
Chapter 6

QUITTING AND PREDICTORS OF QUITTING

CHAPTER 6: QUITTING AND PREDICTORS OF QUITTING

Introduction

Measures of the Smoking Cessation Process

The 1990 Report of the Surgeon General of the United States noted that smoking cessation is a primary preventive intervention, equally as important as preventing smoking uptake in protecting the public health from the dangers of smoking-related disease (USDHHS, 1990). Not only does cessation directly benefit the health of the former smoker, parents who quit smoking reduce the exposure of their children to secondhand smoke and decrease the likelihood that these children will become smokers themselves (Chassin et al 1996; Jackson & Henriksen, 1997; Distefan et al., forthcoming). Accordingly, increasing the rates at which smokers attempt to quit smoking and ultimately successfully quit is a critical strategy for achieving the California Tobacco Control Program's (TCP) goal of reducing smoking prevalence.

Chapter 3 of this report identified two major predictors of future quitting: smokers' current addiction level and their quitting history. A smoker's expressed intention to quit is only important as an indicator that they have begun the quitting process. It has little relevance to one's ultimate success at quitting if the smoker has not taken some action to either reduce their level of addiction or to maintain a recent quit through the period when many suffer withdrawal symptoms. These three variables—addiction level, quitting history, and intention to quit—define the levels of the Quitting Continuum, the conceptual framework that categorizes smokers and recent former smokers according to the probability that they will be successfully quit in two years time. To be eligible for classification into the Quitting Continuum, smokers must report smoking at least 100 cigarettes in their lifetime (Chapter 3 describes the Quitting Continuum in detail).

It may take up to 10 years from the time that smokers begin the quitting process with an expressed intention to quit until they successfully quit smoking (Pierce, 1990). Therefore, in addition to measuring successful quitting, it is important to describe where smokers are in the process of quitting. By identifying trends in important indicators of cessation, it is possible to make inferences about future quitting behaviors.

The distribution of the population of smokers along this continuum provides an indication of areas of success for the TCP and points to populations that may require extra attention. Section 1 of this chapter describes the distribution of current adult smokers along the Quitting Continuum in 1996. In particular, this section focuses on three indicator categories chosen from this Quitting Continuum: *precontemplators*, current smokers in *advanced preparation* to quit, and recent quitters in *early maintenance*.

Quitting and Predictors of Quitting

Section 2 of this chapter presents data from the 1996 CTS that describes who was trying to quit and how successful each of the population groups was in their quit attempts.

In order to evaluate progress in quitting over time, Section 3 of this chapter describes trends in two of the key variables that describe the Quitting Continuum: addiction level and quitting history.

Section 4 presents the quitting data for adolescent *addicted* smokers because they are also of particular interest to the TCP. While these adolescents report having smoked at least 100 cigarettes in their lifetime, many have not yet reached their stable level of cigarette consumption. That is, their tolerance level for nicotine is still increasing. Given the effect of addiction level on the probability of success, it is important to encourage these smokers to try to quit and to provide assistance to them.

Section 5 summarizes the results of this chapter.

1. Status on the Quitting Continuum

As with the uptake of smoking, quitting smoking is a process that occurs over time. It can take some smokers over 10 years to successfully complete the quitting process. Changes in behaviors that relate to the Quitting Continuum are important indications of smokers' progress toward ultimately successful cessation. The Quitting Continuum is described in detail in Chapter 3. This section examines the distribution among three of the indicator levels of the Quitting Continuum of those smokers who reported smoking any time in the 12 months prior to the 1996 CTS. Appendix B, Table 11 shows the demographic breakdown of the Quitting Continuum for all individuals who smoked in the last year. To be considered a smoker in the last year, someone is either a current smoker at the time of the survey, a current smoker one year before the survey, or former smokers who provided a quit date in the year before the survey.

Precontemplators

Smokers classified as *precontemplators* are moderate to heavy current smokers (they smoke 15 or more cigarettes/day), who have not made a quit attempt in the 12 months prior to the CTS and who stated they had no intention of making a quit attempt in the near future (next 6 months). Previous research indicates that the probability of this group achieving a successful quit within 2 years is approximately 3%. This group represents the proportion of smokers who are not responding to the persuasive messages of the Tobacco Control Program (TCP).

Table 6.1 presents the demographic distribution of *precontemplators*. In 1996, 13.8% of anyone smoking in the last year could be classified as *precontemplators*. This amounted to approximately 765,000 Californians.

Table 6.1		
Percent of Smokers in the Last Year Who Were Precontemplators (California 1996)		
Demographic Group	% Men (± CI*)	% Women (± CI*)
Overall	13.8 (± 1.2)	13.8 (± 1.2)
Age		
18-24 year olds	6.3 (±1.8)	6.6 (± 2.2)
25-44 year olds	12.8 (±1.7)	10.6 (±1.5)
45-64 year olds	18.8 (±2.0)	21.5 (±2.8)
65+ year olds	18.5 (±4.6)	17.6 (±4.2)
Race/Ethnicity		
African American	8.2 (±3.8)	6.9 (±2.9)
Asian	12.7 (±4.4)	10.5 (±5.3)
Hispanic	5.5 (±1.7)	5.6 (± 2.0)
Non-Hispanic White	18.3 (±1.7)	17.0 (±1.6)

*CI = 95% Confidence Interval
 Source: CTS 1996

Smokers 45 years and older were significantly more likely than those under age 45 to be *precontemplators*. This pattern was most evident among women: 21.5% of women 45-65 years old were *precontemplators*, compared with only about 6.6% of women between ages 18 and 24.

Among men, Hispanic smokers were significantly less likely than were smokers of the other racial/ethnic groups, with the exception of African American smokers, to be *precontemplators*. Among women, Hispanic and African American smokers were significantly less likely than were Non-Hispanic White smokers to be *precontemplators*. The sporadic smoking patterns of Hispanic smokers (Palinkas et al., 1993) could account for the differences between Hispanics and other demographic groups.

Advanced Preparation

Smokers in *advanced preparation* provide a useful indicator of the proportion of smokers who are nearing the final stages of the quitting process. They may have arrived in this category as a result of TCP efforts or on their own, having started the process several years earlier. Smokers in *advanced preparation* consume less than 15 cigarettes a day and have made a 7-day quit attempt in the past year, or have a lifetime quit of longer than one year. The probability that this group will be quit successfully in 2 years is 20% (Chapter 3).

Among those Californians who smoked in the last year, 26.9% or approximately 1,508,000 Californians, were in *advanced preparation* in 1996. Table 6.2 shows the demographic distribution of these smokers:

Demographic Group	% Men (± CI*)	% Women (± CI*)
Overall	26.6 (± 1.6)	27.2 (±1.4)
Age		
18-24 year olds	45.6 (±4.7)	48.0 (±5.5)
25-44 year olds	27.8 (±2.3)	28.7 (±2.2)
45-64 year olds	18.8 (±2.7)	20.1 (±3.2)
65+ year olds	8.2 (±3.2)	14.2 (±4.5)
Race/Ethnicity		
African American	35.6 (±7.9)	30.6 (±5.7)
Asian	29.7 (±5.9)	44.1 (±11.7)
Hispanic	38.9 (±4.6)	39.5 (±6.6)
Non-Hispanic White	19.3 (±1.9)	22.1 (±1.5)

*CI = 95% Confidence Interval
Source: CTS 1996

As expected, there was a significant age trend among smokers in the *advanced preparation* stage of the Quitting Continuum. Table 6.2 demonstrates a significant decrease in the proportion of smokers in *advanced preparation* with each increasing age group. Nearly half of 18-24 year olds of each gender had achieved *advanced preparation* at the time of the 1996 CTS, compared to approximately 28% of 25-44 year olds, approximately 20% of 45-64 year olds, and 8 to 14% of current smokers over age 65.

Among smokers in *advanced preparation*, there were potentially important differences across racial/ethnic groups, as well. Minorities were significantly more likely than were Non-Hispanic Whites to be in *advanced preparation*, but there were insignificant differences among the minority racial/ethnic groups.

Early Maintenance

The proportion of smokers in the last year in *early maintenance* of successful quits is an additional indicator of TCP success. Like the others, these smokers were all smoking within 12 months of the survey, but during the 12 months prior to the survey they all quit smoking and had maintained that quit attempt for at least 3 months. Three-fourths of this group are expected to be still quit in 2 years. Table 6.3 provides the demographic profile of this group:

Demographic Group	% Men (±CI*)	% Women (± CI*)
Overall	8.9 (±1.3)	8.7 (±1.3)
Age		
18-24 year olds	8.4 (±2.3)	6.9 (±2.0)
25-44 year olds	8.5 (±1.9)	10.5 (±1.8)
45-64 year olds	10.4 (±3.0)	7.8 (±2.7)
65+ year olds	6.9 (±2.7)	5.1 (±2.2)
Race/Ethnicity		
African American	2.7 (±1.8)	4.6 (±2.8)
Asian	10.3 (±6.3)	7.5 (±4.7)
Hispanic	9.2 (±3.2)	11.5 (±4.2)
Non-Hispanic White	9.3 (±1.4)	9.0 (±1.4)

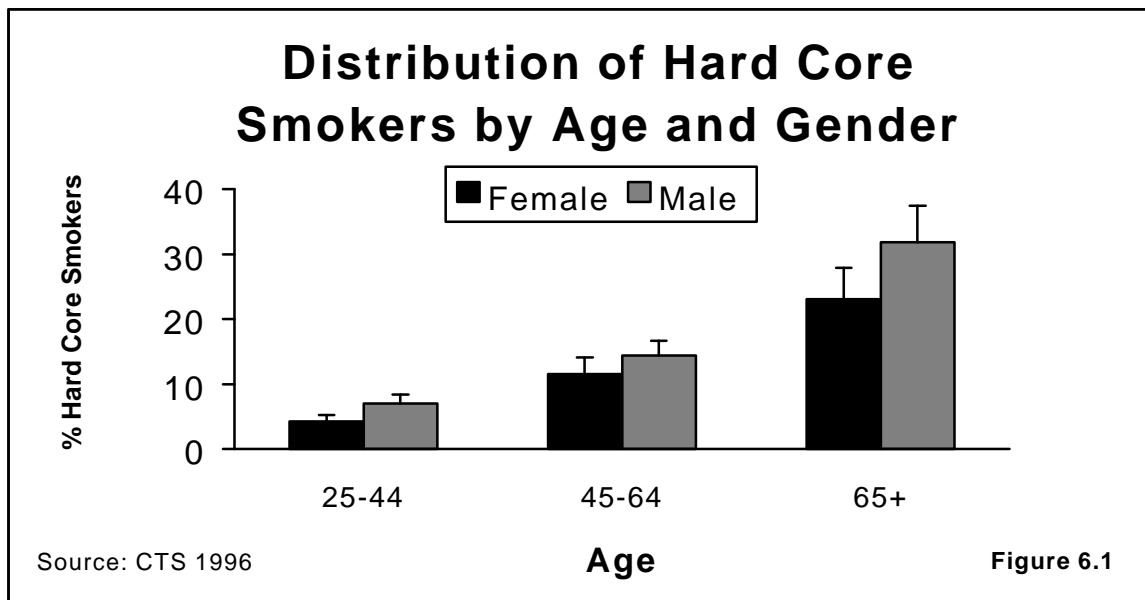
*CI = 95% Confidence Interval
Source: CTS 1996

Overall, 8.8% of adults who smoked in the last year prior to the CTS could be classified in the *early maintenance* category at the time of the survey. This accounted for approximately 493,000 Californians. Unlike the other indicator categories, there was not a significant age trend in this group. Nor was there a significant difference between any of the racial/ethnic groups.

Hard Core Smokers

There is small group of current smokers who can be considered *hard core* smokers. These individuals are not easily categorized by the levels of the Quitting Continuum. Many of these *hard core* smokers appear similar to those in the *precontemplator* group; in fact 64% of *hard core* smokers could also be categorized on the Quitting Continuum as *precontemplators*. They are differentiated from *precontemplators*, however, because they not only have no intention to quit in the near future and no recent quit attempt, but they also actively state that they will never attempt to quit smoking.

Overall, 1.9% of the California population over the age of 25 years, or 9.7% of smokers over age 25 (approximately 399,000 Californians) could be classified into this category in 1996. Smokers 25 years of age and younger were excluded from this category because many are still engaged in the process of smoking uptake and therefore may not have solidified their intentions regarding quitting smoking. Figure 6.1 illustrates the age and gender distribution of these *hard core* smokers.



Unlike *precontemplators*, there are some *light smokers* (either smoke <15 cigarettes/day and/or smoke occasionally) in the *hard core* group; 30.7% of *hard core* smokers were also *light smokers*. However, unlike other *light smokers*, these *hard core/light smokers* cannot be considered in *advanced preparation* to quit or in *early action* because of their lack of a strong quitting history.

Some *hard core* smokers may have made unsuccessful quit attempts in the more distant past and remain discouraged about the prospect of quitting. Others may simply enjoy smoking and be unwilling to eliminate this dangerous pleasure from their lives.

The above figure shows that across all age groups, men were more likely than were women to be *hard core* smokers. Also, with each increasing age group, the percentage of smokers who could be classified as *hard core* was significantly greater. Only 4% of women smokers and 7% of men smokers 25-44 years old were *hard core* smokers. In comparison, the *hard core* represented 12% of women and 14% of men who were current smokers between the ages of 45 and 64 years old, and 23% of women and nearly one-third of men who were current smokers over 65 years of age.

Table 6.4 gives the distribution of hard core smokers according to their smoking habit. Not surprisingly, hard core smokers are more represented among heavy smokers.

Type of Smoker	% Men (± CI*)	% Women (± CI*)
Occasional	4.3 (±1.5)	2.5 (±1.1)
Daily		
< 15 cigarettes/day	7.8 (±2.7)	6.0 (±1.5)
15-24 cigarettes/day	11.2 (±2.0)	8.8 (±1.9)
25-34 cigarettes/day	19.1 (±5.0)	18.1 (±5.3)
35+ cigarettes/day	26.8 (±5.9)	30.6 (±9.8)

CI = 95% Confidence Interval
Source: CTS 1996

Only 4.3% of men and 2.5% of women who were *occasional smokers* were also *hard core* smokers. As might be expected, a smaller percentage of current smokers who were occasional smokers or who smoked less than 15 cigarettes/day were also *hard core* smokers, compared to daily smokers who smoked 15 or more cigarettes/day. Among daily smokers who smoked fewer than 15 cigarettes/day 7.8% of men and 6.0% of women were also *hard core* smokers. There were significantly more daily smokers who smoked between 15 and 24 cigarettes/day and who were *hard core* smokers: 11.2% of men and 8.8% of women. Again, there were significantly more daily smokers who smoked 25+ cigarettes/day and who were also *hard core* smokers.

2. Profile of Who Attempted to Quit Smoking and Who Succeeded

In order to evaluate the reach and the impact of the California Tobacco Control Program (TCP) cessation promotion and support programs, it is critical to understand who has made quit attempts and who has been successful. Table 6.5 shows that overall, more than half of adults who reported smoking in the last year prior to the 1996 CTS had made a quit attempt lasting at least one day during that year (see Appendix B, Table 10 for a detailed description of demographic analysis).

Demographic Group	% Men (± CI*)	% Women (± CI*)
Overall	65.2 (±1.5)	63.0 (±1.7)
Age		
18-24 year olds	81.5 (±3.3)	77.6 (±4.2)
25-44 year olds	65.0 (±2.3)	64.7 (±2.7)
45-64 year olds	57.6 (±2.6)	52.5 (±2.7)
65+ year olds	60.5 (±7.1)	64.4 (±6.1)
Race/Ethnicity		
African American	66.0 (±7.3)	68.8 (±7.1)
Asian	66.3 (±5.4)	62.0 (±10.7)
Hispanic	75.5 (±2.8)	76.2 (±3.7)
Non-Hispanic White	60.3 (±2.0)	58.9 (±1.9)

CI = 95% Confidence Interval

Source: CTS 1996

The above table shows that while the differences between men and women were small, there were interesting age differences. Younger adult smokers were significantly more likely to make a quit attempt than were older adults. Men in the 18-24 year old age group were significantly more likely than were men 25 years of age and older to report a quit attempt in the past year. Similarly, women in the 18-24 year old age group were more likely than women 25 years of age and older to report a quit attempt. Women in the 45-64 year old age group were significantly less likely than were women in the other age groups to report a quit attempt in the past year.

Among women, Non-Hispanic White smokers were significantly less likely than were African American, Asian or Hispanic smokers to report any quit attempt.

Successful Quit Attempts

An early measure of successful quitting is the percentage of all quitters that are able to maintain a quit attempt for at least 90 days. This measure differs from the Quitting Continuum level *early maintenance* because it takes into account the proportion of smokers who achieved 90+ day abstinence from cigarettes, out of all who tried to quit smoking, rather than out of all smokers in the last year.

In order to accurately determine the percent of smokers who attempt a quit and go on to achieve early success (quits of over 90 days), a survival model was employed, using data from the 1996 CTS. The rates of successful quitting presented in Table 6.6 reflect respondents' most recent quit attempts, among those who also reported smoking in the last year. Overall in 1996, 18.2% of smokers who had made *any quit attempt* were still quit after 90 days.

Table 6.6		
Percent of Most Recent Quit Attempts That Were Successful,* California 1996		
Demographic Group	% Men (± CI**)	% Women (± CI**)
Overall	15.5 (±1.8)	21.9 (±2.5)
Age		
18-24 year olds	14.6 (±4.6)	23.5 (±8.0)
25-44 year olds	13.2 (±2.2)	21.3 (±3.0)
45-64 year olds	18.3 (±3.4)	22.0 (±4.8)
65+ year olds	37.8 (±12.6)	22.3 (±8.7)
Race/Ethnicity		
African American	10.3 (±6.0)	13.4 (±6.0)
Asian	10.2 (±5.9)	27.8 (±18.8)
Hispanic	15.3 (±4.0)	19.0 (±7.0)
Non-Hispanic White	17.0 (±2.0)	25.0 (±2.7)

*Success is defined as abstinence for at least 90 days. These figures are not adjusted for the smokers' level of addiction to cigarettes.

**CI = 95% Confidence Interval

Source: CTS 1996

As Table 6.6 shows, overall, women smokers were more likely than men smokers to successfully quit. This finding was somewhat surprising since other studies have previously shown the no difference in quitting success between men and women (Gilpin et al., 1997; Garvey et al., 1992).

When analyzed by age, this gender difference was significant among 25-44 year old recent quitters, but not across the other age groups. Across racial/ethnic groups, only the Non-Hispanic White recent quitters showed a statistically significant gender effect: 25% of women achieved early success in quitting, compared to 17% of men. Among women, Non-Hispanic White recent quitters were significantly more likely to achieve early success (25%), compared to African American women (13.4%), but other differences were not significant. Among men, there were no significant differences in quitting success by race/ethnicity.

3. Trends in Quitting Continuum Indicators

As explained above, the two most important variables that define the Quitting Continuum are addiction levels and quitting history. Intentions to quit make little difference without progress in these two variables. Therefore, this section reports changes in these variables between 1990 and 1996.

Trends in Addiction Level

Table 6.7 provides strong evidence of progress in reducing the addiction level of smokers. In 1990, 44% of all current smokers were *light smokers* (daily and occasional smokers who averaged less than 15 cigarettes/day). By 1996, this percentage had increased by a factor of 27%, to 55%. As was shown in Chapter 2, Table 2.9, the increase in the percent of *light smokers* is partly explained by the increase in *occasional smokers* (see Appendix B, Table 8 for detailed demographic analyses for all smokers, not just those who have reached a lifetime level of at least 100 cigarettes).

Demographic Group	% Current Smokers, 1990 (±CI*)	% Current Smokers, 1996 (± CI*)	Factor Increase 1990-1996	p-value of Change
Overall	43.6 (±1.7)	55.1 (±1.4)	26.4	<0.001
Men	39.8 (±2.0)	53.1 (±1.9)	33.4	<0.001
Women	48.3 (±2.3)	57.8 (±1.8)	19.7	<0.001
Age				
18-24 year olds	59.6 (±4.3)	75.4 (±3.2)	26.5	<0.001
25-44 year olds	44.7 (±2.0)	58.2 (±1.8)	30.2	<0.001
45-64 year olds	33.8 (±3.2)	41.5 (±2.6)	22.8	<0.001
65+ year olds	36.6 (±4.1)	40.6 (±4.3)	10.9	0.052
Race/Ethnicity				
African American	64.7 (±6.3)	69.6 (±4.0)	7.6	0.060
Asian	59.9 (±10.3)	67.2 (±6.4)	12.2	0.059
Hispanic	72.9 (±10.3)	80.7 (±2.8)	10.7	<0.001
Non-Hispanic White	32.0 (±1.5)	42.7 (±1.8)	33.4	<0.001

*CI = 95% Confidence Interval
Source: CTS 1990, 1996

Overall, significantly more women were light smokers than men. But the relative increase in light smoking behavior was significantly greater among men than among women. In 1990, approximately 40% of male current smokers were light smokers, compared to 53% in 1996, an increase by a factor of 34%. In comparison, between 1990 and 1996, the percent of female current smokers who were light smokers increased by a factor of 20%, from 48% to 58%.

In each year, the majority of young adult smokers (18-24 year olds) were light smokers. Between 1990 and 1996, the percent of 18-24 year old light smokers increased significantly from 59.6% to 75.4%, an increase by a factor of 26.5%. Among 25-44 year olds, the percent of current smokers in this category increased significantly by a factor of 30.2%: from 44.7% in 1990 to 58.2% in 1996. Among 45-64 year old current smokers, the increase in light smoking was also significant: the percentage of light smokers increased from 33.8% in 1990 to 41.5% in 1996, a factor of 22.8%. Among the oldest

adult smokers (65+ years of age), the percentage of light smokers increased by only a factor of 10.9%, but the increase was still significant.

While minorities were significantly more likely than Non-Hispanic White smokers to be light smokers in both 1990 and 1996, it was the Non-Hispanic Whites who showed the most movement to light smoking between 1990 and 1996.

Trends in Quitting History: 7+ Day Quit Attempts

Table 6.8 shows significant increases between 1990 and 1996 in the percent of smokers who made quit attempts that lasted at least 7 days. Overall, 41.4% of smokers reported they made quit attempts of 7 or more days in 1990; by 1996, 49.9% reported such attempts. This represents a statistically significant increase by a factor of 20.5%.

Table 6.8				
Percent of Smokers in the Last Year Who Made a Quit Attempt Lasting 7 or More Days, California 1990-1996				
Demographic Group	% Who Made 7+ Day Quit Attempt 1990 (CI*)	% Who Made 7+ Day Quit Attempt 1996 (CI*)	Factor Increase 1990-1996	P-value of Change
Overall	41.4 (±1.4)	49.9 (±1.3)	20.5	<0.001
Men	42.1 (±1.6)	50.1 (±1.9)	19.0	<0.001
Women	40.5 (±1.8)	49.5 (±1.6)	22.2	<0.001
Age				
18-24 year olds	43.4 (±4.1)	67.6 (±3.3)	55.8	<0.001
25-44 year olds	42.2 (±2.5)	48.8 (±1.9)	15.6	<0.001
45-64 year olds	38.7 (±2.8)	42.0 (±2.5)	8.5	0.021
65+ year olds	41.7 (±5.7)	51.3 (±5.6)	23.0	0.005
Race/Ethnicity				
African American	47.7 (±5.0)	46.4 (±5.4)	-2.7	0.182
Asian	41.2 (±8.4)	52.9 (±5.0)	28.4	0.005
Hispanic	51.6 (±4.3)	62.8 (±3.0)	21.7	<0.001
Non-Hispanic White	37.5 (±1.3)	45.3 (±1.7)	20.8	<0.001

*CI = 95% Confidence Interval

Source: CTS 1990, 1996

In each survey, men and women were approximately equally likely to make a quit attempt of 7 or more days. In 1990, there were no significant differences between age groups, but in 1996 young adult smokers (18-24 year olds) were significantly more likely than older adults to make quit attempts of at least 7 days. These 18-24 year old smokers also showed the greatest factor increase (55.8%) in 7+ day quit attempts.

In each year, Hispanic smokers were the most likely to attempt to quit smoking for at least 7 days. Each racial/ethnic group, except African American smokers, showed

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significant increases by over a factor of 20% in 7+ day quit attempts between 1990 and 1996.

4. Quitting Among Adolescents

This section discusses reported quitting behavior in California adolescents who were classified as addicted to smoking (smoked at least 100 cigarettes in their lifetime). The demographic data for adolescents who were classified as *addicted* is presented in Chapter 5. *Addiction* was more likely among 15-17 year olds than younger adolescents. Also, Non-Hispanic White 15-17 year olds were more likely than 15-17 year olds in other racial/ethnic groups to have reached an *addicted* level of smoking.

Over three-quarters of these *addicted* adolescents (77%) reported making a quit attempt of at least one day in the past year. The great majority of teens in each population subgroup reported trying to quit, with the lowest quitting rate observed among Hispanic adolescent smokers (65%) although this rate was not a significant different from the quit rate observed in other racial/ethnic groups. Of those adolescents who made a quit attempt, 44% had relapsed within the first week and a total of 80% had relapsed within the first month after the quit attempt.

In a separate analysis of the Teen Attitudes and Practices Survey (TAPS), a national longitudinal survey (Zhu et al., submitted) identified five important variables that are associated with increased quitting in adolescent smokers. As in the adults, the major predictors of quitting were measures of addiction level (daily vs. nondaily smoking) and recent quitting history. In addition, whether their mother smoked and whether they experienced depressive symptoms were risk factors for continued smoking. Data from the 1996 California Tobacco Survey (CTS) showed that many adolescent smokers have more favorable quitting profiles than do most adult smokers, based on their addiction levels and quitting history as indicators of readiness to quit.

The 1996 CTS showed that 54% of the addicted adolescent smokers were nondaily smokers, compared to 30.9% of adults. Thus, a significant portion of California's teen smokers has a low addiction level, which is a predictor of future quitting success.

Many adolescent *addicted* smokers in California also have a strong history of quit attempts. Over 40% reported being off cigarettes for more than 2 weeks in the past year, a significantly higher proportion than the 23% of adults with such quitting histories.

Parental smoking was another major predictor of successful quitting in the national TAPS data. In the 1996 CTS, over half of the adolescent *addicted* smokers had parents who were smokers. Thus, if the effect of parent behavior change can be confirmed, then these data would strongly suggest that one of the best ways to help adolescents to quit would be to encourage and assist their parents to quit successfully.

Finally, the TAPS longitudinal data showed that those adolescent smokers who reported depressive symptoms were much less likely to quit successfully. Previous research has

suggested that depressive symptoms may develop following addiction (Patten et al., 1997), although there is also research to suggest that adolescents who are more depressed are more likely to take up smoking. In the 1996 CTS, one-third of all adolescent smokers reported significant depressive symptoms, suggesting that it may be important to address adolescent depression in any program designed to encourage adolescent smoking cessation.

5. Summary

Status on the Quitting Continuum was used as a measure of the success of the California Tobacco Control Program (TCP) initiatives to support smoking cessation. In 1996, approximately 14% of smokers in the last year could be classified as *precontemplators*, the group least likely to successfully quit smoking in the next 2 years. Men and women were approximately equally likely to be in this group. Older smokers and Non-Hispanic Whites were most likely to be at this level of the Quitting Continuum. Approximately 10% of current smokers over the age of 25 years could be classified as *hard core* smokers, who actively stated that they would never attempt to quit smoking. Not surprisingly, older smokers and those who smoke 25 or more cigarettes/day were significantly more likely than younger smokers or those who smoke less to be classified as *hard core*.

In 1996, approximately 27% of smokers in the last year were in the stage of *advanced preparation* toward quitting. Previous research has shown that there is a 20% chance these individuals will be among successful quitters in 2 years. Young adults and minorities were most likely to be at this stage of the Quitting Continuum.

Only about 9% of smokers in the last year could be classified in *early maintenance* (quit for less than 3 months), where they would have a 75% chance of being successfully quit in 2 years. These recent-former smokers were more likely to be under 65 years of age and Asian, Hispanic, or Non-Hispanic White.

Looking at trends in key variables of the Quitting Continuum provided evidence of significant success of the TCP. Addiction levels fell between 1990 and 1996: in 1990, 44% of smokers smoked fewer than 15 cigarettes/day; by 1996 this proportion had increased by a factor of 26% to 55%. Quitting histories improved between 1990 and 1996, as well. The percent of smokers in the last year who made quit attempts lasting at least 7 days increased by approximately 20% overall. Smokers between the ages of 18 and 24 years old were most likely to make these attempts, but smokers 65 years of age and older experienced the greatest increase in the proportion who made 7+ day quit attempts. While every other demographic subgroup showed significant increases in quit attempts, African Americans did not.

In 1996, over 50% of smokers in the last year made any type of quit attempt. There were no significant differences between the percent of men and women who made any quit attempt, across each age or demographic group. As with other cessation indicators,

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younger smokers were more likely than older smokers to report a quit attempt, and minorities were more likely than Non-Hispanic Whites to make any quit attempt.

The percent of most recent quit attempts that were successful (≥ 90 days) was calculated using a survival model. This actuarial method showed that only 15-20% of most recent quit attempts could be classified as successful. Women were significantly more likely than were men to quit successfully.

Finally, this chapter discussed quitting among adolescents. It explained that over three-quarters of *addicted* teens (≥ 100 cigarettes in their lifetime) attempted to quit in the year prior to the 1996 CTS. Over 40% of these teens who attempted to quit had relapsed within a week, and 80% relapsed within a month. However, a substantial proportion of California's adolescent smokers are nondaily smokers, were developing a history of quit attempts, and indicated intentions not to smoke in the future, suggesting a promising profile for future quitting success.

CHAPTER 6: REFERENCES

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