

E-cigarette use in Germany from 2014 to 2017

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Research for a Life without Cancer

Background

Worldwide sales and use of e-cigarettes are increasing markedly. Use of e-cigarettes for smoking cessation is a matter of a controversial scientific debate. Increasing use among youths – especially non-smoking adolescents – is a matter of concern, as e-cigarette use is suspected of leading to nicotine addiction and smoking initiation. Currently, for Germany, representative data on e-cigarette use are sparse.

Methods

The German Cancer Research Center conducted annual representative cross-sectional surveys from 2014 to 2017, each including approximately 2,000 persons aged 16 years and older. All respondents were asked whether they used e-cigarettes; smokers and former smokers were also asked about cessation assistance they used in their last quit attempt.

Results

Ever e-cigarette use is increasing steadily

Apart from a temporary decrease in 2015, ever e-cigarette use steadily increased up to 11.2 % in 2017 (fig. 1).

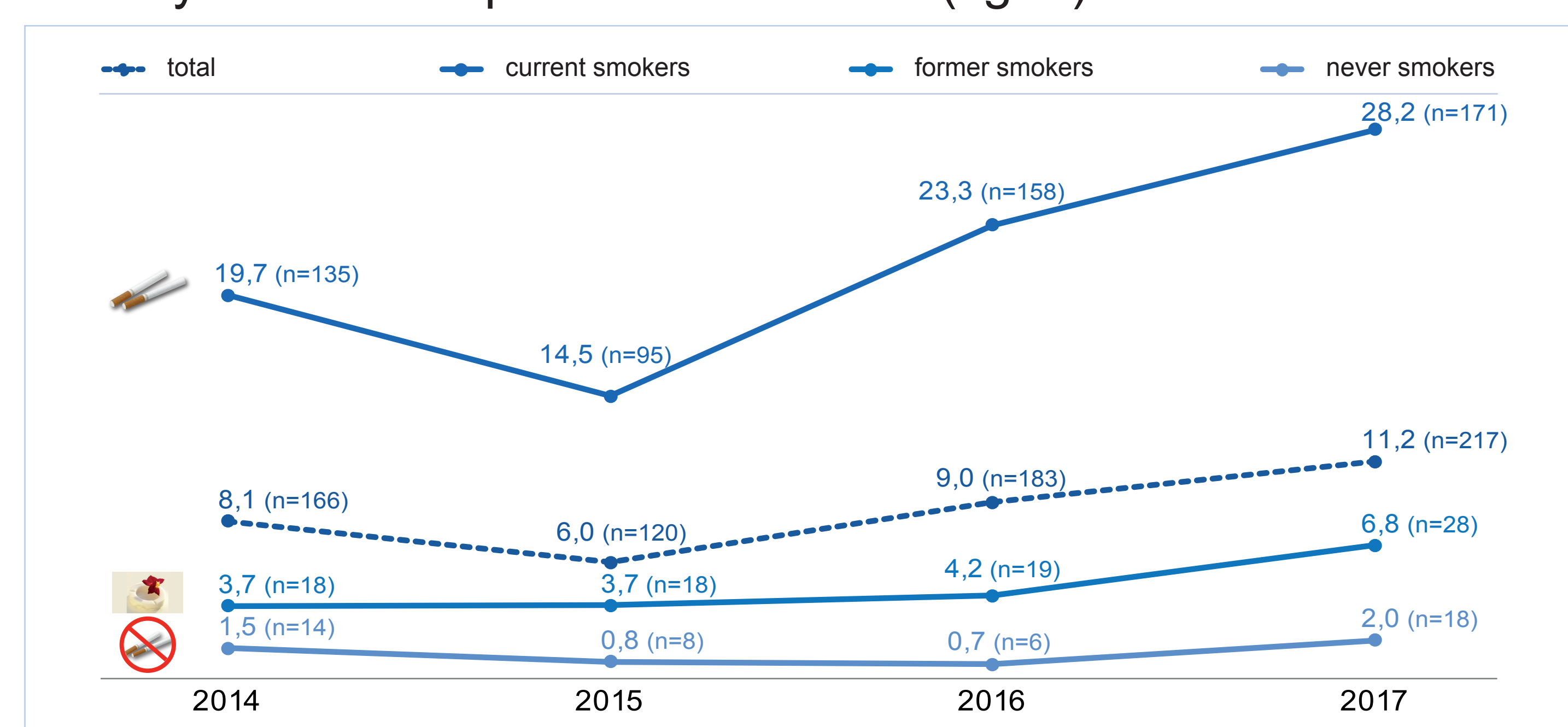


Fig. 1: Ever e-cigarette use from 2014 - 2017 overall and by smoking status

Most ever e-cigarette users are smokers, but nearly one in ten is a never smoker

In 2017, 11.2 % of all respondents had ever used e-cigarettes with a much higher proportion among smokers (28.2 %) than among former smokers (6.8 %) and never smokers (2.0 %) (fig. 1). Therefore, most of ever e-cigarette users are smokers (78.7 %), 12.8 % are former smokers, and 8.4 % are never smokers (fig. 2).

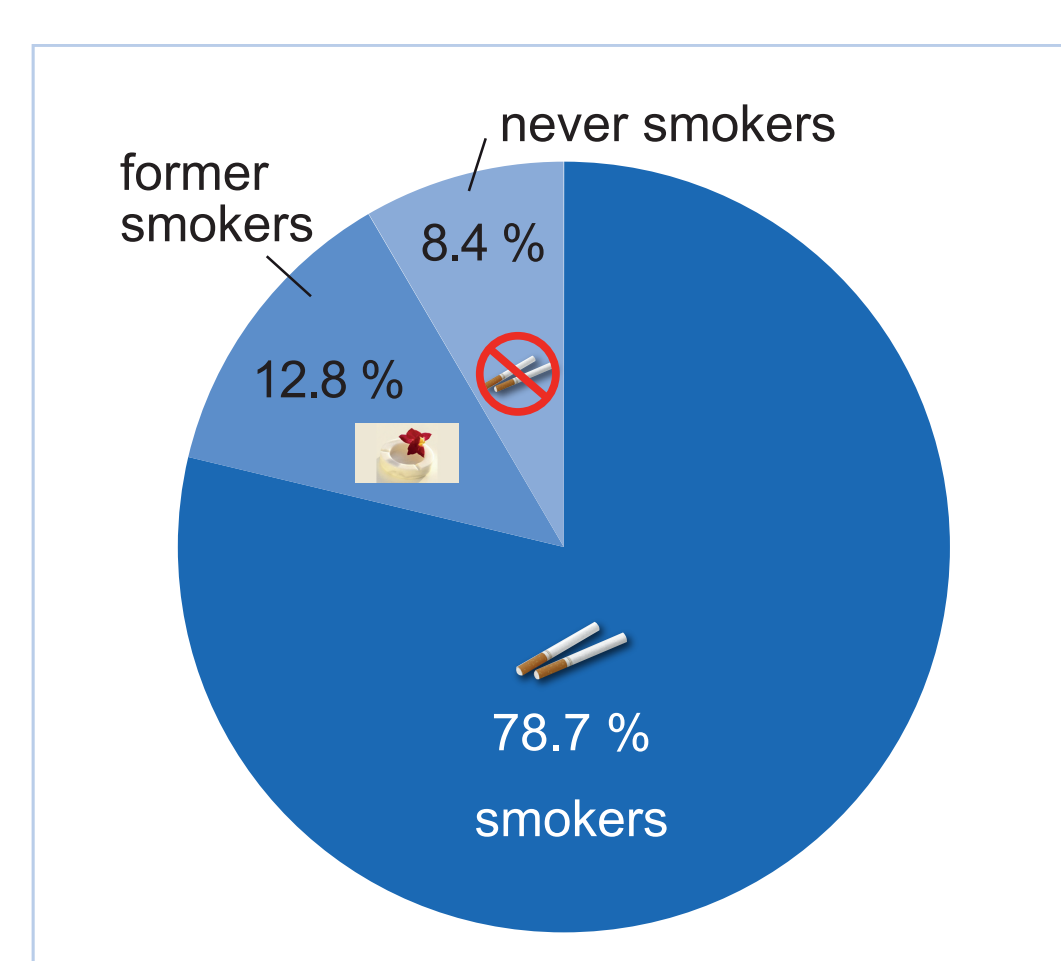


Fig. 2: Smoking status of ever e-cigarette users in 2017

Ever e-cigarette use is highest among youths and young adults

Ever e-cigarette use increased in all age groups, almost doubling from 2015 to 2017. Generally, e-cigarette use is highest among youths and young adults and lower in older age groups. In 2017, 17.6 % of youths and young adults have ever tried e-cigarettes but only 4.2 % of persons aged 65 years and over (fig. 3).

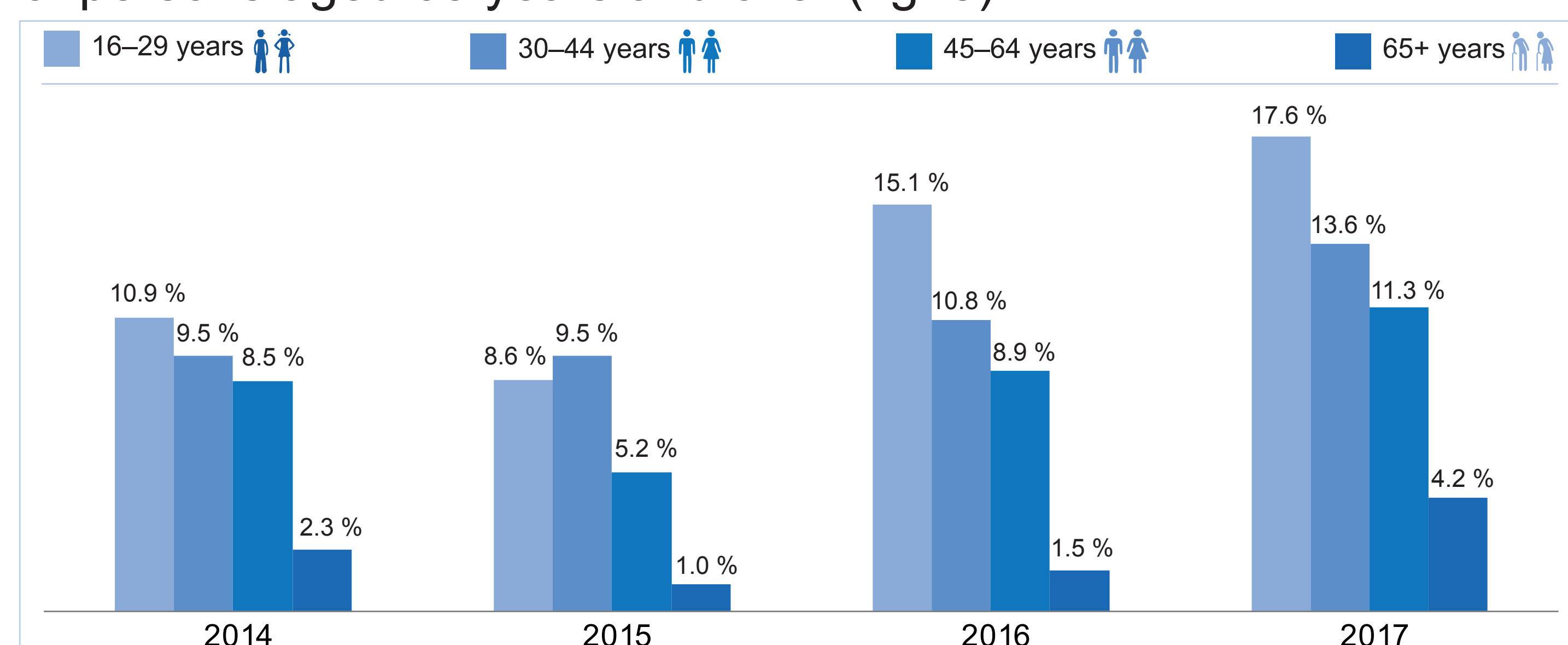


Fig. 3: Ever e-cigarette use from 2014-2017 by age group

Regular use of e-cigarettes is low

Just 2.4 % of all respondents use e-cigarettes daily or weekly, 8.7 % have tried them but don't use them anymore. Trial as well as regular use are highest among smokers: About a quarter of smokers tried e-cigarettes without becoming regular users; just 4.3 % use them daily or weekly. Among former and never smokers this difference is much less distinctive (fig. 4).

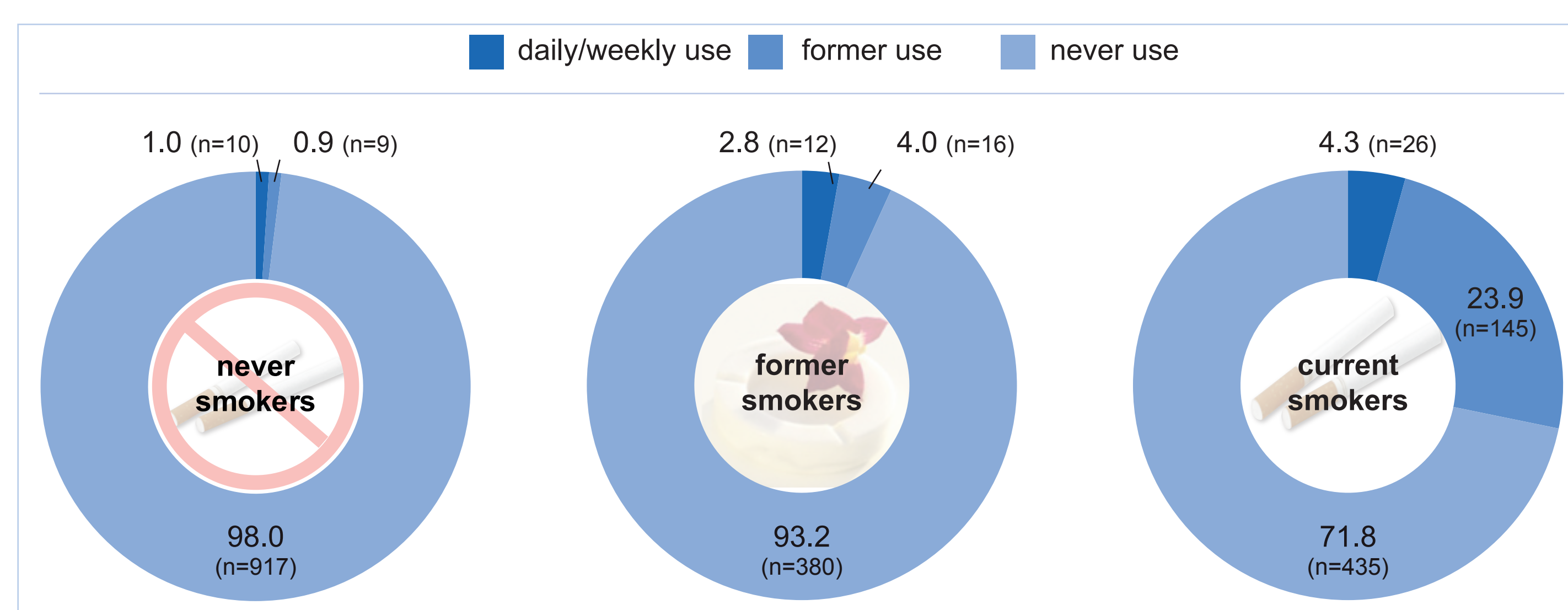


Fig. 4: Frequency of e-cigarette use in 2017 by smoking status

An increasing number of former smokers quit smoking by using e-cigarettes, but use of approved cessation aids such as NRT or medical advice still is much higher

Most smokers (21.5 %) who tried to stop smoking did so without any assistance in their last quit attempt, 6.1 % used NRT, and 2.5 % attempted to quit with the help of e-cigarettes. E-cigarette use for smoking cessation was about 3 % among smokers in the past years. In fact, most smokers quit successfully without any assistance, just 15.8 % used any approved cessation aid and 9.1 % any non-approved aid: 78.2 % of former smokers reported that they quit without any assistance, 5.0 % did so with NRT, and 1.8% used e-cigarettes (fig. 5). From 2014 to 2017 an increasing percentage of former smokers (from 0.2 % to 1.8 %) reported having used e-cigarettes for cessation (fig. 5, insert).

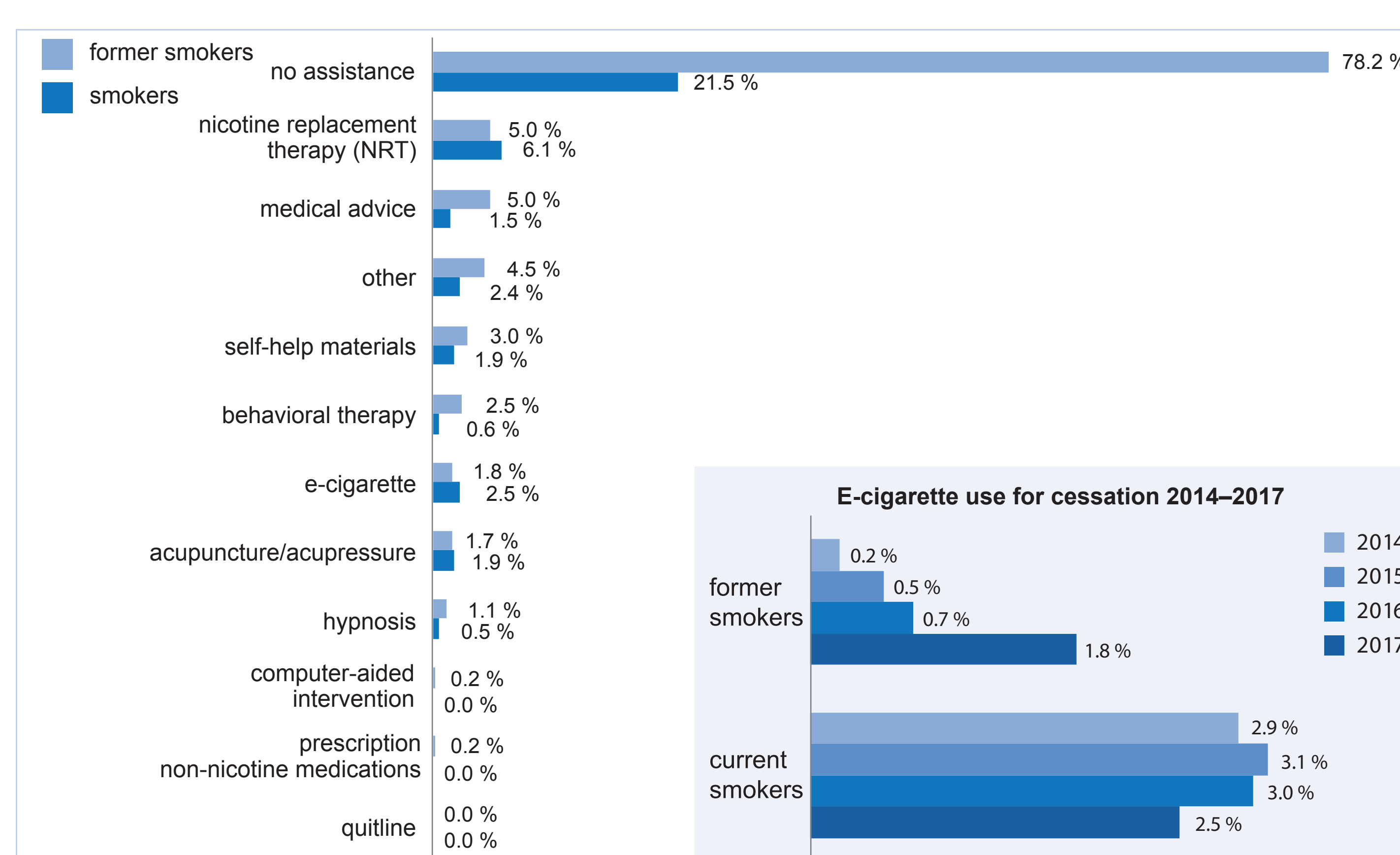


Fig. 5: Cessation methods used in last quit attempt

Conclusions

- E-cigarettes seem to be attractive mostly to youths and young adults.
- Although most ever e-cigarette users are smokers, the number of never smokers who ever used e-cigarettes is not negligible.
- Most smokers only try out e-cigarettes, a much smaller proportion uses them regularly along with cigarettes (dual use).
- A very small but increasing proportion of former smokers quit smoking by using e-cigarettes.

E-cigarettes may attain a net benefit for public health only if they are regulated in a way that makes them attractive to smokers, but unattractive to youths and never smokers.