

## QUITLINE SUPPLEMENT

# Quitline Activity in the Republic of Korea

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### Abstract

To reduce tobacco use and related harm in Korea, telephone based cessation services (Quitlines) began full operation to provide regular behavioral counseling for smoking cessation in 2006. After registration in the cessation program, at least 21 calls per year are given to each client to help quit and encourage maintenance. Tailored programs for males, females, and adolescent smokers have been offered taking into account smokers' characteristics and smoking behavior. Mailing self-help quit packs and e-mail and SMS services are allowable as additional services. A total of 23,201 smokers were registered on the Quitline program from 2006 to 2014. In 2014, an average of 13,343 calls per month have been received by 28 coaches, the 1 year abstinence rate of clients is 26%, and clients' satisfaction rate is 81.6%. After introduction of the call system in 2007, client convenience and effective operations have been achieved with high technology support of a computer-based telephone system. Systematic education and evaluation programs for quit coaches have contributed to quality assurance of the services. Currently, research into development of new programs and evaluation of Quitline performance is being undertaken. A Comprehensive Multi-channel Cessation Center (CMCC) has been suggested and is now planned as a next step in the national program for smoking cessation.

**Keywords:** Quitline - ROK - Computer-based telephone system - Tailored program

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### Introduction

In the Republic of Korea (ROK), tobacco control policy has been accelerated with enactment of health promotion act including the designation of smoking and non-smoking area in public facilities from 1995 and FCTC was ratified in 2005. Also, 354 KRW (around 35 cents) among tobacco tax carries for Health Promotion Fund. Based on the Health Promotion Act and with the budget support from Health promotion funds, telephone counseling service for smokers (Quitline), self-help quit service provided by website, and off-line services provided by smoking cessation clinic in public health center are operated by government.

Smoking prevalence in ROK is relatively high among OECD countries. However, recent smoking prevalence in Korea has been decreased from 66.3% in 1998 to 42.1% in 2013 for male population (Figure 1). Quit attempt rate in current male smoker's population is likely to increase from 48.0% in 2001 to 57.0% in 2013. Also, people who will quit within 1 month among current male smokers' population is increased from 7.5% in 2001 to 19.2% in 2013. These data support the necessary of smoking

cessation service for smokers.

### Overview of Quitline in ROK

One important thrust of efforts by the Korean government toward reducing cigarette smoking rate is the implementation of nationwide smoking cessation programs funded by cigarette taxes. Such a program is the national "Smoking Cessation Clinics (SCC)" program, which has operated out of 253 public health centers run by the Ministry of Health and Welfare since 2004. The SCC program, which is the focus of the current work, provides both comprehensive behavioral counseling and nicotine replacement therapy (NRT) free of charge.

Another significant government effort in the area of smoking cessation intervention is the toll-free telephone Quitline, which was launched in 2006 and has been operated by National Cancer Center with entrust of Ministry of Health and Welfare. Quitline provides systematic tips to smokers to quit smoking with a private counseling and supporting under the protocol based on quit plan, and it gives diverse information on quit and prevention including various harmful effects of smoking

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and secondhand smoking.

*Call and Information System*

Recently, high reach and sustainability are under need for more sensitive and effective cessation service at Quitline. For this reason, Technologies for Quitlines are constantly evolving with a set of features specifically for “call centers” which is based on Computer Based Telephony System, Information System, and High-speed Telecommunication Lines. Internet Protocol Private Branch Exchange (IP-PBX) guarantees cost saving for basic infrastructure setting and toll. It interoperates with the normal Public Switched Telephone Network, Computer Telephony Integration middleware, Interactive Voice Response (IVR), recording server and data management system for data delivering, data exchange between telephone and computer, call processing and control, and data arrangement and analysis. Information system generates a multitude of reports on important aspects of the operations. High-speed telecommunication lines enable large amounts of information to be moved efficiently at low cost. All of this can aid performance of Quitlines and introduce flexibility of operations for being more responsive. After introduction of these call and information system in 2007, the client convenience and effective operation has been achieved at Quitline Korea.

*Staff and Training*

In 2014, there are 28 quit coaches, 1 coordinator, and 1 data base (DB) manager at Quitline Korea. Management & administrative group for operating the Quitline and expert group for production of contents for quit counselling are working together. Quit coaches are selected from whom majored in nursing, public health, social welfares, counselling, and other related areas. Three month initial training for newcomers, weekly conference, and twice a year workshop for all quit coaches are offered for coaching on telephone counselling as well as getting knowledge on smoking harm and cessation. Also, quit coaches are evaluated by expert groups to provide the incentive and

control quality in considering, quantitative, and qualitative aspects.

**Services Provided by Quitline**

*Mailing Self-help Quit Pack.*

Self-help quit pack has been delivered to anybody who want to quit and call Quitline. It includes self-help guidelines for smoking cessation, leaflet to introduce Quitline program, and other promotional materials.

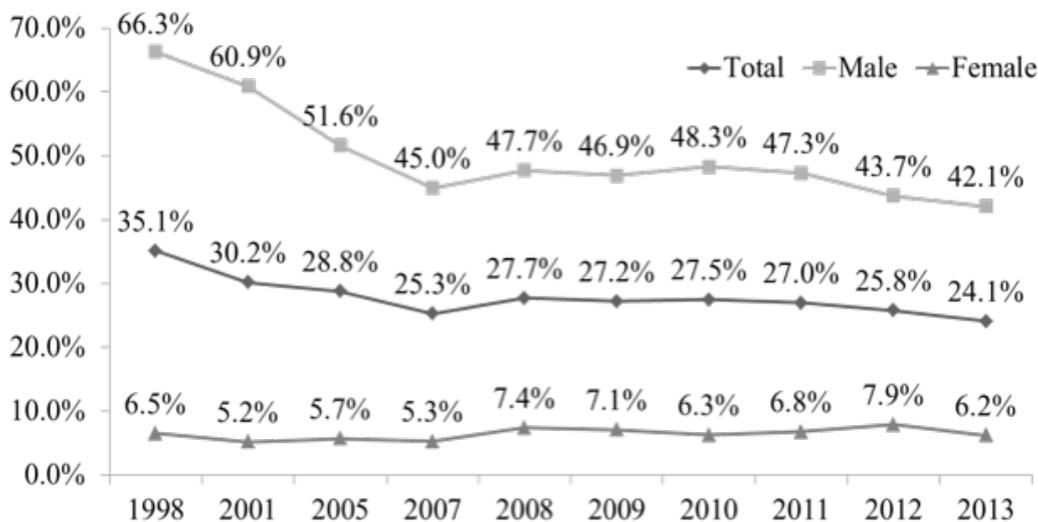
*Telephone Counseling Service*

To help smokers who contact Quitline voluntarily, it has provided systematic and comprehensive behavioral counseling for 1 year. When smokers enroll the program by phone call or registration sheet, the information of socio-demographic characters, level of nicotine addiction, smoking related behaviors, motivational characteristics for quit, the history of past quit attempts, the level of self-efficacy for quitting, and other necessary information are collected for appropriate quit planning. A total of 7 calls for the first 30 days are offered with a mailing package of self-help materials to guide smoking cessation after register for Quitline program. If callers success to quit smoking for the first 30 days, another 14 calls for next 11 months will be given to monitor and encourage them for maintaining smoking cessation (Figure 3).

If anyone relapsed during the program, they can start their next quit attempt with accord after counseling for aware of reason of relapse and its prevention. After 1 year main quit protocol, 1 more year monitoring for identifying quit maintenance would be followed (Figure 3).

Tailored program for male, female, and adolescent smokers has been established regarding the smokers’ characteristics and smoking behaviors tangled up to other health behaviors and social factors. The programs for risk case management and non-smokers were developed in 2014.

*E-mail and Text Message Support*



**Figure 1. Age Standardized Smoking Prevalence Among Adult Population in ROK** (Source. Korea Health Statistics 2012: Korea National Health And Nutrition Examination Survey (Knhanes). Available from <https://knhanes.cdc.go.kr/> and accessed at 22th December, 2014)



**Figure 2. Package of Self Help Materials for Quitline Clients**

E-mail and SMS have been provided by Quitline Korea as additional services, depending on clients' needs and convenience.

*Offering Medication*

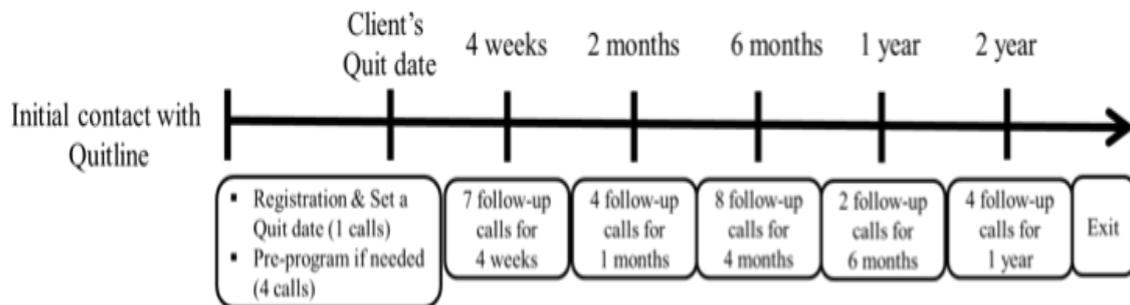
Nicotine Replacement Therapy (NRT) and pharmaceutical drugs are not offered by Quitline because

of regulation on drug distribution, while the information of guideline for using NRT has been provided and quit coaches guide people to get NRT and prescribed drugs through the visiting public health center based cessation clinics in each residential area, if it is requested.

**Achievements of Quitline**

A total of 23,201 smokers were registered on the Quitline program from 2006 to 2014. The majority of quit attempts were made by males (84.5%) and those over 20 years of age (92.7%) (Figure 5). Call volume has been increased as about 2.4 times for 7 years and 1 year abstinence quit rate has been increased, too (Table 1). However, call volume presented in Table 1 includes live calls, which is connected to counsellors, only. The rate of answered in live was declined less than 50% due to the promotion of Quitline in mass media campaign and on cigarette pack, even if counselors have been increased to improve the rate of live calls.

To identify and manage the quality of Quitline, clients' satisfaction was surveyed in every year except 2011. In 2014, the overall satisfaction scored 81.6 with ranged 0 to 100. Among 7 subcategories of satisfaction, friendliness



**Figure 3. Two-Years Quit Protocol**

	1 month Preparation Stage	30 Days Intensive Coaching	11 Months Follow Up	12 ~ 24 Month Follow Up
<b>Male Adult</b>		<ul style="list-style-type: none"> <li>Registration</li> <li>Setting a quit date</li> <li>Dealing with withdrawal</li> <li>Managing stress</li> <li>Encouraging a healthy diet</li> <li>Improving physical activities</li> </ul>	<ul style="list-style-type: none"> <li>Reconfirming the reason of quitting</li> <li>Weight control</li> <li>Reducing alcohol consumption</li> <li>Reminding benefits of quitting</li> <li>Mindfulness</li> <li>Improving physical activity</li> </ul>	<ul style="list-style-type: none"> <li>Verification in every 3 months</li> <li>Preventing a relapse of smoking</li> <li>Supportive environment</li> <li>Encouraging other smokers to quit</li> </ul>
<b>Female Adult</b>		<ul style="list-style-type: none"> <li>Registration</li> <li>Setting a quit date</li> <li>Dealing with withdrawal</li> <li>Identify emotional changes</li> <li>Reconfirming the reasons for quitting</li> <li>Reminding benefits of quitting</li> </ul>	<ul style="list-style-type: none"> <li>Strengthening the self-efficacy</li> <li>Finding the hobby</li> <li>Encouraging a healthy diet</li> <li>Weight control</li> <li>Managing stress</li> <li>Improving physical activity</li> </ul>	<ul style="list-style-type: none"> <li>Verification in every 3 months</li> <li>Preventing a relapse of smoking</li> <li>Supportive environment</li> <li>Recognizing the changes of daily life after quitting</li> </ul>
<b>Adolescent</b>	<ul style="list-style-type: none"> <li>Identifying the motivation of quitting</li> <li>Making rapport</li> <li>Checking the myth of smoking</li> <li>Checking barriers to quit</li> <li>Combining with training program for peer supporters</li> </ul>	<ul style="list-style-type: none"> <li>Registration</li> <li>Setting a quit date</li> <li>Dealing with withdrawal</li> <li>Identifying emotional changes</li> <li>Reconfirming the reasons for quitting</li> <li>Reminding benefits of quitting</li> </ul>	<ul style="list-style-type: none"> <li>Strengthening the self-efficacy</li> <li>Finding the hobby</li> <li>Encouraging healthy diet</li> <li>Weight control</li> <li>Managing stress</li> <li>Improving physical activity</li> </ul>	<ul style="list-style-type: none"> <li>Verification in every 3 months</li> <li>Prevent a relapse of smoking</li> <li>Supportive environment</li> <li>Encouraging other smokers to quit</li> </ul>

**Figure 4. Tailored Counseling Program For Two-Years Quit Protocol**

**Table 1. Call Volume and the Rate of Successful Quit Attempts**

Year (No. counselors)	2006 (30)	2007 (13)	2008 (13)	2009 (14)	2010 (14)	2011 (14)	2012 (14)	2013 (14)	2014 (28)
Average No. Inbound Calls <sup>1</sup> per Month <sup>2</sup>	2,129	1,273	1,356	1,674	1,832	1,787	955	2,240	2,930
Average No. of Outbound Calls <sup>3</sup> per Month	6,113	5,995	6,428	6,581	7,330	8,108	5,432	7,052	10,413
Quit Rate 30 days <sup>4</sup>	26.8%	38.5%	58.9%	54.0%	53.0%	56.4%	56.9%	57.2%	52.4%
Quit Rate 1 year	-	15.5%	24.0%	25.2%	26.0%	26.5%	26.9%	27.6%	26.0%

<sup>1</sup>The inbound calls include requested counseling by telephone, Quitline homepage, and smoke related campaigns; <sup>2</sup>Average number of inbound calls means the number of live answered calls; <sup>3</sup>The outbound calls are included as telephone counseling, email counseling, SMS services, and so on; <sup>4</sup>Quit rate indicates the abstinence rate

of counselor (93.1) got the highest score and coaching protocol (83.3), service accessibility (82.5), and contents of counseling (82.4) were followed.

### Activities for Quitline Promotion

Quitline promotion is usually a part of general anti-smoking campaign such as the exposure of phone number on TV commercials and the Quitline number frequently is on air. The effect of TV commercials was connected to the high number of Quitline calls. The awareness of Quitline is likely to be increased by steadily exposure to Quitline number (from 12.9% in 2007 to 41.5% in 2012). The call volume has been increased more than twice since quit number is on the cigarette pack from December 2012.

### Facing Challenges and Future Remarks

A randomized clinical trial was conducted for the development of new programs for relapse prevention, heavy smokers, smoking prevention, and etc., which would contribute to establish the comprehensive system for cessation services and develop the more tailored services. Also, the performance of overall Quitline activities including quit volume, rate of live calls, quality of counselling, promotion effects, and cost effectiveness are under evaluation to improve service coverage and

quality as well as for effective operation. By sharing the experience with other countries and regarding clients' needs, we have tried to gain.

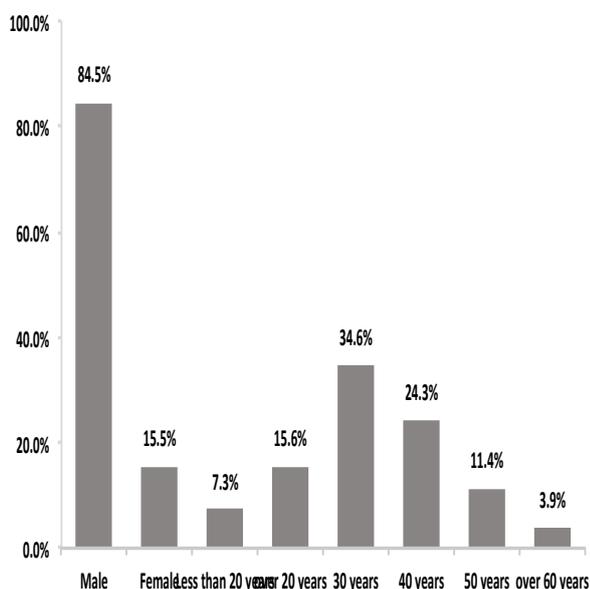
Regarding the call volume has been increasing and expanding capacity of Quitline has been prioritized. Also, increasing budget for operation and networking with other national cessation services to share the needs to use are under deeply considered. Furthermore, Comprehensive Multi-channel Cessation Center (CMCC), which could offer comprehensive cessation services including Quitline, SCC, and other internet based services, evidence based information delivery, supporting central and regional government policies, supporting campaign and their effect monitoring, and supporting NGO activities are suggested and planned as a next step of national program for smoking cessation.

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**Figure 5. Client Demographics**



**Figure 6. Quitline Promotion on TV and on Cigarette Packs**

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