>.
- In supermarkets, chocolate and bubble-gum products that imitate cigarettes are easily available. Such products not only introduce children to cigarettes but also imply cigarette consumption as normal behaviour. Candy cigarette use in childhood increases the risk of adult smoking<sup>20</sup>.

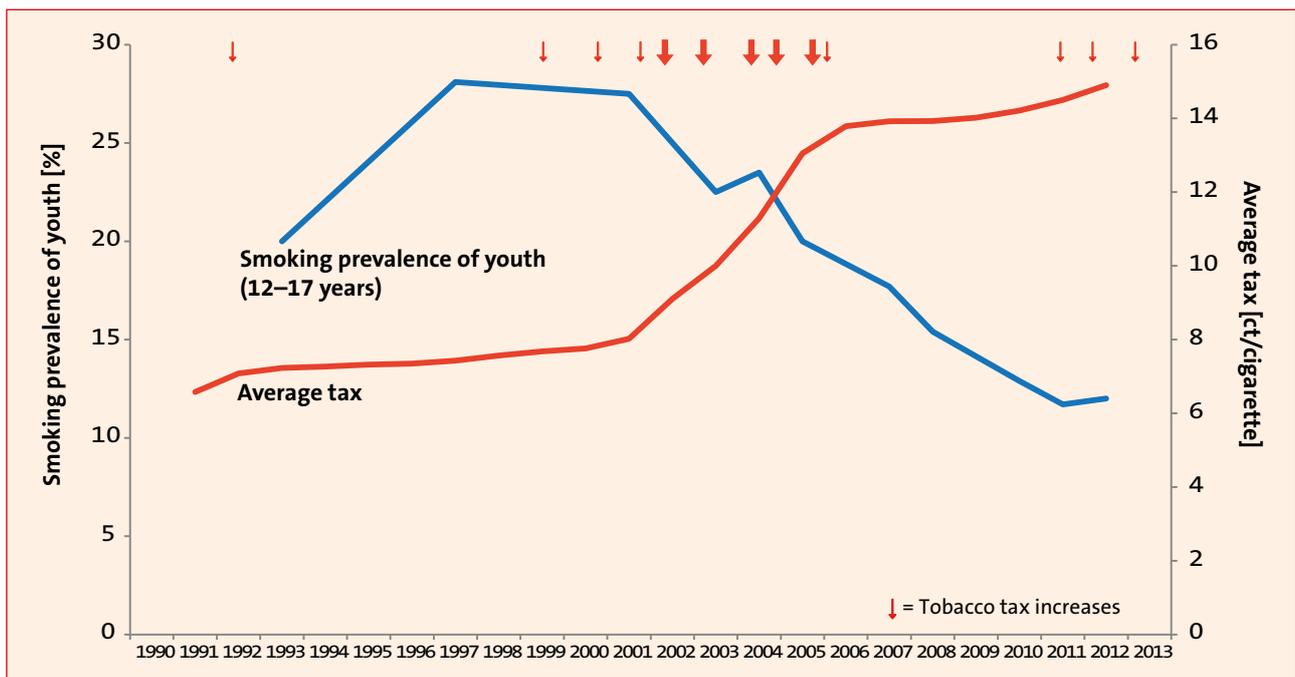


Figure 3: Prevalence of smoking among German youths and the average tobacco tax. Sources: Statistisches Bundesamt 1991–2013<sup>31</sup>, Bundeszentrale für gesundheitliche Aufklärung 2013<sup>5</sup>

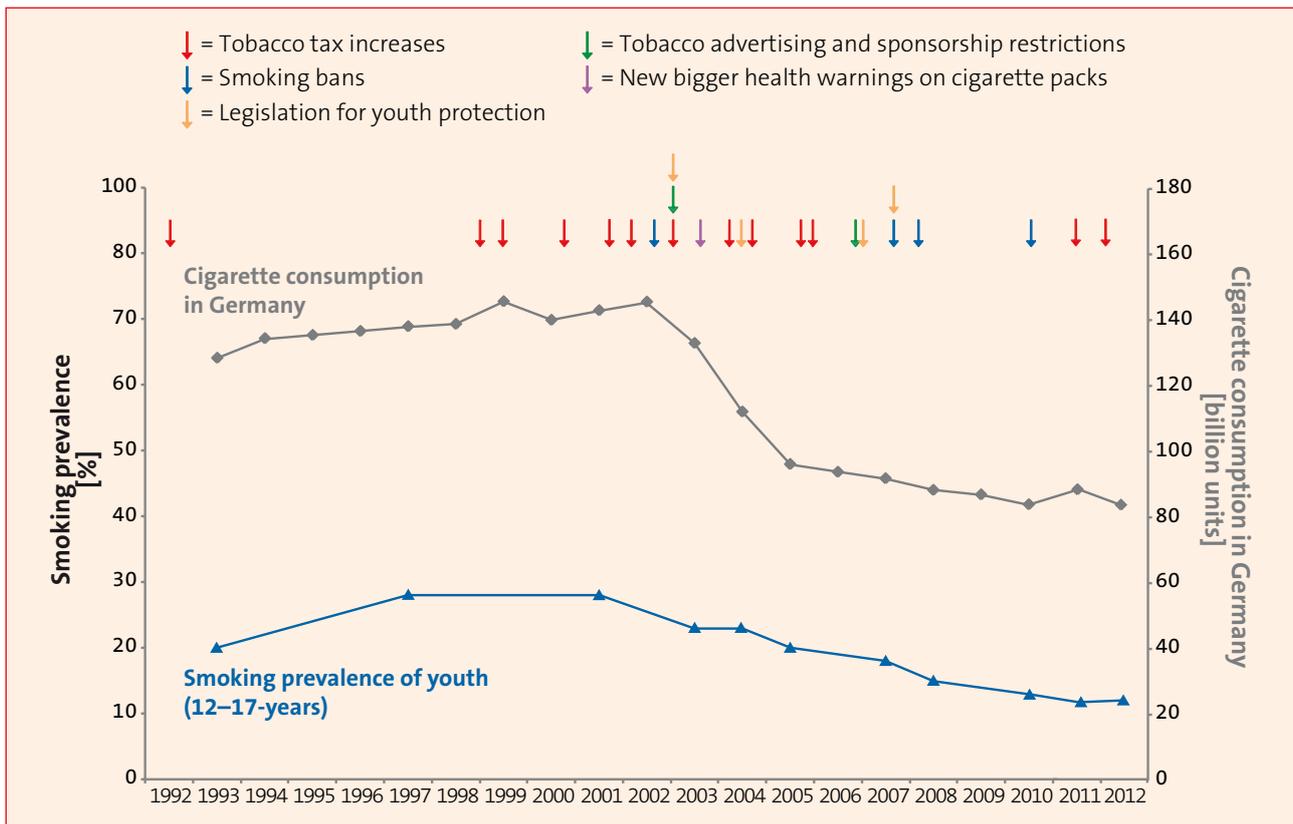


Figure 4: Tobacco control measures, cigarette consumption and youth smoking prevalence in Germany. Sources: Statistisches Bundesamt 1993–2013<sup>32</sup>, Bundeszentrale für gesundheitliche Aufklärung 2013<sup>5</sup>

Based on the strong evidence available to-date, additional legislative measures are necessary to ensure and accelerate the current success in smoking prevention and the decrease in consumption.

- Substantial increases in tobacco tax instead of minor staggered increases.
- Comprehensive Non-Smokers Protection Laws without exceptions; ban on smoking in cars if children present.
- Effectively limiting the availability of tobacco products for the youths by allowing only licensed retailers to sell tobacco products, by introducing rigorous age-checks at the points of sale and by abolishing cigarette vending machines.
- Comprehensive ban on tobacco advertising for all tobacco products in all media and ban of marketing and sponsoring.
- Big combined textual and graphical warnings on tobacco packages.
- Ban on sweets that imitate tobacco products.

**Conclusions**

In the past years, Germany implemented several tobacco control measures in order to reduce tobacco consumption. Measures were most successful in preventing smoking in youths when they were directed at all youths on a population level. The most effective among these measures were the substantial increases in tobacco tax and the smoke-free legislation (German Non-Smokers’ Protection Act). On the other hand, measures to communicate health education and school programmes for tobacco prevention only had marginal impact on the youths’ smoking behaviour. The German Cancer Research Center therefore firmly rejects the tobacco industry’s claim that the German “educational programmes [are] proven to be one of the most effective drivers in discouraging youth smoking and helping smokers quit”<sup>8</sup>.

In conclusion, additional legislative measures are mandatory to permanently prevent the youth from smoking as follows: (a) complete ban on tobacco advertising, (b) additional substantial increases in tobacco tax, (c) comprehensive smoke-free legislation without exceptions and (d) the introduction of enhanced combined textual and graphical warnings on tobacco products.

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