

# Characteristics of e-cigarette users among Korean adolescents

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Department of Public Health Science,  
Graduate School, Korea University

**Eun Young Kim**



# Acknowledgements

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✿ Prof. Kook Hwan Rhim  
(Korea University)



✿ Dr. Sungkyu Lee  
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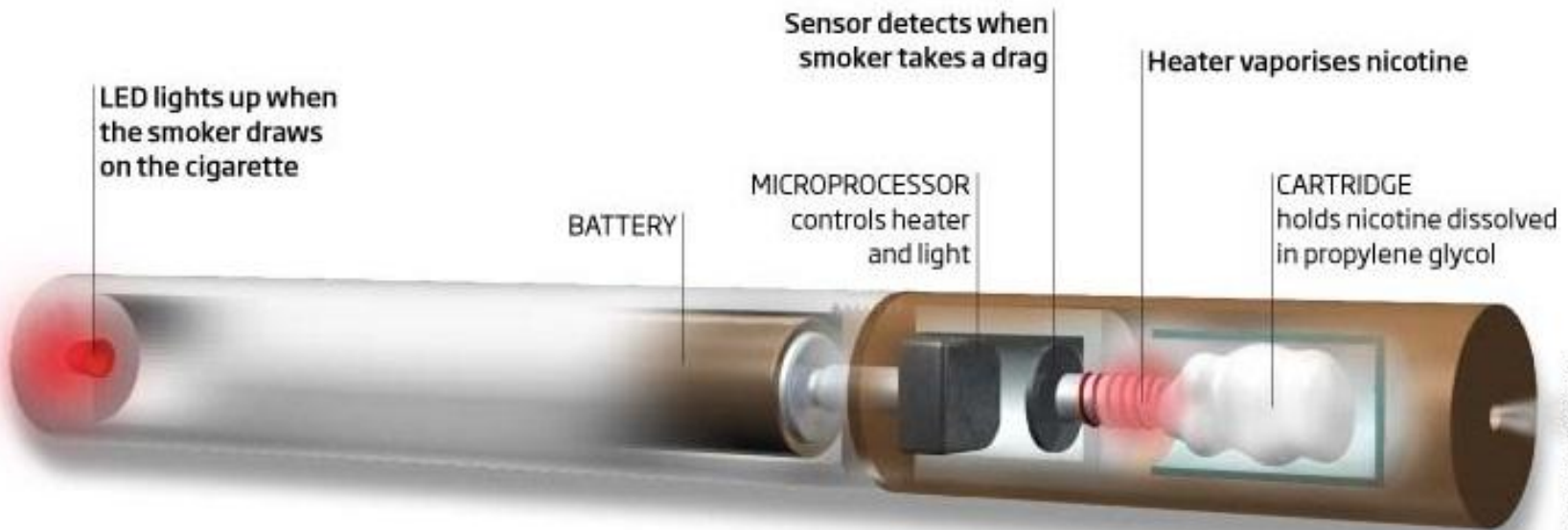
# Background

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## Electronic-cigarette

### Smoke without fire

Suck on an e-cigarette and it produces a cloud of nicotine-carrying vapour with none of the toxic by-products of burning tobacco



# Background

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Huge market potential

## The Switch to E-Cigarettes.

"is on a massive rise and there is  
no ceiling in site for the future"



✿ BAT – Nicoventures, a  
division devoted to  
cigarette alternatives

✿ RJR – Vuse

✿ PM – Ruyan deal

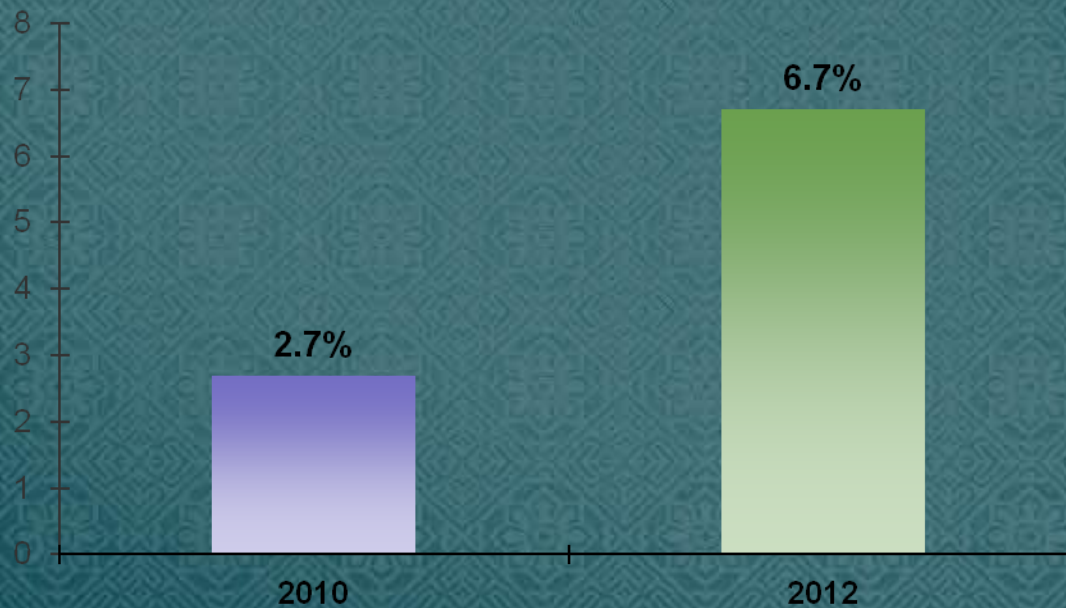




# Background

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## E-cig prevalence in UK



(Dockrell et al, 2013)

# Background

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## Prevalence of E-cig use in South Korea



Current e-cig use among adolescents (13–18) in 2008 (a year after e-cigarettes were introduced in South Korea – **0.5%**)



# Background

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## ✿ E-cigs affect airways

(Center for Global Tobacco Control at Harvard School of Public Health, 2013)

## ✿ Potential fatal amount of nicotine in e-cig solutions

(Jenfer et al, 2013)

## ✿ E-cigs contain carcinogens

(the Food and Drug Administration)

## ✿ E-cigs help quit smoking

(Gomiewicz et al, 2012)

## ✿ E-cigs are safer than conventional cigarettes

(Laugesen, 2008)



# Research purpose

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- ✿ To identify *prevalence* of e-cig only users and dual users of both conventional cigarettes and e-cigs
- ✿ To compare *characteristics* of e-cig only users and dual users of both conventional cigarettes and e-cigs



# Methods

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- ✿ Data : 2011 Korean Youth Health Behavior Web-based Survey
- ✿ Sample : Middle and high school students (aged 13–18 years = grade 7<sup>th</sup>–12<sup>th</sup>)
- ✿ Size : 75,643
- ✿ Analysis :  $\chi^2$ -test, t-test, logistic regression
- ✿ Program : SPSS 20.0

# Results

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✿ Prevalence of e-cig use among Korean adolescents **4.4%**

✿ E-cig *only* user **1.1%**

✿ *Dual* user between e-cig and conventional cigarettes **3.3%**



# Results – e-cig *only* user

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- *Younger* students (OR .73; 95%CI .60–.89)
- *higher health concerns*  
(OR 1.13; 95%CI 1.02–1.27)
- *higher school achievements*  
(OR 1.17; 95%CI 1.08–1.26)
- *higher subjective happiness*  
(OR 1.12; 95%CI 1.01–1.25)

# Results – *Dual* user

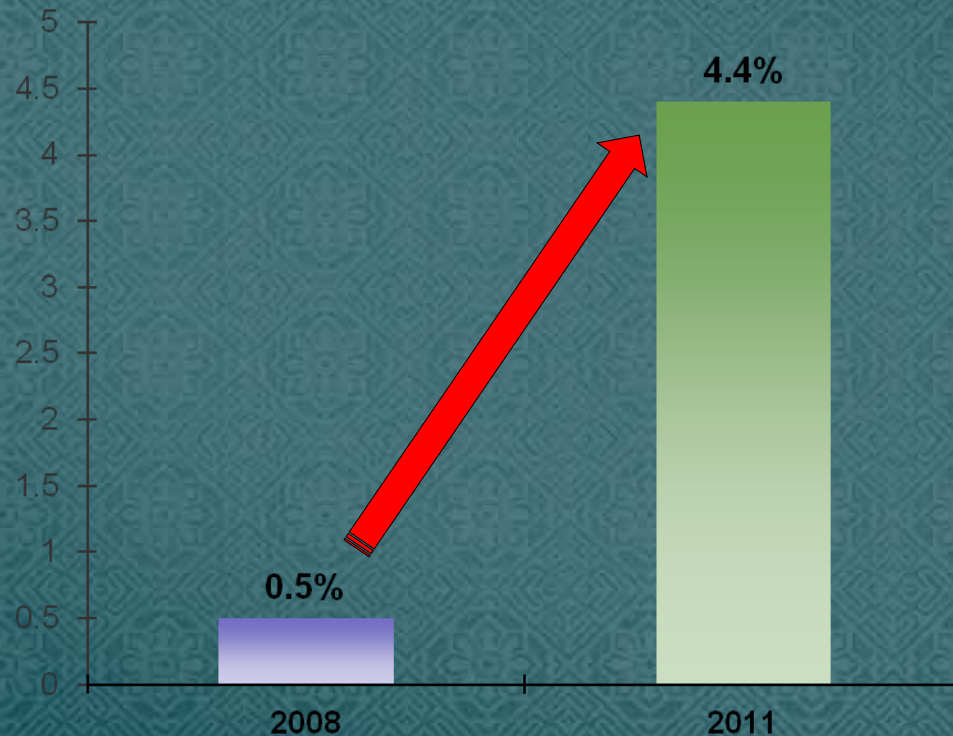
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- ***Boys*** (OR 2.37; 95%CI 2.05–2.74)
- ***lower school achievements***  
(OR .89; 95%CI .85–.94)
- ***higher perception of depressive symptom***  
(OR 1.18; 95%CI 1.05–1.33)
- ***Higher alcohol drinking use***  
(OR 1.24; 95%CI 1.10–1.39)
- ***Higher drug use***  
(OR 2.10; 95%CI 1.64–2.70)



# Discussion

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E-cig users rapidly raise among Korean youth.

# Discussion

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E-cig *only* users  
*higher health concerns*

*Dual* users  
*risk behavior (ex. alcohol, drug and sex)*



# Limitations

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✿ Cross-sectional study

✿ Secondary data

# Conclusions

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- ✿ Korean youth quickly respond to e-cigs, in turn, the government should take action right now.
- ✿ Dual use between e-cigs and conventional cigarettes will threat to public health in Korea.
- ✿ The different approaches for e-cig only users and dual users need to be developed.



