

# Electronic Cigarettes Usage Amongst Youth



## ARE YOUNG PEOPLE USING E-CIGARETTES?



month.<sup>2</sup>

Over the last few years multiple studies nationally and internationally have shown an increase in youth usage of e-cigarettes.<sup>2,3</sup> According to National Youth Tobacco Survey by the Centers for Disease Control and Prevention (CDC), in 2013, 263,000 teens had used e-cigarettes but had never smoked traditional cigarettes. This represents a 3-fold increase from the 79,000 young people reported in 2011.<sup>1</sup> Monitoring the Future, another 2014 nation-wide study, showed the same trend: 16% of 10<sup>th</sup> graders and 17% of 12<sup>th</sup> graders used e-cigs while 7% of 10<sup>th</sup> graders and 14% of 12<sup>th</sup> graders used cigarettes within the last

Another study showed that usage among 15-19 year olds increased from 5.5% to 29.9% from 2010-11 to 2013-14 respectively. However, youth are not replacing traditional cigarette use with e-cigarettes. This study showed that usage of both cigarettes and e-cigarettes (dual use) among these youths increased from 3.6% to 21.8% during the same period.<sup>3,4</sup> Bay Area schools have added e-cigarettes to their tobacco policies in response to increasing usage and popularity among their students.<sup>5</sup> Another study shows that children may be using e-cigarettes to imitate the behaviors of their parents.<sup>6</sup> Early nicotine addiction is a particular concern, especially among youth. Youth tend to use e-cigarettes and traditional cigarettes concurrently.<sup>7</sup>

A closer look at the National Youth Tobacco Survey shows that youth who have ever smoked an electronic cigarette were 1.7 times more likely to express positive intentions to smoke traditional cigarettes, than those who have never used electronic cigarettes.<sup>8</sup> A survey of almost 5,000 youth from middle school and high school showed that one-fifth of youth who tried e-cigarettes did not know whether their e-cigarette contained nicotine. Youth who had never smoked cigarettes were more likely to transition from e-cigarettes without nicotine to e-cigarettes containing nicotine than youths that had previously smoked.<sup>8</sup> Also, for youth who have ever smoked cigarettes, e-cigarette use was associated with lower abstinence of cigarettes, implying that e-cigarettes may not discourage cigarette usage or facilitate cessation.



Youth are being targeted by the e-cigarette industry with similar tactics to those used by traditional cigarette sellers in the past, including cartoons, celebrities, flavors, and sports sponsorships.<sup>3,9</sup> The Food and Drug Administration has considered flavored tobacco products as a starter product for youth and considered unsafe.<sup>10</sup> However, unlike marketing for traditional cigarettes, regulation of e-cigarettes marketing does not exist and therefore youth are not protected from targeted marketing on television, radio, and the internet.<sup>9</sup> In 2013, six e-cigarette companies alone spent \$59.3 million on marketing. Between 2012 and 2013, e-cigarette companies offered sponsorship or free samples at 348 events, many of which were youth oriented.<sup>11</sup> This level of marketing seems to have been successful given that 89% of youth ages 13-17 are aware of e-cigarettes.<sup>12</sup> An analysis of Nielsen data showed that youth exposure to e-cigarette television advertisements increased by 256% between 2011 and 2013.<sup>13</sup> Focus groups held with over 1,000 middle school, high school, and college-age youth showed that the top reason for experimenting with e-cigarettes was curiosity (54.4%), appealing flavors (43.8%), and peer influences (31.6%).<sup>14</sup> Monitoring the Future Survey (2014) also found that youth tend to be less aware of potential harms of e-cigarettes while the majority of youth know that cigarettes are harmful.<sup>15</sup> This lack of awareness of potential harms of e-cigarettes may be associated with increased experimentation.<sup>16</sup> Stanford University School of Medicine has compiled a large [depository of e-cigarette advertisements](#) illustrating marketing toward youths and similarities to previous tobacco industry tactics.



<sup>1</sup> Center for Disease Control (2014) [“More than a quarter million youth who have never smoked a cigarette used e-cigarettes in 2013”](#)

<sup>2</sup> Monitoring the Future (2014) [“E-cigarettes surpass tobacco cigarettes among teens”](#)

<sup>3</sup> Goniewicz, M., Gawron, M. et al. (2014). [“Rise in Electronic Cigarette Use Among Adolescents in Poland.”](#) *Journal of Adolescent Health*. Vol. 55. Pp. 713-715.

<sup>4</sup> Lee, Y. et al. (2015). “Youth Tobacco Use in the United States.” *Pediatrics*. doi: 10.1542/peds.2014-3202

<sup>5</sup> Tsai, J. (2014). [“Bay Area school districts rewind tobacco policies to counter teen e-cigarette use.”](#) *Contra Costa Times*.

<sup>6</sup> Moore, G., Moore, L., et al. (2014). [“Exposure to secondhand smoke in cars and homes, and e-cigarette use among 10-11 year old children in Wales: CHETS Wales 2.”](#) *Llywodraeth Cymru Welsh Government*

<sup>7</sup> Dutra, L. M., & Glantz, S. A. (2014). [“Electronic cigarettes and conventional cigarette use among US adolescents: a cross-sectional study.”](#) *JAMA pediatrics*.

<sup>8</sup> Krishnan-Sarin, S., Morean, M., Camenga, D., Cavallo, D. A., & Kong, G. (2014). [“E-cigarette Use among High School and Middle School Adolescents in Connecticut.”](#) *Nicotine & Tobacco Research*, ntu243.

<sup>9</sup> Tobacco Free Kids (2013) [“7 ways E-cigarette Companies Are Copying Big Tobacco’s Play book.”](#)

<sup>10</sup> US Food and Drug Administration (2011) [“Flavored Tobacco Product Fact Sheet.”](#)

<sup>11</sup> (2014). [“Gateway to Addiction?”](#)

<sup>12</sup> Legacy for Health. (2014). [“Vaporized.”](#)

<sup>13</sup> Duke, J., Lee, Y., et al. (2014). [“Exposure to Electronic Cigarette Television Advertisements Among Youth and Young Adults.”](#) *Pediatrics*. doi:10.1542/peds.2014-0269

<sup>14</sup> Kong, G., Morean, M. E., Cavallo, D. A., Camenga, D. R., & Krishnan-Sarin, S. (2014). [“Reasons for Electronic Cigarette Experimentation and Discontinuation Among Adolescents and Young Adults.”](#) *Nicotine & Tobacco Research*, ntu257.

<sup>15</sup> Monitoring the Future (2014) [“University of Michigan’s Monitoring the Future Text, Figures, & Tables.”](#)

<sup>16</sup> Choi, K. & Forster, J. (2014). “Beliefs and Experimentation with Electronic Cigarettes. A Prospective Analysis Among Young Adults.” *American Journal of Preventive Medicine*. 46(2). Pp. 175-178