

POLICY ISSUE BRIEF

Kentucky's Tobacco Quitline: Return on Investment, 2015-2020

SUMMARY

Quit Now Kentucky is the state's tobacco quitline, providing no-cost services to help people quit smoking and using other tobacco products. Services include motivational coaching calls from trained professionals as well as quit-smoking medications. Quitline services are known to be effective interventions for treating tobacco dependence.¹ Tobacco cessation is associated with significant health-related cost avoidance to private employers.² A prior analysis of Quit Now Kentucky services conducted from 2012 to 2014 found that quitline services were cost-effective and had a high return on investment (ROI) based upon avoided health-related costs.³ The aim for this study was to evaluate the return on investment in a similar manner to the previous analysis, utilizing a larger and more current dataset (2015-2020) in order to inform future funding priorities and investments into the Quit Now Kentucky services.

WHAT DID RESEARCHERS DO?

Researchers from the University of Kentucky collected data on all services provided to participants enrolled in Quit Now Kentucky between 2015 and 2020. Where available, data were also collected from follow-up surveys to assess smoking abstinence at 3, 6, and 12 months after enrollment. The estimated return on investment was evaluated by comparing the total Quit Now Kentucky budgeted expenditures from 2015 to 2020 against expected cost savings. Cost savings were calculated using the estimated smoking abstinence rate at one year from available surveys and an inflation-adjusted estimate of annual costs of smoking to employers (\$6,987).²

Because the data from follow-up surveys in years 2017-2020 was incomplete, the survey response rates at 3, 6 and 12 months and corresponding abstinence rates from years 2015-2016 were applied to new enrollees in 2017-2020. Participants not completing follow-up abstinence evaluations were considered relapsed at 12 months as no abstinence rate could be determined for this group. Because not all participants completed 12-month surveys to determine smoking abstinence, participants completing only 3- or 6-month follow-up surveys were also used to project 12-month abstinence rates. Based upon previous analyses examining tobacco use relapse rates,⁴ it was projected that 60% of quitline enrollees reporting abstinence at 3 months would remain abstinent at 6 months. Further, we expected that 80% of those abstinent at 6 months would be abstinent at 12 months. These estimates were used in the return on investment calculations. Actual enrollment and the quitline expenses from years 2015-2020 were used in the final analysis.

WHAT DID RESEARCHERS LEARN?

Results are summarized in Table 1.

- There were 15,779 new Quit Now Kentucky enrollees from 2015 – 2020.
- The follow-up survey response rate in 2015-2016 was 47.5%. 7,488 participants were projected to respond to follow-up surveys from 2015 to 2020.
- The 12-month abstinence rate for survey respondents was 20.8% (1,559 projected participants 2015-2020).
- Participants abstinent from smoking at one year were estimated to have generated approximately \$11 million in health-related cost savings.
- Total quitline budgeted expenses from 2015-2020 were \$2,163,028, and the estimated quitline return on investment was \$8,725,512

- An estimated return on investment ratio of 4.03:1 was determined, suggesting that Quit Now Kentucky returned an estimated \$4.03 for every \$1 invested.

Table 1. Quitline enrollees, cost savings & ROI 2015 - 2020

Description	Total
Number of new enrollees	15,779
Projected 12-month abstinence per follow-up surveys	1,559
Estimated cost savings	\$10,888,540
Quitline expenses	\$2,163,028
Estimated quitline return on investment	\$8,725,512
Estimated quitline return on investment ratio	4.03:1

FURTHER READING

1. Matkin W, Ordonez-Mena JM, Hartmann-Boyce J. Telephone counselling for smoking cessation. *Cochrane Database Syst Rev*. May 2 2019;5:CD002850. doi:10.1002/14651858.CD002850.pub4
2. Berman M, Crane R, Seiber E, Munur M. Estimating the cost of a smoking employee. *Tob Control*. Sep 2014;23(5):428-33. doi:10.1136/tobaccocontrol-2012-050888
3. Pauly N, Talbert J, Parsley S, Gray B, Hahn EJ. Kentucky's Smoking Cessation Quitline: Annual Estimated Return on Investment to Employers. *Am J Health Promot*. Feb 2019;33(2):285-288. doi:10.1177/0890117118784875
4. Hughes JR, Keely J, Naud S. Shape of the relapse curve and long-term abstinence among untreated smokers. *Addiction*. Jan 2004;99(1):29-38. doi:10.1111/j.1360-0443.2004.00540.x



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