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THE UNIVERSITY OF HONG KONG

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SCHOOL OF PUBLIC HEALTH
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香港大學公共衛生學院



HKU Youth Quitline

Quit Smoking and Healthy Lifestyle

November 10, 2016 (Thursday)

Dr William LI Ho-cheung

Director of the Youth Quitline Programme

Associate Professor

School of Nursing

Li Ka Shing Faculty of Medicine

The University of Hong Kong

Team members :

Prof Lam Tai-hing, Chair Professor of Community Medicine, Sir Robert Kotewall Professor in Public Health, School of Public Health

Dr Derek Cheung Yee-tak, Post-doctoral Fellow, School of Public Health

Dr Yannes Cheung Tsz-yan, Post-doctoral Fellow, School of Nursing

Miss Vivian Chan Wai-fung, Research Assistant, School of Nursing

Miss Talia Wu Tian, Research Assistant, School of Nursing

HKU Youth Quitline counsellors

Content

- Introduction of Youth Quitline
- The achievements of Youth Quitline
- Characteristics of participants of Youth Quitline
 - Demographic characteristics
 - Depressive mood
 - Daily habits
- Future prospect of Youth Quitline

Introduction of Youth Quitline

煙
話戒就戒!

成功戒煙
獎你
\$300*

WhatsApp 5111 4333 Phone

*成功通過六個月後的身體檢查可獲三百元獎勵

香港大學護理學院
戒煙治療研究組

衛生署控煙辦公室
Tobacco Control Office
Department of Health

The advertisement features a blue superhero character with a red cape and a 'no smoking' symbol on its chest, running towards a large, lit cigarette. The cigarette is wearing a red cape and has a determined expression. The background is green with yellow and white motion lines. A yellow starburst contains the text '成功戒煙 獎你 \$300*'. Below this, the phone number '5111 4333' is displayed in large yellow digits, flanked by a WhatsApp icon and a Phone icon. At the bottom, there are logos for the University of Hong Kong School of Nursing and the Department of Health Tobacco Control Office, along with a disclaimer in Chinese.

HKU Youth Quitline 5111 4333

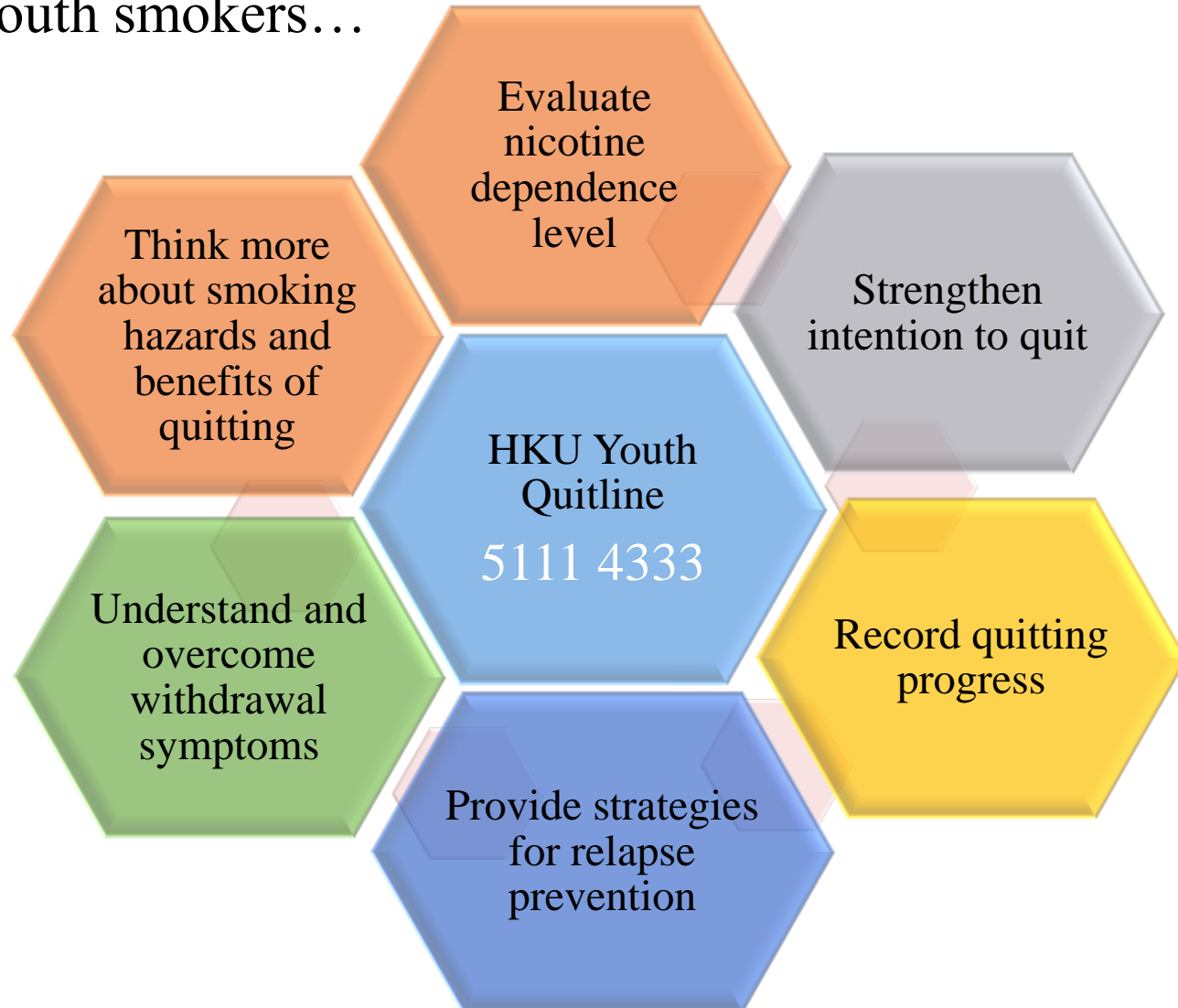
- The first smoking cessation hotline specific for youth smokers aged ≤ 25 in Hong Kong
- Established in August 2005
- Included in the **Integrated Smoking Cessation Hotline '1833-183' (Press 5)** of Department of Health since June 2011

Objectives

- To provide smoking cessation hotline service to youth smokers
- To help youth smokers quit smoking or reduce cigarette consumption

Content of Smoking Cessation Telephone Counselling

- To help youth smokers...



HKU Youth Quitline

Achievements of the Service

Achievements

- Handled 9,267 telephone enquiries and provided smoking cessation counselling to 1,952 youth smokers
- In 2016 (January 1, 2016 – July 31, 2016), handled 863 telephone enquiries and provided smoking cessation counselling to 162 youth smokers



Telephone Counselling Helped Participants **Quit Smoking or Reduce Cigarette Consumption**

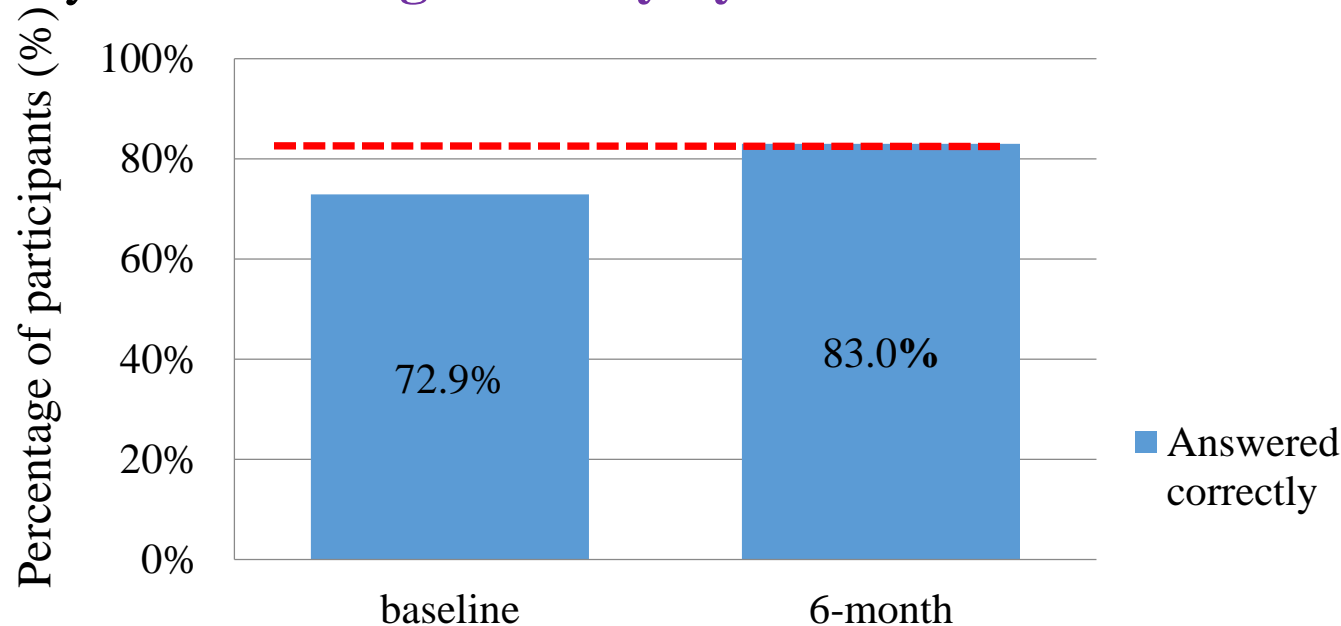
- 233 participants **quit smoking** at 6-month follow-up, accounting for 23.5% of all participants[@] (n=990[#]).
- 114 of them **reduced daily cigarette consumption $\geq 50\%$** , accounting for 11.5% [@] (n=990).
- 220 of them **had made quit attempt**, accounting for 22.2%[@] (n=990[#]).

@: Participants who were lost to follow-up at 6-month were regarded as smokers. Lost to follow-up refers to participants who failed to be contacted after 7 call attempts at the time to follow up.

#: Data was collected from Nov 2011 to July 2016 (The period funded by Tobacco Control Office, Department of Health)

Telephone Counselling Increased Participants' Knowledge of Smoking Hazards

- Participants were asked whether they agreed with the following sentence at baseline and 6-month follow-up. “Agree” was regarded as correct while “Disagree” and “Don’t know” were regarded as incorrect. (n=1147[#]).
- “1 out of 2 smokers dies early due to smoking.”
- At 6-month follow-up, the percentage of participants who answered correctly **increased significantly by 10.1%**.



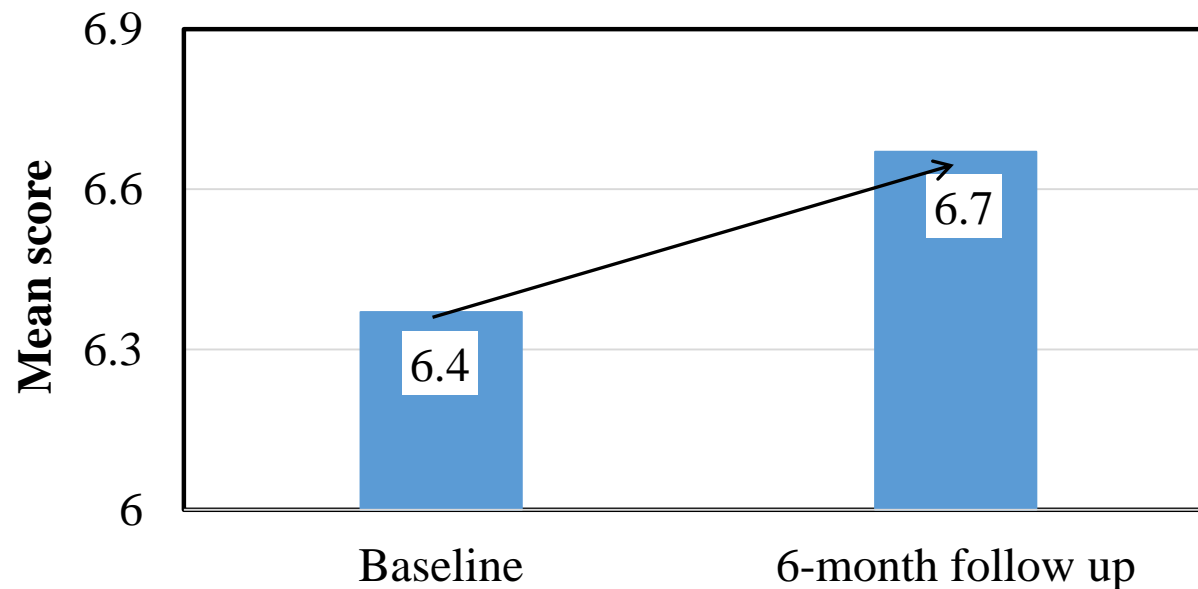
Statistical test: Chi-square test $p < 0.001^{***}$

[#]: Data was collected from Nov 2011 to July 2016 (The period funded by Tobacco Control Office, Department of Health); missing data was excluded from the percentage calculation.

Telephone Counselling Boosted Participants' Confidence to Quit Smoking

- After receiving telephone counselling service, participants' confidence to quit smoking **increased significantly by 5%.**

Confidence to quit smoking (n=481[#])



(Score: 0-Not confident at all, 10-Very confident)

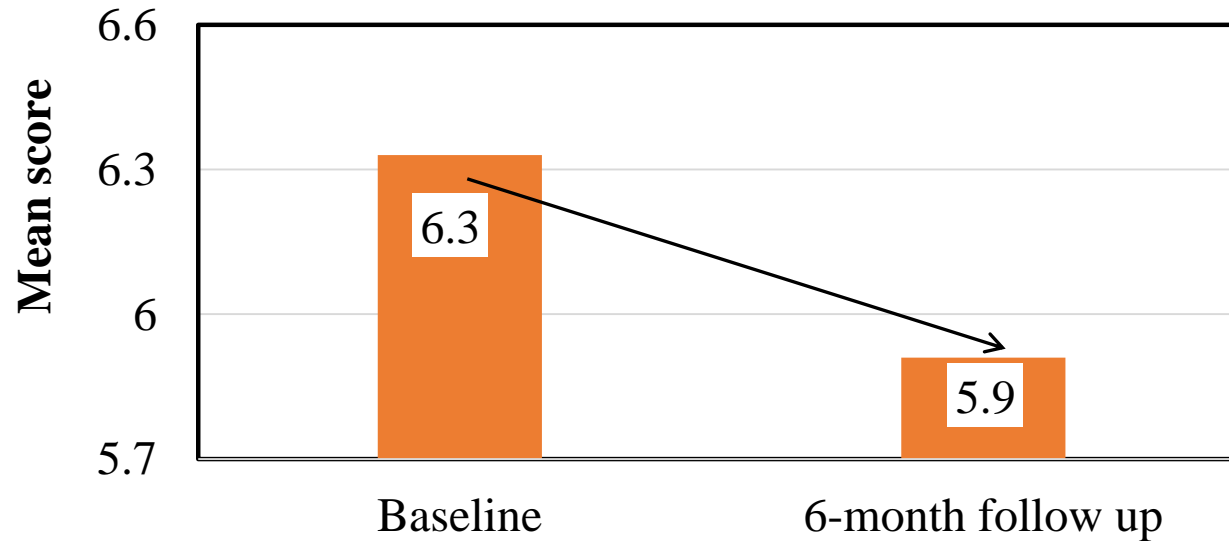
Statistical test: Paired sample t-test $p < 0.05^*$

[#]: Data were collected from Nov 2011 to July 2016 (The period funded by Tobacco Control Office, Department of Health); only included the participants who both answered this question at baseline and 6-month follow-up.

Telephone Counselling Reduced Participants' Perceived Difficulty in Quitting Smoking

- After receiving telephone counselling service, participants' perceived difficulty in quitting smoking **decreased significantly by 7%.**

Perceived difficulty in quitting smoking
(n=463[#])





(Score: 0-Not difficult at all, 10-Very difficult)

Statistical test : Paired sample t-test $p < 0.01^{**}$

[#]: Data was collected from Nov 2011 to July 2016 (The period funded by Tobacco Control Office, Department of Health); only included the participants who both answered this question at baseline and 6-month follow-up.

Telephone Counselling Relieved Participants' Depressive Mood

- After receiving telephone counselling service, the percentage of participants who had **“NO depressive mood” significantly increased by 15%**, while the percentage of participants who had **“mild or notable depressive mood” significantly decreased** (n=1147[#]).

	Baseline Percentage of people (%)	6-month Percentage of people (%)
No depressive mood	56.6%	71.5% 
Mild depressive mood	34.1%	23.0% 
Notable depressive mood	9.3%	5.5%

Statistical test : Chi-square test $p < 0.001^{***}$

[#]: Data was collected from Nov 2011 to July 2016 (The period funded by Tobacco Control Office, Department of Health), missing data was excluded from calculation. 12

Youth Quitline

Demographic Characteristics

of Participants

Demographic Characteristics of Participants -

This year (January 1, 2016 to July 31, 2016)

- 162 participants were recruited this year (January 1, 2016 to July 31, 2016).
- More male participants (n=140 , 86.4%) were found compared to female (n=22, 13.6%).
- The mean age of participants was 19.9 (standard deviation=2.8).
- Majority of participants were students, with 108 of them (67.9%) were students and 43 of them (27.0%) were employees.

Smoking Habit of Participants - This year (January 1, 2016 to July 31, 2016)#

No gender difference was found in average daily cigarette consumption

- The average daily cigarette consumption of participants this year was **10**, with mean for male was 9.3 and female was 10.6, which was similar to previous years' results ($p>0.05$).

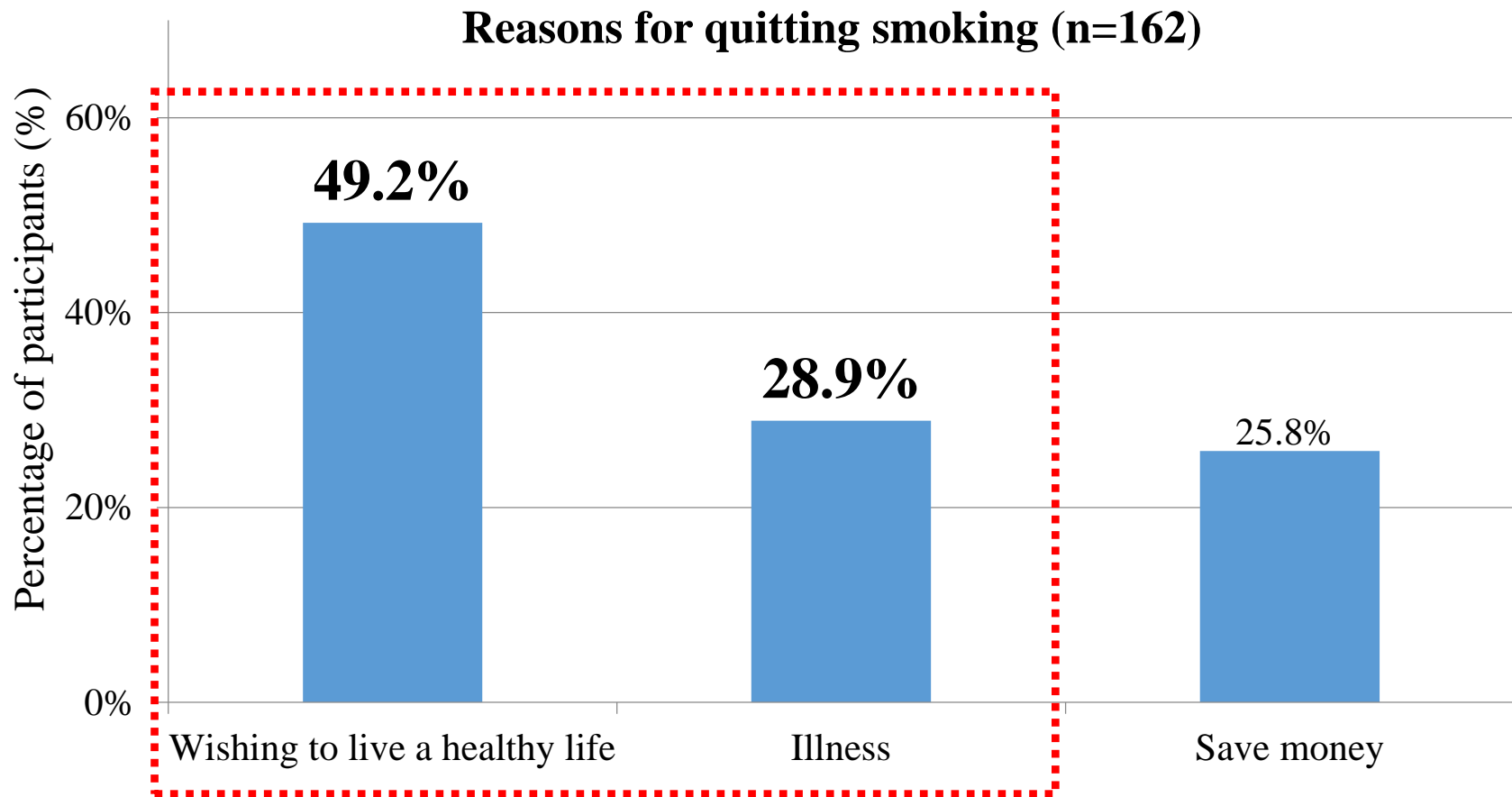
No gender difference was found in average nicotine dependence level

- The average nicotine dependence level of participants this year was **mild**, with mean score for male was 2.5 and female was 2.7, which was similar to previous years' results ($p>0.05$)@.

@(Fagerstrom Test of Nicotine Dependence , scored 0-10 , 0-3 mild , 4-5 moderate , 6-10 severe)
n=162 ; Statistical test: independent sample t-test
Missing data was excluded from the percentage calculation.

Reasons for Quitting - This year (January 1, 2016 to July 31, 2016)

- Half of the participants (49.2%) would like to quit smoking because **“want to live a healthy life”**. **“Illness or personal health problems”** ranked the second with 28.9%.



Quit Smoking and Healthy Lifestyle

- Mood and daily habits of youth smokers may affect their number of daily cigarette consumption and self-efficacy of quit smoking, for example:
 - **Depressive mood**
 - **Drinking habit**
 - **Exercise habit**

Youth Quitline

Depressive Mood

of Participants

Depressive Mood of Participants

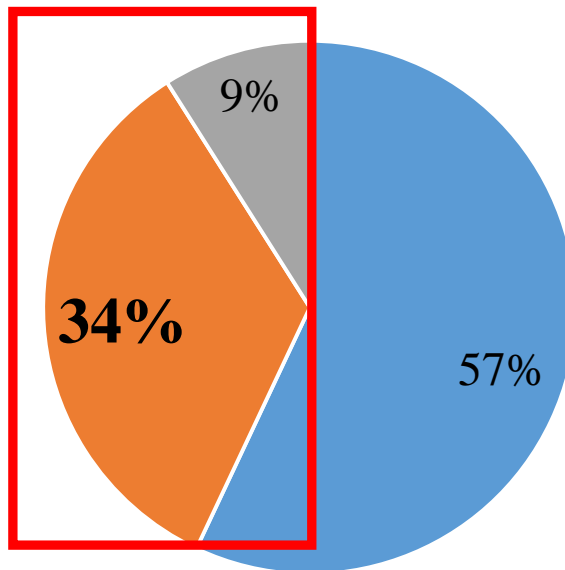
- 43% of the participants had depressive mood, and 9% of them had notable depressive mood.

Depressive mood of participants (n=1147)

Had depressive mood



- No depressive mood
- Mild depressive mood
- Notable depressive mood



In the past 30 days, how often you have “been bothered or troubled” by each of six states:

Always (4 marks), Sometimes (3 marks), Seldom (2 marks), Never (1 mark)

- (1) Feeling too tired to do things?
- (2) Having trouble going to sleep or staying asleep?
- (3) Feeling unhappy, sad, or depressed?
- (4) Feeling hopeless about the future?
- (5) Feeling nervous or tense?
- (6) Worrying too much about things?

Total score= add all marks together

No depressive mood (6-12 marks)

Mild depressive mood (13-18 marks)

Notable depressive mood (19-24 marks)

Reference: Kandel & Davies, 1982. *Archives of General Psychiatry*, 39:1205-12.

Data was collected from Nov 2011 to July 2016 (The period funded by Tobacco Control Office, Department of Health)

Missing data was excluded from the percentage calculation.

Different Level of Depressive Mood and Determination to Quit Smoking

- Participants who had depressive mood perceived **more difficulty in quitting** than those who did not.
- Also, participants who had depressive mood **had lower confidence** to quit smoking than those who did not.

	No depressive mood	Mild depressive mood	Notable depressive mood	p-value
Perceived difficulty in quitting smoking [#]	6.0	6.6	7.2 ↑	<0.001***
Confidence to quit smoking [@]	6.5	6.1	5.6 ↓	<0.001***

[#](Score: 0- Not difficult at all, 10- Very difficult)

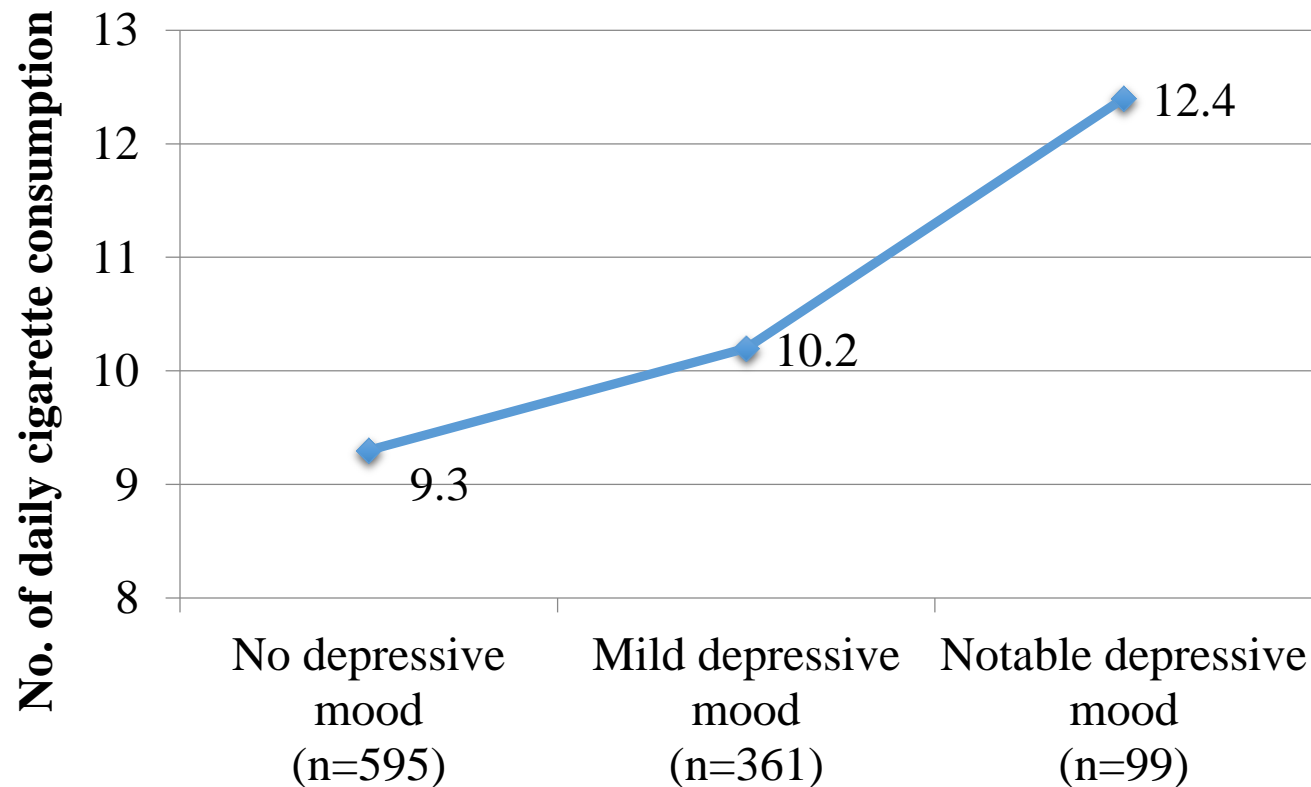
[@](Score: 0- Not confident at all, 10- Very confident)

Statistical test: ANOVA

Data was collected from Nov 2011 to July 2016 (The period funded by Tobacco Control Office, Department of Health), missing data was excluded from calculation.

Depressive Mood and Daily Cigarette Consumption

- The average daily cigarette consumption of participants having notable depressive mood was **significantly higher** than less depressed groups’.
- The number of daily cigarette consumption of participants having notable depressive mood were **33%** more than not depressive group.

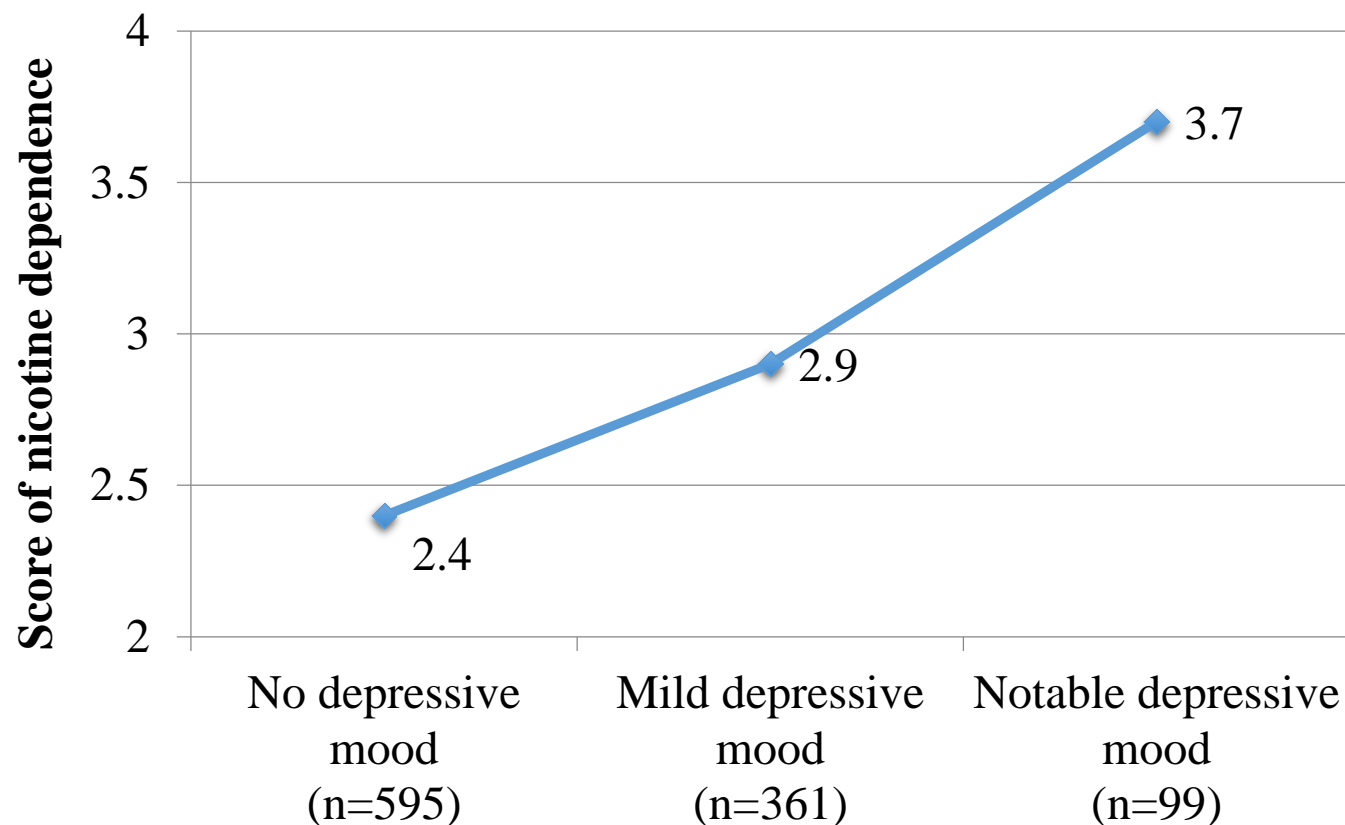


Statistical test : ANOVA

Data was collected from Nov 2011 to July 2016 (The period funded by Tobacco Control Office, Department of Health), missing data was excluded from calculation.

Depressive Mood and Nicotine Dependence

- The average score of nicotine dependence of participants having notable depressive mood was **significantly higher** than less depressed groups'.

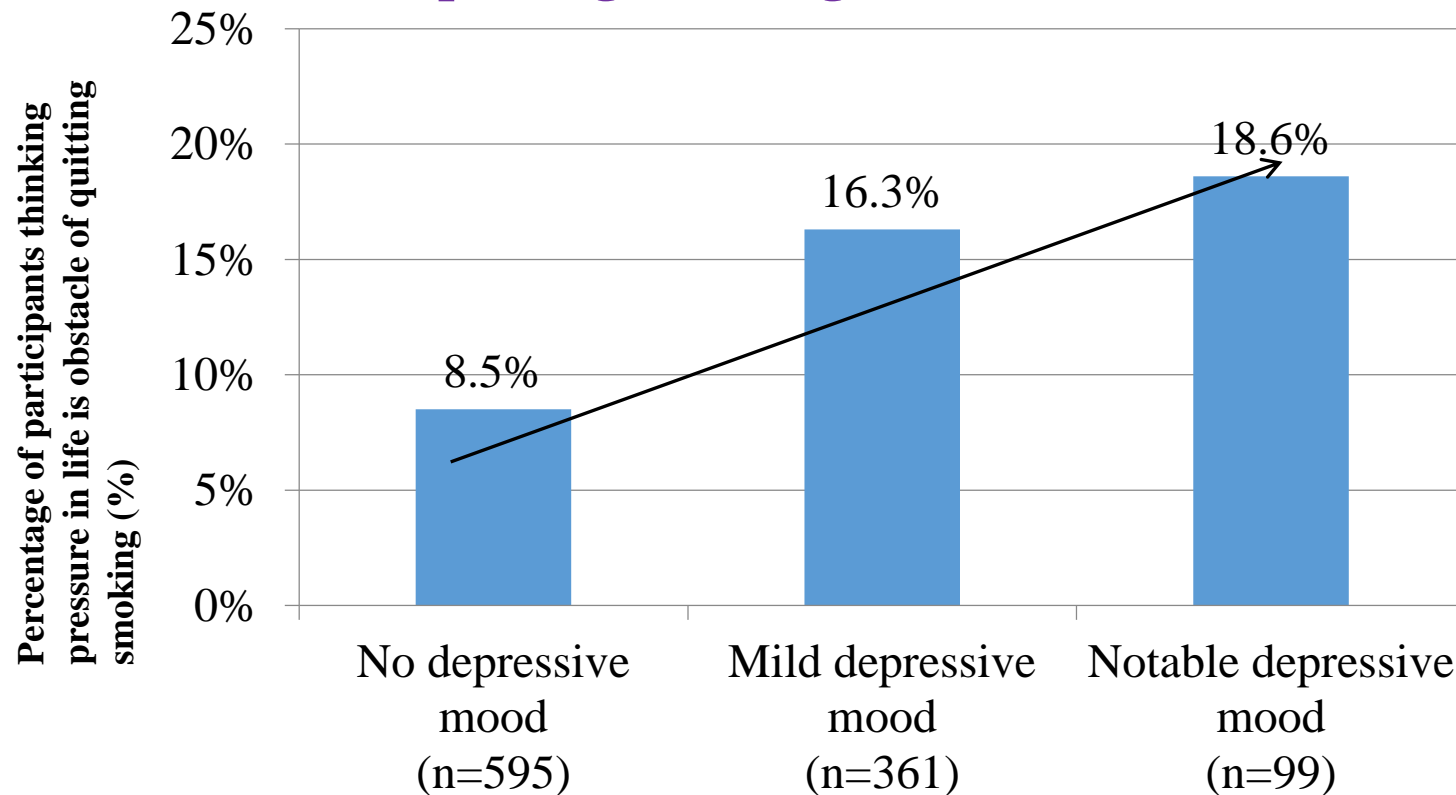


Statistical test : ANOVA, $p < 0.001^{***}$

Data was collected from Nov 2011 to July 2016 (The period funded by Tobacco Control Office, Department of Health), missing data was excluded from calculation.

Depressive Mood and Obstacles of Quitting Smoking – Pressure in Daily Life

- The higher level of depressive mood the participants had, more percentage of participants agreed with “**pressure in daily life**” was one of the **obstacles of quitting smoking**.



Statistical test: Chi-square test $p < 0.001$ ***

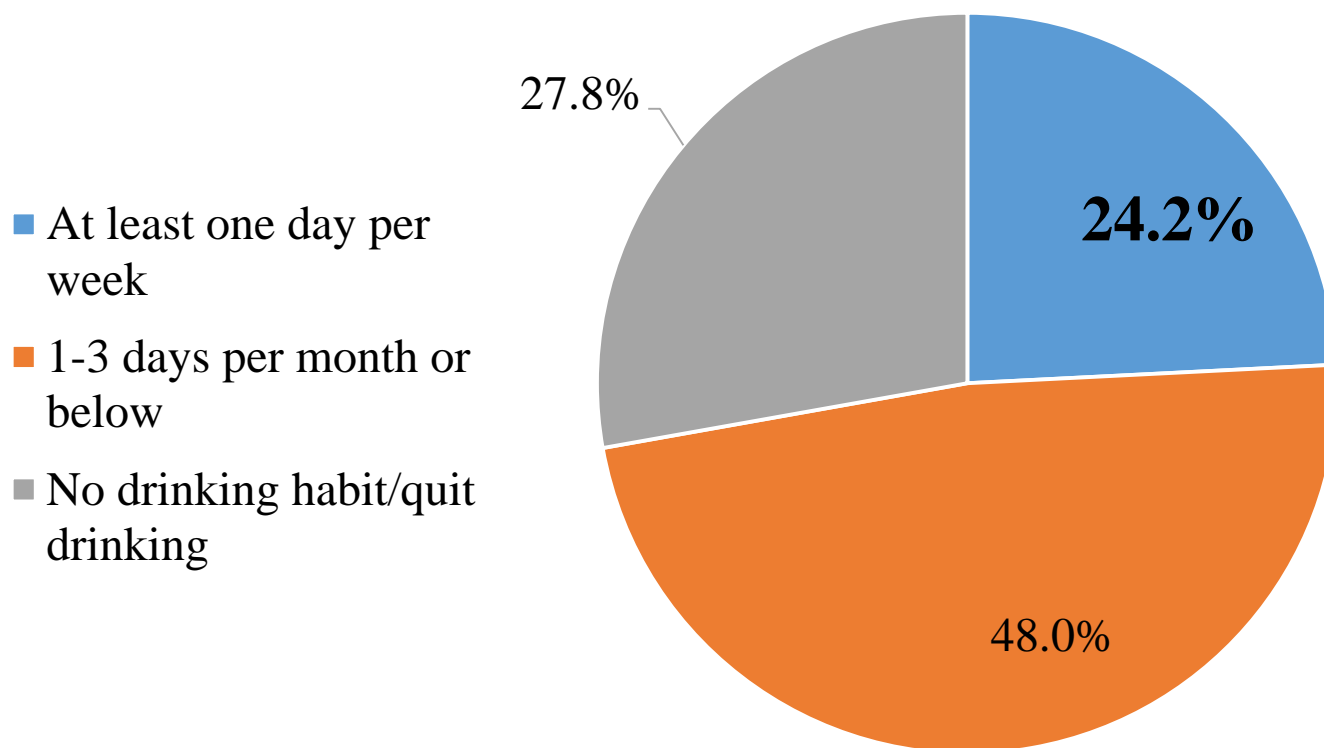
Data was collected from Nov 2011 to July 2016 (The period funded by Tobacco Control Office, Department of Health) Participants could choose more than one option, missing data was excluded from calculation.²³

HKU Youth Quitline

Daily Habits of Participants

Drinking Habit of Participants

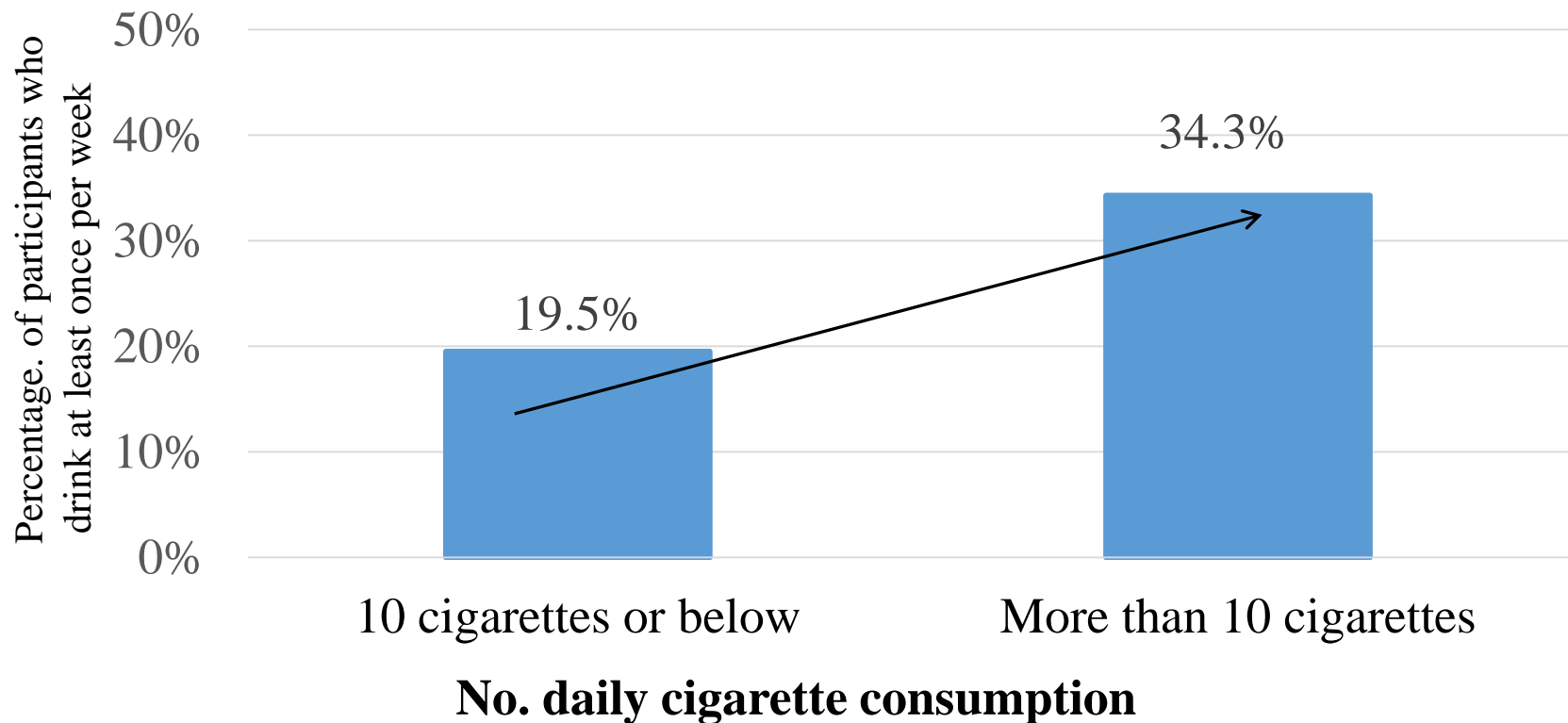
- 267 participants were drinkers (drink at least one day per week) (24.2%).



Data was collected from Nov 2011 to July 2016 (The period funded by Tobacco Control Office, Department of Health), missing data was excluded from percentage calculation.

Daily Cigarette Consumption and Drinking Habit

- More than **60% of the participants** reported they smoked more after drinking.
- About **30% of the participants** who smoked more than 10 cigarettes per day drank at least once per week.



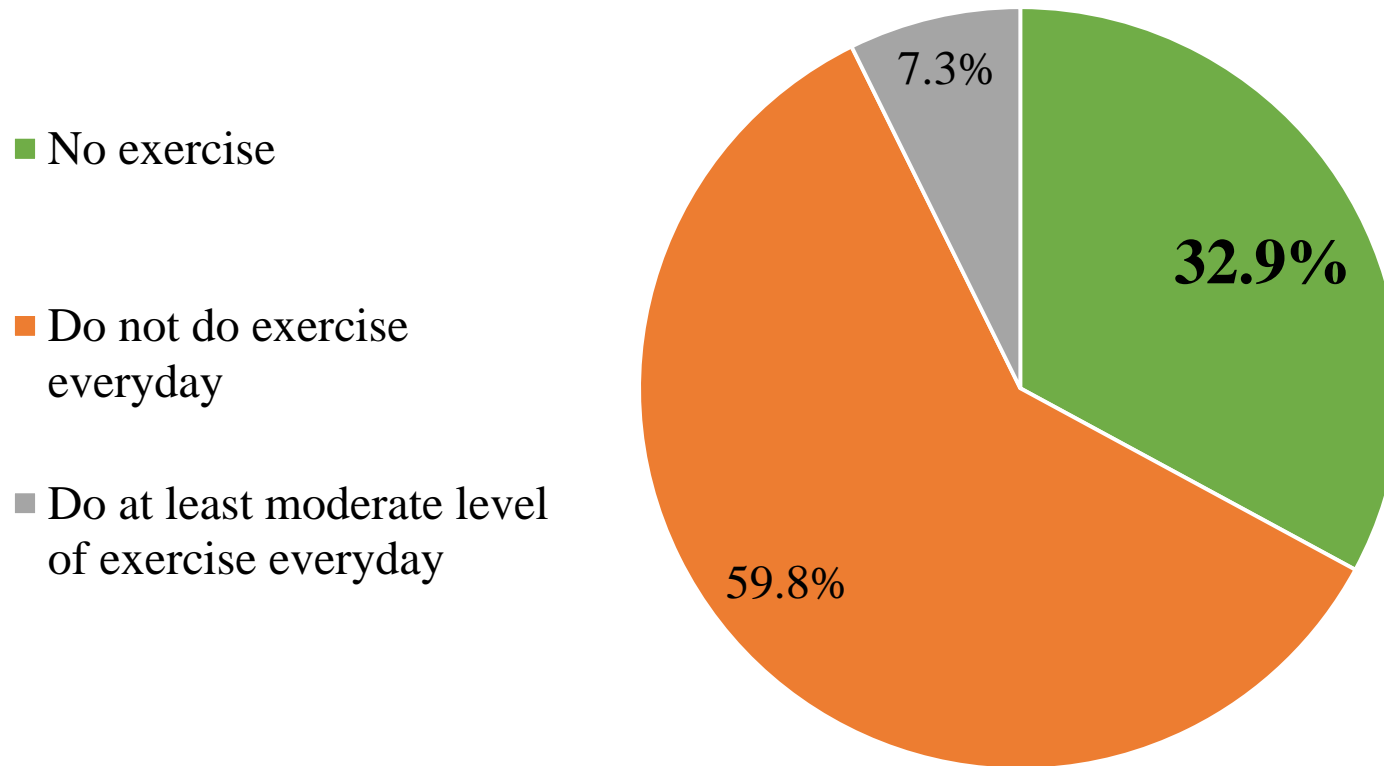
No. daily cigarette consumption

Statistical test : Fisher's exact test; $p < 0.001^{***}$

Data was collected from Nov 2011 to July 2016 (The period funded by Tobacco Control Office, Department of Health, missing data was excluded in the percentage).

Exercise Habit of Participants (In the past 7 days)

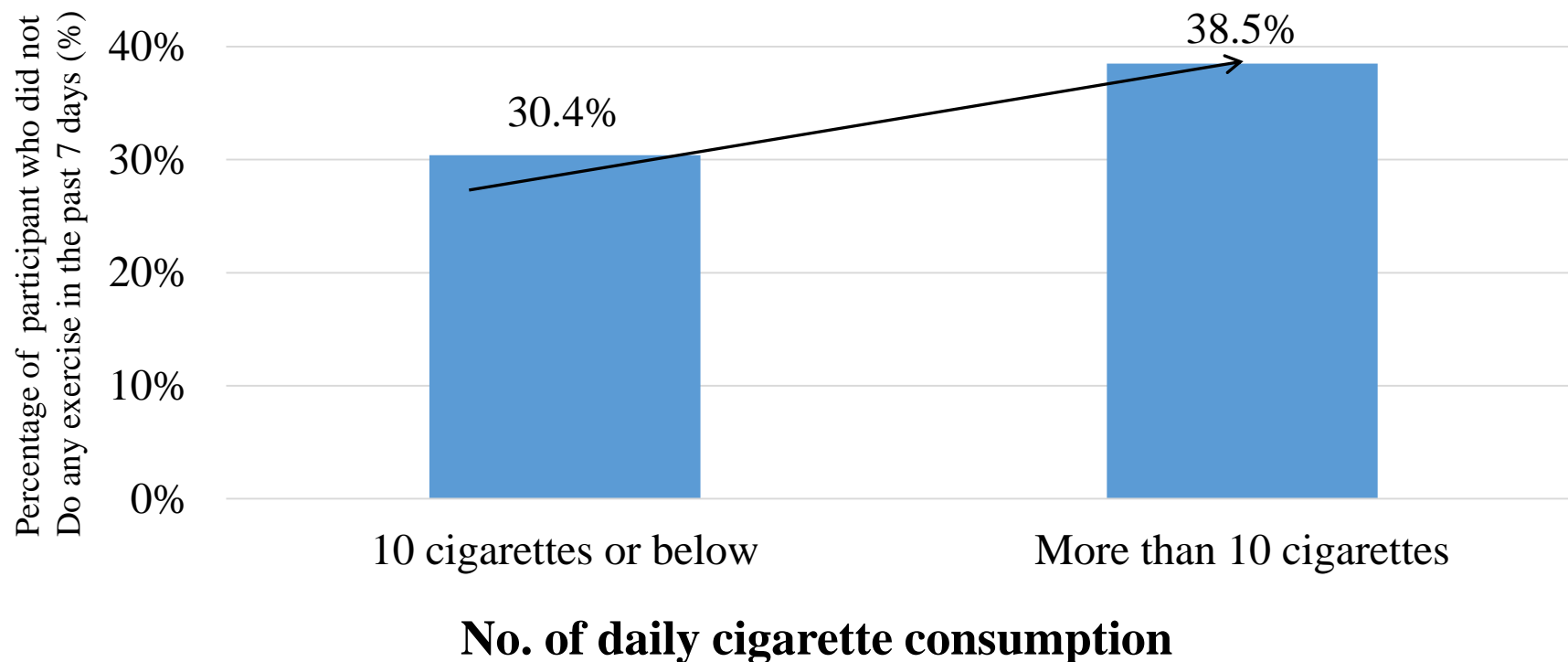
- About **30%** of the participants **did not do exercise at all** in the past 7 days of baseline.



Data was collected from Nov 2011 to July 2016 (The period funded by Tobacco Control Office, Department of Health, missing data was excluded from the percentage calculation.

No. of Daily Cigarette Consumption and Exercise

- Participants who **smoked more did less exercise.**
- Nearly **40% of the participants who smoked more than 10 cigarettes every day** did not do any exercise in the past 7 days of baseline.



Statistical test: independent sample t-test ; $p < 0.05^*$

Data was collected from Nov 2011 to July 2016 (The period funded by Tobacco Control Office, Department of Health, missing data was excluded from the percentage calculation.

Conclusion

- Apart from encouraging participants to quit smoking, we hope to deliver the message of healthy lifestyle, both physical and mental, to youth smokers through Youth Quitline.
 - **Relieve pressure and depressive mood**
 - **Quit drinking or try to drink less**
 - **Keep regular moderate-intensive exercise**



HKU Youth Quitline

Future Prospect

Gain in Popularity of the Youth Quitline among Smokers

Increase accessibility of Youth Quitline

- Increase coverage of promotion (e.g. pamphlet, stickers, posters, etc.)
- Provide more channels for contact, e.g. online forum, social media
- Strengthen connection with schools/institutions via outreach to actively approach more smokers and encourage them to join our programme

Youth Quitline Website (www.hku.hk/yquit)

- Layout and content are updated
- More smoking cessation information is added to attract youth smokers to browse



Optimise the Content of Peer Counsellor Training Programme

- In-depth training on topic like “stress management and establishing healthy lifestyle” to the existing smoking cessation counsellor training programme, e.g. methods to relieve pressure and reduce alcohol consumption, so that counsellors can be equipped to teach youth smokers the strategies to cope with stress and establish healthy lifestyle, and to help them quit smoking as well.



Thank you!

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Use of Electronic Cigarette among Youth Quitline Participants

November 10, 2016 (Thursday)

Professor Lam Tai-hing, BBS, JP

Sir Robert Kotewall Professor in Public Health

Chair Professor of Community Medicine

School of Public Health

Li Ka Shing Faculty of Medicine

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Dr. William Li Ho-cheung, Director of the Youth Quitline Programme; Associate Professor, School of Nursing

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HKU Youth Quitline counsellors

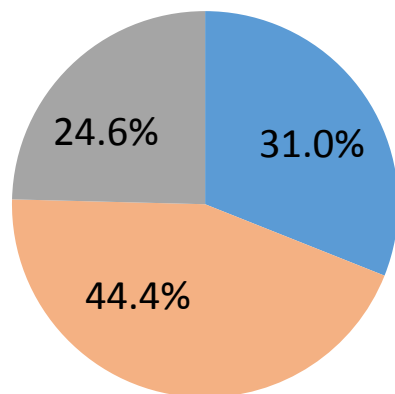
Electronic Cigarette Survey

(January 4, 2013 – April 30, 2016)

Electronic Cigarette (E-cigarette) Survey

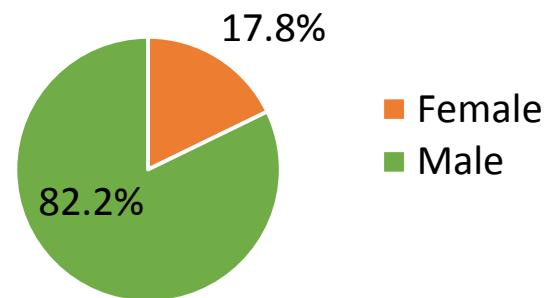
- From 2013 to 2016, we interviewed 622 youth smokers who participated in the Youth Quitline programme regarding the topic of e-cigarette.
- 469 participants answered E-cigarette (EC) questions ($469/622=75.0\%$).
- 276 reported they had used e-cigarette ($276/622=44.4\%$).

Distribution of sample



■ Had never used EC ■ Had used EC ■ Missing data

Gender distribution of EC users

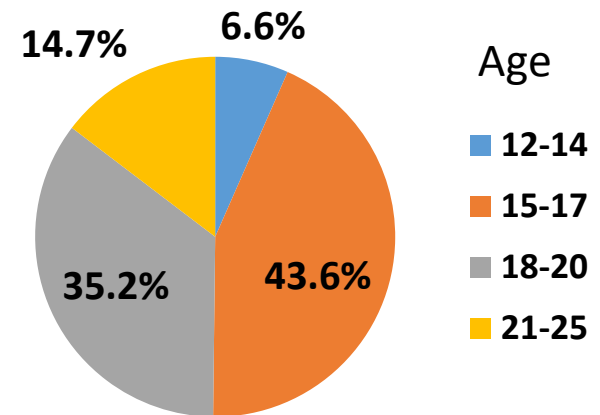


Male: 227 Female: 49

Demographic Characteristics of Users

- **Age distribution of EC users[#]**

- **15-17 years old** participants accounted for over 40% of all **those who had used e-cigarette (“users”)**, whose percentage was the highest among all age groups.
- **Female users** were **younger** than male users, aged **16.9** and 18.1 respectively.



- **Occupation**

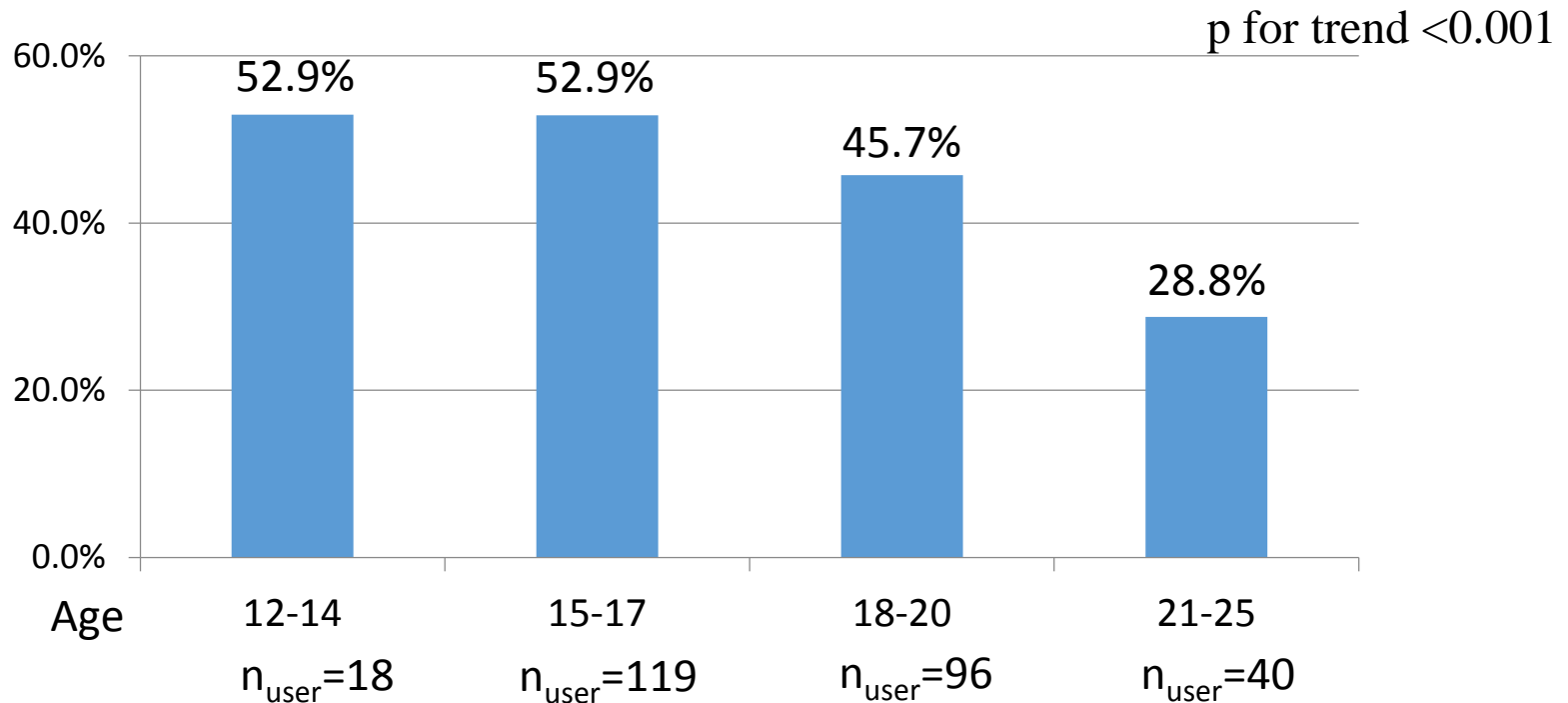
- Over 70% ($443/622=71.2\%$) of users* were full-time students of senior secondary school or above, followed by junior secondary school.

[#]: Missing data on age was excluded from the percentage calculation.

^{*}: Missing data on occupation was excluded from the percentage calculation.

Prevalence of EC Use by Age Group

- **Younger** participants had **higher EC use prevalence** (p-value<0.001).

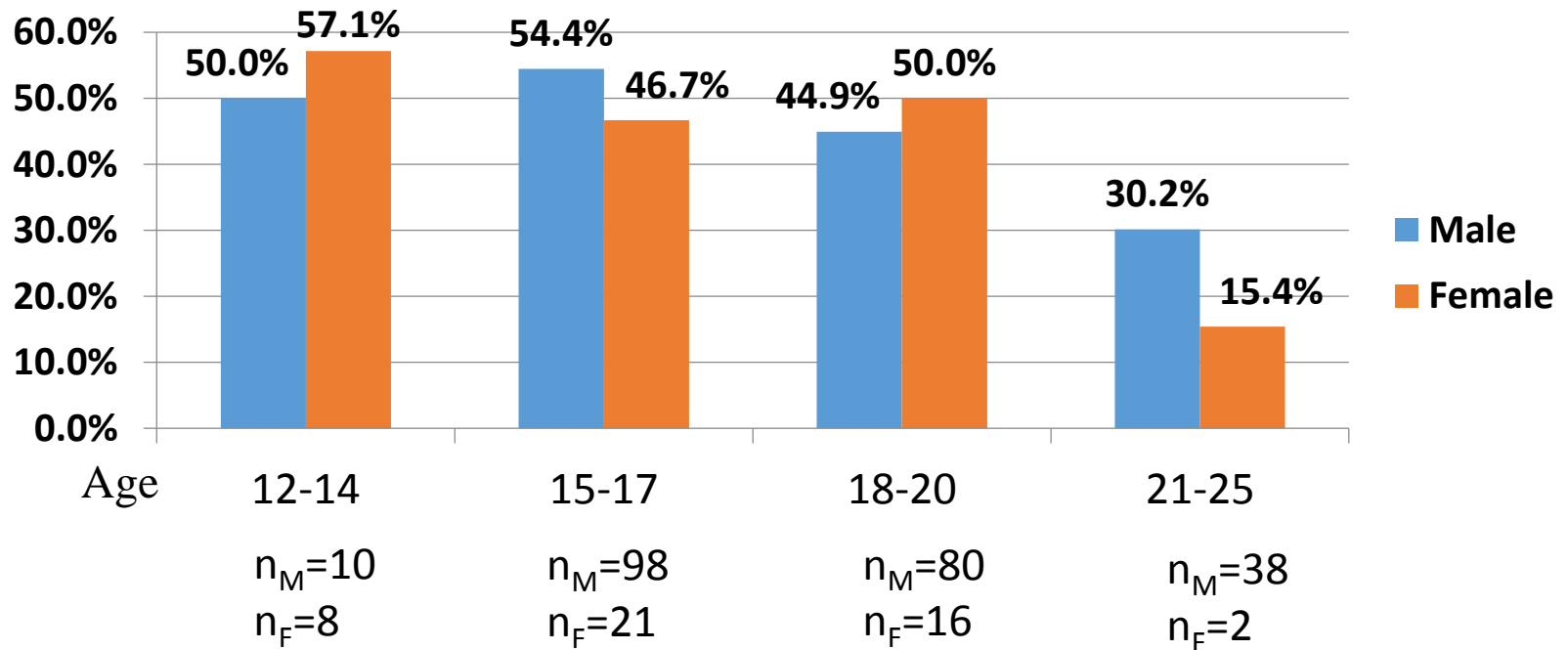


- The average age of users was 17.8[#], which was **significantly lower** than non-users 19.2 years (independent sample t-test, p-value<0.001).

[#]: Missing data on age was excluded from calculation.

Prevalence of EC Use by Sex and Age

- The EC prevalence of male and female participants were 44.8% (226/504) and 45.2% # (47/104) respectively ($p=0.95$), with no significant difference.



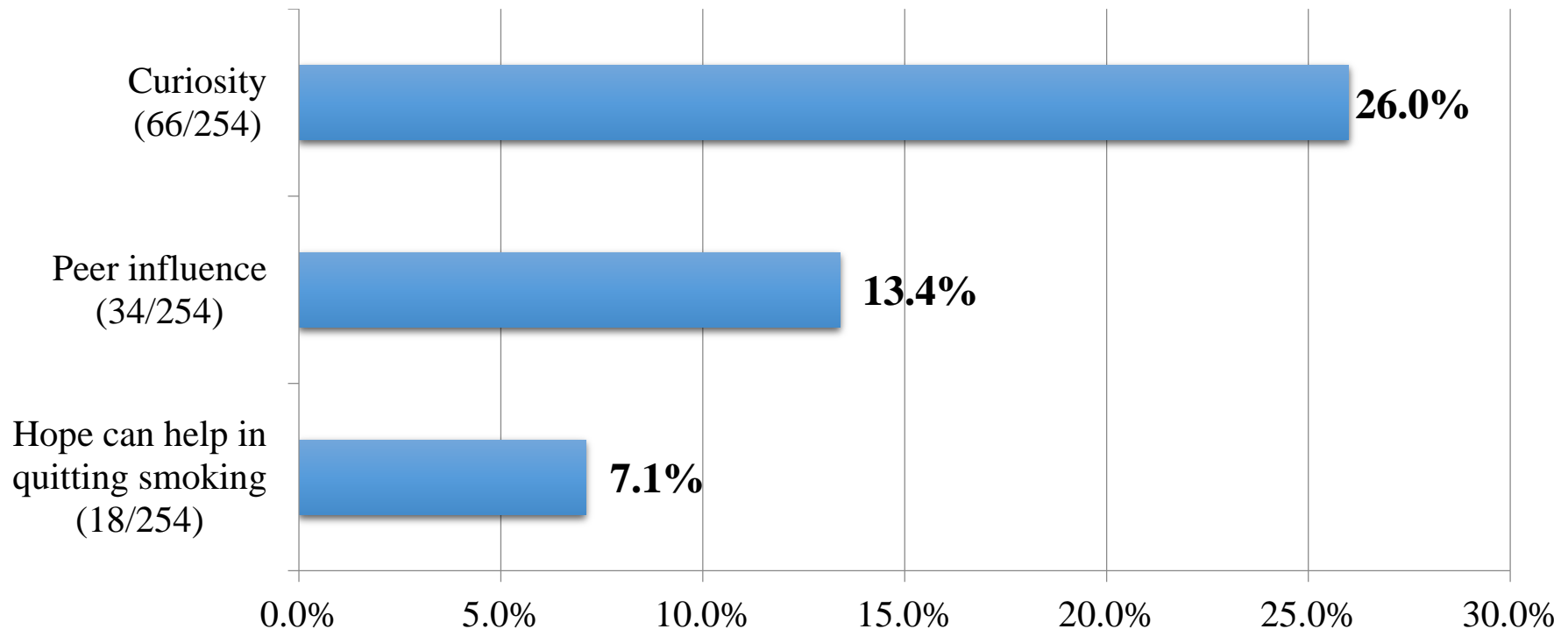
- There was significant difference of EC prevalence among different age groups of male participants ($p<0.001$, p for trend <0.001) while the difference among female participants was borderline significant, probably due to small numbers ($p=0.1$, p for trend 0.08).

Current Use of E-cigarette

- In 254 users interviewed from June 2015, 12 ($12/254=4.7\%$) indicated that they had used e-cigarette within 30 days before the day of interview.
- Advices on the risks of using e-cigarette and cessation were given to participants after the interview.

Reasons for Initiating E-cigarette*

- 66 of 254 users (26%)[#] used e-cigarette due to curiosity.



*These data were collected from Jun 2015 to Apr 2016.

[#]Participants could select more than one choice.

Users' Perception of E-cigarette

- **Where to buy e-cigarette**
 - 90 of 276 users* (32.6%) bought e-cigarette by themselves.
 - 42 of 90 ($42/90=46.7\%$) bought it from consignment store.
- **Whether their e-cigarettes contain nicotine**
 - 113 of 276 users (40.9%) **were not sure** whether their e-cigarettes contained nicotine.

Users' Attitude towards E-cigarette

- Could e-cigarette help reduce smoking traditional cigarette?
 - **47 of 276 users (17.0%)[#] said yes.**
- Could e-cigarette help quit smoking?
 - **75 of 276 users (27.2%)[#] said yes.**
- Was using e-cigarette healthier than smoking traditional cigarette?
 - **57 of 276 users (20.7%)[#] said yes.**
- Was using e-cigarette safer and cleaner than smoking traditional cigarette?
 - **75 of 276 users (27.2%)[#] and 94 of 276 users (34.1%)[#] said yes respectively.**

Smoking Status of Users (Baseline)

- **Cigarette consumption**

- Users' average daily cigarette consumption was relatively **higher** (10.2 cigarettes) than non-users (9.2 cigarettes).
- Same as above, users' daily cigarette consumption at weekend was relatively **higher** (11.8 cigarettes) than non-users (10.1 cigarettes).
- Similar significant differences were also found in both sexes.

- **Nicotine dependence scale**

- The **average score of nicotine dependence** of users was 2.8, which meant “mild dependence”(0 as the lowest, 10 as the highest), but was **slightly higher** than non-users (score: 2.5).
- Similar significant differences were also found in both sexes.

- **Self-efficacy of smoking cessation**

- Generally, users had lower confidence to quit smoking than non-users, scored 6.1 and 6.2 respectively (0 as the lowest, 10 as the highest). But in **female participants, users** had **significant lower confidence** than non-users, scored 5.9 and 7.0 respectively ($p = 0.01$).

Quit Rate at 6-Month by EC Use

	Quit rate at 6-month
EC user	14.0% (39/276=14.0%)
Non-user	13.9% (27/193=13.9%)
Other participants	14.4% (22/153=14.4%)
Overall	14.1% (88/622=14.1%)

- The 6-month **quit rate ratio** (prevalence rate ratio) of users and non-users was 0.99, $p = 0.99$.
- Users had **lower odds of quitting** than non-users (odds ratio 0.7, $p = 0.28$), with logistic regression model adjusted for quitting intention at baseline, nicotine dependence level, age and sex.

Nicotine Dependence and Confidence in Quitting by EC Use

In those 128 participants who were successfully interviewed but had not quit smoking at 6-month follow-up,

- ❖ The average nicotine **dependence level of users was significantly higher** than non-users, scored 3.1 and 2.2 respectively (0 as the lowest, 10 as the highest; independent sample t-test, $p\text{-value} < 0.05$).
- ❖ **Users had a significantly lower confidence in successful quitting** than non-users, scored 6.3 and 7.5 respectively (0 as the lowest, 10 as the highest; independent sample t-test, $p\text{-value}: 0.02$).

Legislation and Education

- **Enact legislation to totally ban** the **sale of** e-cigarette.
- Enact legislation to **enlarge** non-smoking area.
- **Educate** teenagers and parents about the health risks of e-cigarette.
- **Clarify** adolescents' **perception** of e-cigarette through health education.
- For those who wish to quit, dial 5111 4333 / 1833183 to get more effective and supportive help, which is free.



- End -
Thank you!