

# Factors Influencing the Six-Month Point Tobacco Abstinence Rate Using Tobacco Quitline in Taiwan: An analysis

Sin-Mei Guo<sup>1</sup>, Ching-Hsiung Lin<sup>1</sup>, Chew-Teng Kor<sup>1</sup>, Nan-Ying Chiu<sup>1</sup>, Chao-Chun Wu<sup>2</sup>, Li-Jie Yi<sup>2</sup>, Yu-Ying Huang<sup>2</sup>, Yen-Tze Liu<sup>1</sup>

1 Changhua Christian Hospital

2 Taiwan Health Promotion Administration

## Background and Objective

Established in 2003, the tobacco Quitline 0800-636363 in Taiwan provides telephone-based tobacco cessation counseling service offering well-trained free coaching. However, factors leading to increased success rate of cessation efforts with Quitline service remain unclear.

This study aims to explore the factors contributing to a higher six-month tobacco abstinence rate through Quitline service in Taiwan.

## Methods/Intervention

The source of data is from Taiwan Smokers' Helpline of Health Promotion Administration, Ministry of Health and Welfare. Individuals receiving Quitline service completed a follow-up survey (August 2022 to July 2023). Factors among age group, cigarette consumption, length of smoking, cohabitant smoking, household smoking bans, nicotine dependence scores, time until the first cigarette after waking up, motivation and quit date setting were investigated, multivariate logistic regression model for successful smoking cessation was further engaged.

## Results

Of 3,114 cases enrolled, six-month point tobacco abstinence rate is about 43.7%. Compare to teenagers, cessation rate is lower in adults and the elderly. Factors of stronger motivation (adjusted odds ratio= 9.06, 95% confidence interval= 5.95, 13.8) and well implementation of quit date setting (adjusted odds ratio=2.23, 95% confidence interval= 1.66, 2.99) had higher success rate of quitting smoking. In contrast, cigarette consumption more than 30 and time until the first cigarette after waking up less than 30 minutes had lower tobacco abstinence rate. Reasons for successful cessation are associated with exercising self-determination and enhancing physical health. Of note, among 1,753 failed cases, 451 individuals attempted to quit smoking for more than 24 hours.

## Conclusions/Lessons learned

A proactive attitude towards smoking cessation coupled with reduced nicotine addiction, is key to achieving the goal. Additional surveys on the reasons for failure, specifically targeting individuals who have attempted to quit smoking, should be considered.

