

TOBACCO CONTROL

Inclusion of experimenters in e-cigarette prevalence studies of 'questionable' value

Set threshold at use on 6 out of past 30 days for more accurate picture, say researchers

The inclusion of experimenters—who are unlikely to become habitual users—in e-cigarette prevalence studies is of 'questionable' value for monitoring population public health trends, finds research published online in the journal ***Tobacco Control***.

Setting the threshold at a minimum of use on 6 out of the past 30 days would eliminate many of those who are motivated primarily by curiosity and unlikely to become regular users. And it would provide a more accurate picture of use, say the researchers.

There is no uniform definition for current users of e-cigarettes. But after the US Surgeon General's 2014 report on smoking, which estimated current prevalence as all or part of at least one cigarette in the past 30 days, this definition has frequently been applied to e-cigarette use as well.

The researchers used responses of a random sample of more than 9300 adults (18 and older) to the 2014 Minnesota Adult Tobacco Survey.

Participants were defined as current smokers if they had smoked at least 100 cigarettes in their lifetime and now smoked every day or some days; former smokers were categorised as those who had smoked the same amount but now no longer smoked at all; and never (non) smokers were those who had never smoked.

Participants were asked if they had ever used an e-cigarette, even if it was only once. Those who confirmed that they had were then asked on how many days out of the past 30 they had done so.

They were then asked their reasons for using e-cigarettes. The 'goal oriented' options included: to help give up or cut down on other tobacco products; availability in menthol and/or other flavours; for use in places where smoking is banned; the belief that they might be less harmful. Motivated by curiosity was the only other non-goal driven option.

The analysis showed that fewer than one in five of the adults surveyed (17.7%) had tried e-cigarettes, and current smokers were more likely to use them than former or never smokers.

Most (70%) current smokers had tried them at least once compared with 16% of former smokers and just over 5.5% of non-smokers.

Fewer than half of the entire response sample who admitted to vaping at any point in their lifetime said they had used e-cigarettes in the past 30 days.

Based on the responses to the number of days an e-cigarette had been used, 5 days or less seemed to represent a valid threshold for those who vaped infrequently.

Among those who had used in the past 30 days, over half of current smokers (59%) were classified as infrequent users (vaping on 5 days or fewer), while 16% of former smokers were classified as intermediate users (vaping on 6-29 days).

Few non-smokers (1.2%) had vaped in the past 30 days. Of those who had, most (89.5%) had used infrequently, with around 5% each falling into the intermediate and daily use categories.

Compared with intermediate and daily users, significantly fewer of the infrequent users gave goal oriented reasons for trying e-cigarettes; rather, the most frequently cited reason was curiosity.

Based on previous research, this suggests that many infrequent users are experimenting and unlikely to convert into regular users, so including them in prevalence figures may give a false impression of true trends, say the researchers.

They show how the prevalence of Minnesota adults classed as “current e-cigarette users” varies, depending on the types of users included in the count.

The prevalence was 6% if all categories of user were included; 2.4% if only intermediate and daily users were included; and just 1.1% if only daily users were included.

“Defining e-cigarette current use prevalence as any used in the past 30 days failed to differentiate a cluster of infrequent users at the low end of the usage distribution [scale] from other users,” they write.

“In addition to having a distinctly different behavioural profile in terms of use frequency, infrequent users were more likely to report curiosity as a reason for using e-cigarettes and less likely to report goal oriented reasons, compared to intermediate or daily users,” they continue.

“This rather suggests they are less likely to become regular vapers,” say the researchers. “If that is the case, then measuring e-cigarette current use prevalence based on any use in the past 30 days may lead to an overestimate of regular users. That conclusion is reinforced by the finding that most individuals who had ever used e-cigarettes reported no use in the past 30 days,” they write.