

## Calls to US Poison Centers Regarding Electronic Cigarettes – United States, September 2010 – October 2014

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**Summary:** A concerning new trend: 58% of e-cigarette calls to U.S. poison centers are for concerns about exposures in young children.

### **Abstract:**

**Background:** Electronic cigarettes (e-cigarettes) are battery-powered devices that deliver an inhalable aerosol that typically contains nicotine and flavorings. E-cigarette use doubled among U.S. adults from 2010 to 2011 and U.S. adolescents from 2011 to 2012, but the impact on public health remains unclear. To characterize exposures and acute health effects from e-cigarettes, we compared exposure calls to poison centers (PCs) related to e-cigarettes with exposure calls related to conventional tobacco cigarettes, a product with known toxicity.

**Methods:** We analyzed calls to U.S. PCs from September 1, 2010, through October 31, 2014. We compared the demographics of the exposed individuals and adverse health effects reported for e-cigarettes with those reported for cigarettes using Chi-square tests.

**Results:** PCs reported 5,247 calls for e-cigarettes and 19,597 for cigarettes. E-cigarette calls increased from 1 in September 2010 to a peak of 401 in April 2014, then decreased to 285 in October 2014. Monthly cigarette calls ranged from 302 to 514. E-cigarette calls were mostly for the 0–5 year (60%) and >20 year (32%) age groups; cigarette calls were primarily for the 0–5 year age group (96%). Among calls with outcome information (n=13,309), e-cigarette calls were more likely to report an adverse health effect than cigarette calls (51.6% versus 35.9%) (P<.001). Among e-cigarette calls reporting a health effect (n=1,575), the most common effects were vomiting (40%), eye irritation (20%), and nausea (17%).

**Conclusions:** E-cigarette calls to PCs increased from 2010 through early 2014 and then decreased through late 2014, while, overall, conventional cigarette calls remained stable. Given the overall increase in e-cigarette exposure calls, developing strategies to monitor and prevent future poisonings from these novel devices is critical.