

Determinants of tobacco use transitions among smokers and dual users of cigarettes and e-cigarettes

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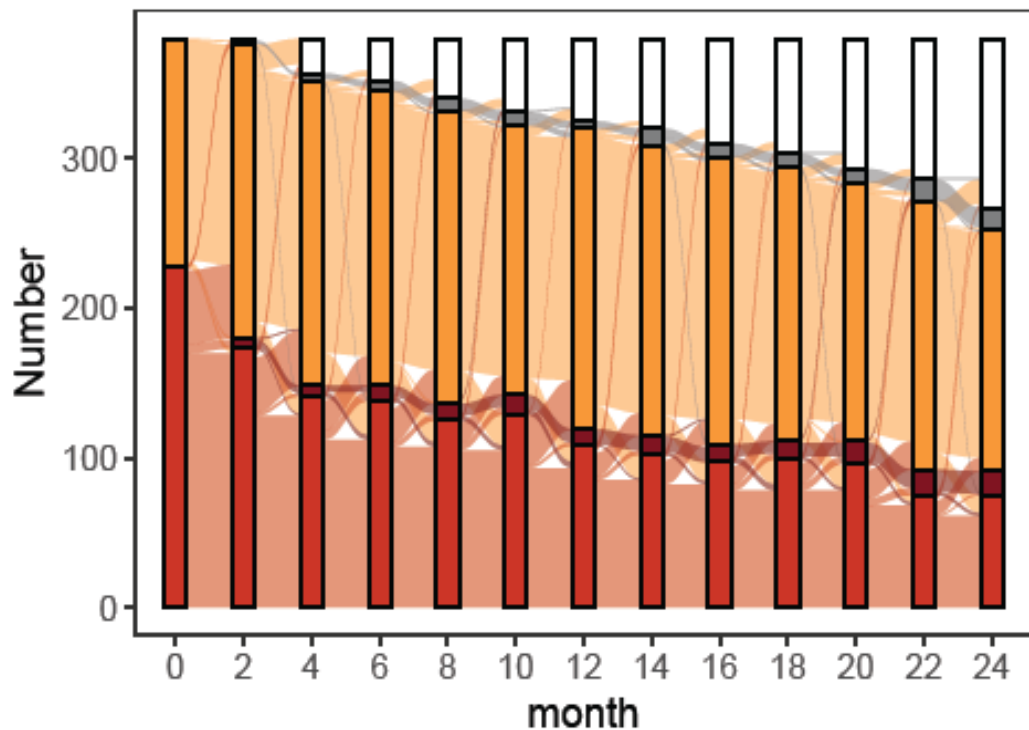
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Center for the
**Assessment of Tobacco
Regulations**
[**CAStoR**]

A close-up, black and white photograph of a person's hand holding a lit cigarette. The cigarette is held between the fingers, and a thick plume of white smoke rises from the tip, swirling upwards. The background is dark and out of focus, emphasizing the smoke and the hand. The overall mood is somber and contemplative.

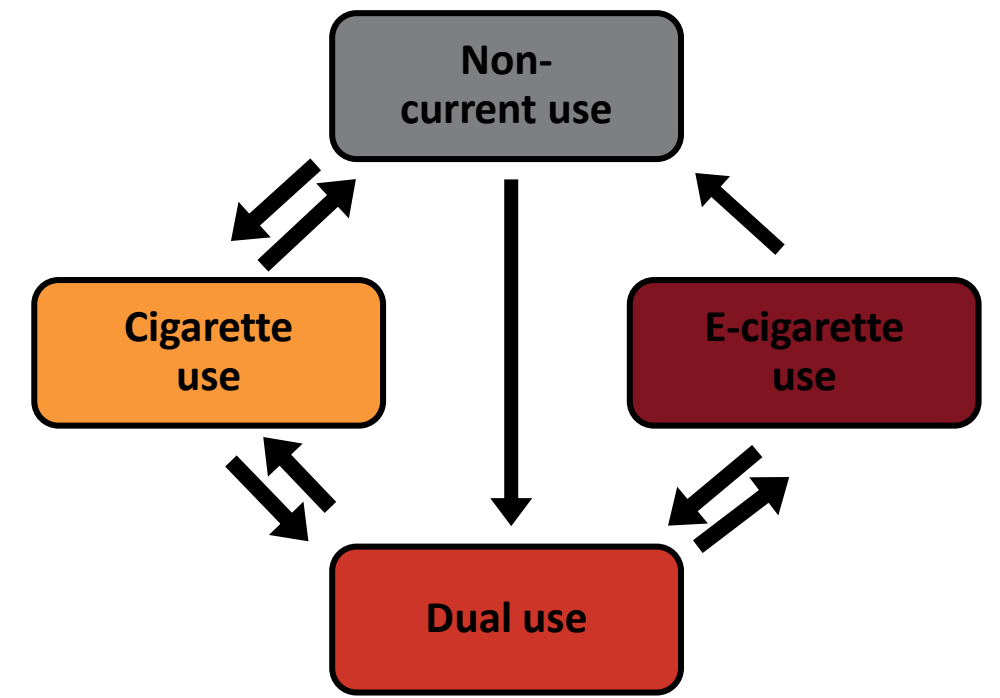
**What are the
BARRIERS
and
FACILITATORS
for quitting smoking for dual users
of cigarettes and e-cigarettes?**

The Exhale Study followed 422 adult cigarette or dual users every 2 months for 2 years, tracking their product transitions.



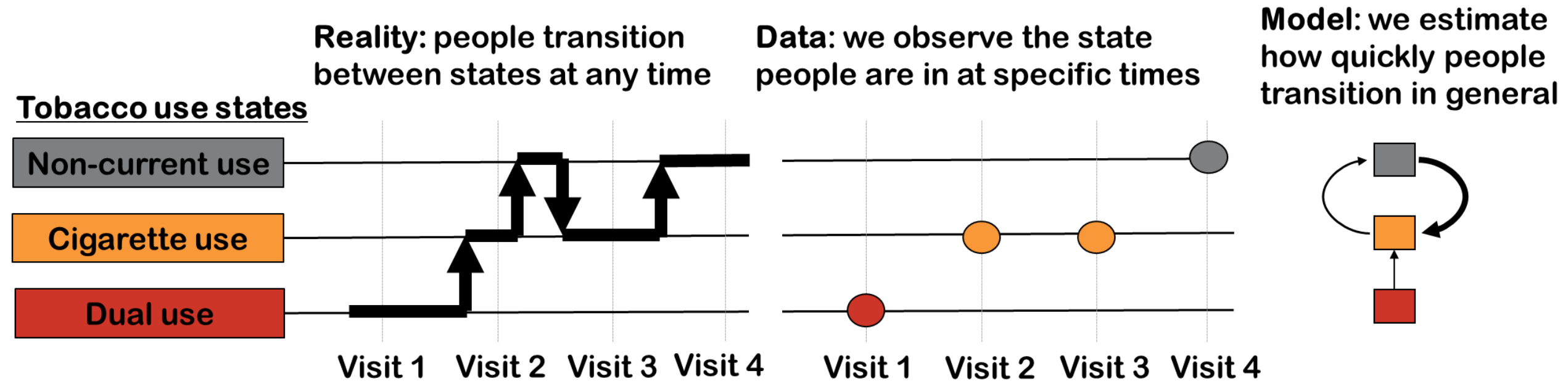
Status

- Lost to follow up
- Non-current use
- Cigarette use
- E-cigarette use
- Dual use



We used multistate transition models to estimate what factors make each transition more or less likely.

Multistate transition models are continuous time stochastic processes models.



Regardless of e-cigarette use, it's harder to quit cigarettes when you're highly dependent.



Or if your partner smokes.

A close-up photograph of a hand holding a lit e-cigarette. The hand is wearing a blue sleeve. The e-cigarette is lit, and a large, billowing plume of white and pink vapor is rising from the tip. The background is dark, making the vapor stand out. The text is overlaid on the top left of the image.

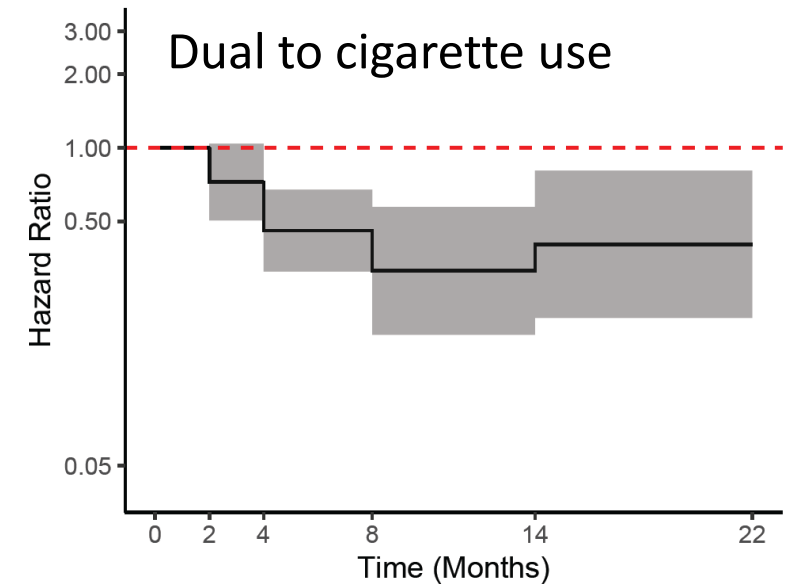
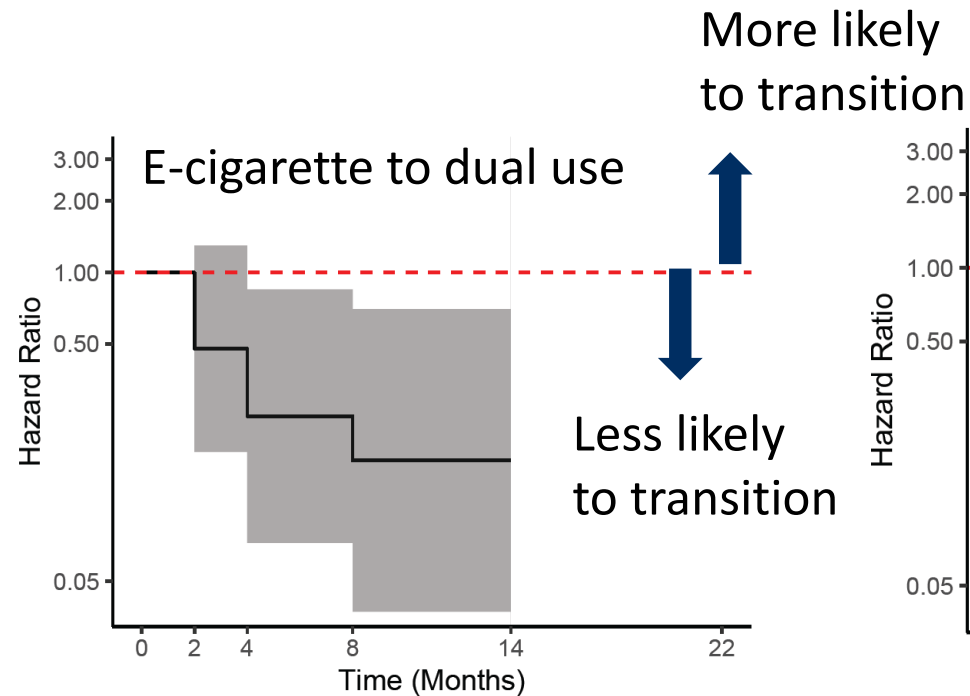
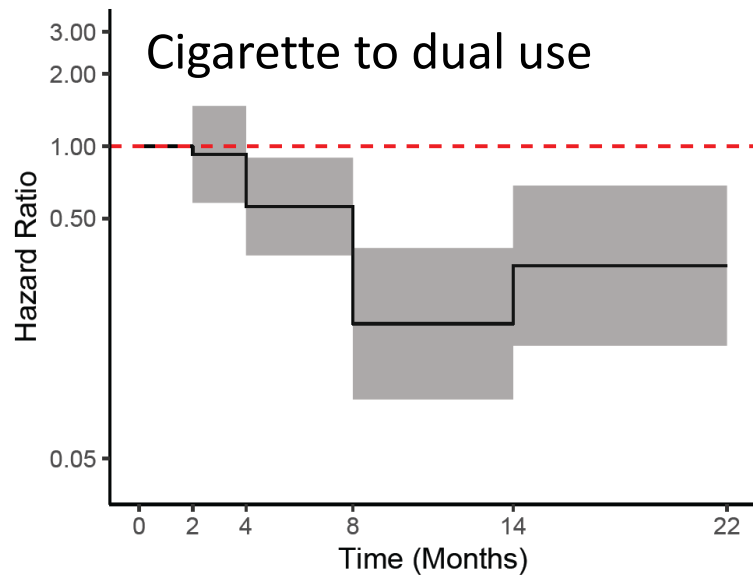
**Being dependent on your e-cig doesn't
make it easier to quit cigarettes.**

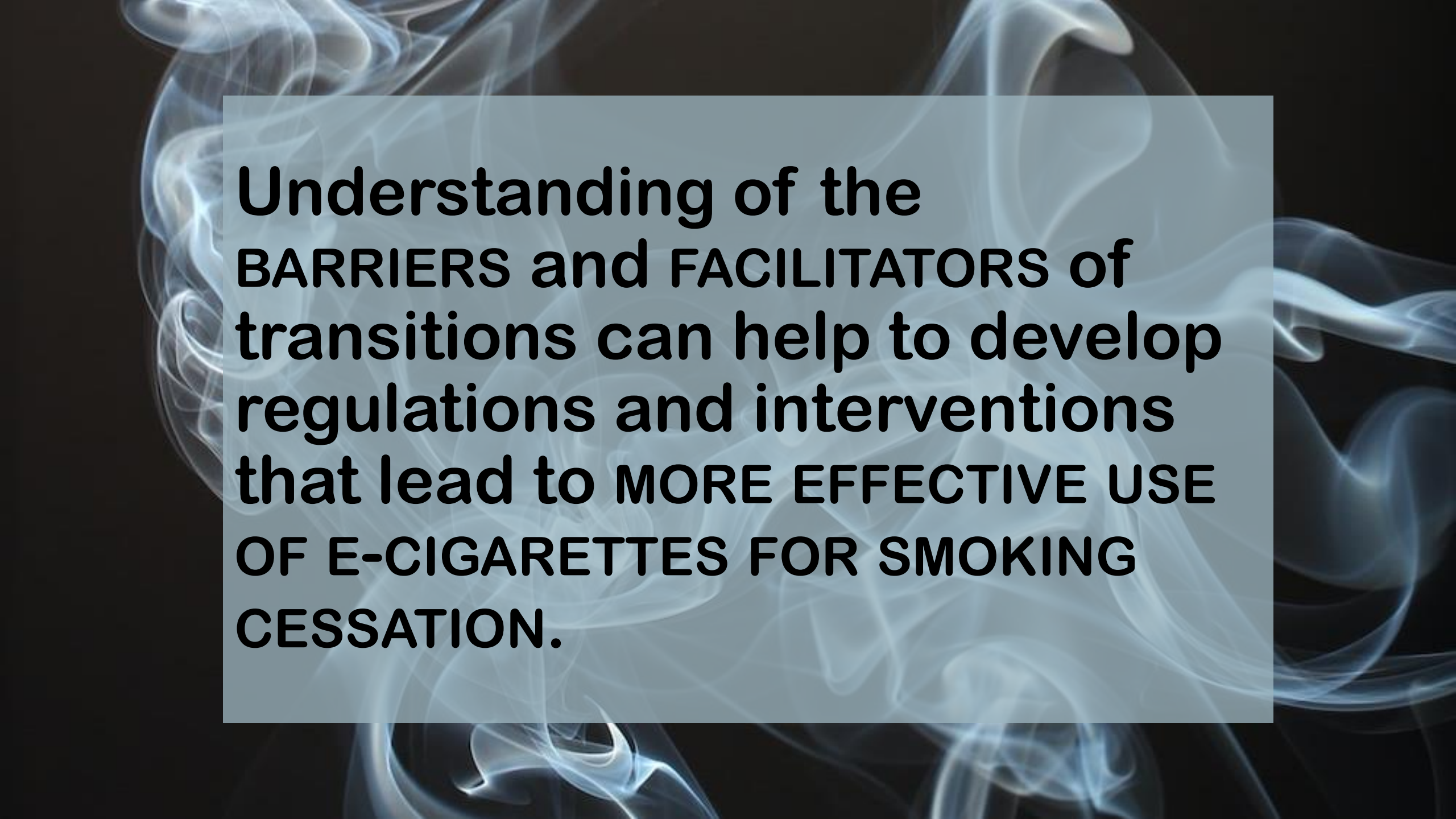
**It just makes it
harder to quit
your e-cig.**

Dual users were more likely to quit cigarettes if

- ✓ They were highly motivated to quit their cigarette.
- ✓ They used their e-cigarette before their cigarette on most days.
- ✓ They enjoyed the sensory, social, and emotional aspects of the e-cigarette.

There is typically a period after starting or stopping a cigarette or e-cigarette during which relapse or further transition is more likely.








**Understanding of the
BARRIERS and FACILITATORS of
transitions can help to develop
regulations and interventions
that lead to MORE EFFECTIVE USE
OF E-CIGARETTES FOR SMOKING
CESSATION.**

Pilot project career impact

- One published paper, one submitted paper, one paper in preparation
- Four conference posters
- Several webinars and an instructional workshop
- Renewal submission of the U54 Center for the Assessment of Tobacco Regulations (CASToR) as co-lead of the Data, Analytics, and Modeling core (under review)
- Planned R21 submission (Winter 2023)

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Associations of Demographics, Dependence, and Biomarkers With Transitions in Tobacco Product Use in a Cohort of Cigarette Users and Dual Users of Cigarettes and E-cigarettes

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