



Y RHWYDWAITH YMCHWIL
IECHYD MEWN YSGOLION

SCHOOL HEALTH
RESEARCH NETWORK

Electronic cigarette use in young people in Wales

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Electronic cigarettes have become a popular aid to help adults stop smoking, thereby potentially reducing tobacco-related harm in the population. Concerns exist, however, about e-cigarette use in young people who do not smoke and the possibility that this could lead to increased youth tobacco use, which has been declining in Wales for 18 years. Are e-cigarettes going to reverse this trend?

What we already know...

E-cigarettes often contain the addictive substance nicotine, which can inhibit brain development in adolescence.

E-cigarettes are marketed in a youth-focused way, which positions them as socially attractive, with celebrity endorsement, stylish designs and a wide range of flavours.

Experimentation with e-cigarettes has increased rapidly among young people, but evidence suggests regular use is uncommon and concentrated among existing smokers.

In Wales in 2013 experimentation with e-cigarettes and tobacco among 11-16 year olds was equivalent at 12%, but only 1.5% reported regular e-cigarette use. Among young people who had never smoked, regular use was negligible. E-cigarette use was found to be more likely among cannabis users, but did not vary by ethnicity, gender or family affluence.

What we did...

- We invited 113 schools to take part in the 2015 Student Health and Wellbeing Survey in Wales. 87 schools did so, generating data from over 30,000 young people.
- We investigated the extent of e-cigarette use amongst 11 to 16 year olds and looked for links between e-cigarette use and other types of substance use (tobacco, cannabis, alcohol, mephedrone and laughing gas).
- We investigated whether young people try e-cigarettes or tobacco first to better understand the sequencing of these behaviours.



In a nutshell

- **18.5% of secondary school students had tried e-cigarettes, but regular use was uncommon.**
- **E-cigarette use increased with age and was more common in boys.**
- **E-cigarette use was more common than tobacco use, but levels of e-cigarette use among smokers was much higher than among non-smokers.**
- **Where tobacco and e-cigarette use co-occurred, tobacco was more likely to have been tried first.**
- **E-cigarette use was associated with use of alcohol, cannabis, mephedrone and laughing gas.**



@SHRNWales



SHRN@cardiff.ac.uk



SHRN.org.uk

What we found...

E-cigarette use

- Overall, **18.5%** of students had used an e-cigarette at least once and **2.7%** used them regularly (weekly or more).
- Ever having used e-cigarettes increased with age to **37.3%** of year 11 students; regular use also increased to **5.7%**.
- E-cigarette use was more common in boys and in students who had ever smoked.

E-cigarettes and cigarette smoking

- 10.5% of students had ever smoked and 2.3% smoked daily. In year 11, 26.5% of students had ever smoked and 6.3% smoked daily.
- In all year groups, students were more likely to have used an e-cigarette than smoked a cigarette.
- Although smoking was less common, there was a strong relationship between it and e-cigarette use.
- The vast majority of students who had tried or currently smoked tobacco reported that they had

also tried e-cigarettes.

- Regular e-cigarette use was also much more common amongst smokers: almost half of daily smokers reported regular use compared to 2% of non-smokers.
- Two-thirds of students who had tried both e-cigarettes and smoking said they tried tobacco first. Among regular smokers more than four-fifths had tried tobacco first.

E-cigarettes and other substances

- Use of cannabis, mephedrone, laughing gas and cannabis were all strongly associated with having tried e-cigarettes.



Issues to consider

The data for this study came from a large survey of young people in Wales who are representative of children in Wales as a whole.

Participants were asked to report their own e-cigarette use, but we do not know if their answers were accurate. Data about e-cigarette and tobacco use were collected together (cross-sectional data) so we are reliant on participants' recall of whether they tried e-cigarettes or tobacco first.

The Student Health and Wellbeing Survey was funded by Public Health Wales. An Economic and Social Research Council grant supported the data analysis.

What does this mean for my school?

- **Experimentation with e-cigarettes, a source of nicotine, is more common than experimentation with tobacco and is likely to have started to a small degree by year 7.**
- **Whilst current tobacco smokers are far more likely than non-smokers to have used e-cigarettes, most report that they tried conventional cigarettes first. This suggests that e-cigarettes are not currently leading to increased tobacco use in Wales, which has continued to decline.**

Read the research paper in full. Download for free here:

<http://bmjopen.bmj.com/content/7/2/e012784.full>

de Lacy E et al (2017) Cross-sectional study examining the prevalence, correlates and sequencing of electronic cigarette and tobacco use among 11-16-year olds in schools in Wales. *BMJ Open* 6:e012784