

# The effects of implementing the **electronic cigarette** in the **standard quit-smoking treatment** by tobacco counselors in Belgium

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# Declaration of interest

- I have received no funding, nor have competing financial interests
- I have no ties with the e-cigarette industry, nor with the tobacco industry, nor with pharma companies
- My **PhD research** focuses on:
  - Tobacco Harm Reduction (THR)
  - E-cigarette based THR

# Overview

1. What do we know & research question?
2. What study design did we use?
3. Results pilot study
4. Preliminary results current study
5. Take home message

# 1. What do we know?

- Over half of current smokers tried to quit smoking in the past  
⇒ **Belgium: 64%**

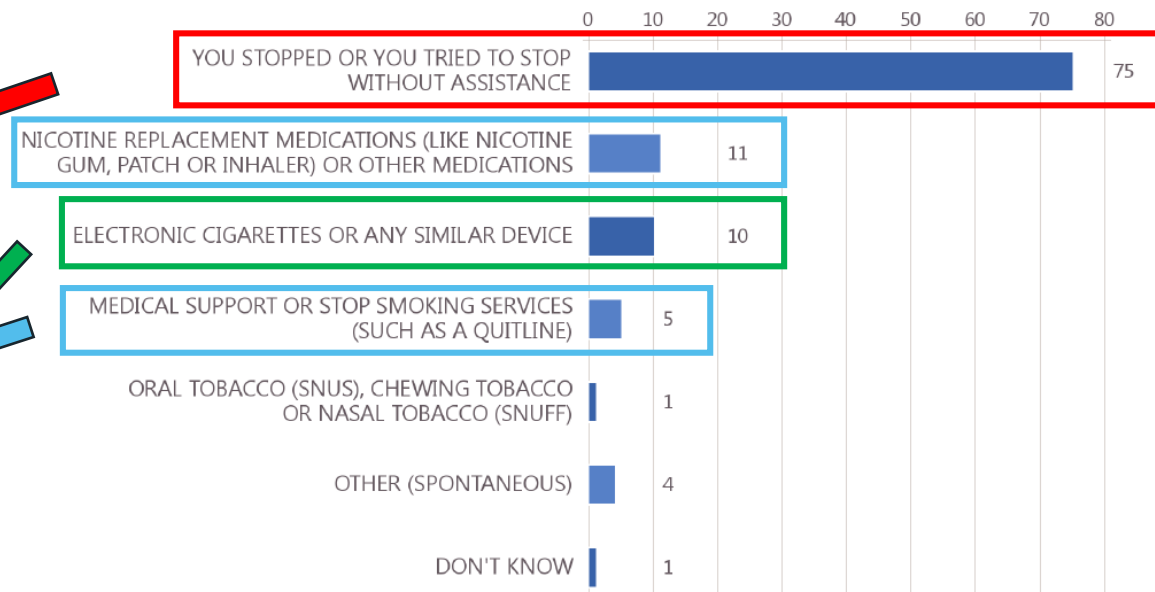
- Smoking cessation aid used:

Successful abstinence rates  
6-12 months later  
⇒ **3-5%**

Doubling of success rates with  
most effective treatments

What are the quit rates  
when using e-cigs?

QB19 Which of the following did you use in order to stop or to try to stop smoking? (MULTIPLE ANSWERS POSSIBLE)  
(% - EU)



Base: respondents who used to smoke or have tried to stop, N=9,430

European Commission (2017). Special Eurobarometer 458: Attitudes of Europeans towards tobacco and electronic cigarettes

# 1. What do we know?

- Self-reported quit rates in **convenience samples** of vapers:
  - BE/NL: 83% (Van Gucht et al., 2017)
  - EU/USA: 81% (Farsalinos et al., 2014)
  - ⇒ Selection bias + overestimation
  
- **RCTs:**
  - BE: 5 (8) month quit rate 37% (21%) (Adriaens et al., 2014)
  - Nicotine e-cig (9.3%) > patches (5.8%) > placebo e-cig (4.1%) (Bullen et al., 2013)
  - Overall quit rate with e-cig: 8.7% (Caponnetto et al., 2013)
  - ⇒ Specific context + 1<sup>st</sup> generation e-cigs
  - **Most recent RCT** ⇒ e-cig (18.0%) > NRT (9.9%) (Hajek et al., 2019)

# 1. What do we know?

- **Prospective observational cohort studies:**

- Overall quit rates: 20-52% (Biener et al., 2015; Giovenco et al., 2018; Hitchman et al., 2015; Zhuang et al., 2016)

⇒ In frequent, daily users trying to quit

⇒ Residual confounding?

- **Population data:**

- UK: 52% (ASH, 2018)
- France: 41% (Pasquereau et al., 2017)
- EU: 35% (Farsalinos et al., 2016, 2017)
- BE: 42% (Stichting tegen Kanker, 2018)

⇒ Complete smoking abstinence in current e-cig users

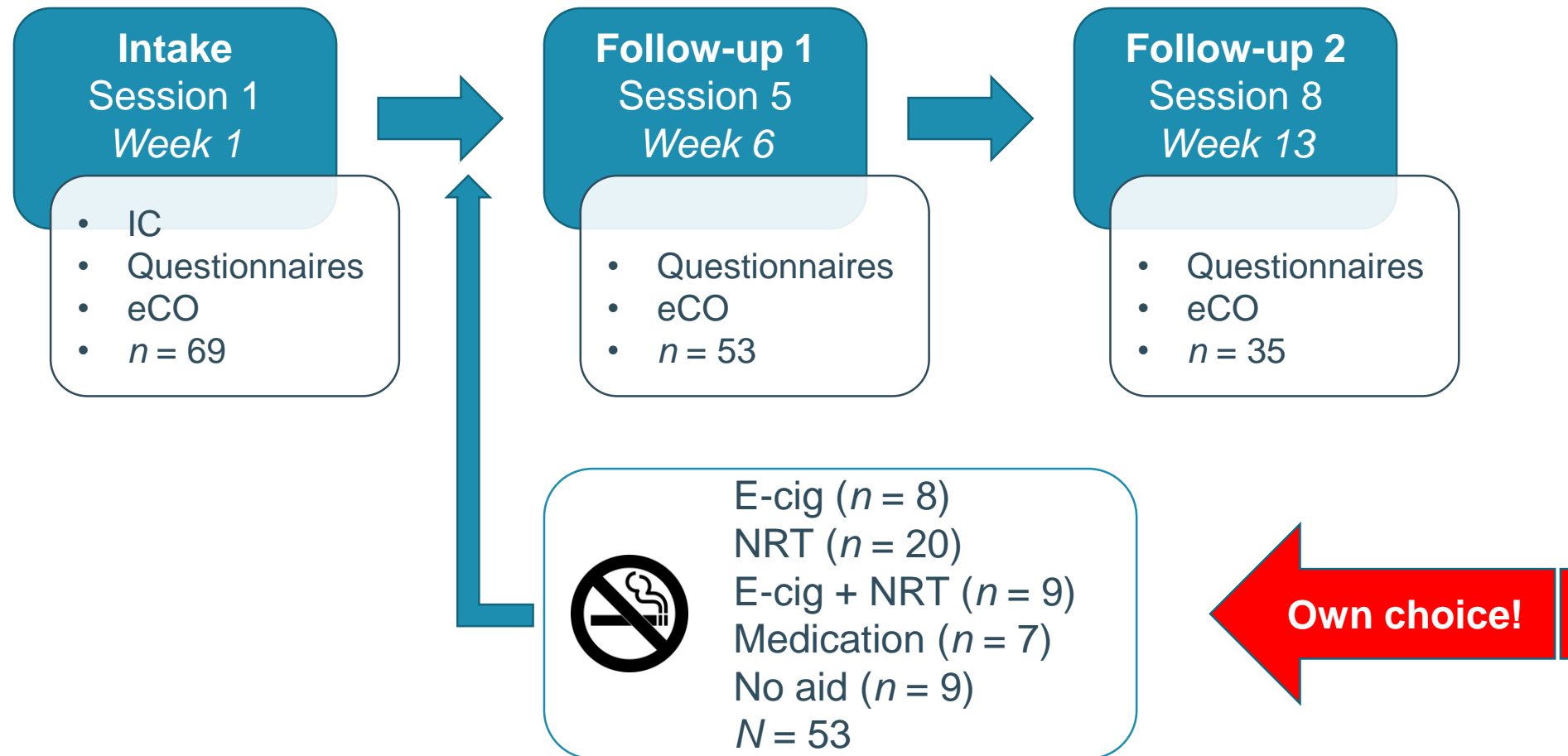


What is the effect of implementing the e-cig as a smoking cessation aid in the standard treatment of tobacco counselors?



**Are smokers who choose an e-cig  
more successful in smoking cessation?**

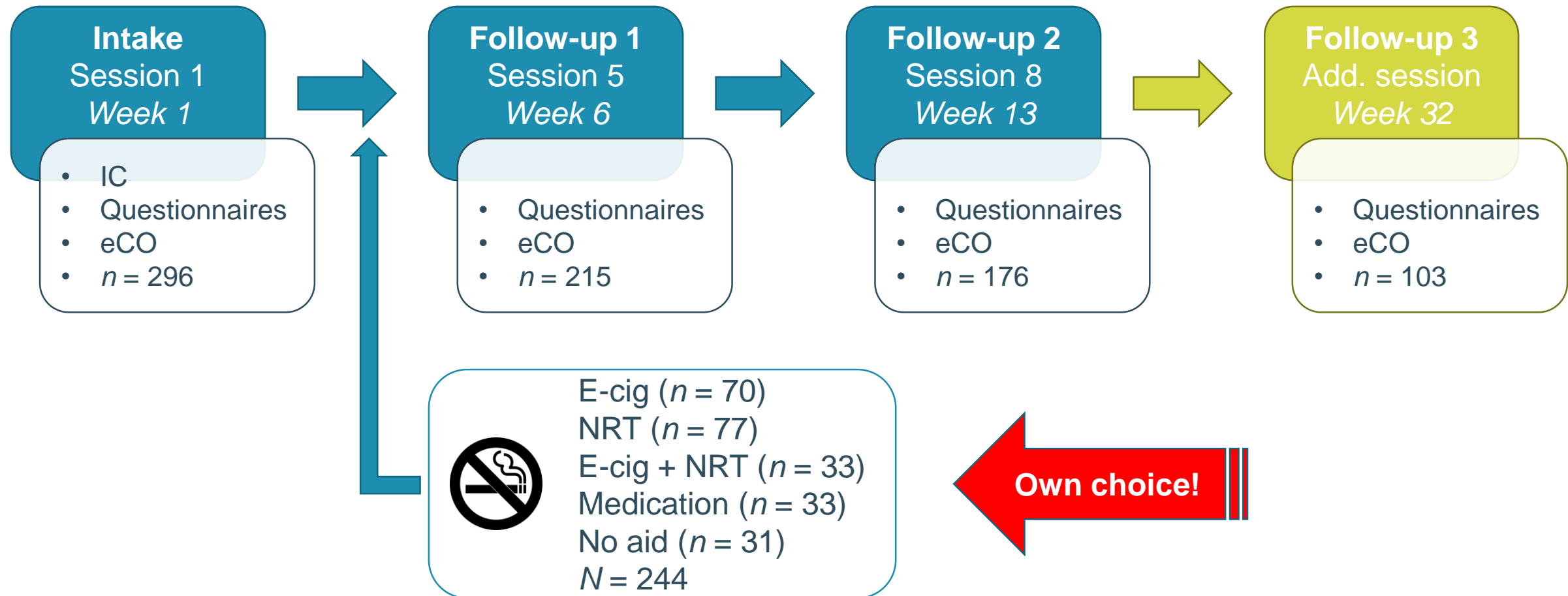
## 2. What study design did we use? Pilot study



Adriaens, Boermans, Van Gucht, & Baeyens (2018)



## 2. What study design did we use? Current study



## 2. What study design did we use?

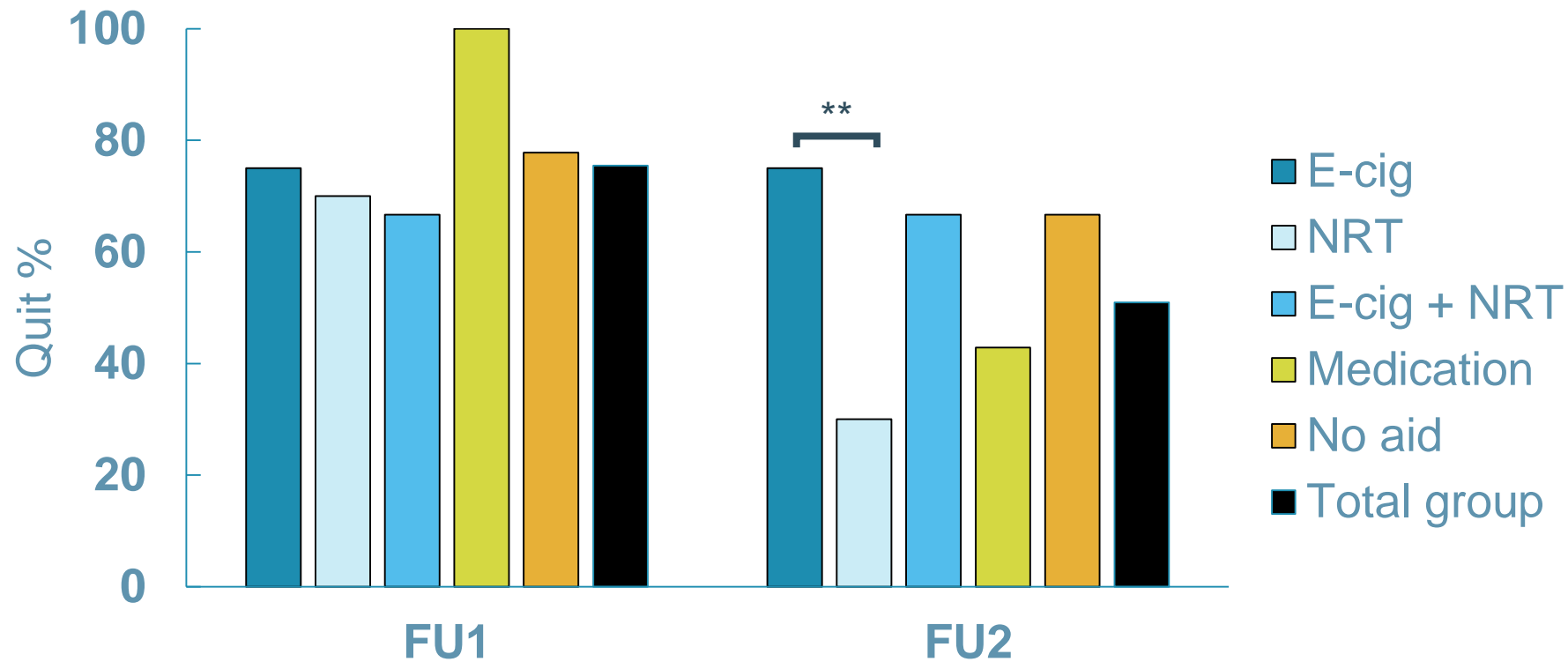


- Socio-demographics
- Smoking history & current smoking behavior
- Harm perceptions
- Quit smoking motivation
  
- Questions concerning smoking cessation aid  
e.g., nicotine concentration, experienced benefits

# 3. Results pilot study

Relative Risk ratio's for successful quit attempt

	FU2
E-cig vs. NRT	2.35* [1.13 – 4.91]
E-cig vs. other conditions	1.69* [1.03 – 2.78]



\*  $p < 0.05$   
 \*\*  $p < 0.01$

# 4. Preliminary results current study



- 52 years
- 60% female
- High school degree (52%)
- Working full-time (45%) or retired (25%)
- Smoking for 31 years
- CPD = 16
- FTCD = 5  $\Rightarrow$  Moderate dependent
- 83% tried to quit smoking, on average 4 times

# 4. Preliminary results current study

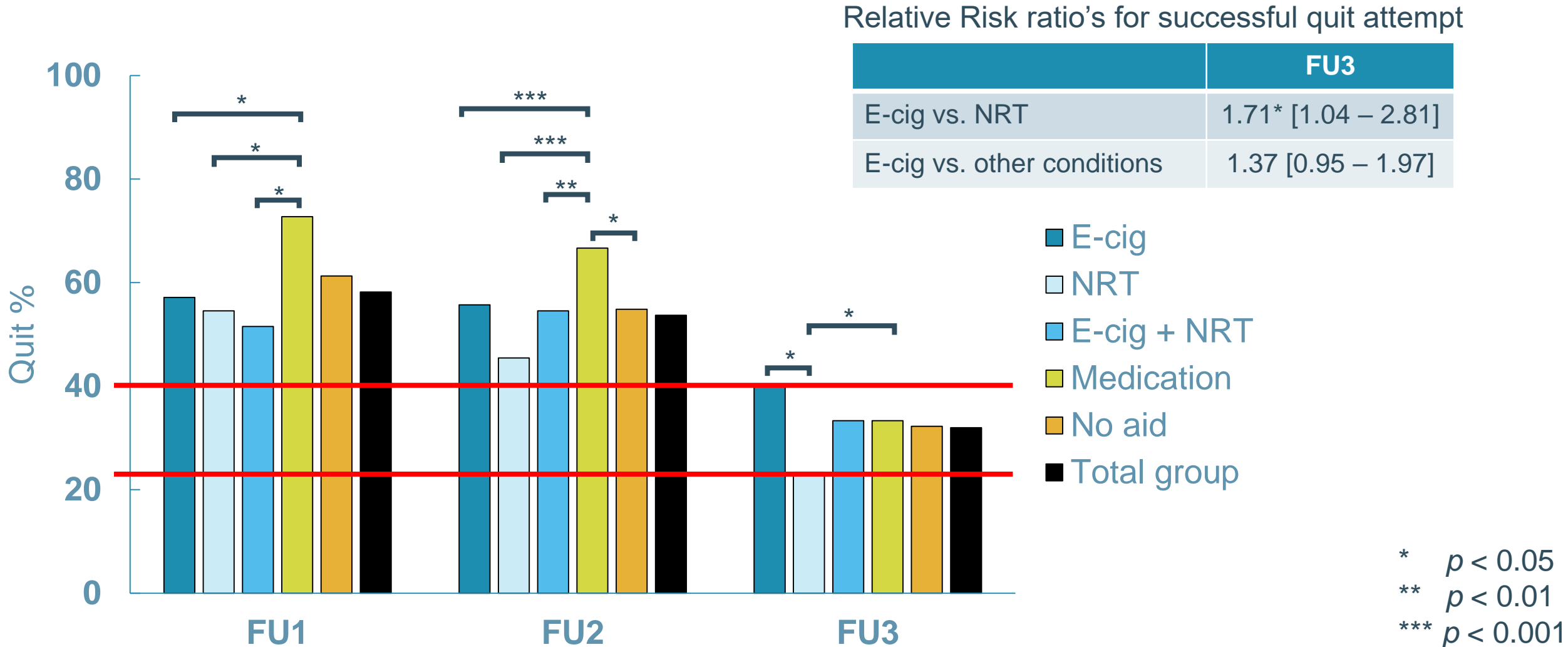


## Differences between conditions at Intake?

- CPD  $\Rightarrow$  no aid users significantly  $\downarrow$  (11 vs. 17 CPD)
- FTCD  $\Rightarrow$  combination users significantly  $\uparrow$
- Harm perception e-cig  $\Rightarrow$  e-cig users significantly  $\downarrow$

$\Rightarrow$  No differences in other baseline characteristics

# 4. Preliminary results current study



# 5. Take home messages

1. **Pilot study:** e-cig users superior to those using other cessation aids
2. **Current study:**
  1. Very  $\uparrow$  success rates in e-cig users
  2. E-cig users superior to NRT users (in line with Hajek et al., 2019)
  3. Relapse rates in e-cig users is  $\downarrow$  compared to other conditions
3. Results **confirm recent data** (Jackson et al., 2019)

⇒ **E-cig users** definitely better than NRT users

⇒ **E-cig users** equally good, (if not better), as medication users

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