

ADAPT-NIC

THE FIRST ADAPTIVE NICOTINE WEARABLE

E 7

Roy Sung · Arihant Goswami · Brian Pan
Alysia Chen · Lior Politi

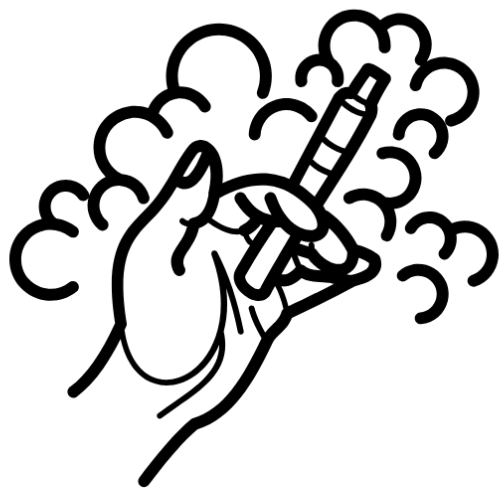
How might we help nicotine users quit with minimal obstacles?

PROBLEM

#1

Tobacco & nicotine use is the leading preventable cause of death in the US (CDC)

Over 50% of vaping-related lung injuries require ICU care



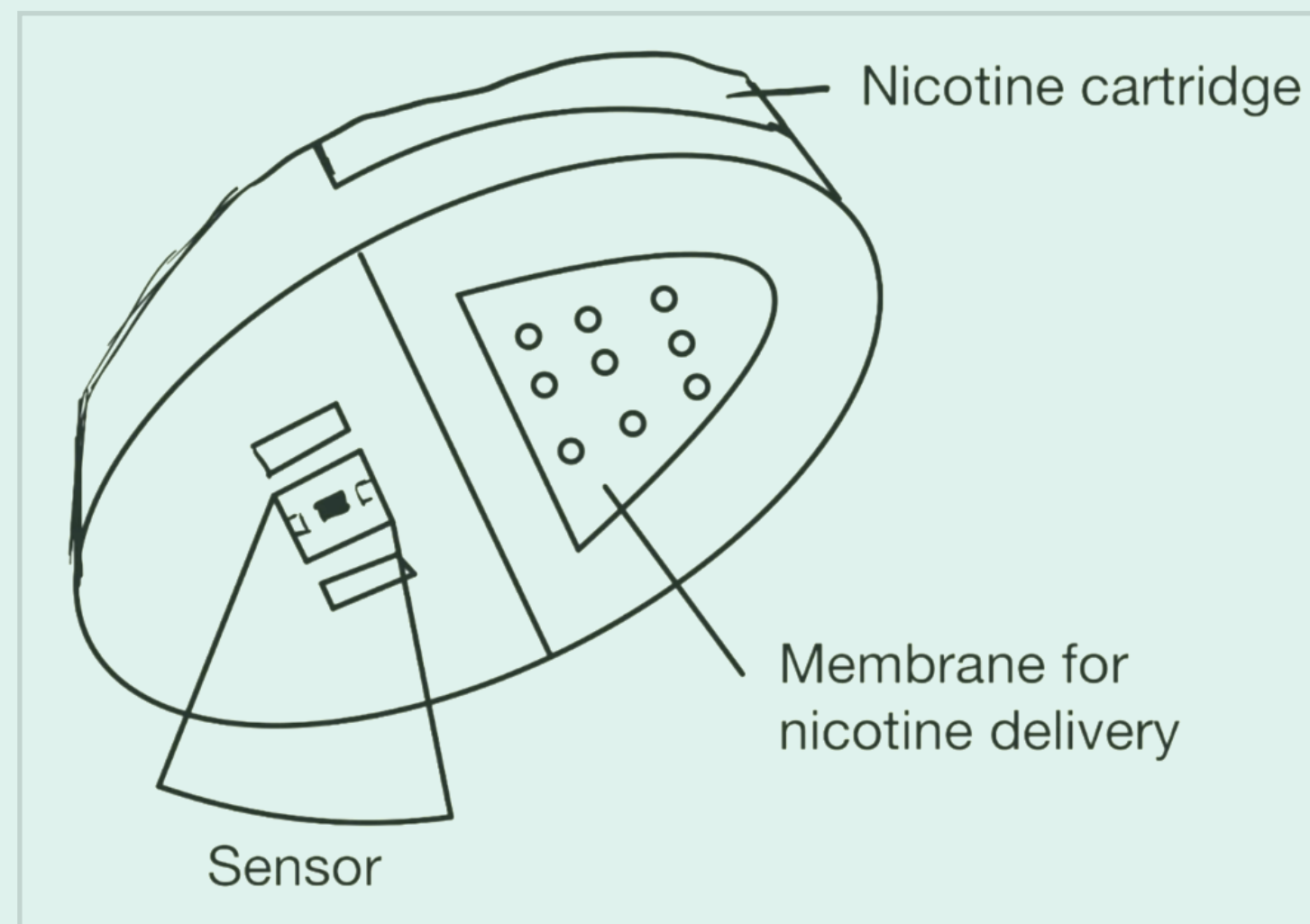
WHY CURRENT SOLUTIONS FAIL

- Fixed doses ignore real-time craving fluctuations
- Patches and gums require manual dose tracking over weeks
- Users overdose on bad days and still relapse

UNIQUE VALUE PROPOSITION

Adapting to users' needs, and reduces friction (withdrawal symptoms, accounting) – not addressed by current NRT options.

OUR SOLUTION



- Wristband hardware**
HR sensor + carbon nanotube nicotine delivery membrane delivers precise transdermal doses
- Machine learning model**
Predicts craving patterns from stress states and allocates doses automatically.
- Tapering dose protocol**
Total daily dose decreases over time. The goal is to eventually eliminate nicotine dependency.
- Companion app**
Tracks cravings, doses dispensed, stress patterns, and quitting progress over time

Insights

- Peak stress times are between 12pm-2pm. Consider planning relaxation activities.
- Your cravings have decreased by 24% compared to last week.
- Weekends show lower stress levels - great progress!



EXPERIMENT

We tracked smartwatch sensor data in nicotine users and compared stress spikes to self-reported craving periods.

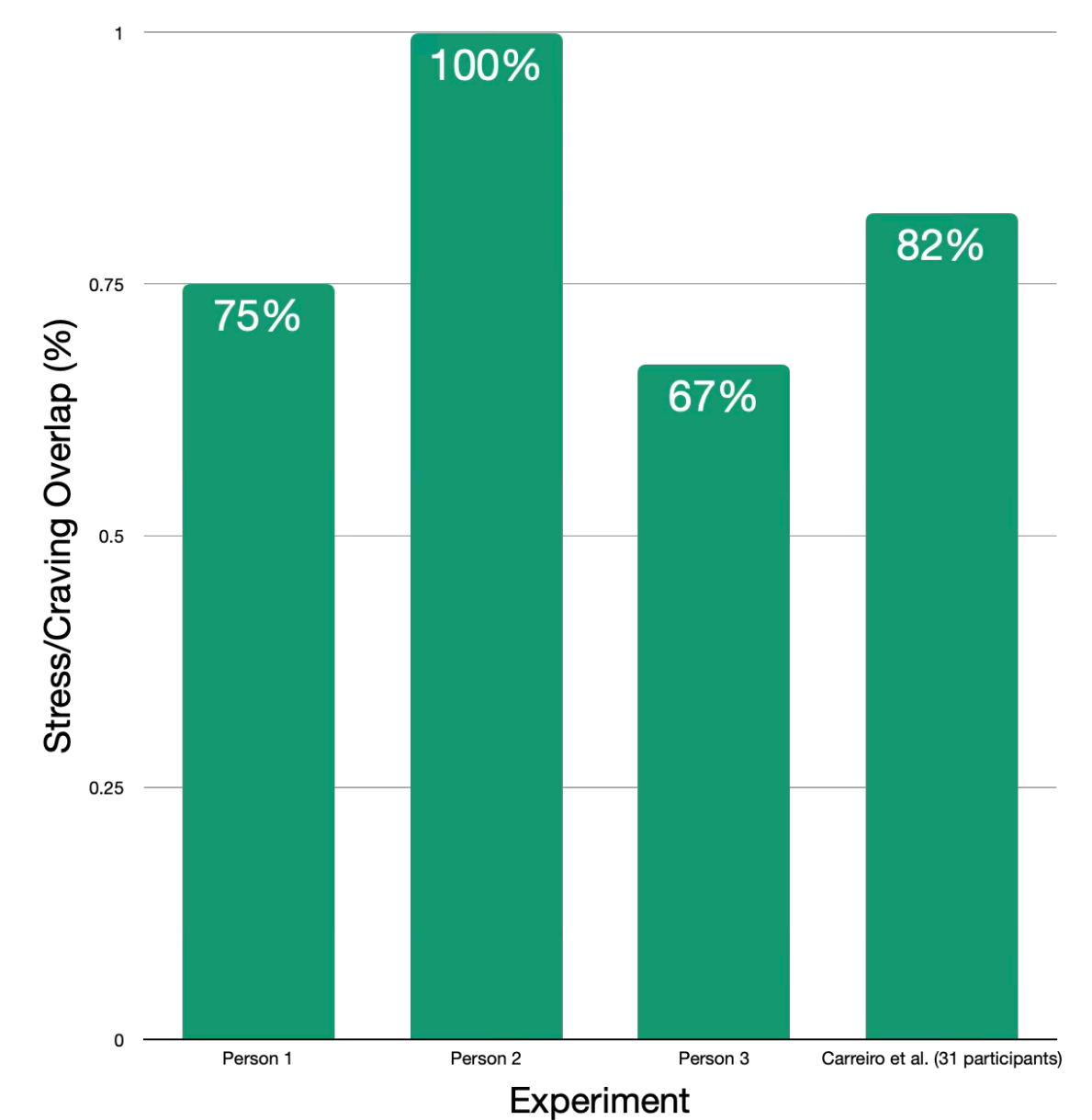
84%

Overlap in our smartwatch study

82%

Validated with 31 participants

CRAVING OVERLAP WITH STRESS STATES (%)



Stress & Cravings

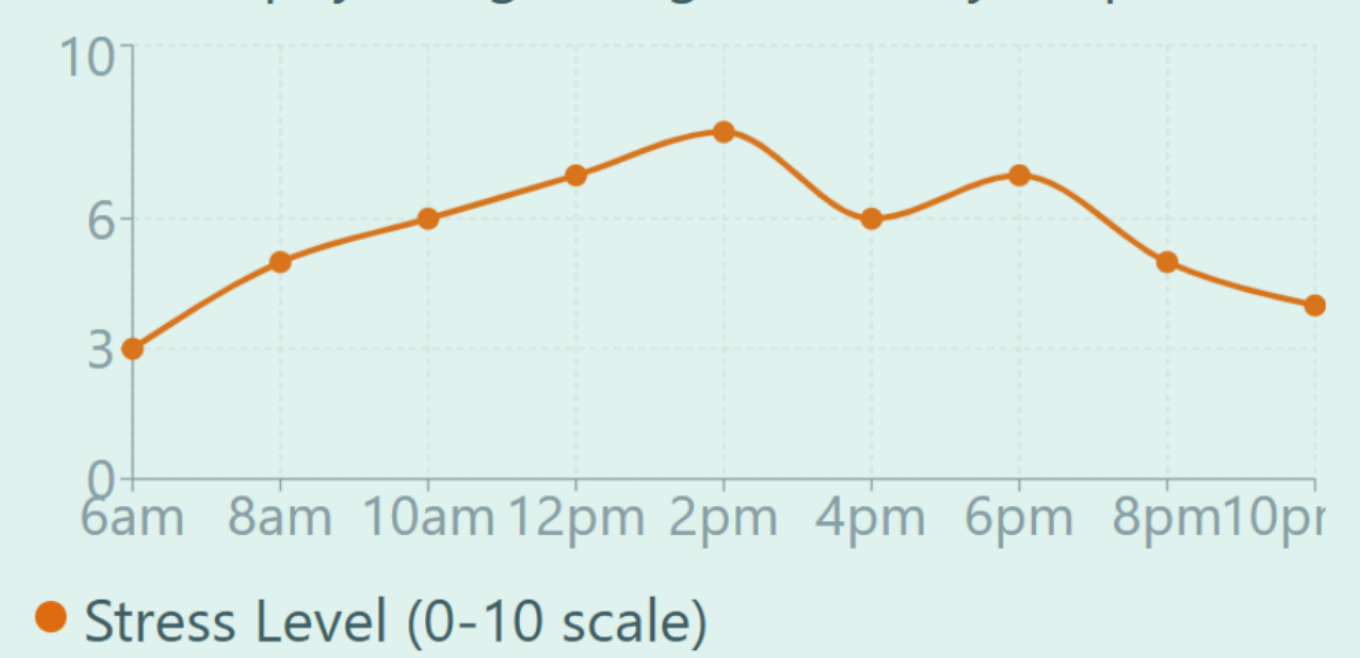
Track your patterns over time

Today

This Week

Stress Level Estimate

Based on physiological signals from your patch



● Stress Level (0-10 scale)

MARKET

1 Target vapers online

Youth and young adults via social media ads. Direct-to-consumer through an online storefront.

2 Expand to retail

Move into pharmacies and big box stores to reach older users and cigarette smokers as the customer base broadens.

BUSINESS MODEL

\$20/mo

Lease model: lower barrier to entry, device recovered and redeployed

\$75

Unit cost, hardware is reusable across customers

Recurring Revenue

Replaceable nicotine cartridges sold separately, creating an ongoing revenue stream beyond the device lease