

PIVOT breathe

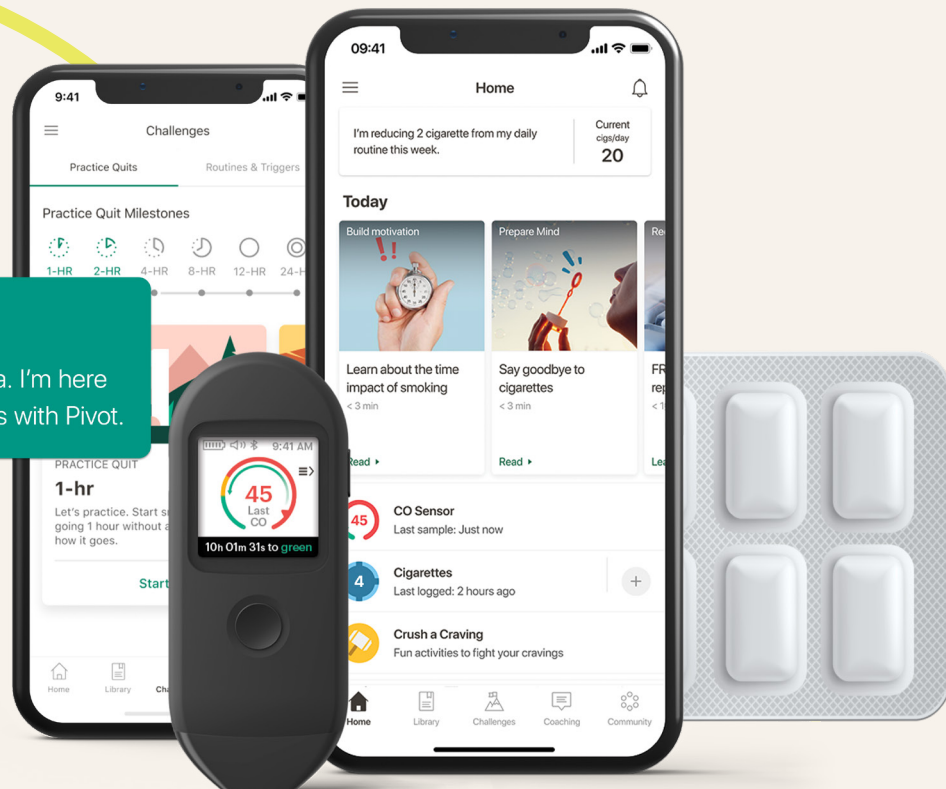
Cohort Study

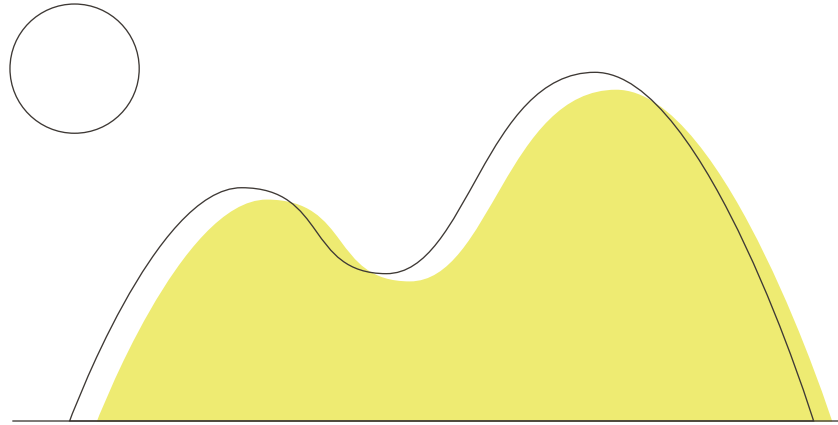
Three-Year Outcomes from a Comprehensive Digital Smoking Cessation Program

Incorporating a Mobile App, Breath Sensor, and Coaching



Hi I'm your coach, Laura. I'm here to help you find success with Pivot.





Background

Despite decades of focused efforts on treatment, accessibility, policy, and legislation, cigarette smoking remains a serious public health problem as the leading cause of preventable death and illness in the U.S., responsible for approximately 480,000 deaths per year.¹ While evidence-based treatments such as counseling and pharmacotherapy are well-established, their effectiveness is limited due to under-utilization. **Pivot Breathe is a novel smoking cessation program that leverages proven techniques, Breath Sensor technology, and the ubiquitous availability of smartphones to improve smoking cessation outcomes.**

In late 2017 and early 2018, **319 adult smokers enrolled in a prospective cohort study to assess Pivot Breathe**, a mobile smoking cessation program that included a smartphone-based app, text-based coaching, and a personal mobile carbon monoxide (CO) Breath Sensor. At entry, the study sample was 57.7% (184/319) women, had a mean (SD) age of 42.8 (10.2) years, and smoked a mean (SD) of 17.7 (7.6) cigarettes per day (CPD). **Most participants were not ready to quit smoking** (33.5% were seriously thinking of quitting in the next 30 days, 63.0% were seriously thinking of quitting in the next six months, and 3.5% were not thinking of quitting smoking).² **At the seven-month follow-up, 90.3%** (288/319) of participants completed the associated study survey; 39.2% (113/288) **reported seven-day point prevalence abstinence (PPA) and 34.7%** (100/288) **reported 30-day PPA. Most participants** (80.6%, 232/288) **made at least one quit attempt during the first seven months of the study.**³

Objective

Obtain long-term outcomes focused on changes in smoking behavior and feedback on the program's impact.

Methods

This prospective remote cohort study included U.S. based cigarette smokers aged 18 to 65 years who smoked ≥ 5 CPD. Participants underwent Pivot Breathe with periodic follow-up. Participant data was obtained via online surveys at three main timepoints: at four months after enrollment which, for most participants, enabled a full course of active participation in Pivot Breathe; at seven months after enrollment, which included a passive follow-up period of three months after completion of Pivot Breathe; and at three years after enrollment, which represents long-term follow-up.

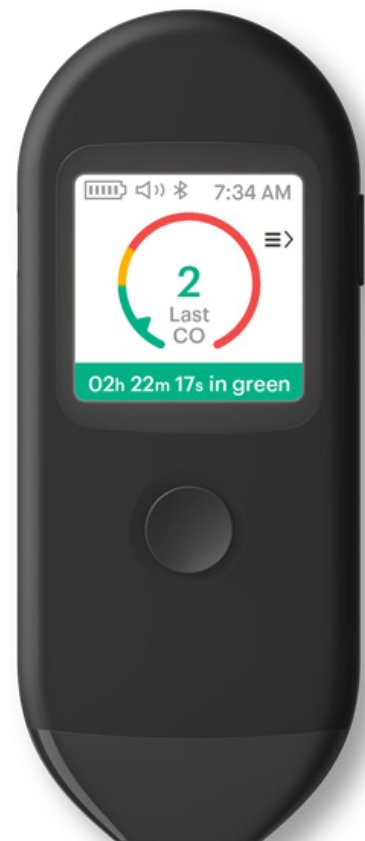
At the present three-year timepoint, outcomes include quit rates (seven- and 30-day PPA), continuous abstinence rates (proportion who achieved uninterrupted abstinence) and duration, and smoking behavior in those who did not quit smoking (proportion who reduced CPD by $\geq 50\%$). Continuous abstinence was defined as 30-day (or greater) PPA on the seven-month survey, 30-day PPA on the three-year survey, and a report of not smoking more than five cigarettes since one's quit date. In addition, feedback was sought on Pivot Breathe's impact on participant smoking behavior and goals.

Results

At a mean (SD) of 36.3 (1.3) months after enrollment, 75.9% (242/319) participants completed the three-year survey. At this time, **seven-day PPA was reported in 36.0%** (87/242) **and 30-day PPA was reported in 33.1%** (80/242). Continuous abstinence was achieved in 17.8% (43/242) of participants. **Of the participants who made at least one quit attempt during the first seven months of the study, 22.4% (43/192) achieved continuous abstinence.** The mean (SD) duration of continuous abstinence was 34.3 (2.0) months. **Of the 155 participants who were still smoking at three years, 25.8% (40/155) had reduced their CPD by \geq 50% compared to baseline.**

33.1% Three-Year Quit Rate

When asked what was the most helpful part of Pivot Breathe, the Breath Sensor was the most common answer (115/242, 47.5%). **Of the 87 participants who reported seven-day (or greater) PPA on the three-year survey, 79.3% (69/87) indicated that Pivot Breathe helped them quit smoking, and 83.9% (73/87) reported that skills learned in Pivot Breathe helped them stay quit.** Of the 155 participants who had not quit smoking at the time of the three-year survey, **76.1% (118/155) indicated that Pivot Breathe helped them with their goals related to smoking.**



The Pivot Breath Sensor

When asked what was the most helpful part of Pivot Breathe, there was one common answer

Conclusions

In this first-of-its-kind long-term data from adult smokers in the U.S. who underwent the Pivot Breathe, approximately 22% who made a quit attempt achieved continuous abstinence at three years. This achievement is particularly noteworthy in this population of which the majority (66%) were not ready to quit smoking at study entry.

For additional context, shorter term six- to 12-month continuous abstinence rates for comparable mobile smoking cessation programs range from 3.2-19.9%⁴⁻⁸; Pivot Breathe's three-year outcomes compare favorably. Moreover, **Pivot Breathe had a lasting impact, with the majority (≥76%) reporting the program helped them quit smoking, stay quit, or with their goals related to smoking.** Considering that even with help, around 85% who quit successfully will relapse back to smoking within a year, and that the long-term prolonged abstinence rate for a given quit attempt among untreated smokers is 3-5%,⁹ the **present data supports the durability and effectiveness of Pivot in helping people quit smoking.**

Learn more about Pivot Breathe today!
www.pivot.co | info@pivot.co | 650.249.3959

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Pivot Health Technologies Inc. is a digital health company based in San Carlos, California, and backed by Khosla Ventures, Johnson & Johnson Innovation—JJDC, Marc Benioff, New York Life, and R7 Partners. The company was founded by David S. Utley, M.D., a former Stanford head and neck surgeon and medical device entrepreneur, with the goal of using technology and behavioral science to help millions of people quit smoking.

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